

## 4 GIGABYTE Q-BOX.

Q-bus performance pedestals. Good
things do come in small packages. Emulex has developed SMD storage pedestals that put large capacities literally at your feet!

One lets you grow from 741 MB to 2.9 GB , with a $2.46 \mathrm{MB} / \mathrm{sec}$ transfer rate. Another lets you grow to 4.3 gigabytes, with a $3.0 \mathrm{MB} / \mathrm{sec}$ transfer rate. All provide an industry-leading seek time of 16 ms .

And all are fully integrated by Emulex. They are pre-assembled and tested as units, and shipped with drives mounted. Plug them in, power them up, format them and put them to work.

Q-bus leader-
ship. These new products are the latest additions to a long line of Emulex Q-bus solutions. We can supply literally hundreds of configurations in subsystem, kit and board form. All based upon Emulex controller expertise, highly regarded industry wide. (P.S. SMD pedestals are available for UNIBUS and VAX systems too!)
Free book of solutions. For more information about other Emulex products, return this magazine's reply card or call Emulex toll free!


Call (800) EMULEX-3, or (714) 662-5600 in California


Regional Offices: Anaheim, CA (714) 385-1685 Roswell, GA (404) 587-3610 Burlington, MA (617) 229-8880 Schaumburg, IL (312) 605-0888 International Offices: Wokingham, England (44) 734-772929 Munich (49) 89-3608020 North Sydney (61) 2-957-1669 Paris (33) 134-65-9191 Tokyo (81) 3-234-8951 Toronto (416) 673-1211

Q-bus, UNIBUS and VAX are registered trademarks of Digital Equipment Corp. © 1989, Emulex Corporation, Inc


It was a global concern. DEC and IBM were engaged in a cold war. A war whose only real casualties were businesses desperately looking for a way to improve relations between their Digital terminals and IBM PC-compatible software. So they turned to Logicraft for the answer.
Our innovative 386Ware provides VAX users with virtually unlimited access to PC software by integrating MS-DOS with VAXstations and VT terminals-at a fraction of the cost of purchasing individual PC's.
Many of the world's largest government, education, and financial organizations, as well as over 200 Fortune 1000 companies, have discovered the great communicator-386Ware from Logicraft.
Call us today at (603) 880-0300 and end the
cold war between your VAX hardware and MS-DOS software.
386Ware from Logicraft. Think of it as detente for computers.

digita

22 Cotton Road, Nashua, NH 03063 (603) 880-0300 FAX: (603) 880-7229

[^0]上.


## 95,500



Advertise in
DEC Professional's
Hardware
Buyers Guide
The Buyers Guide is the ideal advertising environment for marketers of DEC related products and services. It is the definitive source of product information for over 95,500 proven buyers. And as the DEC market's only year-long buyer's resource, the Buyers Guide keeps your ads working for 12 full months.
Among the buyers who'll see your ads in the Buyers Guide are:

86,792 who own or plan to buy a VAX
37,194 in Fortune 1000
companies
46,025 with MIS titles
50,013 with managerial
supervisory titles
23,129 OEMs
The Buyers Guide reaches 34,116 BPA audited sites, including:
27,348 VAX sites
$\mathbf{1 0 0 \%}$ of the Fortune 100
$\mathbf{9 7 \%}$ of the Fortune 200
$\mathbf{9 4 \%}$ of the Fortune 300
$\mathbf{1 0 0 \%}$ of the top 50 utilities

DEC Professional
$1 \curvearrowright 1$ Witmer Road, Horsham, PA 19044


## ONTENTS

## Systems

CPU Systems ...............................................................................................16, 21
CPU Upgrades ............................................................................................. 17,22
Specialized Systems .................................................................................... 17,22
Processors
Array Processors ............................................................................................26, 26, 29
Database Processors ...................................................................................... 26, 29
Image Processors .......................................................................................27, 29
Data Communications
Communication Controllers ........................................................................... 31, 50
Communication Processors ............................................................................ 32, 50
Communication Protocol Interfaces ........................................................... 33, 51
Communication Servers ........................................................................... 35, 54
Modems ...........................................................................................................36. 36. 54
Multiplexers .................................................................................................... 43, 61
Wiring Systems and Cables ................................................................................ 66
Networking
Ethernet Devices .............................................................................................68, 78
Networking Interfaces ............................................................................... 73, 83
Switching Devices ..................................................................................... 75, 84
Terminal Servers ............................................................................................ 76, 85
X. 25 PAD Processors .................................................................................... 77,86

DiskStorage
Disk Controllers ........................................................................................... . 88,108
Disk Drives .................................................................................................................. 109
Disk Subsystems ........................................................................................101, 114
Optical Drives ...........................................................................................102, 118
Optical Subsystems ..................................................................................103, 119
Solid State Storage ............................................................................106, 120
Tape Storage
Tape Controllers ..... 121, 130
Tape Couplers ..... 122, 130
Tape Drives ..... 122, 131
Tape Subsystems ..... 127, 132
Memory
Memory Boards ..... 136, 142
Terminals and Workstations
Display Terminals ..... 147, 162
Graphics Terminals ..... 151, 165
Workstations ..... 159, 170
X-Window Terminals ..... 161, 172
Output Devices
Band Printers ..... 173, 193
Daisy Wheel Printers ..... $.174,194$
Dot Matrix Printers ..... 176, 194
Electrostatic Plotters ..... 181, 198
Hard Copy Units ..... 182, 199
Ink Jet Printers ..... 182, 199
Ion Deposition Printers ..... 183, 199
Laser Printers ..... 183, 200
Magnetography Printers ..... 188, 204
Miscellaneous Printers ..... 189, 205
Pen Plotters ..... 189, 205
Thermal Transfer Printers ..... 190, 206
Data Acquisition Devices
Analog-to-Digital Conversion ..... 207, 210
Analog I/O ..... 211
Digital-to-Analog Conversion ..... 209, 211
Digital I/O ..... 212

We will consider for publication all submitted manuscripts and photographs, and welcome your articles, photographs and suggestions. We cannot be responsible for loss or damage. All materials presented are believed accurate, but we cannot assume responsibility for their accuracy or application. DEC PROFESSIONAL magazine ISSN 0744-9216 is published monthly with an extra issuc in September by Professional Press, Inc., 101 Witmer Rd., Horsham, PA 19044. Printing and binding by R. R. Donnelley \& Sons Company. Subscriptions are complimentary for qualified U.S. and Canadian sites. Single-copy price, including postage, $\$ 4$. Onc-year subscription rate $\$ 30$ in the U.S. and Canada; $\$ 60$ forcign. All orders must be prepaid. Second Class postage paid at North Wales, PA, and additional mailing offices. POSTMASTER: Send all correspondence and address changes to DEC PROFESSIONAL, 101 Witmer Rd.,Horsham, PA 19044. COPYRIGHT© 1989 by Professional Press, Inc. All rights reserved. No part of this publication may be reproduced in any form without written permission from the publisher. If you would like reprints of any article or advertisement,

V/BPA dod ABP FAX (215) 643-9164.

# PROFFSSIOMAM PRIFSS PUBLCIHTONS 



No matter what computer universe you operate in ... DEC, IBM, HP or all 3 ... Professional Press covers your arena with the definitive publication in your field. Plus, Professional Press publishes three reference books dealing with topics of interest to today's computing professionals.

## HP Professional

A monthly magazine available free of charge to qualified buyers of Hewlett-Packard products, HP Professional is the only publication written for professional users and managers of both HP's commercial and technical computer systems. Solutions-oriented editorial, product reviews and the on-line bulletin board, ARIS/BB, make it the choice of over 35,000 HP-computing pros.

## VAX Professional - A Technical Journal for VMS Systems

This paid-subscription, bimonthly publication is the only technical journal dedicated solely to users of VAX/VMS. Subscriptions include access to an on-line bulletin board, programming models and program down-loads, systems information and practical articles on software applications.

## DEC Professional

DEC Professional is the only magazine serving DEC computing professionals. And it's the only publication of any kind offering DEC computing professionals solutions-oriented editorial, hard-hitting commentary, the on-line bulletin board, ARIS/BB, and fact-filled product reviews that help simplify the jobs of the 95,510 subscribers who receive the magazine free of charge.

## MIDRANGE Systems -

The Independent Newspaper for IBM Multiuser Computing
The only high-quality, full-color newspaper serving IBM System/3X and AS/400 users, it's the free biweekly news source for 36,387 computing pros who use and buy IBM midrange equipment. MIDRANGE Systems provides timely information on industry news and trends, new products, hardware and software, plus how-to features and more.

## Introduction to VEX/VMS, Second Edition

This self-teaching text explains and illustrates how to use VAX/VMS systems. Easy to learn for the computing novice ... an excellent reference for VAX/VMS pros. Covers the basics and teaches systems and programming as well, plus glossary and appendices. Written by David Bynon and Terry Shannon.

## Let's C Now

A complete guide to learning C language in two volumes. Over 300 pages in 26 chapters in a self-instructing workbook format. All the information needed to become proficient in C. Plus chapter summaries, glossary and author Rex Jaeschke's hints and suggestions.

## VMS Advanced Device Driver Techniques

A manual of step-by-step instructions on how to design, implement and debug device drivers for the VMS Version 5 operating system from two recognized experts in the field, Lee Leahy and Jamie Hanrahan. Covers simple VMS device drivers, full duplex and state machine-based drivers and VAX BI drivers, as well as advanced debugging strategies and techniques.

For More Information Call (215) 957-1500 $\quad$ FAX (215) 957-1050 or Write:

Professional Press<br>101 Witmer Road ■ Horsham, PA 19044

## CONTENTS

Continued from page 4.

## PowerDevices

Power Conditioners .................................................................................. 213, 225
Power Distribution Controllers ...............................................................215, 227
UPS Systems ............................................................................................217, 229

## Enclosures

System and Peripheral Enclosures236
Adapters and Controllers
Graphics Controllers ..... 245, 252
Host Adapters ..... 246, 252
IEEE-488 Controllers ..... 247, 255
Peripheral Interface Controllers ..... 248, 255
Printer Controllers ..... 248, 255
Special Function Boards ..... 249, 250
Specialized Products
Bar Code Readers ..... 259
Magnetic Strip Readers ..... 259
Monitoring and Test Devices ..... 259
Security Systems ..... 261
Smart Ambient Monitors ..... 261
Timing Devices ..... 262
Maintenance
Maintenance ..... 263
Service Companies
Distributors and Resellers ..... 265
Leasing/Rental ..... 268
Service ..... 269
Supplies ..... 270
System Integrators/OEMs/VARs ..... 271
Departments
How to Use .....  8
Key to This Guide ..... 14
Manufacturer's Index ..... 272
Advertiser's Index ..... 288
Lab Seal Index ..... 288

Remember how computers remembered? Mercury delay lines? Punched cards with 90 columns and round holes? Hand-wired magnetic cores? In case your memory needs refreshing, The Computer Museum would like to share its memories with you.

The Computer Museum Memory Poster We have created a limited edition, 20 " $\mathrm{x} 32^{\prime \prime}$ poster of the picture shown below. Printed in
full-color, it includes an identification key to help you recall the memories you've forgotten. To get your poster, along with an information kit on museum membership, exhibits and activities, send a tax-deductible contribution of $\$ 25$ or more to:
Memory Poster, The Computer Museum 300 Congress Street, Museum Wharf, Boston, MA 02210.
Please allow six weeks for delivery

VES! Please refresh my computer memories. A taxdeductible donation of $\$ 25$ or more made payable to The Computer Museum is enclosed

Name
Address
City

$\triangle$ The Compute - Mupute ocated on Museum Wharf 300 Congress Street, Boston, MA 02210 (617) 426-2800

## COMPUTER MEMORIES FOR SALE

Special thanks to this publication, Scitex America Corp. (color separations), Grafik Communications, Ltd. (design), David Sharpe Studio (photography) and VM Software, Inc. (poster)


## DEC PROFESSIONAL Hardware Buyers Guide

The Editors

This Hardware Buyers Guide provides users of Digital Equipment Corporation (DEC) computers with a comprehensive listing of third-party hardware products and related services. It includes comprehensive product and company information and is organized into 16 categories.

Each chapter is divided into two sections: a quick-reference product-comparison chart and a listing of more specific
information on each product.
You also may refer to a separate Manufacturers Index for addresses, telephone numbers and a cross reference to the product information from the company in which you are interested. The Manufacturers Index begins on page 272.

## Product Details

If you're interested in comparing all products in a specific category, refer to the Table of Contents to learn where information on that category begins. For ex-



## Oイ＝コロN



NOVELL．

## Reflection runs through more PC－to－VAX networks

Choose the LAN that best fills your company＇s network needs－then choose Reflection PLUS for your VT terminal emulation．No other VT terminal emu－ lator is adaptable to so many different environments．

The large number of networks sup－ ported by Reflection means that high－ quality VT emulation is available to you－whatever LAN you choose．

When you install Reflection，you know that you are running with a winner．The 1989 Digital Review Target Award went to Reflection for productivity features such as multitasking，dependable file transfer， a programmable script language，complete keyboard remapping，and a sophisticated

PC file backup and restore function．
Reflection 4 PLUS for $\$ 349^{*}$ emu－ lates the VT241 terminal with 16－color ReGIS graphics．Reflection 2 PLUS for $\$ 249$＊emulates the VT320．Network server pricing is available．

Reflection expands network compati－ bility even further with the Reflection Complements series，including：R－LAT （\＄99＊），an inexpensive LAT driver that works with Reflection over Ethernet； TelnetManager（\＄99＊），a TCP／IP con－ nection linking Reflection with AT\＆T， Apollo，Cray，DEC，HP，IBM，Prime，Sun and Unisys hosts on TCP／IP networks； 3270 FileExchange（\＄99＊），for transfer－ ring files to IBM mainframes．

All WRQ products come with a 60－day money－back guarantee．

Call toll－free to order Reflection from Walker Richer \＆Quinn，the connec－ tivity specialists．

## BEELECTION SOFTWARE

1－800－8PC－2VAX
（1－800－872－2829）

## WalkerRicher\＆Quinn，Inc．

2825 Eastlake Avenue E．，Seattle，WA 98102 206－324－0350 FAX 206－322－8151
 information about the products. The ARIS Pennsylvania (215) 957-1000;
Southern California (818) 577-9100;
Northern California (415) $873-2135 ;$
Northern California (415) 873-2135;
Massachusetts (617) 863-5010. Have Anne Schrauger at (215)957-1500. The "Lab Seal" indicates that the product has ndergone testing in DEC PROFESSIONAL's pears in DEC PROFESSIONAL DLabs. A review index to reviews by issue, refer to magazine. For


The Manufacturers Index list telephone numbers. Many their addresses and provided.

Many companies offer products in several

# FREEI ELECTRONIC BULLETIN BOARD SERVICE FROM 

 DEC Professional!WHO: For our subscribers.
WHERE:
From your PC or terminal to our VAX . . . just log in!
WHAT:
It's an online electronic bulletin board called ARIS/BB (Automated Reader Information Service). "Talk" to our editors, advertisers, other readers.

## YOU GET:

ACCESS to our new Message Center with 28 Special Interest Groups (SIGS). One is sure to interest you!
■ HELP with your computing problems.
■ CONVERSATION with the editors about articles and issues.

- INFORMATION on products and used equipment.
- PROGRAMS downloaded from our library (Free!). Both ASCII and KERMIT protocols are available. FUN doing it!

It's Easy...

1. Set your PC to seven data bits, one stop bit and space parity, or eight data bits, one stop bit and no parity ( $300,1200,2400$ baud available).
2. Dial (215) 957-1000.
3. You'll be asked to input your last name and subscriber number (the number is on your mailing label).

## That's all it takes to use our electronic bulletin board.

## Product Information at Your Fingertips

When you have an important hardware buying decision to make, the first thing you need is the definitive source of product information . . .

# DEC Professional 

 HARDWARE BUYERS GUIDE It's the only Buyers Guide covering DEC hardware. You may order a copy of your own for the special price of $\$ 75$. To make sure there's a copy right when you need it, order yours today.Order Your Own Copy of DEC Professional's Hardware Buyers Guide at a Special Rate of \$75 To order, complete this form and return it with your payment to:
DEC Professional 101 Witmer Road Horsham, PA 19044


## KEY TO THIS GUIDE

## GENERAL

* Optional
- Information not available, contact manufacturer directly


## BUS ARCHITECTURE

B BIbus
Q Q-bus
U Unibus

## SYSTEMS

MRSX MicroRSX
UL Ultrix

## MEMORY

D Dual-sized board
H Hex-sized board
Q Quad-sized board
XH Extended hex-sized board

## OUTPUT DEVICES

A $8.5^{\prime \prime} \times 11^{\prime}$ page size
AO $33.11^{\prime \prime} \times 46.81^{\prime \prime}$ page size
A1 $23.25^{\prime \prime} \times 33.11^{\prime \prime}$ page size
A2 $16.54 \times 23.35^{\prime \prime}$ page size
A3 $11.69^{\prime \prime} \times 16.54^{\prime \prime}$ page size
A4 $8.27^{\prime \prime} \times 11.69^{\prime \prime}$ page size
B $11^{\prime \prime} \times 17^{\prime \prime}$ page size
C Continuous page
D $22^{\prime \prime} \times 34^{\prime \prime}$ page size
E $34^{\prime \prime} \times 44^{\prime \prime}$ page size

L Landscape
L Legal size paper
P Portrait orientation
R Rolled paper
S Single sheet paper

## POWER DEVICES

S Single phase
T Three phase

## INTERFACES

P Parallel interface
S Serial interface

## NETWORKING

0/E/N Odd/even/no parity
DATA COMMUNICATIONS
N/W Node Networking node

## MONITORS

A Amber
G Green
W White
RGB Red, green, blue

## STORAGE

C CDC drive
K Kennedy drive
P Pertec drive

## DP LAB SEALS

| Chapter | Issue | Chapter | Issue |
| :---: | :---: | :---: | :---: |
| SYSTEMS |  | DISK STORAGE |  |
| Logicraft |  | Andromeda Systems |  |
| Logicraft 386ware | July 1988 | ESDC | September 1988 |
| Virtual Microsystems |  | Emulex |  |
| V-Server/PLUS | March 1989 | QD33 | November 1987 |
| DATA COMMUNICATION |  | Imprimis |  |
| DILOG |  | Sabre 9720-1230 | September 1988 |
| CQ1610 | January 1988 |  |  |
|  |  | Micropolis Corporation |  |
| MDB Systems, Inc. |  | 1550 Series | May 1988 |
| TurboMux | April 1988 |  |  |
|  |  | Perceptics Corporation |  |
| Mod-Tap |  | LaserSystem | April 1987 |
| Cables | November 1986 |  |  |
|  |  | TAPE STORAGE |  |
| Telebit Corporation |  | Aviv Corporation |  |
| TrailBlazer Plus | June 1987 | TFC 925 Series | March 1987 |
| Xyplex |  | Digi-Data |  |
| MAXSERVER | June 1988 | GIGASTORE | June 1988 |
| NETWORKING |  | Cipher Data Products |  |
| Emulex Corporation |  | F880 | July 1988 |
| Performance 4000 | November 1988 |  | nued on page 288 |

## DEC Professional

Publisher: Carl B. Marbach Editorial Director: R. D. Mallery Editorial

MANAGING EDITOR, BUYERS GUIDE Anne E. Maher EDITORIAL ASSISTANT, BUYERS GUIDE Lea Smith
MANAGING EDITOR Lou Pilla
SENIOR EDITOR Evan Birkhead
ASSISTANT EDITORS Pamela F. Fullerton, Eric Schoeniger
BACK END EDITOR John C. Dvorak CEDITOR Rex Jaeschke DCLEDITOR Kevin G. Barkes FIELD SERVICE EDITOR Ron Levine MACINTOSH EDITOR Al Cini NETWORKING EDITOR Bill Hancock technology editor Philip A. Naecker ULTRIXEDITOR Philip E. Bourne, Ph.D. UNIX EDITOR Elaine L. Appleton WORKSTATIONS EDITOR David W. Bynon EDITORIAL SYSTEMS COORD. Anne Schrauger editorial assistant Nadina R. Chapman
DP Laboratory and Testing Center
DIRECTOR R.D. Mallery
MANAGER David B. Miller
TECHNICAL EDITORS George T. Frueh, Sheldon Green, Del Lukens
MIS SOFTWARE MANAGER Bonnie Auclair MIS SYSTEMS MANAGER Kevin J. Kennelly
Design \& Production

## DESIGN/PRODUCTION ASSOC., Buyers Guide

Tina Boligitz
GRAPHIC DESIGNER, Buyers Guide Carolyn J. Brown
DESIGN/PRODUCTION MANAGER Ruth Ann Leiby DESIGN/PRODUCTION ASSOCIATE Pat Messina ADVERTISING BOOKING COORD. Lori Goodson ADVERTISING PROD. COORD. Suzanne Garr TRAFFIC/PRODUCTION ASST. Kim Macheski PROMOTIONS MANAGER Timothy M. Kraft GRAPHIC DESIGNERS Richard Kortz, Thomas Owen, Sue Ann Rainey
PRODUCTION ARTIST Patricia Kraekel TYPESETTER MaryEllen Coccimiglio
Circulation
CIRCULATION DIRECTOR Carrie Eisenhandler CIRCULATION MANAGER Betsy Ellis FULFILLMENT MANAGER Margie F. Pitrone CIRCULATION DBA Rebecca Schaeffer

PROFESSIONAL PRESS, INC.
president Carl B. Marbach
VICE PRESIDENT R.D. Mallery
VICe president Peg Leiby
vice president Helen B. Marbach EXECUTIVE EDITOR Linda DiBiasio executive design director Leslie A. Caruso DIRECTOR OF MARKETING Mary Wardlaw CONTROLLER Andrea Beneke assistant to the president Jan Krusen

For information on how to contact your sales representative, see page 288. Editorial, Advertising Sales and Executive Offices at 101 Witmer Rd., Horsham, PA 19044 (215) 957-1500. FAX (215) 957-1050. TWX 910333 9522. EasyLink 62805174. ARIS/BB (215) 957-1000; Southern California (818) 5779100; Northern California (415) 873-2135; Massachusetts (617) 863-5010. Additional Editorial Offices: New England at 238 Bedford St., Ste. 3, Lexington, MA 02173 (617) 861-1994; Northern California \& Northwest at 903 Sneath Ln., Ste. 220, San Bruno, CA 94066 (415) 873-3368; Southern California \& Southwest at 1010 E. Union St., Ste. 101, Pasadena, CA 91106 (818) 577-5970.

# DEC UNIBUS' USERS: Twice the performance at half the price! 



## J-11* POWER FOR OPTIMUM PERFORMANCE FITS ALL EXISTING PDP 11/04/24/34s NO BACKPLANE CHANGE

FOR SPECIAL PRICING ON N1100, CALL OLIVIA AT (800) 233-1837 IN CALIFORNIA (714) 261-8811

## NISSHO

## SYSTEMS

## CPU SYSTEMS



## CPU SYSTEMS



## CPU UPGRADES



## SPECIALIZED SYSTEMS



## SPECIALIZED SYSTEMS



## SPECIALIZED SYSTEMS



## SPECIALIZED SYSTEMS



## DIGITAL HARDWARE FOR YOUR

DISTRIBUTED COMPUTING SOLUTIONS

TriLogic, your total solution Digital Desktop Distributor. Whether building a DECnet*/Ethernet local area network, expanding your system, integrating personal computing or adding workstations, TriLogic offers the required components, hardware and software.

Call for Trade in Values on Your Digital Equipment.
800-346-2933
In PA 412-745-0200
Are trademarks of Digital Equipment Coporation.


6inatio
Authorized Distributor

| COMMUNICATION \& |  |
| :--- | :--- |
| NETWORKING | NEW DESKTOP PRODUCTS |
| H4005 | DECstation 210* |
| Ethernet Transceiver | Intel 80286, 10MHZ |
| DSRVB-AA* | DECstation 316* |
| RS232 Ethernet | Intel 80386, 16MHZ |
| Communication Server | DECstation 320* |
| DSRVB-BA* | Intel 80386, 20MHZ |
| RS423 Ethernet |  |
| Communication Server | DSRVF-BA |
| DELNI-BA* | Dllows up to eight Ethernet- |
| compatible devices to be | DEC Server 300* |
| grouped together (not |  |
| terminals) | VAXstation 3100* |
| DEMPR-AA* | Model 30 Standalone Workstation |
| Thin Wire Ethernet Multiport | Model 30 Networked Workstation |
| Repeater | Model 40 Server/Workstation |
| DESTA* |  |
| Thinwire Ethernet station | DECstation 3100/3100S* |
| adapter | $15^{\prime \prime}$ Monochrome, 8MB Diskless |
| DSRVS-CA | $19^{\prime \prime}$ Monochrome, 8MB Diskless |
| DEC Server 550* | $19^{\prime \prime}$ Monochrome, 16MB Diskless |
|  | $19^{\prime \prime}$ Color, 8MB Diskless |
|  | $19^{\prime \prime}$ Color, 16MB Diskless |
|  | $19^{\prime \prime}$ Color, 16 MB Internal RZ23 |

## CPUs

## Active Memory <br> Technology

## - DAP 510

32MBytes • $\mathbf{\$ 1 2 0 , 0 0 0 +}$
Transfers data between memory and processors at 1280 Mbps , performs logic or Boolean operations at 10,000 million operations/sec., handles characters at 1,000 million operations/sec., and features 8 -bit integer multiply at 400 million operations/ sec .

## - DAP 610

128MBytes • $\$ 320,000_{+}$
Equipped with 4096 processors, each connected to its own local memory, ranging from $16-32 \mathrm{MB}$. Parallel instructions are decoded, broadcast, and executed simultaneously.

## Adac Corporation <br> © PX11/BASYS

## \$5,900+

This system is equipped with 256 KB PROM, 64 KB RAM, and up to 512 KB of battery-backed CMOS RAM. It supports eight serial lines, 1024 analog inputs, 128 analog outputs, and 2048 digital I/O.

## Arix Corporation

## - ARIX 800

16MBytes • $12.5 \mathrm{MHz} \bullet 1$ Controller(s)

## Supported

Supports up to three external tape drives and eight external disk drives; equipped with one-to-two application processors, one-to-five communication processors and one-to-two database processors. Features up to 6 GB of optical disk storage.

## - ARIX 825

$64 \mathrm{MBytes} \bullet 25 \mathrm{MHz} \bullet 1$ Controller(s) Supported Equipped with one-to-two application processors and one-to-two database processors. Features up to 28GB of optical disk storage.

## - ARIX 850

25MHz • 1 Controller(s) Supported
Supports up to four external tape drives and eight external disk drives; equipped with one-to-three application processors, one-to-11 communication processors and one-to-four database processors. Features up to 28GB of optical disk storage.

## © ARIX 875

64 MBytes • $25 \mathrm{MHz} \bullet 1$ Controller(s) Supported Supports up to four external tape drives and eight external disk drives; equipped with one-to-three application processors, one-to-11 communication processors and one-to-four database processors. Features up to 28 GB of optical disk storage. Also features a 1600/3200 bpi 9-track tape drive.

## - System 90-40

10.5GBytes • 25 MHz

Equipped with one-to-four application processors, one-to- 16 communication processors and one-to-eight database processors. Also features a $1600 / 3200$ bpi 9 -track tape drive.

## - System 90-80

10.5 GBytes ${ }^{\circ} 25 \mathrm{MHz}$

Equipped with one-to-eight application processors, one-to-32 communication proc-
essors and one-to-16 database processors. Also features a 1600/3200 bpi 9-track tape drive.

## Convex Computer Corporation

## - C120

## 1GByte •80Mbps

Features fast turnaround on parallel jobs without sacrificing high throughput for other applications, large memory and fast input/output, a multiuser, multiapplication environment and CXwindows that provides users with a windowing system. Also features 50Mflops.

## - C201-202

## 2GBytes • 290Mbps

Features fast turnaround on parallel jobs without sacrificing high throughput for other applications, large memory and fast input/output, and multiuser, multiapplication capabilities. Also features 36 72Mflops.

## - $\mathbf{C 2 1 0}$

## 2GBytes • 200Mbps

Features fast turnaround on parallel jobs without sacrificing high throughput for other applications, large memory and fast input/output, and multiuser, multiapplication capabilities. Also features 50 Mflops .

## - C 220

2GBytes ${ }^{400 \mathrm{Mbps}}$
Features fast turnaround on parallel jobs without sacrificing high throughput for other applications, large memory and fast input/output, and multiuser, multiapplication capabilities. Also features 100Mflops.

## - C230

2GBytes • 600Mbps
Features fast turnaround on parallel jobs without sacrificing high throughput for other applications, large memory and fast input/output, and multiuser, multiapplication capabilities. Also features 150Mflops.

## - C240

2GBytes • 800Mbps
Features fast turnaround on parallel jobs without sacrificing high throughput for other applications, large memory and fast input/output, and multiuser, multiapplication capabilities. Also features 200Mflops.
Exxsı

- 6410

7-84 MIPS • 2GBytes • 320Mbps • 1-8
Controller(s) Supported •\$140,000

## - 6420

12-144 MIPS • 2GBytes • 320Mbps • 1-8
Controller(s) Supported •\$145,000

## . 6450

35-350 MIPS • 2GBytes • 320Mbps • 1-8
Controller(s) Supported • $\$ 295,000$
Designed to run under EMS which is highly compatible with VMS.

## Encore Computer Corporation

## - Multimax 310

4-20 MIPS • 64MBytes • 100Mbps • 2-8
Controller(s) Supported
Features up to three Ethernet intelligent I/O channels per system, supports up to

500 total users, and $200+$ active users, and provides up to 4.8 GB of formatted disk storage.

## Multimax 320

4-40 MIPS • 128MBytes • 100Mbps • 2-8 Controller(s) Supported
Features up to three Ethernet intelligent I/O channels per system, supports up to 1000 total users, and 400+ active users, and provides up to 7.8 GB of formatted disk storage.

## M Multimax 510

17-170 MIPS • 160MBytes • 48Mbps

## \$159,000+

Supports up to 1000 total users, and $400+$ active users, and provides up to 7.8 GB of formatted disk storage.

## FPS Computing

## . M64/140

$\$ 300,000+$
The M64/140 attaches to DEC UNIBUS and BIbus architectures for performing intense problem solving and high precision floating point computations. It features from 11-to-187Mflops.

## I M64/30

600MBytes • $\$ 99,000+$
Designed as a solution to computationally intense FORTRAN programs, providing 12 Mflops and six million address computations per second. Available with the P64/ 30 disk subsystem which supports up to 24 drives at 1GB per drive, interfacing through an intelligent controller.

## 1964/40

$\$ 250,000+$
The M64/40 is attached to DEC UNIBUS and BIbus architectures for performing intense problem solving and high precision floating point computations.

## - M64/50

600MBytes • $\$ \mathbf{3 6 0 , 0 0 0 +}$
Designed as a solution to computationally intense FORTRAN programs, 19Mflops and 19 million address computations per second. Available with a removable disk (P64/20), a mass storage subsystem (P64/ 110 ), and a disk subsystem (P64/40).

## 1 M64/60

600MBytes - $\$ 475,000+$
Designed as a solution to computationally intense FORTRAN programs, providing 38 Mflops and 19 million address computations per second. Available with a removable disk (P64/20), a mass storage subsystem (P64/110), and a disk subsystem (P64/ 40).

## Mentec Computer Systems, Ltd.

- SBC M80

4mBytes

## - SBC M90

4MBytes
The SBC M80 and M90 operate as the host

## MIPS Computer Systems, Inc. <br> m M/1000

## 10 MIPS • 80Bytes • \$70,000+

The M/1000 features 2GB of disk storage capacity and supports $5.25^{\prime \prime}$ SCSI disks and up to two Ethernet ports.

## - M/20

13 MIPS • 48MBytes • $\$ 30,000+$
The M/120 features 4GB of disk storage capacity and supports $5.25^{\prime \prime}$ SCSI disks and one Ethernet port.

## . M/2000

20 MIPS • 128MBytes • $\$ 110,000_{+}$
The M/2000 features 15.7 GB of disk storage capacity and supports 8 " SCSI disks and up to four Ethernet ports.

## Multiflow Computers, Inc. <br> - TRACE 7/100 <br> 41 MIPS • 64MBytes • 94Mbps

Uses VLIW (Very Long Instruction Word) architecture which performs up to 215 million operations per second with 11 Mflops .

## ■ TRACE 7/200

64MBytes •\$299,000+
Uses VLIW (Very Long Instruction Word) architecture which performs up to 215 million operations per second with 6Mflops.

## Scientific Micro Systems, Inc.

## [ SMS 1000-40

4MBytes • $\mathbf{6 2 5 K b p s}$
Includes an LSI-11, quad-wide, 22 -bit Qbus backplane with six useable slots and it features an 8 KB memory cache, MSCP emulation, noninterleaved disk formatting, overlapped seeking, seek ordering, flaw mapping, and error correction.

## 週 SMS 1000-50

4MBytes • 625 Kbps
Includes an LSI-11 quad-wide 22-bit Qbus backplane with 12 useable slots. The first three slots are designated as C/D slots to accommodate the MicroVAX II. Features an 8 KB memory cache, MSCP emulation, noninterleaved disk formatting, overlapped seeking, seek ordering, flaw mapping, and error correction.

## Unbound, Inc.

## - HVX 310

\$55,000+
HVX single cluster add-on system for VAX UNIBUS computers with 20MB shared memory, a $42^{\prime \prime}$ cabinet, HVX add-on software kit and documentation.

## 困 HVX 320

$\$ 55,000+$
HVX dual cluster add-on system for VAX UNIBUS computers with 40MB shared memory, a $42^{\prime \prime}$ cabinet, HVX add-on software kit and documentation.

## HVX 330

\$55,000+
HVX triple cluster add-on system for VAX UNIBUS computers with 60 MB shared memory, two $42^{\prime \prime}$ cabinets, HVX add-on software kit and documentation.
processors on the Q-bus backplane with DEC's J-11 MPU for complete compatibility with PDP systems. Feature no wait state memories, block mode DMAs, and module configurations by set-up EEPROM which eliminate wire-wrapping.

## ■ HVX 340

$\$ 55,000+$
HVX quad cluster add-on system for VAX UNIBUS computers with 80 MB shared memory, two $42^{\prime \prime}$ cabinets, HVX add-on software kit and documentation.

## © HVX Series 1-1

## \$67,000+

Single cluster system includes 20MB shared memory, a MicroVAXII with 16MB, 16 ports, a 1GB disk drive, a TK50. 5 " tape drive, a 42 " cabinet, an HVX system software kit, and documentation.

## - HVX Series 1-2

## \$67,000+

Dual cluster system includes 40 MB shared memory, a MicroVAX II with $16 \mathrm{MB}, 16$ ports, a 1GB disk drive, a TK50 . 5 " tape drive, a 42 " cabinet, an HVX system software kit, and documentation.

## - HVX Series 1-3

\$67,000+
Triple cluster system includes 60 MB shared memory, a MicroVAX II with $16 \mathrm{MB}, 24$ ports, a 2.4 GB disk drive, a TK50 $.5^{\prime \prime}$ tape drive, two $42^{\prime \prime}$ cabinets, an HVX system software kit, and documentation.

## - HVX Series 1-4

## \$67,000+

Quad cluster system includes 80 MB shared memory, a MicroVAX III with $32 \mathrm{MB}, 32$ ports, a 2.4 GB disk drive, a TK50 5 " tape drive, two $42^{\prime \prime}$ cabinets, an HVX system software kit, and documentation.

## - MicroVAX II QUBE

1.3GBytes • $\$ 17,000+$

Supports ESDI or SCSI based disk drives. Back-up options include an RX33 compatible flexible drive, a TK50 .25 " tape drive, or an archival optical disk drive.

## - QUBE 11/23

## 20-380MBytes - $\mathbf{\$ 6 , 0 0 0 +}$

Supports ST506, ESDI, or SCSI based disk drives. Back-up options include an RX33 compatible flexible drive, a 10 MB removable disk, or one $150 \mathrm{MB} .25^{\prime \prime}$ tape drive.

## - qube 11/73

## 20M-1.3GBytes •\$9,000+

Features high-performance, multiuser capability, and full compatibility with all PDP-11 sytems. Support ST506, ESDI, or SCSI disk drives. Backup options include an RX33 compatible flexible drive, a 10 MB removable disk, and a 150 MB .25 " or TK50 $.5^{\prime \prime}$ tape drive.

## - qube 11/83

20M-1.3GBytes - $\mathbf{\$ 1 8 , 0 0 0 +}$
Based on DEC's PDP-11 Q-bus processor and provides users with an upgrade alternative for applications requiring increased CPU processing power. Supports ESDI peripherals with up to 650 MB of disk storage.

## CPU Upgrades <br> MDB Systems, Inc.

## - CoPro

## \$7,500

A $\$ 2,000$ license to use the CoPro with a DEC operating system is required for each CoPro module. Designed to increase the MicroVAX II or LSI-11 performance by 1 MIPs for each module installed. Up to eight CoPros may be installed on a single bus.

## Nemonix, Inc.

- nX780-CTU

The NX780-CTU is a CPU upgrade for the VAX $11 / 780$, designed to add up to $45 \%$ increased throughput in performance.

## - ${ }^{\text {NX82-XL }}$

The NX82-XL is a CPU upgrade designed to increase the performance of the VAX 8200 up to $25 \%$. It is a single processor board upgrade.

## - $\quad$ K 883 -XL

The NX83-XL is designed to increase the CPU performance of the VAX 8300 up to $25 \%$. It is a dual processor board upgrade.

## - M X $860-\mathrm{XL}$

This board gives a $38.7 \%$ increase in processing power to the VAX 8600 , featuring full hardware and software compatibility with the 8600 .

## Nissho Electronics <br> Corporation

## NISSHO



## © M1100-PLUS

## $\$ 11,500$

The N1100-PLUS is an enhanced version of the N1100 and includes a memory capacity of $4 \mathrm{MB}, 8 \mathrm{~KB}$ of cache, a floating point accelerator option and a memory management unit. The N1100-PLUS incorporates an Independent Memory Bus (IMB) which, combined with high-speed DRAM, provides any PDP-11/24/34 with PDP-11/84-type perfiormance. The N1100PLUS consists of two hex size UNIBUS boards and may be installed in any standard SPC slot without backplane changes. The processor operates on the 18 -bit backplane and provides UNIBUS mapping to its own IMB.


## Quickware Engineering Design, Inc.

## - QED 11/85

\$4,900
Processor upgrade board triples the throughput of the DEC PDP-11/24 UNIBUS computer. No hardware or software changes are required. Gives VAX type speed for PDP-11/24 users.

## © QED 11/90

\$6,900
Processor upgrade board triples the throughput of the DEC PDP-11/24 UNIBUS computer. No hardware or software changes are required. Gives VAX type speed for PDP-11/24 users.

## Specialized Systems

## Adac Corporation

## - 1200 Series

## Measurement \& Control • $\$ 5,900+$

Accommodates a wide range of analog and digital I/O modules that plug into the Qbus backplane.

## - DX11/BASYS

Measurement \& Control - Provides a standalone data acquisition system or a remote satellite unit for a variety of hosts. * $\$ 5,900+$
This system is equipped with 256 KB PROM, 64 KB RAM, and up to 512 KB of battery-backed CMOS RAM. It supports eight serial lines, 1024 analog inputs, 128 analog outputs, and 2048 digital I/O.

## - PICOBASYS

Measurement \& Control • Provides remote data acquisition system for a variety of hosts. - \$5,900+

This system features PROM based software with nonvolatile RAM, event driven software and data transfer to Lotus 1-2-3 files.

## - PX11/BASYS

Measurement \& Control • Provides a standalone data acquisition system or a remote satellite unit for a variety of hosts. \$5,900+
This system is equipped with 256 KB PROM, 64 KB RAM, and up to 512 KB of battery-backed CMOS RAM. It supports eight serial lines, 1024 analog inputs, 128 analog outputs, and 2048 digital I/O.

## Aptec Computer Systems, Inc.

## $\square 10 \mathrm{C}-200$

1/0 System • Tailors powerful systems for signal and image processing, simulation, and non-destructive testing applications. \$125,000+
The IOC-200 is a multiprocessor I/O computer system for high-performance realtime and supercomputer applications. It features an internal bandwidth of up to 200 Mbps , and high speed memory, and it improves VAX overall performance as much as 40 times. High speed disk subsystems, 2 MB and 8 MB memory boards, and I/O processors are additional products designed for use with the IOC-200.

## - IOC-24

1/0 System • Tailors powerful systems for signal and image processing, simulation, and non-destructive testing applications. $\$ 35,000+$
The IOC-24 is a multiprocessor I/O computer system designed for high-performance real-time and supercomputer applications of VAX/VMS CPUs. It features an internal bandwidth of up to 24 Mbps , and high speed memory and it improves VAX overall performance by as much as 40 times. High speed disk subsystems, 1 MB and 8MB memory boards, I/O processors, and a parallel interface are additional products designed for use with the IOC-24. Applications include high speed signal processing, image processing, and high speed data acquisition.

## Biscom, Inc.

- FAXCOM 1000+

Facsimile • Multiuser system that transmits data from the VAX to any Group III fax machine worldwide.
Stores standard business forms and merges them with data files for transmission in letter quality output.

## Codar Technology, Inc. ■600M

Ruggedized Tactical • Provides a custom tailored modular, fully integrated system for ruggedized military applications.
Available with a MicroVAX II (32MB), MicroVAX 3500 ( 32 MB ), VAX 8250 or 8350 CPU. Features include a shock mounted $14 \times 4$ backplane, .6 " board spacing, digital temperature and voltage monitor, and helical isolators.

## - 600MD

Ruggedized Tactical • Provides dual
MicroVAX or MicroVAX 3000 CPUs in one ruggedized chassis.
Configuration allows for six Q -bus quad slots in support of one CPU, while the other CPU has eight slots available. It is MIL-STD-801D and 461B as well as NACSIM 5100A TEMPEST compliant. An optional internal Ethernet LAN is available.

## Codex Corporation

## - 4840

Network Management • Monitors, tests, and reconfigures complex data communication networks from central and/or remote sites. $\$ 44,500$
Comprised of multimicroprocessor based Distributed Network Processors (DNPs) that support simultaneous and continuous network support, and Network Control Terminals (NCTs) that serve as operator interfaces.

## - 9800

Network Management • Provides graphic inventories of the performance data of Codex processors and $\mathrm{I} / 0$ boards.
Based on the Common Management Information Protocols of the International Organization for Standardization (ISO) Includes management application software, laser printer, monitor, keyboard and mouse.

## Computer Products, Inc. ■ RTP

Data Acquisition \& Control
Computer independent data acquisition interface. Analog and digital input/output, thermocouple, and special function cards housed in an external 19 " rack-mount chassis.

## Crisp Automation <br> - I/OMYX

Data Acquisition \& Control - Provides reliable, uninterrupted performance in important functional aspects of process control and data management. - \$3,000+
The I/ONYX offers total redundancy and single-loop integrity to maintain process status at the module level for critical control and maximum reliability. Each module utilizes a microprocessor for total distribution. NEMA 4 and NEMA 12 industrialized hardened cabinet packaging is available to accommodate standard process I/O signals.

## Cyberchron Corporation

## －C630－RO

Ruggedized MicroVAX IIIII • Military and severe environment applications．
Compact system designed to provide shock and vibration isolation，Tempest compli－ ance，EMI／RFI suppression，extreme tem－ perature operation，and system parameter monitoring．Wide range of configuration options．

## －C630－SE

Ruggedized MicroVAX II • Military and severe environment applications．
Standard model for the Army Micro Test Instrumentation System（Micro－TIS）pro－ gram，providing Tempest compliance， shock and vibration isolation，extended temperature operation，and RFI／EMI suppression．

## －C650－SE

Ruggedized MicroVAX $11 /\| \|$ • Military and severe environment applications．$\bullet \$ 50,000+$ RFI／EMI suppression and Tempest com－ pliant．Features Intelligent System Con－ troller（ISC）to monitor critical system operating parameters，and built－in－test （BIT／BITE）options．

## －R8000－APA

Ruggedized R8250／R8350 • Military and severe environment applications．
May be used as the CPU for a system that utilizes the Disk Storage Assembly（DSA） for mass storage support．Standard model for Army ASAS（All Source Analysis Sys－ tem）program．

## －R8000－DSA

Ruggedized Disk Storage • Provides ruggedized provisions for up to four removable 5.25 ＂disk or tape devices and one fixed drive． The DSA may be used as peripheral sup－ port for the R8000 Advanced Processor Assembly．Allows any removeable drive to be powered down and removed without interrupting the system or remaining drives．

## Dataram Corporation

## －Wide Word 2000

Multiported Bus System • Captures high speed data at rates up to 200 Mbps ，features DRAM memory，and performs high speed transfers to multiple peripheral devices． $\mathbf{\$ 4 1 , 0 0 0 +}$
The Wide Word 2000 supports eight ports． It interfaces to data acquisition systems， host processors，array processors，graph－ ics systems，and high speed nonvolatile storage devices．

## FFT Systems，Lto．

－SW－6000
Computing Engine • Performs real－time or computationally intensive applications． －$\$ 20,000+$
Processing engine that features floating point arithmetic capabilities，low data transfer overhead，and is fully program－ mable in FORTRAN，Assembler and is equipped with a set of scientific subrou－ tines．

## －SWAP－SMS

Multiport Shared Memory • Provides a real transparent global memory between multiple computer systems．${ }^{\mathbf{\$ 1 5}} \mathbf{1 5 , 0 0 0 +}$
High speed memory that may be accessed in the same way as normal memory and thus provides interprocessor communica－ tion without normal transfer overheads．

## FPS Computing

## －P64／210

Parallel I／O•Controls，collects and processes data． $\mathbf{~} \mathbf{\$ 1 0 0 , 0 0 0 +}$
The P64／210 is designed to be used with FPS Computing＇s M64 Series to configure the M64 Series with computer resources， including multiple array processors and high speed analog－to－digital converters．

## GE Calma Company

－DIMEMSIOM／II
3－D Solid Modeling System • \＄27，000＋ The DIMENSION／III is a fully integrated system designed for use in CAD，engineer－ ing，and manufacturing in the mechanical and A－E－C industries．

## © Prism／DDM

3－D Solid Modeling System • $\$ 27,000_{+}$
Fully integrated system designed for use in CAD，engineering，and manufacturing in the mechanical and A－E－C industries．

## Gescan International， Inc．

－gescan
Text Retrieval－Searches and retrieves text without indexing，translating，abstracting，or file inversion．
GESCAN systems provide full－text search without the use of an index．A hardware accelerator is utilized to eliminate index－ ing overhead and reduce CPU loads．

## KineticSystems Corporation

－ 2160
Data Acquisition \＆Control • This CAMAC Serial Highway module is designed for high speed applications transmitting large blocks or time－critical data within the UNIBUS architecture．• $\$ 8,000_{+}$
The 2160 features high speed，multisite control，monitoring，and data acquisition．

## ． 2165

Data Acquisition \＆Control • This CAMAC
Serial Highway module provides high speed， multisite control，monitoring，and data acquisition within UNIBUS and BIbus architectures．•\＄15，250
The 2165 interfaces to the VAX BIbus， mounts within the logic cage，and operates with 8000 －serial VAX－class computers， under the VMS operating system．This system（1）supports up to 62 remote CAMAC crate housings at serial rates to 5 Mbps and（2）allows multiple Dataway operations within one Serial Highway message with a maximum sequential data transfer rate of $<1.7 \mathrm{Mbps}$ ．

## ■ $\mathbf{6 0 0 0}$ Series

Data Acquisition \＆Control • This series of
CAMAC digital output modules provide control of a number of output points within the UNIBUS architecture．• $\$ 2,000$
The 3000 Series is also available with options including transistors，triacs，relay contacts，and isolation．

## － 3100 Series

Data Acquisition \＆Control－This series of CAMAC analog output modules provides one or more precision voltage and current loop outputs for analog control and monitoring within UNIBUS and Blbus architectures．－ \＄2，000
The 3100 Series includes modules with a
variety of $\mathrm{D} / \mathrm{A}$ converters， $4-20 \mathrm{~mA}$ output drivers，and power supply controllers．

## $\square 3300$ Series

Data Acquisition \＆Control • This series of
CAMAC output controllers interface to external devices and systems with efficient two－way communication within UNIBUS and Blbus architectures．•\＄2，000
The 3300 Series includes communication interfaces，dual pulse generators，stepping motor controllers，IEEE－488 interfaces，and digital／synchro converters．

## 3400 Series

Data Acquisition \＆Control－This series of CAMAC digital input modules monitors status input points within UNIBUS and Blbus architectures．• \＄1，000＋
The 3400 Series includes options such as AC or DC voltages，optical isolation，change－ of－state detection，strobed input，pulse outputs，manual input gates，or discrete input．

## － 1500 Series

Data Acquisition \＆Control－This series of CAMAC analog input modules monitors analog parameters with UNIBUS and Blbus archtectures．－$\$ 4,000+$
The 3500 Series includes multiplexers， signal conditioners，and different types of single and multichannel A／D modules． Other features include scanning，autorang－ ing，solid－state and relay MUX，and RTD and isolated inputs．

## 3600 Series

Data Acquisition \＆Control－This series of CAMAC countered provides timing or pulse trains for controlling or sequencing processes within UNIBUS and BIbus architectures．－ $\$ 1,200+$
The 3600 Series is available with low or high levels，variable rates，cyclic opera－ tion，and interrupt modes．This series is also able to preset count and to directly measure frequency．

## ． 3700 Series

Data Acquisition \＆Control－This series of CAMAC process interfaces is used for general and specific process control applications within UNIBUS and BIbus architectures．－ \＄1，025＋
The 3700 Series controls feedback loop measurement，watchdog timing，power monitoring，and machine tool diagnostics． Additional features include isolated and opto－isolated digital input，sampling，to－ talizing，interrupts and alarming．

## 国 4000 Series

Data Acquisition \＆Control－This series of CAMAC waveform digitizers provides high speed sampling，precise digitizing，and dynamic accuracy within UNIBUS and Blbus architectures．－\＄1，120＋
The 4000 Series ranges from a self－con－ tained two－channel transient recorder with on－board memory，to a 32 －or 64 －channel recording data logger set．The series fea－ tures 12 －bit resolution，simultaneous sampling，a sample rate to 250 kilo－samples per second，and an expandable number of input channels．

## －Tachion－I

Data Acquisition \＆Control • Designed specifically for large transient recording applications that need immediate access to high－speed real－time data．－$\$ 300,000+$
Uses Parallel Transfer Disk（PTD）tech－ nology and includes up to eight CAMAC crates that are interfaced to a high－speed
differential bus providing a direct path from the CAMAC dataway to the PTD controller．

## Laserdata，Inc．

图 LaserView Hostlink
Document Imaging System • A PC－based document image management system running under DECnet and VAX／VMS．• \＄89，900＋
Modular，open architecture that converts large volumes of paper documents into electronic images which are then stored on optical disks and recalled using standard database methods．

## Logicraft，Inc．

## n 386WARE PLUS

MS－DOS Application Server－DOS server workstation capable of running MS－DOS software on eight VTxxx terminals．• \＄15，995 The 386WARE is an 80386 DOS server workstation that includes MS－DOS 3.2 software，Logicraft utilities，IBM PC emulation，graphics drivers that enable VT terminals to run static PC graphics， and the IBM PC driver which gives the PCs access to 386WARE without reassigning the function keys，keycaps，and templates．

386WARE
MS－DOS Application Server • DOS Server workstation capable of running MS－DOS software on up to four VTxxx terminals．＊ \＄9，995
The 386WARE is an 80386 server worksta－ tion that includes MS－DOS 3.2 software， Logicraft utilities，IBM PC emulation， graphics drivers that enable VT terminals to run static PC graphics，and the IBM PC driver which gives the PCs access to 386WARE without reassigning the func－ tion keys，keycaps，and templates．

## ．HCP－11

MS－DOS Application Server • Allows any DEC terminal to run MS－DOS software．• \＄1，895
The HCP－11（Cardware）includes the VT240 driver to support static PC graph－ ics，an IBM PC driver which gives IBM PCs access to Cardware without reassigning function keys，keycaps，and templates．The cost for three users is $\$ 2,995$ ．

## LXE

国 210
RF Base Station－Wireless data collection
network that consists of terminals that communicate with a host database by radio frequency．
Combines a Computer Interface Unit（CIU） and a Radio Frequency Unit（RFU）into one unit for single RF channel communica－ tion with PDP－11，MicroVAX，and VAX tion with PDP－11，MicroVAX，and VAX
host CPUs．Supports up to 64 terminals．

## 突 220

RF Base Station－Wireless data collection network that consists of terminals that communicate with a host database by radio frequency．
Two units consisting of a CIU which is hard－wired to the host and an RFU which may be located thousands of feet away． Supports up to 64 terminals．

## － 280

RF Base Station－Wireless data collection network that consists of terminals that communicate with a host database by radio frequency．
Networking device that controls complex RF systems in large warehouses and multi－


network that consists of terminals that

[^1]
－

[^2]
 $+$


[^3] ．


$\qquad$



building facilities. May be simultaneously linked to multiple and different hosts. Supports up to 320 terminals.

## Microcom, Inc.

- HDMS

Network Management • Provides statistics, call-back security, modem control and diagnostics of multiple modems in a single chassis.
An Intelligent Network Controller (INC) option maintains traffic statistics and network management and control for up to 192 high-performance modems.

## Minolta Corporation

- MinCAR

Computer Assisted Retrieval • Allows data entry of documents into a computer for storage of these indices and the automatic retrieval of the microfilmed documents utilizing any of the plain paper reader-printers available from Minolta. - \$5,000+
The MinCAR was designed for the $11 / 730$, 750 , 780, and 8600 CPUs. It incorporates Minolta reader-printers and the Micro Auto 16 planetary recorder with special MinCAR software.

## Oasys

## - AP/10 VAX

Attached Processor • Offloads VAX and runs all OASYS development tools. • \$7,000+ The AP/10 is a UNIBUS compatible attached processor designed for VMS, Ultrix and 4.2 UNIX machines. It features resident compilers and offloads the CPU from intensive jobs such as CAE, "nroff" and "troff" simulations.


- BUS-2000/XMT

Fiberoptic Bus Extender • Transmits high speed data and performs interrupt I/0 which integrates with DMA DEC operation systems. It extends graphic controllers up to 2 Km ( 6,600 feet). \$2,950
The Bus Extender is the latest in design technique to remote multiple interfaces such as: DR11-B, DR11-W, DRV11-B, DRV11-W by DEE VAX and PDP-11, families host computer DACU by IBM and 4100F3A/Q interface raster by Tektronix. Features include (1) the capability to extend graphics controllers up to 2.0 km ( 6,600 feet), (2) full programmed interrupt $1 / 0$ and DMA high speed communications, (3) interface support to DEC UNIBUS, Q -bus and IBM DACU, (4) plug compatibility with DEC DR11-B/W, DRV11-B/ W and Tektronix 4100F3A/Q, (5) synchronous data rates up to 500 K word/sec., (6) parallel-to-serial digital-optical conversion, (7) an executive RS232 port for remote system configuration and diagnostics, and (8) carrier stability that is immune to noise EMI/RFI, hum, light, sparks, and intrusion.

## - BUS-2000/RCV

Fiberoptic Bus Extender • Receives highspeed data up to 12.5 Mps for remoting graphics controllers and devices. - \$3,150
The Bus-2000 may be used in conjunction with OPTICOMM RGB-3000 series of fiberoptic RGB video high-resolution and data links. This flexible combination enables remoting multiple workstations up to $5.0 \mathrm{KM}(16,500$ feet). No softwarechanges are required

## - RGB-3000/XMT

Optical Fiber Link • Transmits ultra highresolution RGB ( $1280 \times 1024$ ) computer generated video signals and bidirectional data. - \$2,950
The RGB3000/XMT supports one remote RGB workstation or three monochrome video display terminals at distances up to 10,000 feet from the graphics controller. Also operates full duplex asynchronous data transmission mode with data rates up to 56 Kbps .

## 国 RGB-3000/RCV

Optical Fiber Link • Receives ultra highresolution RGB (1280x1024) computer generated video signals and bidirectiona data. •\$2,950
The RGB-3000/RCV fiber optic model receives computer generated video signals up to 100 MHz (RS170, RS170A, and RS343A). Units are equipped with AGC and DC base line restoration.

## Paracom, Inc.

## - BBK-DR11

Transputer • DR11 interface to transputer processing structure.
BBK-DR11 is a processor board with one T222 and a 4 Mbps transfer rate for bidirectional DR11W interface.

## - BBK-Q

Transputer • $\mathbf{Q}$-bus interface to transputer processing structure.
High speed bridge between $Q$-bus and external boards on systems featuring a DMA controler that interfaces to the Q -bus via four C 012 link adapter chips.

## Rugged Dieital Systems, Inc.

## - Ruggedized CPU

Ruggedized VAX 11/750, 780, 785, 8530 8550 , and VAXstation 2000 CPUs are available for use on all types of military platforms, including trucks, vans, surface ships, submarines, helicopters, and fixed wing aircraft.

## RWT Corporation

## . 6000

Factory Automation • Manages the flow of information to and from the factory floor. \$5,000+
Provides bidirectional management network between the host CPU and NC (numerical control) shop floor machines. Available with three operator consoles that upload, download or store NS programs.

## SCI Systems, Inc.

## - $\mathbf{0} 6000$

Data Acquisition \& Control • Allows downloadable control strategies from the master station or local units to execute commands based on information received from field devices, without input from the master station. $\mathbf{\$ 3 , 0 0 0 +}$

Features a dedicated processor and memory on each board that enables the unit to be used in standalone mode. Single and redundant PID controller modes are also available. Configured in modular design and low consumption allows battery backup of the entire unit and/or operation from solar arrays. Available board types include: a site controller, a combo module, a discrete input module, a discrete output module, an analog I/O module and a combo/ PID controller.

## - CDACS

Data Acquisition \& Control • As an intelligent Remote Terminal Unit (RTU), the CDACS is well suited for small $1 / 0$ counts. - $\$ 1,500+$
The base system features an 80 C 85 processor, two communication ports, and eight discrete inputs (DIs). Optional expansion capabilities include 40 additional DIs, 16 discrete outputs (DOs), 16 analog inputs (AIs), four analog outputs (AOs), and a communication controller for special protocols.

## - ELP

Data Acquisition \& Control • $\$ 3,500+$ The ELP features an 80 C 85 processor and a series of 5 "x7" input/output modules mounted in 11,15 , or 19 slot cages. I/O terminal strips, connected by ribbon cables, terminate customer installed wiring to instrumentation.

## - SC-176

Data Acquisition \& Control • Large, highperformance Remote Terminal Unit that performs high speed, repetitive flow calculations and closed control loop applications. • \$5,000+
Features an 8088 processor and consists of various modules assembled into 7 "x9" printed circuit cards. These modules are mounted in card cages, each housing up to 20 cards. Any I/O module may occupy any slot. Additional card cages are provided if necessary. Optional features include an 8087 coprocessor up to 1 MB of memory and a display/keyboard MMI.

## Sequola Systems, Inc. [ 1 200E

Fault-tolerant Multiprocessor • Used in on-line transaction processing (OLTP) applications. $\$ 300,000+$

## Sophia Systems

- SA 1000

Development \& Emulator • Provides system integration and debugging for software development.

## - SA 2000

Analyzer \& Emulator • Provides system analysis and in-circuit emulation for 8 -bit microprocessor development. - \$8,995

## - SA 700-M85

Development \& Emulator • Provides system integration and debugging for software development.
Ideal for troubleshooting complex systems and offers true standalone debugging. It is able to up/download files from the CPU, provides VT100 emulation with the standard CRT, is equipped with two $5.25^{\prime \prime}$ flexible disk drives as well as an ASCII keyboard. It was designed for the 11/750 and 780 CPUs.

## 图 SA 700-780

Development \& Emulator • Provides system integration and debugging for software development.

The SA 700-Z80 is ideal for troubleshooting complex systems and offers true standalone debugging. It is equipped with an $8^{\prime \prime}$ flexible disk drive as well as an ASCII keyboard.

- SA 710-M

Analyzer \& Emulator • Provides system analysis and in-curcuit emulation for 16-bit microprocessor development. • \$9,990 Ideal for troubleshooting complex systems and offers true standalone debugging. It is equipped with an $8^{\prime \prime}$ flexible disk drive as well as an ASCII keyboard. Also equipped with 256 KB of DRAM.

## System Dynamics Corporation

- Dynamic Mon-Fail System • Provides failure-free operation. - $\$ \mathbf{5 0 , 0 0 0 +}$
This model is a fault-tolerant computer system using multiple VAX processors and multiple databases.


## Systems Concepts, Inc.

- SA-11

Adaptor • Simulates an IBM selector or block multiplexer channeI, and adapts IBMcompatible peripheral control units to the UNIBUS architecture.
Features command chaining and data chaining facilities and is equipped with 128 Bytes of internal buffering to reduce data transfer overruns and UNIBUS priority contention.

## Telxon Corporation

- PTC-620

Portable Tele-Transaction - Collects data for inventory management. $\mathbf{\$ 8 0 0 +}$
Hand-held unit designed for simple applications requiring accurate, high speed wanding over long periods of time. Data is entered via a 35 -key alphanumeric keyboard, and the unit features a snap-on reversible scan head, and a built-in communication port.

## - PTC-701

Portable Tele-Transaction - Collects data for inventory management. - $\$ 1,600+$
Designed for sophisticated business and industrial applications including point-ofsale, retail price verification, inventory control, field service, and meter reading. Data is entered via a 45-key alphanumeric keyboard, pencil wand or laser scanner, and the unit features an internal modem and a built-in communication port.

## - PTC-750

Portable Tele-Transaction - Collects data for inventory management. •\$3,000+ Real-time, radio-linked ( 9600 bps ) computer used for data entry via a 50 -key keyboard, pencil wand or laser scanner. Application programs are stored within the EPROM capsules. Used to complement up to 30 PTC- 750 units, controlling communication and providing an interface to the host.

## Tebadata

- DBC/1012

Relational Database Mgmt - Fault tolerant system optimized for relational database management. Large scale parallel processing for commercial MIS market. - \$325,000+ Manages large relational databases from multiple, disparate mainframes, departmental systems and workstations. Permits "host" computers to share the same, single image of data concurrently.


- $\mathbf{v}$ v-Server

MS-dos Application Server - Allows VAXVMS users access to MS-DOS applications from VTxax terminals. $\$ 12,500+$
Virtual Microsytems' V-Server is a DECnetbased, MS-DOS application server for companies with VAX computers and workstations that gives users the ability to run standard PC applications directly from VT terminals or VAXstations. Each $\mathbf{V}$-Server system consists of up to eight independent, board-level V-Server client processors, an 80286 - or 80386 -based host processor, a DEPCA card, a serial communication port, a 1.2MB lloppy disk drive, a 12-siot PC/AT backplane, and an independent power supply. Each $v$-Server client processor, or cell, contains a 12 MHz Intel 80286 processor with " T " wail states and a minimum of 1 MB RAM, upgradeable to 2MB or 4MB. V-Servers may be configured in a PC/AT-style enclosure or a tower pedestal-style enclosure. Prices range from $\$ 12,500$ for a lour-user system
to $\$ 21,500$ for an eight-user sys-?
tem. - v-Server/Plus

MS-DOS Application Server • Allows VAXNMS users access to standard MSDOS applications including applications that require PC add-in cards from VTrox terminals. - $\$ 13,500+$
The V-Server/Plus is an enhanced version of the $V$-Server that enables VAXNMS users to run standard PC application programs such as Lotus 1-2-3, dBase, Wordstar, and hundreds of others, plus applications thatrequire PC/AT-compatible addin cards, such as facsimile, PC LANs, modems and CD-ROM. V-Server/Plus features an eight-slot proprietary backplane and may accommodate up to four PC add-in cards. Four, six, and seven user V-Server/Plus contigurations are available. A $V$-Server/Plus four user system with four add-in slots lists for $\$ 13,500$.

## Vykor Techmology, Inc.

- Imatemate

Image \& Data Comm System • Connects VAX \& MicroVAX systems over DECNET or TCP/P. The IMAGEmate is an $80386-25$ based system rated at 5.4 MIPS that allows each image stored to be indexed as a database field. Features compression or expansion for maximum efficiency, a video memory buffer, and an AUTOcad interface.

## - TECHmate

Image \& Data Comm System • Connects VAX \& MicroVAX systems over DECNET or TCP/P. The TECHmate is an $80386-25$ based system rated at 5.4 MIPS that integrates PC's and VAX systems. Features a built-in Ethernet card and allows a number of TECHmates to work in multivendor environments.

## KEEPUPINA CHANGING WORLD

Take advantage of the wealth of knowledge available from your Government. The U.S. Government Printing Office has just produced a new catalog. It tells about the most popular books sold by the Government - nearly 1,000 in all. Books on agriculture, business, children, diet, energy, health, history, space, and much, much more. For a free copy of this new catalog, write-

New Catalog
Post Office Box 37000 Washington, D.C. 20013

## PROCESSORS

ARRAY PROCESSORS


## DATABASE PROCESSORS



## DATABASE PROCESSORS



## IMAGE PROCESSORS

## IMAGE PROCESSORS



## Subscribe to <br> VAX Professional today!

VAX Professional is the only publication written just for VMS systems managers and programmers. It offers you techniques and ideas that help you better manage your VMS system and the people who use it. Every bimonthly issue has programming tips and methods for systems management written by VAX computing experts. It's a great teaching tool and a great problem-solving resource.

Subscribe today at this limited-time two-year offer and receive 12 issues full of valuable techniques and ideas that will help you get more from your VAX system and the people who operate it.


## VAX Professional Order Form

101 Witmer Road, Horsham, PA 19044

YES, send me a subscription to VAX Professional
$\square 12$ Issues $\$ 68$ (2 Years)
$\square 6$ Issues $\$ 36$ ( 1 Year)
$\square$ My check for $\$$ $\qquad$ is enclosed.
(Make checks payable to VAX Professional.)
$\square$ Bill Me $\square$ Bill My Company
$\square$ Charge to:
$\square$ VISA MasterCard $\square$ American Express

Account. \# $\qquad$ Expire. Date $\qquad$ 1

Signature $\qquad$ Date $\qquad$
Phone (

## Array Processors <br> Amalogic Corporation <br> －APAOO <br> \＄8，950＋ <br> －AP421 <br> $\$ 11,500+$ <br> The AP421 is a 24 －bit block floating－point array processor packaged in a $5.25^{\prime \prime}$ rugge－ dized rack mountable chassis．

## － 1 AP464

$\$ 11,500_{+}$
The AP464 is a 24－bit block floating－point array processor with 64 K words of half speed，dynamic RAM packaged in a $5.25^{\prime \prime}$ chassis．

## －AP471

## $\$ 8,950+$

The AP471 is a 24 －bit block floating－point array processor packaged in a DEC form factor card set．

## －AP474

\＄8，950＋
The AP474 is a 24－bit block floating－point array processor with 64 K words of half speed，dynamic RAM memory packaged as a DEC form factor card set．

## ．AP500

$\$ 25,000+$

## －AP501

$\$ 25,000+$
The AP501 is a 32 －bit full floating－point array processor suitable for intensive mathematical operations，packaged in a ruggedized $5.25^{\prime \prime}$ chassis．

## CSPI

## －Mer +000

\＄18，995
Through the use of a functionally parallel architecture，this array processor speeds up scalar and vector code and digital signal and image processing，and mathe－

## 鹵 Mini－MAP XI

## $\$ 30,000+$

The MiniMap is a 32 －bit array processor for high speed，floating－point computation It is used for signal processing and image processing applications on UNIBUS，Q－ bus，and BIbus to UNIBUS computer sys tems．

## FPS Computimg

## －FPS 5000

## $\$ 45,000+$

The FPS 5000 features performance ranges from eight－to－62Mflops with the addition of up to three computational processors Full software development tools，including a FORTRAN compiler，are available．

## －MP32

$\$ 57,000+$
The MP32 is equipped with up to four computational processors for offloading and performing computationally intense ap－ plications．Performance ranges from 18 － 72 Mflops and full software development tools，including a FORTRAN compiler，are available．

## Interstate Electronics Corporation

## －quew 12

## \＄125，600

Processor elements have simultaneous control，computation，and multidirectional communication capability．Processing ele－ ments are linked via asynchronous dual－ port memories which have built－in proces－ sor communication control flags．This elimi－ nates the need for switching networks．

## －qUEM 16

## \＄159，600

Processor elements have simultaneous control，computation，and multidirectional communication capability．Processing ele－ ments are linked via asynchronous dual－ port memories which have built－in proces－ sor communication control flags．This elimi－ nates the need for switching networks．

## © QUEM 4

$\$ 55,200$
Processor elements have simultaneous control，computation，and multidirectional communication capability．Processing ele－ ments are linked via asynchronous dual－ port memories which have built－in proces－ sor communication control flags．This elimi－ nates the need for switching networks．

## －QUEM 8

$\$ 90,600$
Processor elements have simultaneous control，computation，and multidirectional communication capability．Processing ele－ ments are linked via asynchronous dual－ port memories which have built－in proces－ sor communication control flags．This elimi－ nates the need for switching networks．

## Mercury Computer

## Systems

## －Mogazl

MegaZIP is a modular，parallel processing array processor system designed for com－ putationally intensive digital signal acqui－ sition．

## IP 3232

The ZIP 3232 array processor is used for signal processing，scientific processing，and simulation applications．

## Numerix Corporation

## －MmX

$\$ 56,000+$
The NMX－332 provides software compati－ bility with the NMX－432 and has a small footprint．

## － MIM $^{\text {M }}-432$

\＄82，000＋
The NMX－432 is a 32 －bit floating－point array processor with 20 Mbps DMA ports． It is supported with a FORTRAN optimiz－ ing compiler．

## mamx－464

$\$ 66,500+$
The NMX－464 processor combines dual speed with dual precision（32－or 64 －bit） and includes transparent software．It also features 256 K instructions of program memory．

## Sky Computers，Inc． <br> －SkyWarrior $0 / 20$ <br> $\mathbf{\$ 1 0 , 9 0 0}$ <br> Designed for MicroVAX II and 3500 and

3600 computers．Features a 32／64－bit float－ ing point processor， $16-64 \mathrm{~KB}$ cache mem－ ory，and a high level vector subroutine library．

## StaR Techulooils，Inc． <br> －ST－100

## $\$ 265,000+$

The ST－100 features the same capabilities as the VP Series；however，the ST－100 is able to serve up to seven VAX hosts．

## －VP Series

$\$ 85,000+$
A single card BIbus interface allows the VP Series to attach to VAX systems that have only one available slot．One array processor is able to serve up to three VAX hosts．

## Database Processors

## Accel Technologies，Inc．

## 圈DBA 1030

## $\$ 25,600$

The DBA 1030 requires a UNIBUS－Eth－ ernet board．

## －DBA 1050

$\$ 33,300$
The DBA 1050 requires a UNIBUS－Eth－ ernet board．

## 图 ESM 100－1

## \＄7，900

The ESM 100－1 is an optional feature for both the DBA 1030 and 1050 and it sup－ ports standard character，fixed，and float－ ing point data types．

## －ESM 100－2

## \＄3，500

The ESM 100－2 is an optional feature for the DBA 1050 and it supports standard character，fixed，and floating point data types．The ESM 100－1 is a prerequisite for this product．

## Computer Desian \＆ Applications，Imc．

－MSP－3000
5 MIPS • $\$ 19,900+$

## Share Base（Britton Lee）

－Server／300－25
10 MIPS • \＄25，000＋
国 Server／700－240
$\$ 130,000+$

## －Server／8000－350

10 MIPS • $\$ 265,000+$

## －Server／8000－450

8 MIPS • $\$ 370,000+$
Share Base SQL Database servers provide high－performance shared relational data－ bases for a wide variety of client systems for decision support and transaction proc－ essing applications．

## Teradata

## DBC／1012

Services multiple host mainframes，mini－ computers，workstations，and PCs simul－ taneously．Integrates an interface，access module，and communication processors．

## Image Processors

## Data Translation，Inc．

## － 072551

Color／Monochrome • 512x512 bpi • \＄2，995 Digitizes a video signal，stores an image in one of two on－board frame－store memories， and displays the image in RGB false color in real time．

## －DT2658

Color／Monochrome－ $512 \times 512$ bpi • $\$ 1,995$
High speed auxilliary frame processor used in conjunction with Data Translation＇s DT2651 frame grabber．

## Datacopy Corporation

困 GP11

## Monochrome • \＄3，995

## Datacube，Imc． <br> －avenanaras

## Monochrome－768x2048 bpi

The QVG／AFA－423 is a Q－bus based，four frame，high resolution device that features a hardware generated alpha－numeric over－ lay and a video buffer that is used to acquire，store，and display multiple im－ ages．

## Digital Instruments Corporation <br> microvax Imaging Imax

## 

IMAX．．．Add－in Image Display／Data Analy－ sis system for the MicroVAXII．Extremely powerfal interactive high level imaging， signal processing and data manipulation． In use by NASA，Naval Research Labs， astronomy and medical imaging labs worldwide．Outputs image data to RGB monitor（RS170－A format），publication quality plots and graphics data to VT se－ ries terminals，laser printers and plotters． PostSeript interface available．Hardware includes a quad size board that supports image overlays，multisplit－screen dis－ plays，contour plotting，cyclic animation， zoom，minification，scroll，pan，bit－plane partitioning，extensive $1 / 0$ lookup tables， multiuser／multiboard capability，and on－ board DMA．Supplied with FORTRAN and C callable drivers，diagnositcs and mouse support．Software includes interactive or compiled modes，extensive function II－ brary（FFT）with smooth，fit，regression， histogram equalization，etc．，mouse sup－ port，single statement image transforms， interface with FORTRAN ，C．，etc．，and journaling．Supports all data－types（byte， double－precision，etc．）organized as sca－ lars，vectors，matrices or arrays．The IMAX package includes Interactive Data Language（IDL）license and QD512 $512 \times 512 \times 8$ resolution RGB interface card， cables，complete documentation， 24 －hour warranty hardware replacement and ． telephone software support

DeRex, lic.

- Champion II
$400 \times 400 \mathrm{bpi}$ - $\$ 5,595$
Emulates the LN03 and the LNO3+ and supports DeRex's S3000 II and S4500 II ion deposition printers.


## Gould, Inc.

- ${ }^{-1}$ FD5000

Color • $512 \times 512$ bpi - $\$ 10,500+$

## - IP8400

Color • $512 \times 512$ bpi • $\$ 35,000+$
Also available with a resolution of $1024 \times 1024$.

## - IP8500

Color • $512 \times 512$ bpi • $\$ 40,000+$
Also available with a resolution of 1024×1024.

## - IP9000

Color - 1280x1024 bpi

## International Imagimg Systems

## . 12 s

The 12S allows optimization of data transfer rates between the image processors
and DEC host computers. Allows multiple IVAS display processors to be connected on a single interface, thereby using the ful bandwidth of the BIbus.

## - 75

Color • $\mathbf{5 1 2 \times 5 1 2}$ bpi • $\$ 25,000+$

## Matrox Electronic Systems

## - 0G-1280A

Color - 1280x1024 bpi
The QG-1280A features an on-board command set that provides a simple interface to any $Q$-bus graphics application and offloads the host processor. Supports GKS and GIN devices and features built-in VT100 terminal emulation.

## ■ QG-640

Color - $640 \times 640$ bpi
The QG-640 features an on-board command set that provides a simple interface to any Q-bus graphics application and offloads the host processor. Supports GKS and GIN devices and features built-in VT100 terminal emulation.

## Perceptics Corporation

## - 9200

## Color - 4096x4096 bpi

The 9200 features real-time pixel and fast frequency domain processing and an embedded 68010 microprocessor with Resident Image Processing Software (RIPS) in PROM.

## Peritek Corporation <br> \section*{- VCK-Q/N}

Color - 1024x1024 bpi • \$4,485
Single board graphics microcomputer includes 68010, optional FPU, SCSI, dual serial I/O, 2MB display memory and alpha/graphics overlays. UNIBUS or Q-bus versions available. IDL, X , and Vista software are available.

## - VCL-Q

Color - 1280x1024 bpi
Single board graphics microcomputer includes 68030, optional FPU, SCSI, quad serial I/O, 4MB display memory, graphics overlay, and hardware cursor. IDL, X, and Vista software available.

Recognition Concepts, Inc.

- Trapix PLUS

Color/Monochrome • 1024×1024 bpi •
$\$ 30,000+$
This high speed, real-time digital image processor acquires and processes images at 50 MHz and 100 MHz , respectively in real-time. Random access memory is expandable to 256 MB .

## Universal Computing - UC3000

Color - 1024×1024 bpi • \$10,000
The UC3000 features 30 Mbps image memory access that is tightly coupled to a 40 Mflop array processor. Also features dual 1 Kx 1 Kx 8 bit memory and provides an order of magnitude speed increse for VAX GPX systems.

## Vicom Systems, Inc.

- Digital Processor

Color • 1024x1024 bpi - $\mathbf{\$ 3 0 , 0 0 0 + ~}$

# Why this publication and more than 1,300 others let us go over their books 

## once a year.

## DATA COMMUNICATIONS

## COMMUNICATION CONTROLLERS



## COMMUNICATION PROCESSORS



## COMMUNICATION PROCESSORS



## COMMUNICATION PROTOCOL INTERFACES

| $\begin{aligned} & \text { むు } \\ & \text { ®0 } \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Interlan Inc. 508 263-9929 |  |  |  |  |  |  |  |  |  |  |
| NP629 |  |  |  |  |  |  |  |  |  | \$3,995 |
| Local Data 213 320-7126 |  |  |  |  |  |  |  |  |  |  |
| DataLynx/3174 | 4 |  |  |  |  |  | Y | RS232/422/N. 24 |  | \$3,000 |
| DataLynx/3174 | 8 |  |  |  |  |  | $Y$ | RS232/422N. 24 |  | \$4,000 |
| DataLynx/3174 | 12 |  |  |  |  |  | $Y$ | RS232/422/N. 24 |  | \$5,000 |
| DataLynx/3174 | 16 |  |  |  |  |  | $Y$ | RS232/422N. 24 |  | \$6,000 |
| DataLynx/3174 | 24 |  |  |  |  |  | $Y$ | RS232/422/V. 24 |  | \$8,000 |
| DataLynx/3174 | 32 |  |  |  |  |  | $Y$ | RS232/422N. 24 |  | \$10,000 |
| Method Systems, Inc. 800 533-6116 |  |  |  |  |  |  |  |  |  |  |
| PCT-100 | 2 |  |  | 19.2K | 19.2K |  |  | RS232 | 1 yr | \$495 |
| Micom Communications Corporation 805 583-8600 |  |  |  |  |  |  |  |  |  |  |
| MB3-SPC | 4-16 | Y |  | 19.2K | 19.2K |  | Y | RS232 | 3 yrs | \$2,885+ |
| Purvis Systems, Inc. 401 849-4750 |  |  |  |  |  |  |  |  |  |  |
| 0-bus/NTDS |  |  | Q-bus |  |  |  |  |  | 90 d | \$3,400 |
| UNIBUS/NTDS |  |  | UNIBUS |  |  |  |  |  | 90 d | \$5,400 |
| Racal-Milgo 800 327-4440 |  |  |  |  |  |  |  |  |  |  |
| TCI 551VCC/U | 1 |  |  | 1.544M |  |  |  | V.35/RS422 | 1 yr | \$8,890 |
| Simpact Associates, Inc. 619 565-1865 |  |  |  |  |  |  |  |  |  |  |
| CPI 10000/BSC 2780/3780 | 8 | $Y$ | UNIBUS | 56K | 9.6K | VMS/UL/RSX | Y | EIA232/449/N. 35 | 1 yr | 11,000+ |
| CPI 10010/BSC 2780/3780 | 4 | $Y$ | Q-bus | 56K | 9.6K | VMS/UL/MRSX | $Y$ | EIA232/449/N. 35 | 1 yr | \$7,000+ |
| CPI 10020/BSC 2780/3780 | 4 | $Y$ | Blbus | 56K | 19.2K | VMS/ULTRIX | $Y$ | EIA232/449/V. 28 | 1 yr | \$13,500 |
| CPI 10030/BSC 2780/3780 | 4 | $Y$ | Q-bus | 56K | 9.6K | VMS/UL/MRSX | $Y$ | EIA232/449/N. 35 | 1 rr | \$7,000+ |
| CPI 10100/BSC 3270 | 8 | $Y$ | UNIBUS | 56K | 9.6K | VMS/UL/RSX | $Y$ | EIA232/449/N. 35 | 1 yr | \$9,000 |
| CPI 10110/BSC 3270 | 4 | $Y$ | Q-bus | 56K | 19.2K | VMS/UL/MRSX | Y | EIA232/449/N. 35 | 1 yr | \$5,600+ |
| CPI 10120/BSC 3270 | 4 | Y | Blbus | 56K | 19.2K | VMS/ULTRIX | Y | EIA232/449/N. 28 | 1 yr | \$11,000 |

## COMMUNICATION PROTOCOL INTERFACES



## COMMUNICATION PROTOCOL INTERFACES

| $\begin{aligned} & \text { In } \\ & \text { D } \end{aligned}$ |  |  |  |  |  |  |  |  |  | むた |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Simpact Associates，Inc．619 565－1865（continued）。 |  |  |  |  |  |  |  |  |  |  |
| CPI 9030／DDN | 4 | Y | a－bus | 307K | 19．2K | VMS／ULTRIX | Y | EIA232／449／V． 35 | 9 m | \＄12，400＋ |
| Software Results Corporation 614 785－0282 |  |  |  |  |  |  |  |  |  |  |
| COMBOARD－HASP－1231 | 1 | Y | UNIBUS | 56K |  | VMS／UNIX | $Y$ | RS232N． 24 N． 28 | 120 d | \＄12，500＋ |
| COMBOARD－HASP－1232 | 1 | $Y$ | Q－bus | 56K |  | vms／UNIX | Y | RS232N． 24 N .28 | 120 d | \＄24，500 |
| COMBOARD－HASP－1252 | 1 | $Y$ | Q－bus | 56K | N／A | VMS／UNIX | $Y$ | RS232N． $24 / \mathrm{N} .28$ | 120 d | \＄8，700＋ |
| COMBOARD－HASP－431 | 1 | $Y$ | UNIBUS | 4800 |  | VMS／UNIX | $Y$ | RS232N． 24 N． 28 | 120 d | \＄6，500＋ |
| COMBOARD－HASP－432 | 1 | Y | Q－bus | 4800 |  | VMS／UNIX | $Y$ | RS232／V．24／V． 28 | 120 d | \＄6，500＋ |
| COMBOARD－HASP－452 | 1 | $Y$ | Q－bus | 4800 | N／A | VMS／UNIX | $Y$ | RS232N． $24 / \mathrm{N} .28$ | 120 d | \＄3，500＋ |
| COMBOARD－HASP－631 | 1 | Y | UNIBUS | 9600 |  | VMS／UNIX | Y | RS232N． $24 / \mathrm{N} .28$ | 120 d | \＄9，200＋ |
| COMBOARD－HASP－632 | 1 | Y | Q－bus | 9600 |  | vms／unix | Y | RS232N． $24 / \mathrm{N} .28$ | 120 d | \＄9，900＋ |
| COMBOARD－HASP－652 | 1 | $Y$ | Q－bus | 4800 | N／A | VMS／UNIX | Y | RS232N． $24 / \mathrm{N} .28$ | 120 d | \＄5，900＋ |
| COMBOARD－HASP－731 | 1 | $Y$ | UNIBUS | 19．2K |  | Vms／UNIX | Y | RS232N． 24 N． 28 | 120 d | \＄11，300＋ |
| COMBOARD－HASP－732 | 1 | $Y$ | Q－bus | 19．2K |  | VMS／UNIX | $Y$ | RS232N． $24 / \mathrm{N} .28$ | 120 d | \＄10，900＋ |
| COMBOARD－HASP－752 | 1 | $Y$ | Q－bus | 19．2K | N／A | VMS／UNIX | Y | RS232N． $24 / \mathrm{N} .28$ | 120 d | \＄7，700＋ |
| COMBOARD－SNA－1252 | 1 | $Y$ | Q－bus | 56K | N／A | VMS／UNIX | $Y$ | RS232N． $24 / \mathrm{N} .28$ | 120 d | \＄10，900＋ |
| COMBOARD－SNA－452 | 1 | Y | Q－bus | 4800 | N／A | VMS／UNIX | $Y$ | RS232N． $24 / \mathrm{N} .28$ | 120 d | \＄3，500＋ |
| COMBOARD－SNA－652 | 1 | Y | Q－bus | 9600 | N／A | VMS／UNIX | $Y$ | RS232N． $24 / \mathrm{N} .28$ | 120 d | \＄6，100＋ |
| COMBDARD－SNA－752 | 1 | Y | Q－bus | 19．2K | N／A | VMS／UNIX | $Y$ | RS232N． $24 / \mathrm{N} .28$ | 120 d | \＄9，900＋ |
| COMBOARD／3780－1231 | 1 | $Y$ | UNIBUS | 56K |  | VMS | $Y$ | RS232N．24／N． 28 | 120 d | \＄11，300＋ |
| COMBOARD／3780－431 | 1 | $Y$ | UNIBUS | 4800 |  | VMS | Y | RS232N． $24 / \mathrm{N} .28$ | 120 d | \＄6，500＋ |
| COMBOARD／3780－631 | 1 | $Y$ | UNIBUS | 9600 |  | VMS | $Y$ | RS232N． $24 / \mathrm{N} .28$ | 120 d | \＄8，400＋ |
| COMBOARD／3780－731 | 1 | Y | UNIBUS | 19．2K |  | VMS | $Y$ | RS232N． $24 / \mathrm{N} .28$ | 120 d | \＄10，100＋ |

## COMMUNICATION SERVERS

| む్ర |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3Com Corporation 408 562－6400 |  |  |  |  |  |  |  |  |  |  |  |  |
| CS／200 | 10 | A／S | 38．4K | Y |  | 10M | E | S | 802.3 | 512K |  |  |
| CS／210 | 10 | A／S | 38．4K | $Y$ |  | 10M | E | S | 802.3 | 512K |  |  |
| GS／3 | 8 | Sync | 64K | $Y$ |  |  | E | S | 802.3 |  |  |  |
| GS／300 | 4 |  | 19．2K | $Y$ |  |  | E | S | 802.3 |  |  |  |
| IVECS | 8 |  |  | $Y$ |  |  | E | R | 802.3 | 1M | 6 m | \＄5，900 |
| NCS／AT |  |  |  | $Y$ |  |  | E | S | 802.3 |  |  |  |
| Able Computer 714 553－1188 |  |  |  |  |  |  |  |  |  |  |  |  |
| LC3600 | 3600 | Async | 1M | Y | Y |  |  | R | HDLC |  | 1 yr | \＄10，200 |
| DILOG 714 937－5700 |  |  |  |  |  |  |  |  |  |  |  |  |
| C02010 | 128 | Async | 9600 | Y |  | 1．544M | E | R | T－1 |  | 1 yr | \＄3，900 |
| Xyplex，Inc． 508 264－9900 |  |  |  |  |  |  |  |  |  |  |  |  |
| MX－MAX4500－E／y | 5 |  | 1．544M | $Y$ | ＊ | 10M | E | R／S | 802.3 |  | 3 yrs | \＄3，995 |
| MX－MAX4500－T | 5 |  | 1．544M | $Y$ | ＊ | 10M | T | R／S | 802.3 |  | 3 yrs | \＄3，995 |
| MX－MAX5000－E | 16 |  | 1.544 M | $Y$ | ＊ | 10M | E | R／S | 802.3 |  | 3 yrs | \＄9，995 |
| MX－MAX5000－T | 16 |  | 1．544M | $Y$ | ＊ | 10M | T | R／S | 802.3 |  | 3 yrs | \＄9，995 |



## MODEMS

| $$ |  |  |  |  |  |  |  |  |  |  | む |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Canoga-Perkins 818 718-6300 (continued) |  |  |  |  |  |  |  |  |  |  |  |
| 2280 | 12.6M |  | Fiber Optic |  |  |  | A/S | R/S |  | 1 yr | \$895 |
| 2290 | 12.6 M |  | Fiber Optic |  |  |  | A/S | R/S |  | 1 yr | \$1,095 |
| Case/Datatel 800 424-4451 |  |  |  |  |  |  |  |  |  |  |  |
| DCP3000 | 64K | . 25 | Ltd Dist |  |  |  | Async | S | 43401 |  |  |
| DCP3020 | 64K | . 25 | Ltd Dist |  |  |  | Async | S | 43401 |  |  |
| DCP3050 | 19.2K | 1 | Ltd Dist |  |  |  | A/S | S | 43401 |  |  |
| DCP3055 | 19.2K | 1 | Ltd Dist |  |  |  | A/S | S | 43401 |  |  |
| DCP3057 | 64K | . 25 | Ltd Dist |  |  |  | A/S | S | 43401 |  |  |
| DCP3080 | 56K | 2 | Ltd Dist |  |  |  | Sync | S |  |  |  |
| DCP3083 | 56K | 2 | Ltd Dist |  |  |  | Sync | S |  |  |  |
| DCP3100 | 64K | . 25 | Ltd Dist |  |  |  | Async | R | 43401 |  |  |
| DCP3120 | 64K | . 25 | Ltd Dist |  |  |  | Async | R | 43401 |  |  |
| DCP3150 | 19.2K | 1 | Ltd Dist |  |  |  | A/S | R | 43401 |  |  |
| DCP3155 | 19.2K | 1 | Ltd Dist |  |  |  | Async | R | 43401 |  |  |
| DCP3157 | 64K | . 25 | Ltd Dist |  |  |  | A/S | R | 43401 |  |  |
| DCP3180 | 56K | 2 | Ltd Dist |  |  |  | Sync | R |  |  |  |
| DCP3183 | 56K | 2 | Ltd Dist |  |  |  | Sync | R |  |  |  |
| Cermetek Microelectronics 800 862-6271 |  |  |  |  |  |  |  |  |  |  |  |
| 1200 | 1200 |  |  | Y |  | FDX | A/S |  |  |  | \$395 |
| 1200 Security | 1200 |  |  |  |  |  | A/S |  |  |  | \$595 |
| 1200V | 1200 |  |  | Y |  |  | Async |  |  |  | \$595 |
| 2400R | 2400 |  |  | Y |  |  | A/S |  |  |  | \$645 |
| 9600 | 4800 |  |  |  |  | FDX |  |  |  |  | \$2,999 |
| 9600E | 4800 |  |  |  |  | FDX |  |  |  |  | \$3,399 |
| Codex Corporation 617 364-2000 |  |  |  |  |  |  |  |  |  |  |  |
| 2111 LDSU | 19.2K | 23 | Ltd Dist |  |  | FDX/HDX | Async | R/S |  | 1 yr | \$335 |
| 2121 LDSU | 19.2K | 26 | Ltd Dist |  |  | FDX/HDX | A*/S | R/S |  | 1 yr | \$775 |
| 2121C LDSU | 19.2K | 26 | Ltd Dist |  |  | FDX/HDX | A/S | R |  |  | \$680 |
| 2122 LDSU | 64K | 7.5 | Ltd Dist |  |  | FDX/HDX | Sync | R/S |  | 1 yr | \$875 |
| 2123 LDSU | 19.2K | 23 | Ltd Dist |  |  | FDX/HDX | A*/S | R/S |  | 1 yr | \$1,250 |
| 2205 | 4800 |  | Voice Band |  |  | FDX/HDX | Sync | S | 208A/B | 1 yr | \$1,295 |
| 2206 | 9600 |  | Voice Band |  |  | FDX/HDX | Sync | S | 208A/B | 1 yr | \$1,995 |
| 2219 | 1200 |  | Voice Band |  |  | FDX/HDX | Async | R/S | 202S/T | 1 yr | \$475 |
| 2234 | 2400 |  | Voice Band | Y |  | FDX | A/S | S | 103/212 | 1 yr | \$495 |
| 2239 | 2400 |  | Voice Band | $Y$ |  | FDX | A/S | R | 212/103 | 1 yr | \$895 |
| 2260 | 9600 |  |  | $Y$ |  | FDX | A/S | S | v. 32 |  | \$1,995 |
| 2260 | 9600 |  |  | $Y$ |  | FDX | A/S | R |  |  | \$2,545 |
| 2264 | 9600 |  | Voice Band | Y |  | FDX | A/S | R/S | 212A | 1 yr | \$1,695 |
| 2320 | 4800 |  | Voice Band |  |  | FDX/HDX | A/S | R/S |  | 1 yr | \$1,425 |
| 2340 | 9600 |  | Voice Band |  |  | FDX/HDX | A/S | R/S |  | 1 yr | \$1,650 |
| 2362 | 14.4K |  |  |  |  | FDX | A/S | R/S | V.24/V. 28 | 1yr | \$3,195 |
| 2680 | 19.2K |  | Voice Band |  |  | FDX/HDX | Sync | S | V.24/N. 28 | 1 yr | \$6,650+ |
| Computer Products, Inc. 305 974-5500 |  |  |  |  |  |  |  |  |  |  |  |
| GT303 | 2400 |  |  | Y | N |  | Async | R | 103/212A | 1 yr | \$990 |
| Computrol 203 431-2000 |  |  |  |  |  |  |  |  |  |  |  |
| M-1 |  |  |  |  |  |  |  |  |  |  | \$165 |
| M-10 |  |  | Fiber Optic |  |  |  |  |  |  |  | \$2,500 |

MODEMS

| むo |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Comspec, Inc. 713 461-4487 |  |  |  |  |  |  |  |  |  |  |  |
| 9600C | 9600 |  | Voice Band |  |  | FDX/HDX | Sync |  |  |  | \$3,495 |
| CTS Corporation 800 328-6104 |  |  |  |  |  |  |  |  |  |  |  |
| 14.4MX | 14.4K | N/A | Voice Band | N | N/A | FDX/HDX | Sync | S |  | 1 yr | \$4,695 |
| 212AHC | 1200 | N/A | Voice Band | $Y$ | Y | FDX | Async | S | 212A | 2 yrs | \$295 |
| 2424AD | 2400 | N/A | Voice Band | $Y$ | $Y$ | FDX | A/S | S | 212A | 2 yrs | \$395 |
| 2424ADH Plus | 2400 | N/A | Voice Band | $Y$ | $Y$ | FDX | A/S | S | 212A | 2 yrs | \$395 |
| 2424AMH Plus | 2400 | N/A | Voice Band | $Y$ | Y | FDX | A/S | S | 212A | 2 yrs | \$495 |
| 2424RMH | 2400 |  | Voice Band | $Y$ | $N$ | FDX | A/S | R | 212A | 2 yrs | \$395 |
| 2424RMM | 2400 |  | Voice Band | $Y$ | N | FDX | A/S | R | 212A | 2 yrs | \$495 |
| 4827 | 4800 | N/A | Voice Band | $N$ | N/A | FDX/HDX | Sync | S | V. 27 | 1 yr | \$1,195 |
| 9629FP | 9600 | N/A | Voice Band | N | $N$ | FDX/HDX | Sync | S | V. 29 | 1 yr | \$1,995 |
| CXR Telcom Corporation 408 435-8520 |  |  |  |  |  |  |  |  |  |  |  |
| 1212-AD3H | 1200 | Unitd | Voice Band | Y | Y | FDX | A/S | R/S | 103/212A | 1 yr | \$495 |
| 1212-STH | 1200 | Unitd | Voice Band | Y |  | FDX | A/S | S | 103/212A | 1 yr | \$295 |
| 1241-124 | 1200 | Unltd | Voice Band |  |  | FDX | A/S | R/S | 212/103 | 1 yr | \$995 |
| 1241-234 | 1200 | Unitd | Voice Band |  |  | FDX | A/S | R/S |  | 1 yr | \$995 |
| 1243-223 | 1200 | Unlitd | Voice Band |  |  | FDX | A/S | R/S | 212/103 | 1 yr | \$995 |
| 1441-1 | 14.4K | Unitd | Voice Band |  | $Y$ | FDX | Sync | R/S |  | 1 yr | \$2,045 |
| 1441-1D | 14.4K | Unitd | Voice Band | Y | $Y$ | FDX | Sync | R/S |  | 1 yr | \$2,345 |
| 1911-L2 | 19.2K | Unitd | Voice Band |  |  | FDX | Sync | R/S |  | 1 yr | \$5,470 |
| 1911-L2T | 19.2K | Unild | Voice Band | Y |  | FDX | Sync | R/S |  | 1 yr | \$5,795 |
| 2412-AD3H | 2400 | Unlid | Voice Band | $Y$ |  | FDX/HDX | A/S | R/S | 212A/103 | 1 yr | \$695 |
| 2412-STH | 2400 | Unitd | Voice Band | $Y$ | $Y$ | FDX | A/S | S | 212/103 | 1 yr | \$495 |
| 2441-1 | 2400 | Unitd | Voice Band | $Y$ | Y | FDX | A/S | R/S | 212/103 | 1 yr | \$695 |
| 2441-2 | 2400 | Unitd | Voice Band | Y | N | FDX | A/S | R/S | 212/103 | 1 yr | \$495 |
| 2441-3 | 2400 | Unitd | Voice Band | $N$ | $N$ | FDX | A/S | R/S | 212/103 | 1 yr | \$495 |
| 9641-1 | 9600 | Unitd | Voice Band |  |  | FDX | A/S | R/S |  | 1 yr | \$1,295 |
| 9641-1D | 9600 | Unitd | Voice Band | Y |  | FDX | A/S | R/S |  | 1 yr | \$1,595 |
| 9641-1F | 9600 | Unltd | Voice Band |  |  | FDX | A/S | R/S |  | 1 yr | \$1,595 |
| 9641-1FD | 9600 | Unitd | Voice Band | Y |  | FDX | A/S | R/S |  | 1 yr | \$1,895 |
| 9651-1 | 9600 | Unitd | Voice Band | $Y$ |  | FDX | Sync | R/S |  | 1 yr | \$1,545 |
| 9651-2 | 9600 | Unitd | Voice Band | $Y$ |  | FDX | A/S | R/S |  | 1 yr | \$1,395 |
| Datacom Technologies, Inc. 206 355-0590 |  |  |  |  |  |  |  |  |  |  |  |
| 192 | 19.2K |  |  |  |  | FDX/HDX | A/S | S |  | 1 yr | \$259 |
| 193 | 19.2K |  |  |  |  | FDX/HDX | A/S | R |  | 1 yr | \$239 |
| 300 | 19.2K | 10 | Short Haul |  |  |  | Async | R/S |  | 1 yr | \$139 |
| 400 | 19.2K | 10 | Short Haul |  |  |  | Sync | R/S |  | 1 yr | \$159 |
| DCB, Inc. 800 637-1127 |  |  |  |  |  |  |  |  |  |  |  |
| PL 14.4 | 14.4K | N/A | Voice Band | N/A | N/A | FDX | Sync | S |  | 1 yr | \$1,800 |
| PL 14.4 Plus | 14.4K | N/A | Voice Band | N/A | N/A | FDX | Sync | S |  | 1 yr | \$2,300 |
| PL 19.2 | 19.2K | N/A | Voice Band | N/A | N/A | FDX | Sync | S |  | 1 yr | \$4,400 |
| PL 19.2 Plus | 19.2K | N/A | Voice Band | N/A | N/A | FDX | Sync | S | V. 29 | 1 yr | \$4,900 |
| PL 4.8 | 4800 | N/A | Voice Band | N/A | N/A | FDX | Sync | S | V. 27 | 1 yr | \$1,100 |
| PL 4.8 Plus | 4800 | N/A | Voice Band | N/A | N/A | FDX | Sync | S | V. 27 | 1 yr | \$1,600 |
| PL 9.6 | 9600 | N/A | Voice Band | N/A | N/A | FDX | Sync | S | V. 29 | 1 yr | \$1,400 |
| PL 9.6 Plus | 9600 | N/A | Voice Band | N/A | N/A | FDX | Sync | S | V. 29 | 1 yr | \$1,900 |
| PL 9.6FP | 9600 | N/A | Voice Band | N/A | N/A | FDX | Sync | S |  | 1 yr | \$2,000 |
| PL 9.6FP Plus | 9600 | N/A | Voice Band | N/A | N/A | FDX | Sync | S |  | 1 yr | \$2,500 |

## MODEMS

| $$ |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Digital Communications Association 404 442-4000 |  |  |  |  |  |  |  |  |  |  |  |
| 910 | 2400 |  | Voice Band |  |  | FDX/HDX | Sync |  |  |  | \$895 |
| 911 | 2400 |  | Voice Band |  |  | FDX | A/S |  | 212A |  | \$795 |
| 920 | 4800 |  | Voice Band |  |  | FDX/HDX | Sync |  |  |  | \$1,495 |
| 930 | 9600 |  | Voice Band |  |  | FDX | Sync |  |  |  | \$2,395 |
| 932 | 9600 |  | Voice Band |  |  | FDX | Sync |  | 2109 |  | \$2,695 |
| 940 | 14.4K |  | Voice Band |  |  | FDX/HDX | Sync |  |  |  | \$4,995 |
| Fairchild Data Corporation 602 949-1155 |  |  |  |  |  |  |  |  |  |  |  |
| M8023 | 10M | 2 | Ethr BrdBnd |  |  | FDX | Async | R/S |  | 1 yr | \$2,690 |
| Fastcomm Data Corporation 703 620-3900 |  |  |  |  |  |  |  |  |  |  |  |
| FDX 2448 | 4800 | Unitd | V. 22 bis | Y | $Y$ | FDX | A/S | S | 212AN. 22 | 2 yrs | \$649 |
| FDX 2448B | 4800 | Unitd | V. 22 bis | $Y$ | $Y$ | FDX | Async | S | 212AN. 22 | 1 yr | \$599 |
| FDX 9624 | 19.2K | Unitd | Asymmetric | Y | $Y$ | FDX | Async | S | V.32N. 22 | 2 yrs | \$899 |
| FDX 9624 | 19.2K | Unitd | Asymmetric | $Y$ | $Y$ | FDX | Async | R/S | V.32N. 22 | 2 yrs | \$899 |
| FDX 9696 | 19.2K | Unitd | V. 32 | $Y$ | $Y$ | FDX | A/S | S | V.32N. 22 | 2 yrs | \$1,299 |
| FDX 9696B | 19.2K | Unltd | V. 32 | Y | Y | FDX | Async | S | 212AN. 32 | 1 yr | \$1,199 |
| FDX 9696RMV | 19.2K | Unitd | V. 32 | Y | $Y$ | FDX | A/S | R | 212AN. 32 | 2 yrs | \$1,299 |
| FiberCom, Inc. 703 342-6700 |  |  |  |  |  |  |  |  |  |  |  |
| TFM-9600 | 19.2K |  |  |  |  | FDX | A/S |  | 103/209 |  | \$695 |
| WFT-12 | 19.2K |  | Fiber Optic |  |  | FDX |  | R |  |  | \$1,195+ |
| WhisperLink | 19.2K |  | Fiber Optic |  |  | FDX | A/S |  | 103/209 |  | \$495 |
| Gandalf Data, Inc. 800 722-9638 |  |  |  |  |  |  |  |  |  |  |  |
| ACCESS 208 | 4800 | Unitd | Voice Band | $N$ | $Y$ | FDX/HDX | A/S | R/S | 208A/B | 1 yr | \$1,195 |
| ACCESS 24 S | 2400 | Unitd | Voice Band | Y | $Y$ | FDX | A/S | R/S | 103/212 | 1 yr | \$595 |
| ACCESS 24 V | 2400 | Unitd | Voice Band | Y | Y | FDX | A/S | R/S | 103/212 | 1 yr | \$695 |
| Fastrak 14.4 | 9600 | Unltd | Voice Band |  |  | FDX | Sync | R/S | V. 29 | 1 yr | \$2,995 |
| Fastrak 96 | 9600 | Unitd | Voice Band |  |  | FDX | Sync | R/S | V. 29 | 1 yr | \$1,650 |
| Fastrak 96FP | 9600 | Unitd | Voice Band |  |  | FDX/HDX | Sync | R/S | V.29* | 1 yr | \$1,895 |
| LDM 192 | 19.2K | 200 | Leased Line |  |  | FDX | A/S | R/S |  | 1 yr | \$2,695 |
| LDM 418 | 4800 | 200 | Med Dist |  |  | FDX | A/S | R/S |  | 1 yr | \$700 |
| LDM 419 | 9600 | 200 | Voice Band |  |  | FDX | A/S | R/S |  | 1 yr | \$1,025 |
| LDM 444 | 4800 | 200 | Voice Band |  |  | FDX/HDX | Sync | R/S |  | 1 yr | \$1,150 |
| LDM 454 | 4800 | 200 | Voice Band |  | N | FDX/HDX | A/S | R/S |  | 1 yr | \$1,295 |
| LDM 640 | 64K |  | Private Line | $N$ | Y |  | A/S | R/S |  | 1 yr | \$325 |
| LDS 120A | 19.2K | 2.5 | Short Haul |  |  | FDX/HDX | Async | R/S |  | 1 yr | \$300 |
| LDS 140 | 9600 | 25 | Short Haul |  |  | FDX/HDX | Async | R/S |  | 1 yr | \$450 |
| LDS 309A | 19.2K | 17 | Short Haul |  |  | FDX/HDX | A/S | R/S |  | 1 yr | \$385 |
| mLDS 122 | 9600 | 4 | Short Haul |  |  | FDX | Async |  |  | 6 m | \$95 |
| mLDS 123 | 19.2K | 4.5 | Short Haul |  |  | FDX | Async |  |  | 6 m | \$105 |
| mLDS 123X | 19.2K | 4.5 | Short Haul |  |  | FDX | Async |  |  | 6 m | \$105 |
| RM 3260 | 256K | 2.4 | Voice Band |  |  | FDX | Sync | S | 301/303 | 1 yr | \$655 |
| RM 3444 | 4800 | 200 | Voice Band |  |  | FDX/HDX | Sync | R/S |  | 1 yr | \$1,075 |
| RM 3454 | 4800 | 200 | Voice Band |  |  | FDX/HDX | A/S | R/S |  | 1 yr | \$1,195 |
| SAM 201 | 2400 | Unitd | Voice Band | N | Y | FDX/HDX | A/S | R/S | 201C/N. 26 | 1 yr | \$725 |
| General Datacomm Industries 203 574-1118 |  |  |  |  |  |  |  |  |  |  |  |
| DC 19202A | 19.2K |  | Private Lne | $Y$ |  |  | A/S | R/S |  | 1 yr | \$4,495 |
| DC 296B | 9.6 K |  | Swt Ntwk | $Y$ | $Y$ |  | A/S | R/S | V. 32 | 1 yr | \$1,455 |
| DC V. 32 | 9.6K |  | Swt Ntwk | $Y$ | Y |  | A/S | R/S | V. 32 | 1 yr | \$1,495 |
| Desktop 9600 RPA | 9.6K |  |  | Y | N |  |  | S | V. 29 | 1 yr | \$1,595 |

## MODEMS

| İ |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| General Datacomm Industries 203 574-1118 (continued) |  |  |  |  |  |  |  |  |  |  |  |
| Desktop V. 29 RPA | 9.6K |  |  |  | N |  |  | S | V. 29 | 1 yr | \$1,595 |
| GDC 19202A ADR | 19.2K |  | Swt Ntwk | $Y$ | Y |  | A/S | R/S |  | 1 yr | \$5,495 |
| Hayes Microcomputer Products, Inc. 404 449-8791 |  |  |  |  |  |  |  |  |  |  |  |
| Rack IA |  |  |  |  |  |  |  |  |  |  |  |
| Smartmodem1200 | 1200 |  |  | Y |  | FDX/HDX | A/S |  | 103/212A | 2 yrs |  |
| Smartmodem1200 | 1200 |  |  | Y |  | FDX/HDX | A/S |  | 103/212A | 2 yrs |  |
| Smartmodem2400 | 2400 |  |  |  |  | FDX | A/S |  | 103/212A | 2 yrs |  |
| Smartmodem2400V | 2400 |  |  |  |  | FDX | Async |  | V. 22 | 2 yrs |  |
| Smartmodem9600 | 9600 |  | Leased line |  |  |  |  |  |  | 2 yrs |  |
| Smartmodem9600V | 9600 |  |  |  |  | FDX/HDX | A/S |  | V. 32 | 2 yrs |  |
| Transet 1000 |  |  |  |  |  |  |  |  |  |  |  |
| v-series Enhancer |  |  |  |  |  |  |  |  |  | 2 yrs |  |
| Incomm Data Systems 312 459-8881 |  |  |  |  |  |  |  |  |  |  |  |
| 100 RM | 19.2K |  |  |  |  | FDX | Async |  |  |  | \$248 |
| 100 SA | 19.2K |  |  |  |  | FDX | Async |  |  |  | \$349 |
| 200 RM | 19.2K |  |  |  |  | FDX | A/S |  |  |  | \$599 |
| 200 SA | 19.2K |  |  |  |  | FDX | A/S |  |  |  | \$599 |
| Midget 12 | 1200 |  | Dial-up | $Y$ |  | FDX/HDX | Async |  | 212A/103 | 5 yrs | \$139 |
| Midget 2400 | 2400 |  | Dial-up | $Y$ |  | FDX/HDX | Async |  |  | 5 yrs | \$199 |
| PL 14.4MD | 14.4K |  | Voice Band |  |  | FDX | Syne |  |  |  | \$4,995 |
| Turbo 2400 | 2400 |  | Voice Band | $Y$ |  | FDX/HDX | A/S | R/S | 103/212 |  | \$299 |
| Turbo 2400EC | 19.2K |  | Dial-up | $Y$ |  |  | Async | R/S | 212A/103 |  | \$399 |
| Turbo 4800 | 4800 |  | Dial-up | $Y$ |  |  | Async | R/S |  | 5 yrs | \$499 |
| Turbo 9600 | 9600 |  | V. 32 Dial | Y |  |  | Async | R/S | 212A/103 | 5 yrs | \$899 |
| Lan Systems, Inc. 415 566-4798 |  |  |  |  |  |  |  |  |  |  |  |
| LAN-A1 | 19.2K | 10 | Short Haul |  |  | FDX/HDX | Async | R/S | 3001 | 2 yrs | \$68 |
| LAN-A1-8 | 19.2K | 10 | Short Haul |  |  | FDX/HDX | Async | R/S | 3001 | 2 yrs | \$545 |
| LAN-A2 | 38.4K | 5 | Short Haul |  |  | FDX/HDX | Async | R/S | 3001 | 2 yrs | \$79 |
| LAN-MAM8 PLUS | 19.2K | 10 | Short Haul |  |  | FDX/HDX | Async | R/S | 3001 | 2 yrs | \$395 |
| LAN-ME | 64K |  | Eliminator |  |  |  | A/S | R/S |  | 2 yrs | \$225 |
| LAN-S1 | 38.4K | 10.5 | Short Haul |  |  | FDX/HDX | A/S | R/S | 3001 | 2 yrs | \$195 |
| LAN-S2 | 38.4K | 3 | Short Haul |  |  | FDX/HDX | A/S | R/S | 3001 | 2 yrs | \$255 |
| Microcom, Inc. 617 551-1000 |  |  |  |  |  |  |  |  |  |  |  |
| AX/2400 | 2900 |  |  | $Y$ |  |  | Sync | R/S | 103/212A |  |  |
| AX/2400c | 4800 |  |  | $Y$ |  |  | Sync | R/S | 103/212A |  |  |
| AX/9624c | 19.2K |  |  | $Y$ |  |  | A/S | R/S | 103/212A |  |  |
| AX/Chassis |  |  |  |  |  |  |  |  |  |  |  |
| QX/12K | 12K |  |  | $Y$ |  |  |  | R/S | 103/212A |  |  |
| QXN. 32 c | 30K |  |  | $Y$ |  |  |  | R/S | 103/212A |  |  |
| Multi-Tech Systems, Inc. 800 328-9717 |  |  |  |  |  |  |  |  |  |  |  |
| MT224AH | 2400 |  |  | Y | Y | FDX/HDX | A/S | S | 212A/103 | 2 yrs | \$549 |
| MT224EH | 2400 |  |  | $Y$ | Y | FDX/HDX | A/S | S | 212A/103 | 2 yrs | \$599 |
| MT932EA | 19.2K |  |  | Y |  | FDX/HDX | A/S | S | 212A/103 | 2 yrs | \$1,195 |
| N.E.T. ComDesign Data Communications Group 805 562-3312 |  |  |  |  |  |  |  |  |  |  |  |
| CM-1440 | 14.4 K |  | Voice Band |  |  | FDX/HDX | Sync | R/S | V.27/. 33 | 1 yr | \$1,995 |
| CM-4800 | 4800 |  | Voice Band |  |  | FDX/HDX | Sync | R/S | V. 27 | 1 yr | \$995 |
| CM-9600 | 9600 |  | Voice Band |  |  | FDX/HDX | Sync | R/S | V.27/.33 | 1 yr | \$1,195 |
| IM-9600 | 9600 |  | Voice Band |  |  | FDX | Sync | R/S | V.27/. 29 | 1 yr | \$1,250 |

## MODEMS

| $$ |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Optical Data Systems 214 234-6400 |  |  |  |  |  |  |  |  |  |  |  |
| ODS 107 | 56K | 1.6 | Fiber Optic |  |  |  | Async |  |  |  |  |
| ODS 108 | 56K | 1.6 | Fiber Optic |  |  |  | Async |  |  |  |  |
| ODS 219 | 2.04M |  | Fiber Optic |  |  |  | A/S |  |  |  |  |
| ODS 700 | 1.54M |  | Fiber Optic |  |  |  | Asyne |  | 306 |  |  |
| Patton Electronics Company 301 493-9665 |  |  |  |  |  |  |  |  |  |  |  |
| 100 | 19.2K |  |  |  |  | FDX | Async |  |  |  | \$70 |
| 101 | 19.2K |  |  |  |  | FDX | Async |  |  |  | \$80 |
| 110 | 19.2K |  |  |  |  | FDX | Async |  |  |  | \$95 |
| 111 | 19.2K |  |  |  |  | FDX | Async |  |  |  | \$105 |
| 112 | 19.2K |  |  |  |  | FDX/HDX | Async |  |  |  | \$115 |
| 113 | 19.2K |  |  |  |  | FDX/HDX | Async |  |  |  | \$125 |
| 120 | 19.2K |  |  |  |  | FDX | Sync |  |  |  | \$160 |
| 121 | 9600 |  |  |  |  | FDX | Sync |  |  |  | \$170 |
| 130 | 9600 |  |  |  |  | FDX/HDX | Sync |  |  |  | \$195 |
| 131 | 9600 |  |  |  |  | FDX/HDX | Sync |  |  |  | \$210 |
| 140 | 64K |  |  |  |  | FDX | Sync |  |  |  | \$495 |
| 200 | 19.2K |  |  |  |  |  | Sync |  |  |  | \$165 |
| Plexcom, Inc. 805 522-3333 |  |  |  |  |  |  |  |  |  |  |  |
| 209 | 64K |  | Fiber Optic |  |  | FDX | A/S |  |  |  | \$1,190+ |
| 401 | 1.544M |  | Fiber Optic |  |  | FDX | A/S |  |  |  | \$1,190+ |
| Prentice Corporation 408 734-9810 |  |  |  |  |  |  |  |  |  |  |  |
| 9629/2 | 9600 |  | Voice Band |  |  | FDX | Sync | R |  |  | \$1,595 |
| 9629/2 | 9600 |  | Voice Band |  |  | FDX | Sync | S |  |  | \$1,695 |
| ALD/2 | 19.2K |  |  |  |  | FDX/HDX | Async | R |  | 1 yr | \$200 |
| ALD/2 | 19.2K |  |  |  |  | FDX/HDX | Async | S |  | 1 yr | \$300 |
| HSLD/2 | 19.2K |  | Ltd Dist |  |  | FDX/HDX | Sync | R |  | 5 yrs | \$390 |
| HSLD/2 | 19.2K |  | Ltd Dist |  |  | FDX/HDX | Sync | S |  | 5 yrs | \$490 |
| HSLD/3 | 64K |  | Ltd Dist |  |  | FDX/HDX | Sync | R |  |  | \$595 |
| HSLD/3 | 64K |  | Ltd Dist |  |  | FDX/HDX | Syñ | S |  |  | \$695 |
| P201C | 2400 |  | Voice Band |  | $Y$ | FDX/HDX | Sync | R | 201B/C | 1 yr | \$645 |
| P201C | 2400 |  | Voice Band |  | $Y$ | FDX/HDX | Sync | S | 201B/C | 1 yr | \$745 |
| P212AD | 1200 |  | Voice Band | Y |  | FDX | Async | R | 103/212A | 5 yrs | \$395 |
| P212AD | 1200 |  | Voice Band | $Y$ |  | FDX | Async | S | 103/212A | 5 yrs | \$495 |
| P212ZX | 1200 |  | Voice Band | $Y$ | Y | FDX | Async | S | 103/212A | 1 yr | \$325 |
| Processing Innovations, Inc. 714 535-8161 |  |  |  |  |  |  |  |  |  |  |  |
| SAM | 1200 |  | Voice Band |  | Y |  | Async | S | 212/202C | 1 yr | \$1,295 |
| Racal-Milgo 800 327-4440 |  |  |  |  |  |  |  |  |  |  |  |
| COMLINK 7/75 | 19.2K | 15 | Ltd Dist |  | $N$ |  | A/S | R/S |  | 1 yr | \$460+ |
| LDM-V. 35 | 56K | 8.6 | Ltd Dist |  |  |  | Sync | R/S | V. 35 | 1 yr | \$1,500 |
| Omnimode 14.4FP | 14.4K |  | High Speed | $Y$ | $N$ |  | A/S | R/S |  | 1 yr | \$4,145 |
| Omnimode 1614 | 16.8K |  | High Speed | $Y$ | $N$ |  | A/S | R/S |  | 1 yr | \$5,160 |
| Omnimode 96 | 9600 |  | High Speed | $Y$ | $N$ |  | A/S | R/S |  | 1 rr | \$3,250 |
| RM-1822E/2 | 19.2K |  | Dial-up | Y | N | FDX | Async | R/S | 103/212A | 1 yr | \$1,150 |
| RM-1916 | 19.2K |  | High Speed | N | $N$ |  | A/S | R/S |  | 1 yr | \$7,600 |
| RM-3296 | 9.6K |  | V. 32 | Y | Y | FDX | A/S | R/S | 212A/103 | 1 yr | \$1,275 |
| Rad Data Communications 201 587-8822 |  |  |  |  |  |  |  |  |  |  |  |
| FLM-1 |  | 3 | Fiber Optic |  |  |  | Async |  |  |  | \$700+ |
| MiniModem | 19.2K |  | Short Range |  |  |  | A/S | S |  |  |  |

## MODEMS

| $$ |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rad Data Communications 201 587-8822 (continued) |  |  |  |  |  |  |  |  |  |  |  |
| SRM-1 | 19.2K |  |  |  |  | FDX/HDX | A/S |  |  |  | \$280 |
| SRM-2 | 19.2K |  |  |  |  | FDX/HDX | A/S |  |  |  | \$315 |
| SRM-31 | 19.2K |  |  |  |  | FDX/HDX | Async |  |  |  | \$240 |
| SRM-32 | 19.2K |  |  |  |  | FDX/HDX | Async |  |  |  | \$280 |
| SRM-4 | 19.2K |  |  |  |  | FDX | A/S |  |  |  | \$335 |
| SRM-6A | 19.2K |  |  |  |  | FDX | Async |  |  |  | \$95 |
| SRM-6AC | 19.2K |  |  |  |  | FDX/HDX | Async |  |  |  | \$115 |
| SRM-6D | 19.2K |  |  |  |  | FDX | Async |  |  |  | \$70 |
| SRM-6DX | 19.2K |  |  |  |  | FDX | Async |  |  |  | \$149 |
| SRM-6H | 64K |  |  |  |  | FDX/HDX | Sync |  |  |  | \$495 |
| SRM-6S | 19.2K |  |  |  |  | FDX | Sync |  |  |  | \$163 |
| SRM-6SC | 19.2K |  |  |  |  | FDX/HDX | Sync |  |  |  | \$200 |
| SRM-7 | 72K |  |  |  |  | FDX/HDX | Sync |  |  |  | \$720 |
| Raycom Systems, Inc. 303 530-1620 |  |  |  |  |  |  |  |  |  |  |  |
| 2605/2606 |  |  | Fiber Optic |  | N |  |  | R/S |  | 1 yr | \$984 |
| SI Technology, Inc. 312 232-8640 |  |  |  |  |  |  |  |  |  |  |  |
| 2001 | 56K | 1.5/3* | Fiber Optic | $N$ | $N$ | FDX | Async | S | $N$ | 1 yr | \$150 |
| 2004 | 56K | 1.5/3* | Fiber Optic | $N$ | $N$ | FDX | Sync | S | $N$ | 1 yr | \$275 |
| 2005 | 56K | 1.5/3* | Fiber Optic | $N$ | $N$ | FDX | Async | S | $N$ | 1 yr | \$225 |
| 2010 | 9600 | 1.5/3* | Fiber Optic | $N$ | $N$ | FDX | Async | S | $N$ | 1 yr | \$350 |
| 2025 | 56K | 2 | Short Haul | $N$ | $N$ | FDX | Async | R/S | $N$ | 1 yr | \$242 |
| 2105 | 56K | 1.5/3* | Fiber Optic | $N$ | $N$ | FDX | Async | S | $N$ | 1 yr | \$210 |
| 2304 | 56K | 1.5/3* | Fiber Optic | $N$ | $N$ | FDX | Sync | R | $N$ | 1 yr | \$275 |
| 2305 | 56K | 1.5/3* | Fiber Optic | $N$ | $N$ | FDX | Async | R | $N$ | 1 yr | \$225 |
| 2505 | 56K | 1.5/3* | Fiber Optic | $N$ | $N$ | FDX | Async | S | $N$ | 1 yr | \$150 |
| 2507 | 19.2K |  |  | $N$ | $N$ | FDX | Async | R/S | $N$ | 1 yr | \$150 |
| 2526 | 19.2K | 1 |  | $N$ | $N$ | FDX | Async | R/S | $N$ | 1 yr |  |
| 2856 | 20M | 1.5/3* | Fiber Optic | $N$ | $N$ | FDX | Async | S | $N$ | 1 yr | \$450 |
| 2857 | 10M | 1.5/3* | Fiber Optic | $N$ | $N$ | FDX | Async | S | N | 1 yr | \$450 |
| Telcor Systems Corporation 617 653-3995 |  |  |  |  |  |  |  |  |  |  |  |
| 1248MA | 4800 |  |  | $Y$ | Y |  | Async | S | 212A/103 | 3 yrs | \$595 |
| 2424MA | 2400 |  |  | $Y$ | $Y$ |  | Async | S | 212AV. 22 | 3 yrs | \$695 |
| 2448MA | 4800 |  |  | $Y$ | $Y$ |  | Async | S | 212A/V. 22 | 3 yrs | \$795 |
| 2496MA | 9600 |  |  | $Y$ | $Y$ | FDX | Async | S | 212AN. 22 | 3 yrs | \$895 |
| 2938MA | 38.4K |  |  | $Y$ | $Y$ | FDX | Async | S | 212A/V. 22 | 3 yrs | \$1,195 |
| Telebit Corporation 415 969-3800 |  |  |  |  |  |  |  |  |  |  |  |
| T1000 | 9600 |  | Dial-up | $Y$ |  |  | Async | S | 212A/103J | 1 yr | \$795 |
| T2000 | 19.2K |  | Dial-up | $Y$ |  |  | Async | R/S | 212A/103J | 1 yr | \$1,495 |
| T2500 | 19.2K |  | Dial-up | $Y$ |  |  | A/S | R/S | 103J/212A | 1 yr | \$1,695 |
| TrailBlazer Plus | 19.2K |  | Dial-up | $Y$ |  |  | Async | R/S | 103J/212A | 1 yr | \$1,345 |
| Telenetics Corporation 714 779-2766 |  |  |  |  |  |  |  |  |  |  |  |
| 24R-MP | 2400 | N/A | Voice Band | $Y$ | $Y$ | FDX/HDX | A/S | R | 103/212A | 5 yrs | \$745 |
| 24S | 2400 | N/A | Voice Band | $Y$ | $Y$ | FDX | A/S | S | 103/212A | 5 yrs | \$595 |
| 24S-MP | 2400 | N/A | Voice Band | $Y$ | Y | FDX/HDX | A/S | S | 103/212A | 5 yrs | \$795 |
| 24S/R | 2400 | N/A | Voice Band | $Y$ | $Y$ | FDX | A/S | R | 103/212A | 5 yrs | \$545 |
| ED 14.4 | 14.4K | N/A | Voice Band | $N$ | $N$ | FDX | Syne | R/S |  | 5 yrs | \$2,195 |
| ED 19.2 | 19.2K | N/A | Voice Band | $N$ | N/A | FDX | Sync | R/S |  | 5 yrs | \$5,995 |
| ED 9.6 | 9600 | N/A | Voice Band | $N$ | N/A | FDX | Sync | R/S |  | 5 yrs | \$1,495 |

## MODEMS

| $\begin{aligned} & \text { II } \\ & \text { 2 } \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Telenetics Corporation 714 779-2766 (continued) |  |  |  |  |  |  |  |  |  |  |  |
| TC921S-12 | 1200 | N/A | Voice Band | $Y$ | Y | FDX/HDX | A/S | R/S | 103/212A | 5 yrs | \$595 |
| TC921S-24 | 2400 | N/A | Voice Band | Y | $Y$ | FDX/HDX | A/S | R/S | 103/212A | 5 yrs | \$695 |
| Teltone Corporation 800 426-3926 |  |  |  |  |  |  |  |  |  |  |  |
| DCS3 | 19.2K |  |  |  |  |  | A/S |  |  | 1 yr |  |
| DCS3A/B | 19.2K |  |  |  |  |  | Async |  |  | 1 yr |  |
| T-line 3 | 19.2K |  | Short Haul |  |  |  | Async |  |  | 1 yr |  |
| U. S. Robotics, Inc. 312 982-5010 |  |  |  |  |  |  |  |  |  |  |  |
| Courier 1200 | 1200 |  | Voice Band | $Y$ |  | FDX/HDX | Async | S | 103/212A | 2 yrs | \$349 |
| Courier 2400 | 2400 |  | Voice Band | $Y$ |  | FDX | Async | S | 212A | 2 yrs | \$499 |
| Courier 2400e | 2400 |  | Voice Band | $Y$ |  | FDX | Async | S | 212A | 2 yrs | \$699 |
| Courier HST | 14.4K |  | Voice Band | $Y$ |  | FDX | Async | R/S | 212 | 2 yrs | \$995 |
| Courier HST Dual Std | 19.2K |  |  | $Y$ |  | FDX | Async | R/S | 212A/107 | 2 yrs | \$1,595 |
| Rackmount 30 MMS | 9600 |  | Voice Band | $Y$ |  | FDX | Async | R | 212A | 2 yrs |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 108 | 300 | Unltd |  | N | $N$ | FDX | Async | R/S | 108 | 1 yr | \$425 |
| 1450 | 14.4K | Unitd | Dial-up | Y | Y | FDX/HDX | A/S | R/S | V.29/v. 33 | 1 yr |  |
| 202S/T | 1200 | Unitd |  | N | $Y$ | FDX | A/S* | R/S | 202J | 1 yr | \$475 |
| 2140 | 2400 | Unltd | Dial-up | Y | $Y$ | HDX | Sync | S | 201C | 1 yr |  |
| 2440 | 2400 | Unitd |  | $Y$ | $Y$ | FDX |  | R/S | 103J/212A | 1 yr | \$575 |
| 2860 | 4800 | Unitd | Dial-up | $Y$ | $Y$ | FDX/HDX | A/S | R/S | 201/208 | 1 yr |  |
| 9648 T | 9600 | Unitd | Dial-up | $Y$ | $Y$ | FDX/HDX | A/S | R/S | 208A/B | 1 yr | \$1,995 |
| V3225 | 9600 | Unitd |  | $Y$ | $Y$ | FDX | A/S | R/S | 103J/212A | 1 yr | \$1,145 |
| Versitron 800 537-2296 |  |  |  |  |  |  |  |  |  |  |  |
| T1 | 1.544M |  | Fiber Optic |  |  |  |  |  |  |  |  |

## MULTIPLEXERS



## MULTIPLEXERS

| むo |  |  |  |  |  |  |  | Function |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Black Box Corporation 412 746-5500 |  |  |  |  |  |  |  |  |  |  |
| Communication Box II |  |  |  |  |  |  |  |  |  | \$1,490 |
| Digital Multiplexer |  |  |  |  |  |  |  |  |  | \$1295 |
| LD 470 |  |  |  |  |  |  |  |  |  | \$545 |
| MX 8 |  |  |  |  |  |  |  |  |  | \$395 |
| RS232 Fiber Optic |  |  |  |  |  |  |  |  |  | \$1,295 |
| Bo-Sherrel Company, Inc. 415 792-0354 |  |  |  |  |  |  |  |  |  |  |
| MX-2 | N | N | 19.2K | 8 |  | Async | S | P-to-P | 2 yrs | \$349 |
| MX-3 | N | $N$ | 19.2K | 8 | L | Async | S | P-to-P | 2 yrs | \$389.95 |
| Camintonn Corporation 714 553-0247 |  |  |  |  |  |  |  |  |  |  |
| CM-DH011 |  | Y | 38.4K |  |  | Async | R |  |  |  |
| CM-DHV11 |  | $Y$ | 38.4K |  |  | Async | R |  |  |  |
| CM-DHV16-D |  | $Y$ | 38.4K |  |  | Async | R |  |  |  |
| Canoga-Perkins 818 718-6300 |  |  |  |  |  |  |  |  |  |  |
| CMX-320 |  |  | 19.2K | 32 |  | A/S |  |  | 1 yr | \$1,795 |
| CMX-3240 | Y |  | 76.8K | 144 | L/R | A/S | S | P-to-P/MP | 1 yr | \$2,695 |
| CMX-3248 | N |  | 1.544M | 8 |  | A/S |  |  | 1 yr | \$3,295 |
| CMX-3272 | Y |  | 19.2K | 144 |  | A/S |  |  | 1 yr | \$2,395 |
| CMX-808 |  |  | 19.2K | 8 |  | A/S |  |  | 1 yr | \$895 |
| CMX-816 | $Y$ |  | 100K | 16 |  | A/S |  |  | 1 yr | \$2,695 |
| Case/Datatel 800 424-4451 |  |  |  |  |  |  |  |  |  |  |
| DCP5016 |  |  | 1200 | 8 |  | Async | R/S |  |  |  |
| DCP5016 |  |  | 64K | 8 |  | Async | R/S |  |  |  |
| DCP5016 |  |  | 64K | 16 |  | Async | R/S |  |  |  |
| DCP5016 |  |  | 1200 | 16 |  | Async | R/S |  |  |  |
| DCP5032 |  |  | 64K | 16 |  | Async | R/S |  |  |  |
| DCP5032 |  |  | 64K | 8 |  | Async | R/S |  |  |  |
| DCP9050 | Y |  | 64K | 6 |  | Sync | S |  |  |  |
| DCP9100 |  |  | 1.544M |  |  |  | R/S |  |  |  |
| DCP9800 |  |  | 2048K |  |  |  | S |  |  |  |
| Coastcom 415 825-7500 |  |  |  |  |  |  |  |  |  |  |
| D/I MUX III | N | $Y$ | 1.536M | 24 | L/R | A/S | R/S |  | 18 m | \$2,595 |
| T1M III | $N$ | Y | 1.536M | 8 | L/R | A/S | R/S |  | 18 m | \$2,295 |
| Codex Corporation 617 364-2000 |  |  |  |  |  |  |  |  |  |  |
| 6003 INP | $Y$ | * | 9600 | 8 | L/R | Async | R/S | P-to-P | 1 yr | \$1,250+ |
| 6015 INP | $Y$ | Y | 9600 | 10 | L/R | A/S | S | P-to-P | 1 yr | \$1,500+ |
| 6216 | $Y$ |  |  | 16 | L | A/S | S | P-to-P | 1 yr | \$4,020+ |
| Computer Products, Inc. 305 974-5500 |  |  |  |  |  |  |  |  |  |  |
| GT304 | Y |  | 38.4K |  |  |  | R |  | 1 yr | \$275 |
| GT309A | $Y$ | $N$ | 38.4K | 16 |  | Async | R |  | 1 yr | \$995 |
| GT312 | $Y$ | Y | 38.4K | 8 |  | Async | R |  | 1 yr | \$795 |
| DCB, Inc. $800637-1127$ \% |  |  |  |  |  |  |  |  |  |  |
| Hub 2 | N/A | $Y$ | 56K | 2 | L/R | A/S | S |  | 1 yr | \$1,095 |
| Hub 4 | N/A | $Y$ | 56K | 4 | L/R | A/S | S |  | 1 yr | \$1,495 |
| Hub 6 | N/A | $Y$ | 56K | 6 | L/R | A/S | S |  | 1 yr | \$1,795 |
| SPL 10 | $N$ | $Y$ | 56K | 10 | L/R | A/S | S |  | 1 yr | \$2,295 |
| SPL 12 | $N$ | Y | 56K | 12 | L/ | A/S | S |  | 1 yr | \$2,695 |
| SPL 14 | N | $Y$ | 56K | 14 | L/ | A/S | S |  | 1 yr | \$2,995 |
| SPL 2 | $N$ | Y | 56K | 2 | L/ | A/S | S |  | 1 yr | \$795 |

## MULTIPLEXERS

| Bix |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DCB, Inc. 800 637-1127 (continued) |  |  |  |  |  |  |  |  |  |  |  |
| SPL 4 | N | Y | 56K | 4 | L/R |  | A/S | S |  | 1 yr | \$1,195 |
| SPL 6 | $N$ | Y | 56K | 6 | L/R |  | A/S | S |  | 1 yr | \$1,495 |
| SPL 8 | N | Y | 56K | 8 | L/R |  | A/S | S |  | 1 yr | \$1,995 |
| Digital Communications Association 404 442-4000 |  |  |  |  |  |  |  |  |  |  |  |
| 110 |  |  |  | 8 |  |  |  | R | P-to-P/MP |  | \$1,995 |
| 120 |  |  |  | 32 |  |  |  | R | P-to-P/MP |  | \$4,995 |
| 125 |  |  |  | 16 | L |  |  | R | P-to-P/MP |  | \$5,795 |
| 125 |  |  |  | 32 | L |  |  | R | P-to-P/MP |  | \$11,590 |
| 205 |  |  |  | 128 |  |  |  |  |  |  | \$4,250+ |
| 207 |  |  |  |  |  |  |  |  |  |  | \$4,995+ |
| CN-1 |  |  |  | 64 |  |  |  | R | P-to-P/MP/BP |  | \$25,000+ |
| CN-2 |  |  |  | 144 |  |  |  | R | P-to-P/MP/BP |  | \$40,000+ |
| NetLink |  |  |  | 128 |  |  |  | R | P-to-P |  | \$4,395+ |
| NetLink II |  |  |  | 128 |  |  |  | R | P-to-P |  | \$5,795 |
| Emulex Corporation 714 662-5600 |  |  |  |  |  |  |  |  |  |  |  |
| CS08 | Y | Y | 57.6K | 8 |  | Q-bus | Async |  |  | 1 yr | \$1,000+ |
| CSO9 | $Y$ | $Y$ | 57.6K | 16 |  | Q-bus |  |  |  | 1 yr | \$1,000+ |
| CS11 | $Y$ | $Y$ | 19.2K |  |  | UNIBUS |  | R |  | 1 yr | \$4,100+ |
| CS21/F | $Y$ | $Y$ | 19.2K |  |  | UNIBUS |  |  |  | 1 yr | \$2,950+ |
| CS21/H | $Y$ | $Y$ | 19.2K |  |  | UNIBUS |  |  |  | 1 yr | \$2,950+ |
| CS21/Z | $Y$ | $Y$ | 19.2K |  |  | UNIBUS |  |  |  | 1 yr | \$2,950+ |
| CS23 | $Y$ | $Y$ | 38.4K |  |  | UNIBUS |  |  |  | 1 yr | \$3,300+ |
| CS32 | $Y$ | Y | 38.4K |  |  | UNIBUS |  |  |  | 1 yr | \$24,400 |
| QS09 | $Y$ | Y | 57.6K | 16 |  | Q-bus | Async |  |  |  | \$2,000 |
| Equinox Systems 800 328-2729 |  |  |  |  |  |  |  |  |  |  |  |
| LM-48 |  |  |  | 48 |  |  |  |  |  |  | \$3,100 |
| LM-8 |  |  |  | 8 |  |  |  |  |  |  | \$700 |
| Fibermux Corporation 818 709-6000 |  |  |  |  |  |  |  |  |  |  |  |
| FX4400 | Y |  |  | 384 | L/R |  |  | R/S |  | 1 yr |  |
| Gandalf Data, Inc. 800 722-9638 |  |  |  |  |  |  |  |  |  |  |  |
| DOU 3640 | Y | Y | 64K |  | L/R |  | A/S | R |  | 1 yr | \$325 |
| GLM 518 | $Y$ | $Y$ | 640K | 8 | L/R |  | A/S | R/S |  | 1 yr | \$800 |
| GLM 528E | $Y$ | $Y$ | 1.544M | 128 | L/R |  | A/S |  | P-to-P/MD | 1 yr | \$3,475 |
| KMUX | $Y$ | Y | 38.4K | 7 | L/R |  | Sync | R/S |  |  |  |
| mMUX 2000 |  | $Y$ | 19.2K | 8 | L/R |  |  | R/S |  | 1 yr | \$995 |
| MUX 2000 | $Y$ | Y | 38.4K | 32 | L/R |  | Async | R/S |  | 1 yr | \$2,000 |
| SwitchMux | Y | Y | 19.2K | 16 | L/R |  |  | R/S |  |  | \$2,950 |
| GEN/COMP, Inc. 617 828-2008 |  |  |  |  |  |  |  |  |  |  |  |
| 2033 |  | Y | 19.2K |  |  | UNIBUS | Async | R |  | 2 yrs | \$1,500 |
| 2036-01 |  | $Y$ | 38.4K | 16 |  | UNIBUS | Async | R |  | 2 yrs | \$1,600 |
| 2036-02 |  | Y | 38.4K |  |  | UNIBUS | Async | R |  | 2 yrs | \$2,200 |
| 2036-04 |  | $Y$ | 38.4K |  |  | UNIBUS | Async | R |  | 2 yrs | \$2,450 |
| 2036-05 |  | $Y$ | 38.4K |  |  | UNIBUS | Async | R |  | 2 yrs | \$1,750 |
| 2036-06 |  | $Y$ | 38.4K |  |  | UNIBUS | Async | R |  | 2 yrs | \$2,450 |
| 2136 | Y | Y | 38.4K | 16 |  | Q-bus | Async | R |  | 2 yrs | \$1,600 |
| ICS Datacom |  |  |  |  |  |  |  |  |  |  |  |
| 2360 |  |  | 38.4K |  |  |  |  |  |  |  | \$1,195 |

## MULTIPLEXERS



# Five ways to make your mux dollar work harder: 

1.Get a mux that saves you time.
A mux that saves you time saves you money. That's why it's important to find out how easy a multiplexer is to operate and manage. Before you buy.

Here's how a multiplexer from the ComDesign Data Communications Group of N.E.T. helps you beat the clock:

You get a sophisticated, self-prompting user interface, with plain English commands that can even be abbreviated. An optional network manager provides even more management ease-and time savings.

2.Get a mux that meets your performance needs. You save money when you're able to share links, host computers, and other resources. The more users who share, the more you save. It's that simple.

You lose if you have to buy additional equipment because your muxes can't handle additional users, or choke on simultaneous high-speed input from too many channels.

Our multiple-microprocessor architecture with optional multiple links gives you throughput and capacity you can count on, even under heavy loads.

3.Get a mux that grows with you. Communication needs change over time. If your mux won't adapt, you'll have to reach into your data comm budget again and again.

Mux systems from N.E.T./ComDesign are designed for flexibility, and offer a modular upgrade path. And you get compatibility with the full range of ComDesign and N.E.T. products. So your investment is protected, even as your needs change and grow.

4.Get a mux backed by the best warranty and service.
If your network breaks down, you pay in parts and repair. And pay heavily in lost productivity.
N.E.T./ComDesign is committed to keeping your mux up and running. You get a year's full FastFix warranty, which includes free parts and labor. With guaranteed overnight replacement if your mux ever fails.

We also offer a range of service options to suit your exact needs, from toll-free phone assistance to 24 -hour-a-day, on-site support.

5. 

## Get the facts.

Find out how to make your mux dollar work harder by contacting the ComDesign Data Communications Group of N.E.T. We'll rush you our product guide with details about our full line of point-topoint and networking multiplexers. You'll also learn about our other hardworking products, including X. 25 PADs, data switches, and high speed modems.

Call for your free brochure today.

Literature Hotline:
Call 1-800-235-6935.
Ask for Department M83.


Our clients are winning.


EQUIPMENT TECHNOLOGIES
ComDesign Data Communications Group 26 Castilian Drive, Santa Barbara, CA 93117 (805) 685-1411

## MULTIPLEXERS

| むo |  |  |  |  | O |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| N.E.T. ComDesign Data Communications Group 805 562-3312 (continued) |  |  |  |  |  |  |  |  |  |  |  |
| TS1000 | Y | Y | 19.2K | 32 | L/R |  | Async | R/S | P-to-P/MP | 1 yr | \$2,100+ |
| Optical Data Systems 214 234-6400 |  |  |  |  |  |  |  |  |  |  |  |
| ODS 304 |  |  | 20M |  | L/R |  |  |  |  |  |  |
| ODS 708 |  |  | 1.544 M | 8 | L/R |  |  | R/S |  |  |  |
| ODS 730 |  |  | 1.544M |  | L/R |  |  |  |  |  |  |
| Patton Electronics Company 301 493-9665 |  |  |  |  |  |  |  |  |  |  |  |
| 330 |  |  |  | 2 |  |  |  |  |  |  | \$295 |
| 340 |  |  |  | 2 |  |  |  |  |  |  | \$220 |
| 354 |  |  | 9600 | 4 |  |  | Async |  |  |  | \$295 |
| 358 |  |  | 9600 | 8 |  |  | Async |  |  |  | \$545 |
| Plexcom, Inc. 805 522-3333 |  |  |  |  |  |  |  |  |  |  |  |
| 1904 |  |  | 64K | 4 |  |  | A/S | R/S | P-to-P |  | \$895 |
| 1908 |  |  | 19.2K | 24 |  |  | A/S | R/S | P-to-P |  |  |
| 1916 |  |  | 19.2K | 48 |  |  | A/S | R/S | P-to-P |  |  |
| 1932 |  |  | 19.2K | 96 |  |  | A/S | R/S | P-to-P |  | \$3,195 |
| 4208 |  |  |  |  | L/R |  |  | R/S |  |  |  |
| 5000 |  |  | 38.4K | 4 |  |  | A/S | R/S | P-to-P |  | \$1,295 |
| 5000 |  |  | 38.4K | 16 |  |  | A/S | R/S | P-to-P |  | \$1,895 |
| 5000 |  |  | 38.4K | 32 |  |  | A/S | R/S | P-to-P |  | \$3,195 |
| 9600 |  |  | 57.6K | 64 | L/R |  | A/S | R/S | P-to-P |  | \$3,500+ |
| Rad Data Communications 201 587-8822 |  |  |  |  |  |  |  |  |  |  |  |
| DVI |  |  |  | 3 |  |  |  |  |  |  | \$145 |
| KiloMux |  |  |  | 6 |  |  | A/S | S | P-to-P |  | \$1,600 |
| KiloMux 56 |  |  | 56K | 6 |  |  | A/S | S | P-to-P |  | \$1,450 |
| MAM-A |  |  |  | 2 |  |  |  |  |  |  | \$295 |
| MAM-S |  |  |  | 2 |  |  | A/S |  |  |  | \$395 |
| MMM |  |  |  | 2 |  |  | A/S |  |  |  | \$350 |
| MSM |  |  |  | 2 |  |  |  | S | P-to-P |  | \$220 |
| RCMCoax |  |  |  | 2 |  |  |  | S | P-to-P |  | \$145 |
| STM 4 | Y |  | 19.2K | 4 |  |  | A/S |  |  |  | \$595 |
| STM-24 |  |  | 19.2K | 24 |  |  | A/S |  |  |  | \$1,950 |
| STM-8 |  |  | 19.2K | 8 |  |  | A/S |  |  |  | \$950 |
| TRIMLINK 400 |  |  | 19.2K | 4 |  |  | Sync |  |  |  | \$3,950 |
| Raycom Systems, Inc. 303 530-1620 |  |  |  |  |  |  |  |  |  |  |  |
| 5100/5110 | Y | Y | 19.2K | 32 | L/R |  |  | R/S | Diagnostic | 1 yr | \$2,850+ |
| SI Technology, Inc. 312 232-8640 |  |  |  |  |  |  |  |  |  |  |  |
| 1000 |  |  | 10M | 48 | L/R |  | A/S | R/S | P-to-P | 1 yr | \$1,500+ |
| 2006 | $N$ |  | 19.2K | 8 | L/R |  | A/S | R/S | P-to-P | 1 yr | \$1,500+ |
| 2016 | $N$ |  | 19.2K | 16 | L/R |  | Async | R/S | P-to-P | 1 yr | \$2,000 |
| Sigma Information Systems 714 630-6553 |  |  |  |  |  |  |  |  |  |  |  |
| SCD-DHV11/16 | Y | N | 38.4K | 16 |  | a-bus | Async | R |  | 1 yr | \$780 |
| SCD-DHV11/8 | $Y$ | Y | 38.4K | 8 |  | a-bus | Async | R |  | 1 yr | \$673 |
| SCD-DZV11 | $Y$ | Y | 19.2K | 8 |  | a-bus | Async | R |  | 1 yr | \$867 |
| Solana Electronics 619 573-0800 |  |  |  |  |  |  |  |  |  |  |  |
| SE 822 | $Y$ | N | 9600 | 8 | L/R |  |  | S | P-to-P | 2 yrs | \$495 |
| SE 822-CL | $Y$ | N | 9600 | 8 | L/R |  |  | S | P-to-P | 2 yrs |  |
| Summus Computer Systems 713 492-6611 |  |  |  |  |  |  |  |  |  |  |  |
| SUM-COM |  | Y | 19.2K | 256 | L/R | UNIBUS | A/S | R/S |  | 1 yr |  |

## MULTIPLEXERS



Free Subscription to DEC Professional... Call Lori Ulbrich at (215) 957-1500.

## Communication <br> Controllers

## Able Computer

## - DH/DM

19.2Kbps • FDX Operating Mode • UNIBUS

Supported •\$2,600
High-speed communication device, providing programmable DMA capability, split baud rates, and modem control on all 16 lines, which may be independently programmed. This device emulates the TX ports on a DEC DMF32 and interfaces to the DEC YC driver. Current Loop, Telco, RS232/422 panel options are available. Modem signals include carrier, ring and data terminal ready.

## - DHU/HS

38.4Kbps • FDX Operating Mode • UNIBUS Supported • \$2,600
Same as VMZ/HS. However, the DHU/HS offers 38.4 Kbps baud capability regardless of operating system constrictions.

## - D2/16

19.2Kbps • FDX Operating Mode • UNIBUS

## Supported •\$2,500

The DZ/16 is a 16 -line asynchronous communication controller and emulates the functions of two DEC DZ11 controllers. The data format is program-selectable and breaks may be generated and detected on each communication line. Current Loop, Telco, RS232/422 panel options are available. Modem signals include carrier, ring and data terminal ready. Supports the UNIX operating system.

## © VIZMS

38.4Kbps • FDX Operating Mode • UNIBUS Supported •\$2,600
The VMZ/HS is a very high-speed communication device, providing programmable DMA capability, split baud rates, and modem control on all 16 lines, which may be independently programmed. This device emulates the TX ports on a DEC DMF32 and it interfaces to the DEC YC driver. Current Loop, Telco, RS232/422 panel options are available. Modem signals include carrier, ring and data terminal ready.

## Camintonn Corporation

- CM-DHV11-C
38.4Kbps $\cdot$ Q-bus Supported

The CM-DHV11-C is $100 \%$ compatible with DEC DHV11. The last port may be configured as a DLV11 console port on PDP-11 systems. The 38.4 Kbps baud rate may be remapped.

## ■ CM-DHV16-D

38.4Kbps • UNIBUS/Q-bus Supported

The CM-DHV16-D emulates two DEC DHV11 8 -line controllers. Data-only leads on all 16 ports. Distribution and 9 -pin options are available. The 38.4 Kbps baud may be remapped.

## CM-DLV11-J

38.4Kbps • UNIBUS/Q-bus Supported

Runs transparently to DEC software. Lines may be independently designated for EIA signal compatibility and configured for baud rate and data bit formats.

## © CM-DHO11

38.4Kbps • Q-bus Supported

The CM-DHQ11 is $100 \%$ compatible with

DEC DHQ11. Ultra fast design and DHU emulation provide very low CPU overload. For maximizing number of users, 38.4 Kbps baud rate may be remapped.

## Communication Machinery Corporation (CMC)

■ ENP-40
UNIBUS Supported • $\$ 3,500$
The ENP-40 is an Ethernet Node Processor.

## DILOG

- C01610
38.4Kbps • FDX Operating Mode • Qbus Supported •\$1,450


## - C01620

38.4Kbps • FDX Operating Mode - a -bus

Supported •\$1,100
The CQ1610 and 1620 feature 32-character transmit buffers for each data channel and 256 -character receive buffers for each emulation.

## - Cu1710

38.4Kbps • FDX Operating Mode • UNIBUS Supported •\$2,500
The CU1710 model is a terminal, modem, and printer controller. Please consult factory for details on available distribution panels.

## Dyma Five Corporation

- D5-C1100-4
38.4Kbps • Q-bus Supported
- D5-Cl100-8
19.2Kbps • Q-bus Supported

■ D5-C1101-16
38.4Kbps • Q-bus Supported

## © D5-C1101-8

$38.4 \mathrm{Kbps} \bullet$ Q-bus Supported
The D5-CI101-16 and D5-CI101-8 feature full modem control on all channels and DMA- or single-character outputs.

## Formey <br> International, Inc.

- ECS 1200

1Mbps • UNIBUS/Q-bus/Blbus Supported
High-speed DMA access for VAX series computers to Forney's distributed control system.

## Intel Corporation



## - FastPath 9770

UNIBUS/Q-bus Supported • $\$ 50,000+$
Connects an IBM System/370 directly to a DECVAX or MicroVAX II system. Utilizes Flexlink software that provides bidirectional connectivity capabilities, including high-speed file transfer, protocol conversion, terminal emulation, and remote printing, logon, task activation and file editing.

## MDB Systems, Inc.

■ MDB-DR11-W
UNIBUS Supported • $\$ 1,345$
Module has true DEC DR11-W bus inter-
face for a 50 foot distance. Exclusive MDB DMA throttle allows user to tailor data transfer rates to system requirements. Includes two sets of I/O connectors.

## © MLSI-DR11-W PLUS

Q-bus Supported •\$1,250
Module has true DEC DR11-W bus interface for a 50 foot distance. Exclusive MDB DMA throttle allows user to tailor data transfer rates to system requirements. Features DRV11-WA compatibility mode.

## - MLSI-WLI1

UNIBUS Supported •\$895
This model converts DR11-W TTL signals to RS422 signals.

## - MV-DR11-W

a-bus Supported • $\mathbf{\$ 1 , 1 0 0}$
Module has true DEC DR11-W bus interface for a 50 foot distance. Exclusive MDB DMA throttle allows user to tailor data transfer rates to systems requirements. Includes two sets of I/O connectors.

## The Logical Company <br> - CCQ-1100

38.4Kbps • FDX Operating Mode • Q-bus Supported •\$795
Eight RS232/423 asynchronous lines on a dual-width Q -bus controller with a full modem. Software compatible with DEC operating systems and diagnostics.

## © CCO-1101

38.4Kbps • FDX Operating Mode • Q-bus Supported - \$795
Sixteen RS232/423 asynchronous data-only lines on a dual-width Q-bus controller. Software compatible with DEC operating systems and diagnostics.

## - CCO-1400

19.2Kbps • FDX Operating Mode • Q-bus Supported • \$995
Eight RS232 asynchronous lines on a single Q-bus module emulating a DEC DH 11 and DM11BB. Multiple panel options are available.

## ■ CCO-1401

38.4Kbps • FDX Operating Mode • Q-bus Supported - \$995
Eight RS232 asynchronous lines on a single Q-bus module emulating either a DHU or DHV. Multiple panel options are available.

## ■ CCU-1000

38.4Kbps • FDX Operating Mode • UNIBUS Supported •\$1,595
Sixteen asynchronous lines on a single UNIBUS module emulating two DM32 devices at four times the throughput. Multiple panel options available.

## - CCU-1100

38.4Kbps • FDX Operating Mode • UNIBUS Supported •\$1,595
Sixteen asynchronous lines on a single UNIBUS module emulating a DHU at four times the throughput. Multiple panel options available.

## - CCU-1200

9600 bps • FDX Operating Mode - UNIBUS Supported •\$1,595
Sixteen RS232 asynchronous lines on a single UNIBUS module emulating two DEC DZ11-E devices in half the space at half the power. Multiple panel options available.

- CCU-1300

9600hps • FDX/HDX Operating Mode • UNIBUS Supported • \$1,000
Four-line RS232 asynchronous controller emulating four DEC DL11-B devices on a single quad-size UNIBUS modeule.

- CCU-1301

9600 bps $\bullet$ FDX/HDX Operating Mode • UNIBUS Supported • \$1,000
Four-line 20 MA current loop asynchronous controller emulating four DEC DL11C devices on a single quad-size UNIBUS module.

- CCU-1302

9600 bps • FDX/HDX Operating Mode • UNIBUS Supported • $\$ 1,000$
Four-line RS232 asynchronous controller emulating four DEC DL11-E devices on a single UNIBUS module with full modem control.

## XYplex, Inc.

$\square$ Host Interface Unit
UNIBUS Supported • $\$ 3,700$
A terminal communication controller.


## Communication Processors

## 3Com Corporation

■ 6S/1-X. 25
8 Supported Port(s)

## Advanced Computer Communications (ACC)

## - ACP 5100

1 Supported Port(s) •1.544Mbps • 256K1 MBytes • Q-bus Supported • $\$ 4,200$ The ACP 5100 is a high speed communication processor for the MicroVAX II or MicroVAX 3000 CPUs. Implements CCITT recommendation X. 25 level 2 (HDLC/ LAPB).

## - ACP 5250

1 Supported Port(s) • 300Kbps • Q-bus
Supported • \$4,200
The ACP 5250 enhances the MicroVAX environment by offloading communication protocol handling and eliminating charac-ter-at-a-time interrupts to the host.

## - ACP 6100

1 Supported Port(s) $\cdot 1.544 \mathrm{Mbps} \cdot 256 \mathrm{~K}$ -
1MBytes • UNIBUS Supported • $\mathbf{\$ 6 , 4 9 0}$
The ACP 6100 is a high-speed communication processor for DEC VAX CPUs. Implements CCITT recommendation X. 25 level 2 (HDLC/LAPB).

## - ACP 6250

1 Supported Port(s) • 1.5Mbps • \$6,490
The ACP 6250 has higher throughput due to the QUADbus architecture. It centers on a large four-port RAM that is connected to four independent buses controlled by the microprocessor.

## cisco Systems, Inc. <br> $\square$ CSC/1

32 Supported Port(s) • 2Mbps
Uses the MC68020 microprocessor which is especially suited for gateways handling large data volumes and for complex gateway configurations. Optional non-volatile
memory is available for configuration retention.

## - CSC/2

32 Supported Port(s) • 64Kbps
Provides up to two interfaces and protocol support for both the DDN X. 25 standard and DDN 1822-J, also known as HDH. This board also provides up to two Ethernet interfaces

## Commuetics, Inc.

CM-2000
48 Supported Port(s) • \$150,000
Accsses up to six incompatible databases simultaneously. The need for repetitive sequential link-ups is eliminated.

## Digital Communications <br> Association

- DPAX 1100

64 Supported Port(s) • 72Kbps • \$4,595
The DPAX 1100 operates as a CCITT X. 3 PAD processor for asynchronous data.

## - DPAX 2100

80 Supported Port(s) • 72Kbps • $\$ 5,190+$
The DPAX 1100 operates as a CCITT X. 3 PAD processor for asynchronous data.

## GEN/COMP, Inc.

- 2081

1Mbps • \$3,000
The 2081 emulates the DEC PCL11.

## Incotel, luc.

- IMXX-700

500 Supported Port(s) • 56Kbps • 8MBytes -
Blbus Supported •\$150,000
The IMX-700 includes a software license.

## - Micro IMXX-700

128 Supported Port(s) • 56Kbps • 5MBytes • Q-bus Supported - \$75,000
The Micro IMX-700 includes a software license and supports the MicroVAX II or 3000 Series

## LANTEK

- BBMASTER

240 Supported Port(s) • 2.4Mbps • Q-bus Supported - \$2,800
BBMASTER provides a powerful solution for performance-sensitive distributed applications. BBMASTER implements RS485SDLC communications over twisted pair wire and supports BITBUS protocols for VMS

## MDB Systems, Inc.

- JFEP-11

512KBytes • UNIBUS Supported • \$4,950
Designed for PDP-11 systems and is equipped with software that supports the RT-11 and TSX-Plus operating systems.

## - TurboMux

32 Supported Port(s) • 38.4Kbps • 512KBytes * UNIBUS Supported • $\mathbf{\$ 6 , 4 5 5}$
The TurboMux emulates the DHU11 and features a microprocessor module and a terminal adapter unit. Eight terminal adapter units may be cascaded together to provide support for up to 256 ports.

## Microtronix

Systems, Ltd.

- KXJ-X. 25

128 Supported Port(s) • 56Kbps • 64KBytes •
a-bus Supported • \$9,900
Reduces the number of interrupts on the MicroVAX and relieves the host from communication processing loads.

- LSI-X. 25

5 Supported Port(s) • $56 \mathrm{Kbps} \bullet 64 \mathrm{KBytes}$ •
UNIBUS Supported •\$9,900

## Racal-Mıgo

Omnimux PMP-200
34 Supported Port(s) • .5Mbps • \$19,300

## 1 Omnimux PWP-4000

480 Supported Port(s) • 2Mbps • \$69,260
Omnimux PNP-5000
448 Supported Port(s) • 4Mbps • \$99,650

## Omnimux PNP-600

192 Supported Port(s) • 1Mbps • \$38,800 The Omnimux PNPs are high-performance devices designed for communicationintensive applications; may be connected to a variety of private circuits, national and international public data networks, and dedicated X. 25 host computer equipment.

## Siemens Data Switching Systems

EEDX-P
1008 Supported Port(s) • 9600bps • 4MBytes


## ICP1600

8 Supported Port(s) • 614Kbps *
256KBytes • UNIBUS Supported • $\mathbf{\$ 6 , 0 0 0}$ The Intelligent Communication Processor (ICP) series is the hardware platform for Simpact's array of off-the-shelf and custom serial communication interfaces. Offloading interrupt-intensive communication tasks from the DEC host, this family of multiport, programmable front-end processors supports all popular DEC bus architectures and operating systems. Because the ICP is programmable, it is able to execute a wide variety of protocols for applications including wide area network connections, multivendor connectivity, and real-time data communications. Off-the-shelf Communication Protocol Interfaces (CPIs) that utilize the ICP are available for the following protocols: X.25, HDLC, ADCCP ABM, ADCCP NRM, SDLC, DDCMP, X. 25 DDN, BSC 2780/3780, BSC 3270, Financial Market Protocols, HASP, SWIFT ad CHIPS, Async, SNA and AUTODIN. In addition, the ICP may be programmed for unique protocol software with Simpact's Software Development Toolkit. The UNIBUS-compatible ICP1600 provides eight independently programmable, full duplex serial communication ports, each individually configurable for line . speed and clock source.

## - EXC1612

12 Supported Port(s) • 9600bps • $\$ 2,000$ The EXC1612 provides twelve additional full-duplex serial communication ports for Simpact's UNIBUS and Q-bus compatible ICP1600, ICP1622, and ICP1622T.

## - ICP1622

4 Supported Port(s) • 614Kbps
512KBytes • Q-bus Supported • $\$ 3,600$ The $\mathbf{Q}$-bus-compatible ICP1622 provides four independently programmable, full duplex, serial communication ports, each individually configurable for line speed and clock source.

## - ICP1622T

4 Supported Port(s) • 614Kbps * 512KBytes • Q-bus Supported • \$4,975 The MicroVAX 3000-compatible ICP1622T provides four independently programmable communication ports, each individually configurable for line speed and clock source.

## - ICP1632

4 Supported Port(s) • 1.544Mbps * 1MBytes • Blbus Supported • $\$ 8,000$ The VAX Blbus-compatible ICP1632 provides four high-performance, independently programmable, full duplex, serial communication ports, each individually configurable for line speed and clock source.

## © ICP3212

12 Supported Port(s) • Q-bus Supported - \$4,200

The EXC3212 provides twelve additional full-duplex serial communication ports for Simpact's Q-bus compatible ICP3212.

## ICP3222

4 Supported Port(s) $\cdot 1.544 \mathrm{Mbps} \cdot$ Q-bus Supported • \$5,600
The Q-bus-compatible ICP3222 is targeted at demanding applications that require high data throughput, complex on-board processing, and concurrent operation. Single-line data rates in excess of 1 Mbps are accomplished as well as simultaneous, highly efficient connectivity on all four lines. The ICP3222 is based on Motorola's 32 -hit microprocessor, the 68020, and features a dual-bus architecture, independent memories, and a full complement of DMA devices.

## Software Results <br> Corporation

- COMBOARD/SUA-1251

1 Supported Port(s) • 64Kbps • 256KBytes UNIBUS Supported • \$12,700+

## COMBOARD/SMA-1252

1 Supported Port(s) • 64Kbps • 256KBytes • Qbus Supported •\$10,900+
Combination hardware and software solution that provides VAX users 3270 emulation and/or a 3770 RJE link to mainframes. COMBOARD supports VMS and ULTRIX with speeds up to 64 Kbps .

## C COMBOARD/SMA-451

1 Supported Port(s) • 256KBytes • UNIBUS Supported • \$7,000+
The COMBOARD/SNA combines hardware and software allowing VAX users an interactive access or a high-volume remote job entry link to IBM and other mainframe computers. Within this environment, VT100-compatible terminals emulate IBM 3278 terminals, thereby providing access
to the IBM/SNA network. It supports VMS and ULTRIX operating systems.

## - COMBOARD/SMA-651

1 Supported Port(s) • 64Kbps • 256KBytes • UNIBUS Supported •\$9,400+

## - COMBOARD/SMA-652

1 Supported Port(s) • 64Kbps • 256KBytes • Qbus Supported •\$6,100+

- COMBOARD/SWA-751

1 Supported Port(s) •64Kbps • 256KBytes -
UNIBUS Supported •\$11,500+

## - COMBOARD/SMA-752

1 Supported Port(s) • 64Kbps • 256KBytes • Qbus Supported •\$9,900+
Combination hardware and software solu tion that provides VAX users 3270 emulation and/or a 3770 RJE link to mainframes. COMBOARD supports VMS and ULTRIX with speeds up to 64 Kbps .

## Talon Technology Corporation

- MaxComm/QB

1 Supported Port(s) • 2Mbps • 512KBytes • Qbus Supported • \$7,500
MaxComm/QB is a high-speed communi cation coprocessor for the DEC MicroVAX and MicroPDP-11 computers. It communicates with other MaxComm/QB and UB coprocessors. Also supports X. 25 firmware.

## - MaxComm/UB

1 Supported Port(s) • 2Mbps • 512KBytes • UNIBUS Supported • \$7,500
MaxComm/UB is a high-speed communication coprocessor for DEC VAX and PDP 11 computers. It is a direct replacement for the DEC DMR11 controller featuring DES encryption. Also supports X. 25 LAPB firmware.

## Tri-Data Systems, Inc.

- Netway 200

32 Supported Port(s) • 19.2Kbps • 256KBytes \$7,500

## Vitalink Communications Corporation

- TransLIMK

8 Supported Port(s) • 1 Mbps • 1 MBytes • $\mathbf{\$ 1 0 , 0 0 0}$

## Xyplex, Inc.

- BI-FEP

Blbus Supported • \$7,500

## XP-UN64-A

64 Supported Port(s) •\$3,700

## Communication

Protocol interfaces

## Interlan Inc.

## - NP629

\$3,995
With the NP629, PCs are able to exchange files with heterogeneous TCP/IP hosts and access data and applications on a Novell NetWare server. This TCP Gateway allows a user on any Novell NetWare subnet to simultaneously communicate with DEC VAX systems, under VMS and ULTRIX operating systems, and with other hosts on an Ethernet backbone.

## Local Data

- Datalynu/3174

4 Supported Port(s) • $\$ 3,000$
© Datalynx/3174
8 Supported Port(s) •\$4,000

## - Datalynx/3174

12 Supported Port(s) • $\$ 5,000$

## © Datalynx/3174

16 Supported Port(s) •\$6,000
E Datalynx/3174
24 Supported Port(s) • \$8,000

## - Datalynx/3174

32 Supported Port(s) •\$10,000
The DataLynx Series connects non-IBM devices to IBM hosts with cables, modems and public or private X. 25 networks. Feature asynchronous dial-in modes, up to 768 KB RAM, 16 KB EEPROM and up to 256 KB PROM.

## Method Systems, Inc. <br> $\square$ - PCT-100

2 Supported Port(s) • \$495
User-programmable serial device that solves asynchronous interface incompatibilities with an in-line RS232 protocol and data translator.

## Micom Communications Corporation

## - MB3-SPC

4-16 Supported Port(s) • $\$ 2,885+$
Connects to both IBM 3270 and asynchronous hosts allowing the configuration of four asynchronous host channels to the device, permitting terminals to switch between 3270 emulation and any of the four channels.

## Purvis Systems, Imc.

## -a-bus/MTDS

a-bus Supported - $\$ \mathbf{3 , 4 0 0}$
MIL-STD-1397 NTDS interface for 16 - and 32 -bit, full duplex, parallel, data transfers. Differential line receivers are standard for Type B (NTDS-FAST) and Type C (ANEW). I/O drivers, users manuals and test and installation software are included.

## - Unibus/MTDS

## UNIBUS Supported - $\$ \mathbf{5 , 4 0 0}$

MIL-STD-1397 NTDS interface for 16 - and 32 -bit, full duplex, parallel data transfers. Differential line receivers are standard for Type B(NTDS-FAST) and Type C (ANEW). I/O drivers, users manuals, and test and installation software are included.

## Racal-Milgo

- TCI 551VCC/N

1 Supported Port(s) •\$8,890
Accepts input in a clear channel format and converts this data into T-1-compatible D4 formatted DSI data for transmission over the public network digital system.

## Simpact Associates, Imc. <br> - CPI 10000/BSC 2780/3780

8 Supported Port(s) • UNIBUS Supported VMS/ULTRIX/RSX Supported • $\$ 11,000+$
The CPI 10000/BSC $2780 / 3780$ connects UNIBUS-based hosts to non-DEC systems including System 36/38 CPUs and IBM $2780 / 3780$ RJE stations. The interface
improves host efficiency and achieves high data throughput.

## - CPI 10010/BSC 2780/3780

4 Supported Port(s) • Q-bus Supported • VMS/ ULTRIX/MRSX Supported •\$7,000+
The CPI 10010/BSC 2780/3780 connects Q-bus-based hosts to non-DEC systems including System 36/38 CPUs and IBM $2780 / 3780 \mathrm{RJE}$ stations. Offloading the BCS protocol from the host, the interface improves host efficiency and achieves high data throughput. Host-resident file transfer allows files to be sent and received across the BSC line.

## - CPI 10020/BSC 2780/3780

4 Supported Port(s) • Blbus Supported • VMS/ ULTRIX Supported - $\$ \mathbf{1 3 , 5 0 0}$
The CPI 10020/BSC $2780 / 3780$ connects VAX BIbus hosts to non-DEC systems including System 36/38 CPUs and IBM $2780 / 3780 \mathrm{RJE}$ stations. The interface improves host efficiency and achieves high data throughput.

## - CPI 10030/BSC 2780/3780

4 Supported Port(s) • Q-bus Supported • VMS/ ULTRIXMRSX Supported •\$7,000+
The CPI 10030/BSC 2780/3780 connects Q-bus-based hosts to non-DEC systems including System $36 / 38$ CPUs and IBM 2780/3780 RJE stations. Offloading the BCS protocol from the host, the interface improves host efficiency and achieves high data throughput. Host-resident file transfer allows files to be sent and received across the BSC line.

## - CPI 10100/BSC 3270

8 Supported Port(s) • UNIBUS Supported • VMS/ULTRIX/RSX Supported • $\$ 9,000$
The CPI 10100/BSC 3270 connects UNI-BUS-based hosts to non-DEC systems including System 36/38 CPUs and IBM $2780 / 3780$ RJE stations. The interface improves host efficiency and achieves high data throughput.

## - CPI 10110/BSC 3270

4 Supported Port(s) • Q-bus Supported • VMS/ ULTRIX/MRSX Supported •\$5,600+
The CPI 10110/BSC 3270 connects Q-busbased hosts to non-DEC systems including System $36 / 38$ CPUs and IBM $2780 / 3780$ RJE stations. The interface improves host efficiency and achieves high data throughput.

## - CPI 10120/BSC 3270

4 Supported Port(s) • Blbus Supported • VMS/ ULTRIX Supported - \$11,000
The CPI 10120/BSC 3270 connects VAX BIbus-based hosts to non-DEC systems including System 36/38 CPUs and IBM $2780 / 3780$ RJE stations. The interface improves host efficiency and achieves high data throughput.

## - CPI 10130/BSC 3270

4 Supported Port(s) • Q-bus Supported • VMS/ ULTRIXMRSX Supported $\mathbf{\$ 5 , 6 0 0 +}$
The CPI 10130/BSC 3270 connects Q-busbased hosts to non-DEC systems including System 36/38 CPUs and IBM 2780/3780 RJE stations. The interface improves host efficiency and achieves high data throughput.

## - CPI 10200/FMP

8 Supported Port(s) • UNIBUS Supported • VMS/ULTRIX/RSX Supported • $\$ 11,100_{+}$
The CPI 10200/FMP connects UNIBUSbased hosts to systems that broadcast stock, bond and commodity information. A single
interface accepts data from SIAC, NASDAQ, OPRA, NYSE, NYFE, and CBOT.

## © CPI 10210/FMP

4 Supported Port(s) • Q-bus Supported • VMS/ ULTRIXMRSX Supported • $\$ 7,000+$
The CPI 10210/FMP connects Q-bus-based hosts to systems that broadcast stock, bond and commodity information. A single interface accepts data from SIAC, NASDAQ, OPRA, NYSE, NYFE, and CBOT.

## - CPI 10220/FMP

4 Supported Port(s) • Blbus Supported • VMS/ ULTRIX Supported • $\$ 13,500$
The CPI 10220/FMP connects VAX BIbusbased hosts to systems that broad cast stock, bond and commodity information. A single interface accepts data from SIAC, NASDAQ, OPRA, NYSE, NYFE, and CBOT.

## [10 CPI 10230/FMP

4 Supported Port(s) • Q-bus Supported • VMS/ ULTRIX/MRSX Supported - $\$ 7,000+$
The CPI 10230/FMP connects Q-bus-based hosts to systems that broadcast stock, bond, and commodity information. A single interface accepts data from SIAC, NASDAQ, OPRA, NYSE, NYFE, and CBOT.

## - CPI 10300/HASP

8 Supported Port(s) • UNIBUS Supported • VMS/ULTRIX/RSX Supported • $\$ 11,100+$
The CPI 10300/HASP connects UNIBUSbased systems to IBM RJE systems. A multi-leaving feature allows multiple data streams to be transferred over a single line for efficient line utilization.

## - CPI 10310/MASP

4 Supported Port(s) • Q-bus Supported • VMS/ ULTRIXMRSX Supported •\$7,000+
The CPI 10310/HASP connects Q-busbased systems to IBM and other non-DEC systems. The HASP protocol is used by IBM Remote Job Entry stations to allow flow control of individual data streams. A multi-leaving feature allows multiple data streams to be transferred over a single point-to-point line for efficient line utilization.

## - CPI 10320/MASP

4 Supported Port(s) • Blbus Supported • VMS/ ULTRIX Supported •\$13,500
The CPI 10320/HASP connects VAX BIbus based systems to IBM RJE systems. A multileaving feature allows multiple data streams to be transferred over a single line for effiecient line utilization.

## - CPI 10330/MASP

4 Supported Port(s) • Q-bus Supported • VMS/ ULTRIX/MRSX Supported • $\$ 7,000_{+}$
The CPI 10330/HASP connects Q-busbased systems to IBM and other non-DEC systems. The HASP protocol is used by IBM Remote Job Entry stations to allow flow control of individual data streams. A multileaving feature allows multiple data streams to be transferred over a single point-to-point line for efficient line utilization.

## - CPI 10400

8 Supported Port(s) • UNIBUS Supported • VMS/ULTRIX/RSX Supported • $\$ 11,100_{+}$ The CPI 10400 connects UNIBUS-based systems to the SWIFT and CHIPS networks and includes ready-to-run applications that perform Level I testing for protocol conformance to both networks.

## - CPI 10410

4 Supported Port(s) • Q-bus Supported • VMS/ ULTRIX/MRSX Supported • \$7,000+
The CPI 10410 connects Q-bus-based systems to the SWIFT and CHIPS networks and includes ready-to-run applications that perform Level I testing for protocol conformance to both networks.

## - CPI 10420

4 Supported Port(s) • Blbus Supported • VMS/ ULTRIX Supported •\$13,500
The CPI 10420 connects VAX BIbus-based systems to the SWIFT and CHIPS networks and includes ready-to-run applications that perform Level I testing for protocol conformance to both networks.

## - CPI 10430

4 Supported Port(s) • Q-bus Supported • VMS/ ULTRIXMRSX Supported •\$7,000+
The CPI 10430 connects Q-bus-based systems to the SWIFT and CHIPS networks and includes ready-to-run applications that perform Level I testing for protocol conformance to both networks.

## CPI 11000/Async

8 Supported Port(s) • UNIBUS Supported • VMS/ULTRIX/RSX Supported • $\$ 9,000$
The CPI 11000/Async provides UNIBUSbased systems with extremely flexible asynchronous communication capabilities. The interfaces are programmable, and communication lines are independently configurable for a variety of parameters.

## - CPI 11010/Async

4 Supported Port(s) • Q-bus Supported • VMS/ ULTRIX/MRSX Supported • \$5,600
The CPI11010/Async provides Q-bus-based systems with extremely flexible asynchronous communication capabilities. The interfaces are programmable, and communication lines are independently configurable for a variety of parameters.

## - CPI 11020/Async

4 Supported Port(s) - Blbus Supported - VMS/ ULTRIX Supported •\$11,000
The CPI11020/Async provides VAX BIbusbased systems with extremely flexible asynchronous communication capabilities. The interfaces are programmable, and communication lines are independently configurable for a variety of parameters.

## © CPI 11030/Async

4 Supported Port(s) • Q-bus Supported • VMS/ ULTRIX/MRSX Supported • \$5,600
The CPI11030/Async provides Q-bus-based systems with extremely flexible asynchronous communication capabilities. The interfaces are programmable, and communication lines are independently configurable for a variety of parameters.

## - CPI 12010/SMA

2 Supported Port(s) • Q-bus Supported • VMS/ ULTRIX/MRSX Supported •\$8,975+
The CPI 12010/SNA provides Q-bus-based systems with on-line access to IBM hosts, batch file transfers, printing of IBM files on local printers, and building of VAX applications that integrate data from the remote IBM host. Interfaces are available for (1) SNA 3270 cluster controller emulation, (2) SNA RJE workstation emulation, (3) API 3270 for custom application development, and (4) APPC via LU6.2 and T2.1 for distributed connectivity and peer-topeer processing. The interfaces require no software changes to existing DEC or IBM software.

## © CPI 12020/SM

2 Supported Port(s) • Blbus Supported • VMS/ ULTRIX Supported - $\$ 15,000+$
The CPI 12020/SNA provides VAX BIbusbased systems with on-line access to IBM hosts, batch file transfers, printing of IBM files on local printers, and building of VAX applications that integrate data from the remote IBM host. The interfaces require no software changes to existing DEC or IBM software.

## - CPI 12030/SMA

2 Supported Port(s) • Q-bus Supported • VMS/ ULTRIXMRSX Supported • $\$ 8,975$
The CPI 12030/SNA provides Q-bus-based systems with on-line access to IBM hosts, batch file transfers, printing of IBM files on local printers, and building of VAX applications that integrate data from the remote IBM host. Interfaces are available for (1) SNA 3270 cluster controller emulation, (2) SNA RJE workstation emulation, (3) API 3270 for custom application development, and (4) APPC via LU6.2 and T2.1 for distributed connectivity and peer-topeer processing. The interfaces require no software changes to existing DEC or IBM software.

## - CPI 13010/AUTODIM

4 Supported Port(s) • Q-bus Supported • VMS Supported • $\$ 9,500+$

## CPI 13030/AUTODIM

4 Supported Port(s) • Q-bus Supported • VMS Supported • $\$ 9,500+$
Certified by the DCA, the CPI 13010/ AUTODIN and 13030/AUTODIN implement the AUTODIN Mode 1 protocol. Feature user-definable data rates and numerous security features.


## © CPI 2010×X. 25

4 Supported Port(s) • Q-bus Supported • VMS/ULTRIXMRSX Supported $\boldsymbol{\$} \mathbf{\$ 4 , 4 0 0 +}$ Simpact's CPI 2010X. 25 interlace is a complete hardware and software solution that offloads the network, data link and physical levels of X. 25 from Q-bus-based hosts. This enhances host performance while providing high line efficiency. Every interface in the CPI series provides costeffective, multiple connections, each configurable for a variety of data rates and parameters. The X. 25 interface may be configured for type of connection service, number of virtual circuits, and internal or extemal clock source. The X. 25 interface is Telenet, TYMNET, and DDN certified. In addition, CPI protocol software is downloaded to hardware, making protocol upgrades and enhancements easy to implement.


## I CPI 2000/X. 25

8 Supported Port(s) • UNIBUS Supported • VMS/ULTRIX/RSX Supported •\$6,800+ Certified for Telenet, TYMNET and the DDN, the CPI 2000/X. 25 is a complete solution that offloads the X. 25 protocol from UNIBUS-based hosts while providing configuration flexibility.

## CPI 2020/X. 25

4 Supported Port(s) • Blbus Supported • VMS/ ULTRIX Supported • $\$ 11,000$

## CPI 2030/X. 25

4 Supported Port(s) • Q-bus Supported • VMS/ ULTRIX/MRSX Supported • $\$ 4,400_{+}$
Certified for Telenet, TYMNET, and the DDN, the CPI 2020/X. 25 and 2030/X. 25 are complete solutions that offload the X. 25 protocol from VAXBI-bus hosts while providing configuration flexibility.

## - CPI 3000/MDLC

8 Supported Port(s) • UNIBUS Supported • VMS/ULTRIX/RSX Supported • $\$ 6,000_{+}$ The CPI $3000 / \mathrm{HDLC}$ is a complete hardware and software solution, providing a cost effective and flexible implementation of the HDLC LAPB protocol for UNIBUSbased systems.

## - CPI 3010/MDLC

4 Supported Port(s) • Q-bus Supported • VMS/ ULTRIXMRSX Supported • \$4,300+
The CPI $3010 / \mathrm{HDLC}$ is a complete hardware and software solution, providing a cost effective and flexible implementation of the HDLC LAPB protocol for Q-bus based systems.

## - CPI 3020/HDLC

4 Supported Port(s) • Blbus Supported • VMS/ ULTRIX Supported • \$11,000
The CPI $3020 / \mathrm{HDLC}$ is a complete hardware and software solution, providing a cost effective and flexible implementation of the HDLC LAPB protocol for VAX BIbusbased systems.

## - CPI 3030/MDLC

4 Supported Port(s) • Q-bus Supported • VMS/ ULTRIX/MRSX Supported • \$4,300+
The CPI $3030 / \mathrm{HDLC}$ is a complete hardware and software solution, providing a cost effective and flexible implementation of the HDLC LAPB protocol for Q-bus based systems.

## - CPI 4000/ADCCP MRM

8 Supported Port(s) • UNIBUS Supported VMS/ULTRIX/RSX Supported • $\$ 11,000_{+}$
The CPU 4000/ADCCP NRM provides a flexible implementation of the ADCCP NRM protocol for UNIBUS based systems. The interface is configurable for data rate, internal or external clock source, window size, and address length and station.

## - CPI 4010/ADCCP MRM

4 Supported Port(s) • Q-bus Supported • VMS/ ULTRIX/MRSX Supported • \$7,000+
The CPU 4010/ADCCP NRM provides a flexible implementation of the ADCCP NRM protocol for Q-bus-based systems. The interface is configurable for data rate, internal or external clock source, window size, and address length and station.

## CPI 4020/ADCCP NRM

4 Supported Port(s) • Blbus Supported • VMS/ ULTRIX Supported - $\$ 13,500$
The CPU 4020/ADCCP NRM provides a flexible implementation of the ADCCP NRM protocol for VAX BIbus based systems. The interface is configurable for
data rate, internal or external clock source, window size, and address length and station.

## CPI 4030/ADCCP MRM

4 Supported Port(s) • Q-bus Supported • VMS/ ULTRIX/MRSX Supported •\$7,000+
The CPU 4030/ADCCP NRM provides a flexible implementation of the ADCCP NRM protocol for Q-bus-based systems. The interface is configurable for data rate, internal or external clock source, window size, and address length and station.

## CPI 4200/ADCCP ABM

8 Supported Port(s) • UNIBUS Supported VMS/ULTRIX/RSX Supported • $\mathbf{\$ 1 1 , 0 0 0 +}$
The CPI 4200/ADCCP ABM provides a high-performance and flexible implementation of the ADCCP ABM protocol for UNIBUS-based systems. The interface is configurable for data rate, window and address sizes.

## - CPI 4210/ADCCP ABM

4 Supported Port(s) • Q-bus Supported • VMS/ ULTRIX/RSX Supported • \$7,000+
The CPI 4210/ADCCP ABM provides a high-performance and flexible implementation of the ADCCP ABM protocol for Q -bus-based systems. The interface is configurable for data rate, window and address sizes

## CPI 4220/ADCCP ABM

4 Supported Port(s) • Blbus Supported • VMS/ ULTRIX Supported • $\$ \mathbf{1 3 , 5 0 0}$
The CPI 4220/ADCCP ABM provides a high-performance and flexible implementation of the ADCCP ABM protocol for VAX-BIbus-based systems. The interface is configurable for data rate, window and address sizes.

## CPI 4230/ADCCP ABM

4 Supported Port(s) • Q-bus Supported • VMS/ ULTRIX/MRSX Supported • \$7,000+
The CPI 4230/ADCCP ABM provides a high-performance and flexible implementation of the ADCCP ABM protocol for Q-bus-based systems. The interface is con figurable for data rate, window and address sizes.

## CPI 5000/SDLC

8 Supported Port(s) • UNIBUS Supported • VMS/ULTRIX/RSX Supported • \$9,000+
The CPI $5000 /$ SDLC is a complete SDLC communication solution for UNIBUSbased systems. A variety of configuration parameters allow the interface to be shaped to specific applications.

## - CPI 5010/SDLC

4 Supported Port(s) • Q-bus Supported • VMS/ ULTRIX/MRSX Supported • $\mathbf{\$ 5 , 6 0 0 +}$
The CPI $5010 /$ SDLC is a complete SDLC communication solution for Q-bus-based systems. A variety of configuration parameters allow the interface to be shaped to specific applications.

## CP1 5020/SDLC

4 Supported Port(s) • Blbus Supported • VMS/ ULTRIX Supported •\$11,000
The CPI 5020/SDLC is a complete SDLC communication solution for VAX BIbusbased systems. A variety of configuration parameters allow the interface to be shaped to specific applications.

## CPI 5030/SDLC

4 Supported Port(s) • Q-bus Supported • VMS/ ULTRIX/MRSX Supported • $\mathbf{\$ 5 , 6 0 0}$
The CPI 5030/SDLC is a complete SDLC
communication solution for $Q$-bus-based systems. A variety of configuration parameters allow the interface to be shaped to specific applications.

## - CPI 8010/DDCMP

4 Supported Port(s) • Q-bus Supported • VMS Supported • $\$ 5,000+$
The CPI 8010/DDCMP is a complete hardware and software DDCMP communication solution for Q -bus-based systems. The interface is fully compatible with DEC's products at the programming and serial link levels. It may be independently configured for a variety of parameters including data rate, synchronization, clock source type of connection, and DECnet or QIO access.

## CPI 8020/DDCMP

4 Supported Port(s) • Blbus Supported • VMS Supported - $\$ 11,000$
The CPI 8020/DDCMP is a complete hardware and software DDCMP communication solution for VAX BIbus-based sys tems. The interface may be independently configured for a variety of parameters.

## CPI 8030/DDCMP

4 Supported Port(s) • Q-bus Supported • VMS Supported • $\mathbf{\$ 5 , 0 0 0 +}$
The CPI 8030/DDCMP is a complete hard ware and software DDCMP communication solution for $Q$-bus-based systems. The interface is fully compatible with DEC's products at the programming and serial link levels. It may be independently configured for a variety of parameters including data rate, synchronization, clock source, type of connnection, and DECnet or QIO access

## CPI 9000/DDM

8 Supported Port(s) • UNIBUS Supported • VMS/ULTRIX Supported •\$17,000+
Certified by the DCA for use on the DDN the CPI 9000/DDN provides DDN interoperability for UNIBUS systems with TCP/ IP and the DoD application protocol suite: TELENET, FTP and SMTP.

## EPI 9010/DDN

4 Supported Port(s) • Q-bus Supported • VMS/ ULTRIX Supported •\$12,400+
Certified by the DCA for use on the DDN, the CPI 9010/DDN is a full service inter face implementation of the DoD protocol architecture for Q-bus-based systems. DDN interoperability is achieved with the incorporation of TCP/IP and the DoD application protocol suite: TELENET, FTP and SMTP. Both standard and basic X. 25 are supported.

## - CPI 9020/DDH

4 Supported Port(s) • Blbus Supported • VMS/ ULTRIX Supported • $\$ 23,800+$
Certified by the DCA for use on the DDN, the CPI 9020/DDN provides DDN interop erability for VAX BIbus-based systems with TCP/IP and the DoD application protocol suite: TELENET, FTP, and SMTP

## - CPI 9030/DDW

4 Supported Port(s) • Q-bus Supported • VMS/ ULTRIX Supported • $\mathbf{\$ 1 2 , 4 0 0 +}$
Certified by the DCA for use on the DDN, the CPI 9030/DDN is a full service interface implementation of the DoD protoco architecture for Q-bus-based systems. DDN interoperability is achieved with the incorporation of TCP/IP and the DoD application protocol suite: TELENET, FTP, and SMTP. Both standard and basic X. 25 are supported.

## Software Results Corporation <br> - COMBOARD-HASP-1231

1 Supported Port(s) • UNIBUS Supported • VMS/UNIX Supported • \$12,500+
MC68000-based hardware offloads DEC CPU resources. COMBOARD is a combination hardware and software solution supporting VMS and ULTRIX with speeds of up to 64 Kbps .

## - COMBOARD-HASP-1232

1 Supported Port(s) • Q-bus Supported • VMS/ UNIX Supported •\$24,500
All character translation (EBCIDIC-ASCII), compression, decompression, transmission error recovery and other HASP protocol operations are handled by the COMBOARD-HASP rather than the VAX CPU. Please note that the FEP is Software Results' COMBOARD design.

## COMBOARD-HASP-1252

1 Supported Port(s) • Q-bus Supported • VMS/ UNIX Supported • $\$ 8,700+$
MC68000 based hardware offloads DEC CPU resources. COMBOARD is a combination hardware and software solution supporting VMS and ULTRIX with speeds up to 64 Kbps .

## ■ COMBOARD-HASP-431

1 Supported Port(s) • UNIBUS Supported VMS/UNIX Supported • $\mathbf{\$ 6 , 5 0 0 +}$

## COMBOARD-HASP-432

1 Supported Port(s) • Q-bus Supported • VMS/ UNIX Supported •\$6,500+
All character translation (EBCIDIC-ASCII), compression, decompression, transmission error recovery and other HASP protocol operations are handled by the COMBOARD-HASP-431 and -432 rather than the VAX CPU. Please note that the FEP is Software Results' COMBOARD design.

## - COMBOARD-HASP-45

1 Supported Port(s) • Q-bus Supported • VMS/ UNIX Supported - $\mathbf{\$ 3 , 5 0 0 +}$

## - COMBOARD-HASP-631

1 Supported Port(s) • UNIBUS Supported VMS/UNIX Supported • \$9,200+
MC68000 based hardware offloads DEC CPU resources. COMBOARD is a combination hardware and software solution supporting VMS and ULTRIX with speeds up to 64 Kbps .

## - COMBOARD-HASP-632

1 Supported Port(s) • Q-bus Supported • VMS/ UNIX Supported •\$9,900+
All character translation (EBCIDIC-ASCII), compression, decompression, trans mission error recovery and other HASP protocol operations are handled by the COMBOARD-HASP rather than the VAX CPU. Please note that the FEP is Software Results' COMBOARD design.

## [ COMBOARD-HASP-652

1 Supported Port(s) • Q-bus Supported • VMS/ UNIX Supported •\$5,900+

## - COMBOARD-HASP-731

1 Supported Port(s) • UNIBUS Supported • VMS/UNIX Supported • $\mathbf{\$ 1 1 , 3 0 0 +}$
MC68000 based hardware offloads DEC CPU resources. The COMBOARD-HASP 652 and -731 combine hardware and software and support VMS and ULTRIX with speeds up to 64 Kbps .

- COMBOARD-HASP-732

1 Supported Port(s) • Q-bus Supported • VMS/ UNIX Supported •\$10,900+
All character translation (EBCIDIC-ASCII), compression, decompression, transmission error recovery and other HASP protocol operations are handled by the COMBOARD-HASP rather than the VAX CPU. Please note that the FEP is Software Results' COMBOARD design.

## E COMBOARD-HASP-752

1 Supported Port(s) • Q-bus Supported • VMS/ UNIX Supported •\$7,700+

## - COMBOARD-SMA-1252

1 Supported Port(s) • Q-bus Supported • VMS/ UNIX Supported - $\$ \mathbf{1 0 , 9 0 0 +}$
MC68000 based hardware offloads DEC CPU resources. The COMBOARD-HASP752 and -SNA-1252 combine hardware and software and support VMS and ULTRIX with speeds up to 64 Kbps .

## - COMBOARD-SMA-452

1 Supported Port(s) • Q-bus Supported • VMS/ UNIX Supported •\$3,500+

## - COMBOARD-SMA-652

1 Supported Port(s) • Q-bus Supported • VMS/ UNIX Supported • $\mathbf{\$ 6 , 1 0 0 +}$

## ■ COMBOARD-SMA-752

1 Supported Port(s) • Q-bus Supported • VMS/ UNIX Supported - $\$ 9,900+$

## - COMBOARD/3780-1231

1 Supported Port(s) • UNIBUS Supported 0 VMS Supported •\$11,300+
MC68000 based hardware offloads DEC CPU resources. The COMBOARD-SNA-$652,-752$, and $3780-1231$ combine hardware and software and support VMS and ULTRIX with speeds up to 64 Kbps .

## ■ COMBOARD/3780-431

1 Supported Port(s) • UNIBUS Supported VMS Supported •\$6,500+
All character translation (EBCIDIC-ASCII), compression, decompression, transmission error recovery and other 3780 protocol operations are handled by the COMBOARD-3780 rather than the VAX CPU.

## ■ COMBOARD/3780-631

1 Supported Port(s) • UwIBUS Supported - VMS Supported - $\$ 8,400+$

- COMBOARD/3780-731

1 Supported Port(s) • UNIBUS Supported • VMS Supported •\$10,100+
MC68000 based hardware offloads DEC CPU resources. The COMBOARD/3780631 and -731 combine hardware and software and support VMS and ULTRIX with speeds up to 64 Kbps .

## Communication Servers

## 3Com Corporation

## - CS/200

10 Supported Port(s) • 38.4Kbps • 802.3
Supported - 512KBytes
The CS/200 features a multiple 68000 processor architecture and is available with internal flexible disk drives for small networks.

- CS/210

10 Supported Port(s) • 38.4Kbps • 802.3
Supported • 512 KBytes
The CS/200 also supports four to ten ports in broadband networks and features distributed data switching and multivendor connectivity.

## - $65 / 3$

8 Supported Port(s) • 64Kbps • 802.3
Supported

## - 6S/300

4 Supported Port(s) • 19.2Kbps • 802.3 Supported
The GS/3 and 300 are equipped with intelligent Ethernet controllers, high-speed serial communication controllers, main processors, as well as 68000 processor architecture.

## - ivecs

8 Supported Port(s) • 802.3 Supported •
1MBytes • $\$ 5,900$
The IVECS eliminates the need for up to eight DMF-32 controllers and is equipped with 12 MHz architecture and a VLSI Ethernet controller.

## ■ MCS/AT

802.3 Supported

The NCS/AT is a network control server with a multiple 68000 microprocessor architecture and is equipped with a VLSI Ethernet controller.

## Able Computer

## - LC3600

3600 Supported Port(s) • 1Mbps • HDLC Supported •\$10,200
Supports up to eight server link modules, containing 32 links, supporting up to 3600 connections via Able's EASYway servers.

## DILOG

## - CQ2010

128 Supported Port(s) • 9600bps • T-1
Supported • $\$ 3,900$
Occupies one slot in the MicroVAX backplane and connects terminals by multiplexing them onto a single T-1 composite line. It replaces as many as eight $Q$ bus communication controllers and uses existing twisted-pair wiring for links.

## Xyplex, Inc. <br> - MX-MAX4500-E/y

5 Supported Port(s) • 1.544Mbps • 802.3 . Supported - $\$ 3,995$

## © MX-MAX4500-T

5 Supported Port(s) •1.544Mbps • 802.3
Supported •\$3,995

## E MX-MAX5000-E

16 Supported Port(s) • 1.544Mbps • 802.3
Supported •\$9,995

## - MX-MAX5000-T

16 Supported Port(s) • 1.544Mbps • 802.3 Supported •\$9,995
The MX-MAX Series provide the foundation for creating high performance nonstop communication servers that integrate local and wide area network activity Support XYPLEX System Software version 2.1 E 3 or later.

## Modems

## Able Computer

- MB 220

Fiber Optic Modem • 1 Mbps • FDX/HDX
Operating Mode • \$1,250
This modem provides connection of Able's NC480 and NC3600 network nodes via fiber optic cable.

## - T1 MODEM MB100

T1 Modem $\cdot 1.544 \mathrm{Mbps} \bullet$ FDX/HDX Operating Mode - $\$ 3,500$
This modem provides connection of Able's EASYway networks to T1 lines. It accepts $1-1.5 \mathrm{Mbps}$ data stream, transmits it, and then identically reassembles it on the other end.

## Astronautics Corporation of America

## - AC312

Acoustic Modem • 300bps • FDX/HDX
Operating Mode • Async Transmission Type -
100 Bell Compatible - $\$ 199$

## at\&T Paradyne <br> Corporation

- 3450

Leased Line Modem • $14.4 \mathrm{Kbps} \bullet$ Async
Transmission Type
A point-to-point leased line modem with fully integrated multiplexing, dial restoral and network management facilities. Features diagnostic control panel with twoline, 48 -character menu driven display and keypad for user-defined configuration, remote message displays and complete diagnostic control of both local and remote modems.

## - 3470

Leased Line Modem • 19.2Kbps • Async
Transmission Type
A point-to-point leased line modem with fully integrated multiplexing, dial restoral and network management facilities. Features diagnostic control panel with 2 -line, 48 -character menu driven display and keypad for user-defined configuration, remote message displays and complete diagnostic control of both local and remote modems.

## - $34 \times 0$

Leased Line Modem • 19.2Kbps • Async
Transmission Type
The $34 x 0$ features fully integrated Network Management System capabilities for comprehensive diagnosticmonitoring, test and control. This model is a standalone modem.

## - $34 \times 1$

Leased Line Modem • 9600bps • Async
Transmission Type
The $34 \times 1$ modems operate with a shared Auxiliary Diagnostic Control Panel and loadshare power supply system to accommodate high density point-to-point and multipoint applications.

## - $34 \times 2$

Leased Line Modem•9600hps • Async Transmission Type
The $34 \times 2$ Series standalone modems feature, full menu of diagnostic facilities at the device and network levels for end-toend network surveillance and control.

## - $34 \times 3$

Leased Line Modem • 19.2Kbps • Async
Transmission Type
The 34x3Series are multiport, nest mount leased line modems with fully integrated multiplexing, and network management facilities.

## Bizcomp Corporation

- 4124

Voice Band Modem • 2400 bps • FDX/HDX Operating Mode • Async/Sync Transmission Type - 212/103 Bell Compatible • $\$ 599$
The 4124 is equipped with Bizcomp's proprietary Adaptive Echo Cancellation(AEC) technology.

## - 5124R

Voice Band Modem • 2400 bps • FDX/HDX Operating Mode • Async/Sync Transmission Type • 212/103 Bell Compatible •\$599
This model is a rack mount card configuration.

## -5124RE

Voice Band Modem • 2400 bps • FDX/HDX Operating Mode • Async/Sync Transmission Type • 212/103 Bell Compatible •\$599 This model is a rack enclosure configuration that is available with an optional (1) RJ27X telephoneinterface,(2)RJ11Cjacks, and (3) Automatic Make Busy function that senses if a modem card is not plugged in and automatically busies out the associated telephone connection.

## - EXT

Voice Band Modem • 1200 bps • FDX/HDX Operating Mode • Async Transmission Type • 212/103 Bell Compatible •\$449
The EXT features PROM based products, Bizcomp's patented auto-dialing technology, line quality bargraph generations that measure the quality of the phone line, a speaker with volume control, voice/data toggling, external dip switches, and a -50 dBM receive sensitivity capability.

## Black Box Corporation

## - 1200NC

Voice Band Modem • 1200bps • FDX Operating Mode • Async Transmission Type • 212A/103
Bell Compatible - $\$ 175$
Hayes compatible.

## - 201 BC/AS

Voice Band Modem • 2400hps • Async/Sync Transmission Type • 201B/C Bell Compatible * \$685
Operates in multipoint applications.

## [108 AB

Voice Band Modem • 4800bps • FDX/HDX
Operating Mode - Sync Transmission Type •
208A/B Bell Compatible - \$1,295
Features an antistreaming detector and operates in multipoint applications.

## - 208 AB/AS

Voice Band Modem • 4800bps • FDX/HDX Operating Mode • Async/Sync Transmission Type - 208A/B Bell Compatible - $\mathbf{\$ 1 , 2 9 5}$
Features an antistreaming detector, built in async to sync converter, and operates in multipoint applications.

## - 224 ATD

Voice Band Modem - 2400hps • FDX Operating Mode • Async/Sync Transmission Type - 212A 103 Bell Compatible •\$500
Hayes Compatible.

## . 2400 HC

Voice Band Modem • 2400bps • FDX Operating Mode • Async/Sync Transmission Type - 212A 103 Bell Compatible • $\$ 375$
This modem features Hayes Smartmodem 2400 compatibility, MNP error correction, nonvolatile memory, and soft set configuration via EIA interface.

## - 2400 Security Modem

Voice Band Modem - 2400bps • FDX Operating Mode • Async Transmission Type • 212A/103 Bell Compatible - $\$ 795$
Modem features three security levels and storage of 16 passwords and phone numbers.

## - 2400/120

Leased Line Modem - 2400bps • FDX/HDX Operating Mode • Async/Sync Transmission Type • 201B/N. 26 CCITT Compatible • $\$ 825$ Modem may be used in point-to-point or multipoint modes.

## - $3 / 12$ NPR

Voice Band Modem • 1200bps • FDX Operating Mode - Async Transmission Type • 212A/103 Bell Compatible - $\$ 199$
This modem is powered from telephone lines.

## - 9600 AB

Voice Band Modem • 9600bps • FDX/HDX Operating Mode • Sync Transmission Type • V. 29 CCITT Compatible •\$1,995

## - 9600 Asyac Plus

Voice Band Modem • 9600bps • FDX Operating Mode • Async Transmission Type - 212A/103 Bell Compatible • \$1,099
Modem will switch transmission speeds with a simple command, or the modem can adjust to set speeds automatically.

## - 9600 Async Turbo

Voice Band Modem • $19.2 \mathrm{Kbps} \bullet$ FDX Operating Mode • Async Transmission Type • 212A/103 Bell Compatible • $\$ 1,099$
Modem will switch transmission speeds with a simple command, or the modem can adjust to set speeds automatically.

## - 9600 FP

Voice Band Modem • 9600bps • FDX/HDX Operating Mode - Sync Transmission Type • \$1,995
This modem is designed for use in multipoint networks over Bell 3002 unconditioned lines. A train-on data feature allows you to add slave modems without interrupting network operations.

## - 9600 Synchronous

Voice Band Modem • 9600bps • FDX/HDX Operating Mode - Sync Transmission Type • V. 29 CCITT Compatible •\$1,695

Advanced QAM modulation techniques and a powerful digital equalizer lets it work over all 3002, M1040 or equivalent conditioned, leased telephone lines.

## - All-in-One

19.2Kbps • FDX Operating Mode • Async/Sync Transmission Type • V.22N. 32 CCITT
Compatible - $\$ 1,245+$
Ideal for multiple CPU environments, the All-In-One V. 32 features MNP5 and Trellis ( R ) coding.

## m CSU/DSU

DDS Ntwrk Modem • 9600bps • FDX/HDX Operating Mode • Async/Sync Transmission Type - \$825
Suitable for point-to-point or multipoint
applications. For use on the Digital Data phone Service network.

## - csu/DSU V. 35

DDS Ntwrk Modem • FDX/HDX Operating Mode - Sync Transmission Type - \$770

Use this unit to link V. 35 sync devices to the DDS network via high speed V. 35 line

## - Modem Rack

$\$ 895$
Stores up to 16 printed circuit-card modems. Cards may be removed and replaced with the power on so service is not inter rupted.

## - Security Modem

Leased Line Modem • 1200bps • FDX Operating Mode • Async Transmission Type • 212A/103 Bell Compatible - $\$ 595$
Stores up to 25 user ID codes with callback numbers. Also prevents anyone from making unauthorized calls from the host.

## - V. 32

Leased Line Modem • 9600tps • FDX Operating Mode • Async/Sync Transmission Type • V. 32 CCITT Compatible •\$1,595
This modem features error-reducing Trellis encoding, call progress detection, and eight test modes

## Bo-Sherrel <br> Company, lic. <br> - LD-3M

Line Driver Modem • 19.2Kbps • FDX
Operating Mode • Async Transmission Type • $\$ 69$
Operates without connecting to the main power supply by using ultra low power from data and control signals for local area networks.

## - M-1AR

Ltd Dist Modem • 19.2Kbps • FDX Operating Mode • Async Transmission Type • 3081 Bell Compatible - $\$ 138$
Intended for local communication between computers, printers and displays. Supports carrier detectsignal to accommodate equipment using it as a buffer full indicator.

## - M-3

Line Driver Modem • 19.2Kbps • FDX Operating Mode • Async Transmission Type 3081 Bell Compatible • $\$ 49$
Operates without connecting to the main power supply. Line driving is performed by two-way balanced current loop.

## [1 M-5S

Short Haul Modem • 38.4Kbps • HDX
Operating Mode - Async Transmission Type 3081 Bell Compatible - $\$ 219$
Equipped with a selectable DTE/DCE switch and request to send (RTS) and clear to send (CTS) delays.

## © M-E

Eliminator Modem • 38.4Kbps • Async/Sync
Transmission Type •\$249
Designed to replace two modems within 800 feet. Connects to two DTE devices (terminals, computers or controllers) and is equipped with request to send (RTS) and clear to send (CTS) delays.

## Canoga-Perkims

- 2121

Fiber Optic Modem • 19.2Kbps • FDX

Operating Mode • Async Transmission Type • $\$ 125$
The 2121 is used to link CPU to terminals or personal computers.

## - 2250

Fiber Optic Modem • 153.6Kbps • Async/Sync Transmission Type - $\$ 695$

## - 2260

Fiber Optic Modem • $\mathbf{2 . 0 4 8 M b p s}$ - $\$ 795$
Also supports 1.544 Mbps data speeds. Available with redundant fiber optics and 1300 nm single/multimode options.

## - 2270

Fiber Optic Modem • 20Mbps • Async/Sync
Transmission Type •\$3,095
Ideal for KGs-to-Fiber applications. Equipped with 12 interchangeable interfaces, internal or external clocking; available with a redundant fiber optics option.

## ■ 2280

Fiber Optic Modem • 12.6Mbps • Async/Sync Transmission Type - $\$ 895$
Designed for external clock-and-data applications. Equipped with 12 interchangeable interfaces; available with redundant fiber optics and 1300 single/multimode options.

## - $\quad 2290$

Fiber Optic Modem • 12.6Mbps • Async/Sync Transmission Type • \$1,095
Equipped with 12 interchangeable inter faces and internal or external clocking; available with redundant fiber optics and 1300 single/multimode options.

## Case/Datatel

- DCP3000

Ltd Dist Modem • $\mathbf{6 4 K b p s}$ • Async
Transmission Type • 43401 Bell Compatible
Features a point-to-point operating mode

## - DCP3020

Ltd Dist Modem • $64 \mathrm{Kbps} \bullet$ Async
Transmission Type • 43401 Bell Compatible
The DCP3020 features point-to-point multidrop polled, and dial emulation modes.

## ■ DCP3050

Ltd Dist Modem • 19.2Kbps•Async/Sync Transmission Type • 43401 Bell Compatible The DCP3050 features point-to-point and multidrop polled modes.

## ■ DCP3055

Ltd Dist Modem • 19.2Kbps • Async/Sync
Transmission Type • 43401 Bell Compatible

## - DCP3057

Ltd Dist Modem • $64 \mathrm{Kbps} \bullet$ Async/Sync Transmission Type • 43401 Bell Compatible The DCP3055 and 3057 feature point-topoint modes.

## - DCP3080

Ltd Dist Modem • 56Kbps • Sync Transmission Type

## - DCP3083

Ltd Dist Modem • $56 \mathrm{Kbps} \bullet$ Sync Transmission
Type

## - DCP3100

Ltd Dist Modem • $\mathbf{6 4 K b p s} \bullet$ Async
Transmission Type - 43401 Bell Compatible

## - DCP3120

Ltd Dist Modem • $64 \mathrm{Kbps} \bullet$ Async
Transmission Type • 43401 Bell Compatible

## - DCP3150

Ltd Dist Modem • 19.2Kbps • Async/Sync Transmission Type • 43401 Bell Compatible

## - DCP3155

Ltd Dist Modem • 19.2Kbps • Async
Transmission Type • 43401 Bell Compatible

## - DCP3157

Ltd Dist Modem • $64 \mathrm{Kbps} \bullet$ Async/Sync
Transmission Type • 43401 Bell Compatible

## - DCP3180

Ltd Dist Modem • 56Kbps • Sync Transmission Type

## - DCP3183

Ltd Dist Modem • 56Kbps • Sync Transmission Type
The DCP31xx Series features point-to-point and multidrop polled modes.

## Cermetek <br> Microelectronics

- 1200

1200bps • FDX Operating Mode • Async/Sync
Transmission Type •\$395

## 1200 Security

1200bps • Async/Sync Transmission Type • $\$ 595$
The 1200 Security modem includes internal passwords and dial-back security capabilities. It is able to store up to 41 callback numbers and is protected by a key lock system.

## . 1200V

1200bps • Async Transmission Type • $\$ 595$
The 1200 V modem is equipped with internal communication software designed to support remote terminal operations. It includes menus and user prompts for all modem operations.

## - $\mathbf{6}$ 2400R

2400bps • Async/Sync Transmission Type • $\$ 645$

## - 9600

4800bps • FDX Operating Mode • \$2,999

## - 9600E

4800bps • FDX Operating Mode • $\$ 3,399$

## Codex Corporation

$\square 2111$ LDSU
Ltd Dist Modem • 19.2Kbps • FDX/HDX Operating Mode • Async Transmission Type e $\$ 335$
Incorporates a design that utilizes the unique characteristics of metallic circuits thereby allowing high-speed at a significantly lower price than conventional modems.

## $\mathbf{x} 2121$ LDSU

Ltd Dist Modem • 19.2Kbps • FDX/HDX Operating Mode $\bullet \mathrm{A}^{*} / \mathrm{S}$ Transmission Type $\bullet$ \$775
One of a series of high-performance LDSUs incorporating Quadrature Diphase Modulation with advanced LSI and thick-film technologies for superior transmission reliability.

## 2121C LDSU

Ltd Dist Modem • 19.2Kbps • FDX/HDX
Operating Mode • Async/Sync Transmission Type • $\$ 680$

## 12122 LDSU

Ltd Dist Modem • 64Kbps • FDX/HDX

Operating Mode • Sync Transmission Type • $\$ 875$
A high-speed modem designed for intraand interpremises data communication with automatic adaptive equalization to maintain virtually error-free transmission.

## . 2123 LDSU

Ltd Dist Modem • 19.2Kbps • FDX/HDX
Operating Mode • $A^{*} / S$ Transmission Type • \$1,250
The 2123 LDSU features network control and provides a full range of monitoring, control, test and restoral capabilities.

## - 2205

Voice Band Modem • 4800bps • FDX/HDX Operating Mode - Sync Transmission Type • 208A/B Bell Compatible • $\mathbf{\$ 1 , 2 9 5}$

## 12206

Voice Band Modem • 9600bps • FDX/HDX Operating Mode - Sync Transmission Type e 208A/B Bell Compatible - $\$ 1,995$
The 2206 features a powerful automatic digital adaptive equalizer with multiple settings to optimize operation. This ensures greater error-free throughput even over marginal lines

## 2219

Voice Band Modem • 1200bps • FDX/HDX
Operating Mode • Async Transmission Type •
202S/T Bell Compatible • \$475
The rackmount version of the 2219 may be used in the Codex multiple modem enclosure.

## - 2234

Voice Band Modem • 2400bps • FDX Operating Mode • Async/Sync Transmission Type • 103/ 212 Bell Compatible • $\$ 495$
Integral auto calling unit supports 'AT command compatible mode and a synchronous V. 25 bis Codex Terse mode. Auto baud provides constant terminal speed.

## - 2239

Voice Band Modem • 2400bps • FDX Operating Mode • Async/Sync Transmission Type • 212/ 103 Bell Compatible - $\$ 895$

## - 2260

9600bps • FDX Operating Mode • Async/Sync Transmission Type • V. 32 CCITT Compatible \$1,995

## -2260

9600bps • FDX Operating Mode • Async/Sync Transmission Type • \$2,545

## - 2264

Voice Band Modem • 9600hps • FDX Operating Mode • Async/Sync Transmission Type • 212A Bell Compatible • $\mathbf{\$ 1 , 6 9 5}$
Features 32 -state trellis coded modulation, an internal eye pattern generator (EPG), MNP class 4 error correction, and operates with synchronous DTE equipment.

## - 2320

Voice Band Modem • 4800bps • FDX/HDX Operating Mode • Async/Sync Transmission Type • $\$ 1,425$

## - 2340

Voice Band Modem • 9600bps • FDX/HDX Operating Mode • Async/Sync Transmission Type • $\$ 1,650$
The 2320 and 2340 are available with optional 4-channel buffered multiplexers that allow optimal line utilization for the most demanding networks.

## 12362

14.4Kbps • FDX Operating Mode • Async/Sync Transmission Type • V. 24 N. 28 CCITT Compatible - \$3,195
Features 8 -state trellis coded modulation, an internal eye pattern generator ( EPG ), and is available with an optional four- or six-channel time division multiplexer.

## 12680

Voice Band Modem • 19.2Kbps • FDX/HDX Operating Mode • Sync Transmission Type • V.24N. 28 CCITT Compatible • $\$ 6,650+$ Features an internal two-channel (fourand six-channels are optional) time-division buffered multiplexer, and is compatible with all Codex Network Management systems.

## Computer Products, Inc.

- 67303

2400bps • Async Transmission Type • 103/ 212A Bell Compatible - $\$ 990$
Provides a Hayes compatible modem to a Q-bus based computer as an I/O port. Features DLV11-E emulation.

## Computrol

## M-1

\$165

## M-10

Fiber Optic Modem - $\$ 2,500$

## Comspec, Inc.

## 19600 C

Voice Band Modem • 9600bps • FDX/HDX Operating Mode • Sync Transmission Type • \$3,495

## CTS Corporation

## . 14.4MX

Voice Band Modem • 14.4Kbps • FDX/HDX Operating Mode • Sync Transmission Type • $\$ 4,695$
This model features proprietary modulation at 14.4 Kbps , CCITT V. 29 compatibil-
ity below 14.4 Kbps , a built-in six-channel TDM multiplexer, and Trellis encoding.

## - 212AHC

Voice Band Modem • 1200hps • FDX Operating Mode • Async Transmission Type - 212A Bell
Compatible - $\$ 295$
The 212AHC is Hayes compatible.

## - 2424 AD

Voice Band Modem • 2400bps • FDX Operating Mode • Async/Sync Transmission Type • 212A Bell Compatible • $\$ 395$
The 2424 AD modem is menu driven and features a unique command set as well as CCITT V. 22 bis and V. 22 A/B modulation.

## - 2424ADH Plus

Voice Band Modem • 2400bps • FDX Operating Mode • Async/Sync Transmission Type • 212A Bell Compatible - \$395
The 2424 ADH Plus is Hayes compatible and also features CCITT V. 22 bis and V. 22 $\mathrm{A} / \mathrm{B}$ modulation.

## © 2424AMH Plus

Voice Band Modem • 2400hps • FDX Operating Mode • Async/Sync Transmission Type • 212A Bell Compatible - $\$ 495$
The 2424 AMH Plus features Hayes compatibility, MNP error correction, a fixed DTE baud rate, and CCITTV. 22 bis as well as $\mathrm{V} .22 \mathrm{~A} / \mathrm{B}$ compatibility.

- 2424RMH

Voice Band Modem • 2400bps • FDX Operating Mode • Async/Sync Transmission Type - 212A Bell Compatible - \$395
The 2424RMH features an MI/MIC data mode, a Hayes compatible command set, and CCITT V. 22 bis as well as V. 22 A/B modulation.

## - 2424RMM

Voice Band Modem • 2400bps • FDX Operating Mode • Async/Sync Transmission Type • 212A Bell Compatible - \$495
The 2424RMM features the same capabilities as the 2424RMH model; however, the 2424RMM also features MNP error correction.

## 4827

Voice Band Modem • 4800bps • FDX/HDX
Operating Mode • Sync Transmission Type • V. 27 CCITT Compatible •\$1,195

## - 9629FP

Voice Band Modem • 9600bps • FDX/HDX Operating Mode • Sync Transmission Type * V. 29 CIITT Compatible • \$1,995

The 9629 FP features a constant carrier mode or fast polling down to 7.5 ms as well as CCITT V. 29 compatibility

## CXR Telcom Corporation

1212-AD3H
Voice Band Modem • 1200bps • FDX Operating Mode • Async/Sync Transmission Type • 103/ 212A Bell Compatible - $\$ 495$
The $1212-\mathrm{AD} 3 \mathrm{H}$ features IBM AT compatibility, a 25 number storage capability, MI/MIC and A/AI operation, and may be upgraded to 2400 bps with Anderson Jacobsen's 2412-AD3H model.

## - 1212-STH

Voice Band Modem • 1200bps • FDX Operating
Mode • Async/Sync Transmission Type • 103/ 212A Bell Compatible • $\$ 295$
The 1212-STH features MI/MIC operation and IBM AT compatibility. It is also available with an optional MNP-5 error detection capability.

## - 1241-124

Voice Band Modem • 1200bps • FDX Operating Mode • Async/Sync Transmission Type • 212 / 103 Bell Compatible • $\$ 995$
The 1241-124 is a modem card designed for central site applications. Four modems/ card and 64 modems fit in one 7 " high UCCA-01 card cage.

## -1241-234

Voice Band Modem • 1200bps • FDX Operating Mode • Async/Sync Transmission Type • \$995 The 1241-234 is a modem card designed for central site, Videotex type applications. Four modems/card and 64 modems fit in one 7" high UCCA-01 card cage. This unit also features CCITT V. 23 compliance as well as operation at 1200 bps with 75 bps reverse channel capabilities.

## - 1243-223

Voice Band Modem • 1200bps • FDX Operating Mode • Async/Sync Transmission Type • 212 / 103 Bell Compatible - $\$ 995$
The 1243-233 is a modem card designed for central site, video-type applications. Three modems/card and 48 modems fit in one $7^{\prime \prime}$ high UCCA-01 card cage.
. 1441-1
Voice Band Modem • 14.4Kbps • FDX

Operating Mode • Sync Transmission Type The 1441-1 is a modem card designed for one UCCA-01 card cage and UCSA-01 standalone case. It features trellis coding, full front panel configuration, downline loading, and CCITT V. 29 and V. 33 compliance. The modem card dimensions are $7 \times 1.5 \times 12$.

## - 1441-10

Voice Band Modem • 14.4Kbps • FDX Operating Mode • Sync Transmission Type The 1441-1D is a modem card designed for one UCCA-01 card cage and UCSA-01 standalone case. It features trellis coding, full front panel configuration, downline loading, and CCITT V. 29 and V. 33 compliance. The modem card dimensions are $7 \times 1.5 \times 12$. In addition, the $1441-1 \mathrm{D}$ features UADBU and intelligent lookback.

## 1911-L2

Voice Band Modem • 19.2Kbps • FDX
Operating Mode • Sync Transmission Type The 1911-L2 features 16 -state, 8 dimensional trellis coding capabilities, automatic fall-back/fall-forward, an integral 2 port Time Division multiplexer, and an optional additional 6 port Time Division multiplexer.

## - 1911-L2T

Voice Band Modem • 19.2Kbps • FDX
Operating Mode • Sync Transmission Type
Same as above. In addition, the 1911-L2T features UADBU and intelligent lookback.

## 2412-AD3H

Voice Band Modem • 2400bps • FDX/HDX Operating Mode • A/S Transmission Type • 212A/103 Compatible

## - 2412-STH

Voice Band Modem • 2400bps • FDX Operating Mode • A/S Transmission Type • 212/103 Compatible
Same as above. In addition, the 2412-STH features an optional MNP level 4 or 5 as well as CCITT V. 22 and V. 22 bis compliance.

## 2441-1

Voice Band Modem • 2400bps • FDX Operating Mode • A/S Transmission Type • 212/103 Compatible
The 2441-1 is a modem card designed for one UCCA-01 card cage and an UCSA-01 standalone case. It features 25 phone number storage, a menu dialer, security answerback, callback, passwords, UADBU (Unattended Automatic Dial Back-up) in leased line operation, and is available with an optional MNP level 4 or 5. It also features CCITT V.21, V.22, V. 22 bis compliance. Modem card dimensions are $7 \mathrm{x} .74 \times 12$.

## 2441-2

Voice Band Modem • 2400bps • FDX Operating Mode • A/S Transmission Type • 212/103 Compatible
The 2441-2 is a modem card designed for one UCCA-01 card cage and an UCSA-01 standalone case. It features 10 phone number storage, a menu dialer, security answerback, MI/MIC or A/A1 operation, and is available with an optional MNP level 4 or 5. It also features CCITT V.22, V. 22 bis compliance. Modem card dimensions are $7 \times .74 \times 12$.

## . 2441-3

Voice Band Modem • 2400bps • FDX Operating Mode • A/S Transmission Type • 212/103 Compatible

The 2441-3 is a modem card designed for one UCCA-01 card cage and an UCSA-01 standalone case. It features an MNP level 4 or 5 option as well as CCITT V. 22, V. 22 bis compliance. Modem card dimensions are $7 \mathrm{x} .74 \times 12$.

## - 9641-1

Voice Band Modem • 9600bps • FDX Operating Mode • A/S Transmission Type
The 9641-1 is a modem card designed for one UCCA-01 card cage and UCSA-01 standalone case. It features CCITT V. 29 compliance or fast pull operation, multipoint or point-to-point operation, and downline loading. The dimensions for the modem card are $7 \times 2 \times 12$

## - 9641-1D

Voice Band Modem • 9600bps • FDX Operating Mode • A/S Transmission Type
Same as 9641-1. The 9641-1D also features UADBU and intelligent lookback.

## 9641-1F

Voice Band Modem • 9600bps • FDX Operating Mode • A/S Transmission Type
The $9641-1 \mathrm{~F}$ is a modem card designed for one UCCA-01 card cage and UCSA-01 standalone case. It features CCITT V. 29 compliance or fast pull operation, multipoint or point-to-point operation, and downline loading. The dimensions for the modem card are $7 \times 2 \times 12$.

## 9641-1FD

Voice Band Modem • 9600bps • FDX Operating Mode • A/S Transmission Type
The $9641-1$ FD is a modem card designed for one UCCA-01 card cage and UCSA-01 standalone case. It features CCITT V. 29 compliance or fast pull operation, multipoint or point-to-point operation, and downline loading. The dimensions for the modem card are $7 \times 2 \times 12$.

## 9651-1

Voice Band Modem • 9600bps • FDX Operating Mode • Sync Transmission Type
The 9651-1 features Unattended Automatic Dial Back-up (UADBU) with intelligent lookback, and security features.

## 19651-2

Voice Band Modem • 9600bps • FDX Operating Mode • A/S Transmission Type

## Datacom <br> Technologies, Inc.

192
19.2Kbps • HDX/FDX Operating Mode • A/S Transmission Type
Features internal, external, or received clock, selectable transmitter output level and receiver sensitivity, and is able to multidrop up to 16 units.

## 193

19.2Kbps • HDX/FDX Operating Mode • A/S

Transmission Type
Features internal, external, or received clock, selectable transmitter output level and receiver sensitivity, and is able to multidrop up to 16 units.

## 300

Short Haul Modem • 19.2Kbps • Async
Transmission Type
Used as either DTEs or DCEs and features optical isolated data transmission.

## 400

Short Haul Modem • 19.2Kbps • Sync
Transmission Type

Used as either DTEs or DCEs and features optical isolated data transmission.

## DCB, Inc.

■ PL 14.4
Voice Band Modem • 14.4Kbps • FDX
Operating Mode - Sync Transmission Type The PL 14.4 model features a receive level indicator.

## - PL 14.4 Plus

Voice Band Modem • 14.4Kbps • FDX
Operating Mode • Sync Transmission Type The PL 14.4 Plus features internal diagnostics that are accessible with any asynchronous terminal.

## © PL 19.2

Voice Band Modem • 19.2Kbps • FDX
Operating Mode - Sync Transmission Type
The PL19.2 features a receive level indicator.

## - PL 19.2 Plus

Voice Band Modem • 19.2Kbps • FDX Operating Mode - Sync Transmission Type • V. 29 Compatible

The PL 19.2 Plus features internal diagnostics that are accessible with any asynchronous terminal.

## - PL 4.8

Voice Band Modem • 4800bps • FDX Operating
Mode • Sync Transmission Type • V. 27
Compatible
The PL 4.8 features a receive level indicator.

## - PL 4.8 Plus

Voice Band Modem • 4800bps • FDX Operating Mode - Sync Transmission Type • V. 27
Compatible
The PL 4.8 Plus features internal diagnostics that are accessible with any asynchronous terminal.

■ PL 9.6
Voice Band Modem • 9600bps • FDX Operating Mode • Sync Transmission Type • V. 29
Compatible
The PL 9.6 features a receive level indicator.

## - PL 9.6 Plus

Voice Band Modem • 9600bps • FDX Operating Mode - Sync Transmission Type • V. 29 Compatible
The PL 9.6 Plus features internal diagnostics that are accessible with any asynchronous terminal.

## PL 9.6FP

Voice Band Modem • 9600bps • FDX Operating Mode - Sync Transmission Type
The PL 9.6FP features a receive level indicator.

## - PL 9.6FP Plus

Voice Band Modem • 9600 bps - FDX Operating
Mode • Sync Transmission Type
The PL 9.6FP Plus features internal diagnostics that are accessible with any asynchronous terminal.

## Digital Communications Association

## 1910

Voice Band Modem • 2400bps • FDX/HDX
Operating Mode • Sync Transmission Type

- 911

Voice Band Modem • 2400bps • FDX Operating

Mode • A/S Transmission Type • 212A Compatible

## - 920

Voice Band Modem • 4800bps • FDX/HDX
Operating Mode • Sync Transmission Type

## 930

Voice Band Modem • 9600bps • FDX Operating
Mode - Sync Transmission Type
■ 932
Voice Band Modem • 9600bps • FDX Operating
Mode • Sync Transmission Type • 2109 Compatible

## $\square 940$

Voice Band Modem • 14.4Kbps • FDX/HDX Operating Mode • Sync Transmission Type


## - M8023

Ethernet BrdBnd Modem • 10Mbps - FDX Operating Mode • Async Transmission Type
Fairchild's low cost M8023 Ethernet on Broadband modem is able to build host-tohost communication networks on existing broadband systems. Now, Ethernet networks are able to connect to existing broadband communication lines with effective ranges of up to 3600 meters. Our Broadband Ethernet modem links exisitng Ethernet networks, including XNS, DECnet, OSI, MS-net, TCP/P and TOP. Data is transferred at 10 Mbps in the CSMA/CD environment. The M8023 is an IEEE 802.3 10BROAD36 conformant modem. Single or dual cable RF ( 75 ohm) with a single AUI data port is standard. Multiple ports are optional

## Fastcomm Data Corporation

## FDX 2448

V. 22 bis Modem • 4800bps • FDX Operating Mode • A/S Transmission Type •212AN. 22 Compatible
The FDX 2448 provides $100 \%$ Hayes compatibility, MNP 4 and MNP 5 data compression, and password security.

## ■ FDX 2448B

V. 22 bis Modem • 4800bps • FDX Operating

Mode • Async Transmission Type • 212A/N. 22 Compatible
The FDX 2448B provides MNP 4 and MNP 5 data compression for asynchronous throughput or 4800 bps error free, $100 \%$ Hayes compatibility, and password security

## © FDX 9624

Asymmetric Modem • 19.2Kbps • FDX

Operating Mode • Async Transmission Type • V.32N. 22 Compatible

The FDX 9624 provides V. 32 performance at a V.22bis price.

## - FDX 9624

Asymmetric Modem • 19.2Kbps • FDX
Operating Mode • Async Transmission Type V.32N. 22 Compatible

The FDX 9624 provides V. 32 performance at a $V .22$ bis price.

## - FDX 9696

V. 32 Modem • 19.2Kbps • FDX Operating Mode • AS Transmission Type • V. 32 N .22 Compatible
The FDX 9696 is an "all speeds in one modem" that communicates with allV.32s, V.22bis, 212A, and 103 modems, and provides $100 \%$ Hayes compatibility and password security.

## - FDX 9696B

V. 32 Modem • 19.2Kbps • FDX Operating Mode • Async Transmission Type • 212AV. 32 Compatible
The FDX 9696B provides a V. 32 half card with "all speeds in one" plus MNP 4 and MNP 5, $100 \%$ Hayes compatibility, and password security.

## - FDX 9696RMN

V. 32 Modem • 19.2Kbps $\bullet$ FDX Operating Mode • AS Transmission Type - 212AN. 32 Compatible
The 9696 RMV may be used as a replacement modem for the old Tacal Vadic MDS I rack models ( $\mathbf{1 6 1 6 , 1 6 8 1 , 1 6 8 0 \text { ). It also }}$ provides $100 \%$ Hayes compatibility and password security.

## FiberCom, Inc.

## - TFM-9600

19.2Kbps • FDX Operating Mode • A/S

Transmission Type • 103/209 Compatible

## - WFT-12

Fiber Optic Modem • 19.2Kbps • FDX Operating Mode

## - WhisperLink

Fiber Optic Modem • 19.2Kbps • FDX
Operating Mode • A/S Transmission Type • 103/209 Compatible

## Gandalf Data, Inc. <br> \section*{- access 208}

Voice Band Modem • 4800bps • FDX/HDX Operating Mode • A/S Transmission Type • 208A/B Compatible
Features an auto-equalizing receiver and dial-up or dedicated line compatibility.

## - access 245

Voice Band Modem • 2400bps • FDX Operating Mode • AS Transmission Type • 103/212 Compatible
Features full Hayes command suppport, front panel or interface command controls, automatic $\log$-on, re-dial, alternate number re-dial, and CCITTV.22bis compatibil-
ity. The rackmount version uses the Gandalf 3000 system for maximum cost/ performance.

## - access 24 V

Voice Band Modem • 2400bps • FDX Operating Mode • A/S Transmission Type • 103/212 Compatible
Features MNP error correction, interchangeable rackmount and standalone cards, CCITT V.22bis compatibility, and powerful, friendly English commands. The
rackmount version uses the Gandalf 3000 system for maximum cost/performance.

## - Fastrak 14.4

Voice Band Modem • 9600bps • FDX Operating Mode - Sync Transmission Type • V. 29 Compatible
Features Trellis coded modulation for increased noise immunity.

## - Fastrak 96

Voice Band Modem • 9600bps • FDX Operating Mode • Sync Transmission Type • V. 29 Compatible

## - Fastrak 96FP

Voice Band Modem • 9600bps • FDX/HDX Operating Mode • Sync Transmission Type • V.29* Compatible

Features point-to-point or multidrop functions.

## - LDM 192

Leased Line Modem • 19.2Kbps • FDX
Operating Mode • ASS Transmission Type
This modem handles both point-to-point asynchronous and synchronous applications.

## - LDM 418

Med Dist Modem • 4800bps • FDX Operating Mode • AS Transmission Type
Features split channel operation. The rackmount version uses the Gandalf 3000 system for maximum cost/performance.

## - LDM 419

Voice Band Modem • 9600bps • FDX Operating Mode • AS Transmission Type
Features split channel operation. The rackmount version uses the Gandalf 3000 system for maximum cost/performance.

## © LDM 444

Voice Band Modem - 4800 hps • FDX/HDX
Operating Mode • Sync Transmission Type
Features very fast line turnaround, support for multidrop functions, and unlimited distance range over C2 conditional circuits. The rackmount version uses the Gandalf 3000 system for maximum cost performance.

## - LDM 454

Voice Band Modem • 4800bps • FDX/HDX
Operating Mode •AS Transmission Type
Features fast line turnaround, support for multidrop applications, and unlimited distance range over C 2 conditional circuits. The rackmount version uses the Gandalf 3000 system for maximum cost/ performance.

## - LDM 640

Private Line Modem - 64Kbps • A/S
Transmission Type
Extends ISDN-B channels up to 12,000 feet on a single 24 AWG twisted pair Supports analog voice on a single pair of wires. Voice extension suppports existing telephone equipment while extending B channels to data equipment.

## - LDS 120A

Short Haul Modem • 19.2Kbps • FDX/HDX
Operating Mode • Async Transmission Type
Features point-to-point or multidrop operation and auto-equalizing and autophasing. The rackmount version uses the Gandalf 3000 system and 900 system for maximum cost/performance and density.

## - LDS 140

Short Haul Modem • 9600bps • FDX/HDX Operating Mode • Async Transmission Type

Operates over loaded or unloaded lines The rackmount version uses the Gandalf 3000 system for maximum cost/performance.

## - LDS 309A

Short Haul Modem • 19.2Kbps • FDXHDX Operating Mode •A/S Transmission Type
Features point-to-point or multidrop functions. The rackmount version uses the Gandalf 3000 system for maximum cost/ performance.

## © mLD 122

Short Haul Modem • 9600bps • FDX Operating Mode • Async Transmission Type
Features miniature design and packaging Power derived from interface with high isolation from line transients and noise. Compatible with LDS family of standalone and rackmount products.

## - mins 123

Short Haul Modem • 19.2Kbps • FDX
Operating Mode • Async Transmission Type Minaturized local modem that gets its power from the interface. Features high isolation from line transients and noise, and is compatible with the LDS 120 family of standalone and rackmount products.

## - mLDS 123X

Short Haul Modem • 19.2Kbps • FDX
Operating Mode $\bullet$ Async Transmission Type The mLDS 123 X is a miniaturized local modem that gets its power from the inter face and is compatible with the LDS 120 family of standalone and rackmount products. Features include high isolation from line transients and noise.

## - RM 3260

Voice Band Modem • $256 \mathrm{Kbps} \bullet$ FDX
Operating Mode - Sync Transmission Type • 301/303 Compatible
Features V. 35 compatibility with factory option speeds from 19.2 to 256 Kbps . The rackmount version uses the Gandalf 3000 system maximizing central site space and cost/performanc.

## - RM 3444

Voice Band Modem • 4800bps • FDX/HDX Operating Mode - Sync Transmission Type Features very fast line turnaround and support for multidrop functions. The rackmount version uses the Gandalf 3000 system for maximum cost/performance.

## - RM 3454

Voice Band Modem • 4800bps • FDX/HDX Operating Mode • A/S Transmission Type Features very fast line turnaround and support for multidrop functions. The rackmount version uses the Gandalf 3000 system for maximum cost/performance.

## - SAM 201

Voice Band Modem - 2400bps • FDX/HDX
Operating Mode •A/S Transmission Type •

## 201CN. 26 Compatible

## General Datacomm Industries

## - DC 19202A

Private Lne Modem • 19.2Kbps • AS

## Transmission Type

Private line modem that features autospeed that optimizes overall throughput by adapting the modem's speed to actual line quality.

## - DC 296B

Swl Ntwk Modem • $9.6 \mathrm{Kbps} \bullet$ A/S

Transmission Type • V. 32 Compatible
The DC 296B features full CCITT V. 32 support, including 4 -wire private line suppport, as well as auto dial back-up and automatic leased line restoral.

## ■ DC V. 32

Swt Ntwk Modem • 9.6Kbps • AS
Transmission Type • V. 32 Compatible
The DC V. 32 features full CCITT V. 32 support, including 4 -wire private line support, as well as auto dial back-up and automatic leased line restoral. Used for international communication.

## - Desktop 9600 RPA

$9.6 \mathrm{Kbps} \bullet$ V. 29 Compatible
The Desktop 9600 RPA is a multidrop modem in a desktop enclosure.

## Desktop V. 29 RPA

$9.6 \mathrm{Kbps} \cdot \mathrm{V} .29$ Compatible
The Desktop V. 29 RPA is a multidrop modem in a desktop enclosure that is used for International communications.

## ■ EDC 19202A ADR

Swt Ntwk Modem • 19.2Kbps • AS

## Transmission Type

Modem that features autospeed that opti mizes overall throughput by adapting the modem's speed to actual line quality. This is a private line/switched network modem that combines both integral dial restoral and automatic leased line restoral.

## Hayes Microcomputer Рroducts, Inc.

## - Rack IA

This mounting frame for modems provides the versatility needed when installing modems for small or large communications applications.

## - Smartmodem 9600

Leased line Modem • 9600bps
Designed for transferring large volumes of data from host to host, between data processing centers, and remote controllers, and from LANs to hosts.

## - Smartmodem1200

1200bps • FDX/HDX Operating Mode • AS
Transmission Type - 103/212A Compatible
Can communicate with a majority of mo-
dems in USA and internationally.

## - Smartmodem1200

1200bps • FDX/HDX Operating Mode • AS Transmission Type - 103/212A Compatible Can communicate with a majority of modems in USA and internationally.

## - Smartmodem2400

2400bps • FDX Operating Mode • A/S Transmission Type • 103/212A Compatible
Can communicate with a majority of modems in USA and internationally.

## - Smartmodem2400V

2400bps • FDX Operating Mode • Async
Transmission Type • V. 22 Compatible
Can send and receive data at 2400 bps - and can achieve up to 4800 bps throughout with adaptive compression. Can also provide error-control and automatic feature negotiation.

## - Smartmodem9600V

9600bps • FDX/HDX Operating Mode • A/S
Transmission Type • V. 32 Compatible
Sends and receives data at 9600 bps and is
able to achieve up to 19200bps throughout
with adaptive compression.

## Transet 1000

Transet available with 128 KB ram or 512 KB ram, provides both print buffering and an electronic mailbox in one device. While transet is managing printing it can also answer a call to an external modem, take a message, and store it in an electronic mailbox.

## - V-series Enhancer

With the $V$-series modem enhancer, V-series capabilities are added to Hayes external modems.

## Incomm Data Systems

© 100 RM
19.2Kbps • FDX Operating Mode • Async

Transmission Type

## $\square 100$ SA

19.2Kbps • FDX Operating Mode • Async Transmission Type

## © 200 RM

19.2Kbps • FDX Operating Mode • A/S Transmission Type

## 200 SA

19.2Kbps • FDX Operating Mode • A/S

Transmission Type

- Midget 12

Dial-up Modem • 1200bps • FDX/HDX Operating Mode •Async Transmission Type • 212A/103 Compatible
Features an on-board speaker, automatic adaptive equalizer, and call process monitoring.

## © Midget 2400

Dial-up Modem • 2400bps • FDX/HDX Operating Mode • Async Transmission Type Features automatic adaptive equalizer, cal process monitoring and nonvolatile RAM memory.

## © PL 14.4MD

Voice Band Modem • 14.4Kbps • FDX
Operating Mode • Sync Transmission Type

## - Turbo 2400

Voice Band Modem • 2400bps • FDX/HDX Operating Mode • A/S Transmission Type * 103/212 Compatible
The Turbo 2400 is upgradeable to 4800 / 9600 bps data transmission rates as well as MNP error correction

## Turbo 2400EC

Dial-up Modem • 19.2Kbps • Async
Transmission Type - 212A/103 Compatible
The Turbo 2400 EC includes MNP level 4 error correction.

## Turbo 4800

Dial-up Modem • 4800bps • Async
Transmission Type
The Turbo 4800 includes MNP levels 4 and 5 with error correction and compression.

## - Turbo 9600

V. 32 Dial-up Modem • 9600bps • Async Transmission Type • 212A/103 Compatible
The data transmission speed for this device is upgradeable to 19.2 K .

## Lan Systems, Inc.

雷 LAN-A1
Short Haul Modem • 19.2Kbps • FDX/HDX
Operating Mode • Async Transmission Type • 3001 Compatible
DTE/DCE selectable feature with bidirectional handshake signals. Does not require
power supply and is available with optical isolation.

## - LAM-A1-8

Short Haul Modem • 19.2Kbps • FDX/HDX Operating Mode • Async Transmission Type • 3001 Compatible
Features optical isolation on all eight channels. Also available with 19 " rack mount that is able to hold up to 128 short modems.

## ELAM-A2

Short Haul Modem • 38.4Kbps • FDX/HDX Operating Mode • Async Transmission Type • 3001 Compatible
DTE/DCE selectable feature with bidirectional handshake signals. Does not require power supply and is available with optical isolation. Also features built-in lightning protection.

## LAM-MAM8 PLUS

Short Haul Modem • 19.2Kbps • FDX/HDX Operating Mode • Async Transmission Type • 3001 Compatible
Features optical isolation and unlimited or multipoint functions on each channel.

## CLAM-ME

Modem Eliminator Modem • 64Kbps • A/S Transmission Type
Features internal or external clocking and RTS to CTS delays.

## - LAN-S1

Short Haul Modem • 38.4Kbps • FDX/HDX Operating Mode • A/S Transmission Type • 3001 Compatible
Features switch selectable DTE/DCE, optical isolation, built-in lightning protec tion, point-to-point or multipointfunctions, internal or external clocking, and RTS to CTS delays.

## - LaN-S2

Short Haul Modem • 38.4Kbps • FDX/HDX Operating Mode • A/S Transmission Type * 3001 Compatible
Features switch selectable DTE/DCE optical isolation, built-in lightning protection, unlimited or multipoint functions, internal or external clocking, and RTS to CTS delays.

## Microcom, Inc.

- ax/2400

2900bps • Sync Transmission Type • 103/212A Compatible
Upgradable to 19,200bps.

## - $A \times / 2400 \mathrm{c}$

4800bps • Sync Transmission Type • 103/212A Compatible
Upgradable to $19,200 \mathrm{bps}$.

## - AX/9624c

19.2bps • A/S Transmission Type • 103/212A Compatible

## EAX/Chassis

Designed to house up to eight Microcom AX, and QX modem cards and a transformer power supply module. The modem cards can be intermixed and housed in any combination.

## ax/12K

12Kbps • 103/212A Compatible
V.22bis compatible.Available in rackmount and standalone models.

- QXN. 32 C

30Kbps • 103/212A Compatible
V. 32 compatible. Available in rackmount and standalone models.

## Muti-Тесн <br> Systems, Inc.

## - MT224A

2400bps • HDX/FDX Operating Mode • A/S
Transmission Type • 212A/103 Compatible

## - MT224EH

2400bps • HDX/FDX Operating Mode • A/S Transmission Type • 212A/103 Compatible The MT224EH features error-free transmission, using the MNP Class 5 data compression and error correction protocol to detect errors and retransmit the affected data until it is corrected.

## - mT932EA

19.2Kbps • FDX/HDX Operating Mode • A/S Transmission Type • 212A/103 Compatible The MT932EA ommunicates with V. 32 compatible modems.

## N.E.T. ComDesign Data Communications Group

## - CM-1440

Voice Band Modem • 14.4Kbps • FDX/HDX Operating Mode • Sync Transmission Type • V.27/.33 Compatible
N.E.T.'s CM-1440 operates in both full and half-duplex over unconditioned leased Telco lines and features Trellis coded modulation and forward error correction when in V. 33 mode.

## - CM-4800

Voice Band Modem • 4800bps • FDX/HDX Operating Mode - Sync Transmission Type • V. 27 Compatible

The CM-4800 entry-level full-duplex modem is fully compatible with N.E.T.'s SPX family of network multiplexers. Synchronous transmission provides high integrity, speed, and efficiency.

## CM-9600

Voice Band Modem • 9600bps • FDX/HDX Operating Mode • Sync Transmission Type • V.27/.33 Compatible
N.E.T.'s CM-9600 mid-range full-duplex modem supports X.27, V. 29 , and V. 33 CCITT recommendations and has built-in diagnostics including local and remote loopback for testing specific system components.

## - IM-9600

Voice Band Modem • 9600bps • FDX Operating
Mode • Sync Transmission Type • V. $27 / .29$ Compatible
Compatible with CCITT recommendations V .29 , the IM-9600 is designed to compliment N.E.T.'s point-to-point multiplexers operating full-duplex over private fourwire unconditioned Telco lines.

## Optical Data Systems

## - 0 DS 107

Fiber Optic Modem • $56 \mathrm{Kbps} \bullet$ Async
Transmission Type
Modem is powered by the RS232 signals alone. Requires no power cube. Operates either as DTE/DCE interface compatibility.

## - ODS 108

Fiber Optic Modem • $56 \mathrm{Kbps} \bullet$ Async
Transmission Type
Modem is powered by the RS232 signals
alone. Requires no power cube. Operates either as DTE/DCE interface compatibility. This modem can be used on any piece of TEMPEST or commercial hardware.

## - 000500

Fiber Optic Modem • 1.54Mbps • Async
Transmission Type • 306 Compatible
Features a standard DSX-1 Interface; full T1 repeater function via rear panel enable switch.

## - 0 0 S219

Fiber Optic Modem • 2.04Mbps • A/S
Transmission Type
The ODS 219 supports all known RS 449 devices at speeds up to 2.048 Mbps . Has 30 different modes of operation for RS422 and 30 for RS423/RS232. Supports all three synchronous timing modes: Internal, External, Slave.

## Paradyne Corporation

## - 3450

Leased Line Modem • 14.4Kbps • Async Transmission Type

## 3470

Leased Line Modem • 19.2Kbps • Async Transmission Type
A point-to-point leased line modem with fully integrated multiplexing, dial restoral and network management facilities. Features diagnostic control panel with 2 -line, 48 -character menu driven display and keypad for user-defined configuration, remote message displays and complete diagnostic control of both local and remote modems.

## . $34 \times 0$

Leased Line Modem • 19.2Kbps • Async Transmission Type
The $34 x 0$ features fully integrated Network Management System capabilities for comprehensive diagnostic monitoring, test and control. This model is a standalone modem.

## © ${ }^{-14 \times 1}$

Leased Line Modem • 9600bps • Async
Transmission Type
The $34 \times 1$ modems operate with a shared Auxiliary Diagnostic Control Panel and loadshare power supply system to accommodate high density point-to-point and multipoint applications.

## - $34 \times 2$

Leased Line Modem • 9600bps • Async
Transmission Type
The $34 \times 2$ series standalone modems feature, full menu of diagnostic facilities at the device and network levels for end-toend network surveillance and control.

## - $34 \times 3$

Leased Line Modem • 19.2Kbps • Async
Transmission Type
The $34 \times 3$ series are multiport, nest mount, leased line modems with fully integrated multiplexing, and network management facilities.

## Patton Electronics <br> Company

## 100

19.2Kbps • FDX Operating Mode • Async

Transmission Type

目 101
19.2Kbps • FDX Operating Mode • Async

Transmission Type

- 110
19.2Kbps • FDX Operating Mode • Async

Transmission Type

- 111
19.2Kbps • FDX Operating Mode • Async

Transmission Type
■ 112
$19.2 \mathrm{Kbps} \bullet$ FDX/HDX Operating Mode • Async
Transmission Type
■ 113
19.2Kbps • FDX/HDX Operating Mode • Async Transmission Type

## - 120

19.2Kbps • FDX Operating Mode • Sync

Transmission Type

- 121

9600bps • FDX Operating Mode • Sync
Transmission Type

- 130

9600bps • FDX/HDX Operating Mode • Sync Transmission Type

■ 131
9600bps • FDX/HDX Operating Mode • Sync
Transmission Type

## - 140

$64 \mathrm{Kbps} \bullet$ FDX Operating Mode • Sync
Transmission Type

## $\square 200$

19.2Kbps • Sync Transmission Type

Model 200 is a modem emulation unit in a miniature box with an RS232 connector on both ends. It does the job of two synchronous modems.

## Plexcom, Inc.

## - 209

Fiber Optic Modem •64Kbps • FDX Operating Mode • A/S Transmission Type
The data transmission rate quoted above refers to an asynchronous transmission type; synchronous data has a 256 K transmission rate

- 401

Fiber Optic Modem • 1.544Mbps • FDX
Operating Mode • A/S Transmission Type
The 401 data link extends your carrier provided T1 link from point of entry to your T1 equipment. It can easily attach to
AT\&T's 551 DSX-1, or equivalent.

## Prentice Corporation

- 9629/2

Voice Band Modem • 9600bps • FDX Operating
Mode • Sync Transmission Type

## - 9629/2

Voice Band Modem • 9600bps • FDX Operating Mode • Sync Transmission Type

## - ALD/2

19.2Kbps • FDX/HDX Operating Mode • Async Transmission Type

- ALD/2
19.2Kbps • FDX/HDX Operating Mode • Async Transmission Type


## - HSLD/2

Ltd Dist Modem • 19.2Kbps • FDX/HDX
Operating Mode • Sync Transmission Type

- HSLD $/ 2$

Ltd Dist Modem • 19.2Kbps • FDX/HDX Operating Mode • Sync Transmission Type

## - HSLD/3

Ltd Dist Modem • $64 \mathrm{Kbps} \bullet$ FDX/HDX
Operating Mode • Sync Transmission Type

## - HSLD/3

Ltd Dist Modem • $64 \mathrm{Kbps} \bullet$ FDX/HDX Operating Mode • Sync Transmission Type

## ■ P201C

Voice Band Modem • 2400 bps • FDX/HDX Operating Mode • Sync Transmission Type • 201B/C Compatible

## - P201C

Voice Band Modem • 2400 bps • FDX/HDX Operating Mode • Sync Transmission Type • 201B/C Compatible

## - P212AD

Voice Band Modem • 1200bps • FDX Operating Mode • Async Transmission Type • 103/212A Compatible

## - P212AD

Voice Band Modem • 1200bps • FDX Operating Mode • Async Transmission Type • 103/212A Compatible

## - P212ZX

Voice Band Modem • 1200bps • FDX Operating Mode • Async Transmission Type • 103/212A Compatible

## Processing <br> Innovations, Inc.

## - SAM

Voice Band Modem • 1200bps • Async
Transmission Type • 212/202C Compatible
SAM is a Speech Aided Modem that provides (1) front end communication (BELL 202) for interfacing hand-held terminals (MSI/TELXON) to a VAX host or (2) Bell 212 for interfacing PCs for remote data entry through a single dial-up line. Features voice response for verification (202) or ASCII messages to PCs (212).

## Racal-Milgo

## - COMLINK 7 7 IT

Ltd Dist Modem • 19.2Kbps • A/S
Transmission Type
The COMLINK $7 / 75$ operates with the Racal-Milgo CMS network management system.

## - LDM-V. 35

Ltd Dist Modem • 56Kbps• Sync Transmission Type • V. 35 Compatible
Features a full secondary channel and operates over 4 wire metalic lines and local area data circuits in point-to-point mode.

## ■ Omnimode 14.4FP

High Speed Modem • 14.4Kbps • A/S
Transmission Type
Features CMS network management support, integral automatic 4 wire dial backup and 6 -port TDM multiplexer. Integral DES encryption is an available option.

■ Omnimode 1614
High Speed Modem • 16.8Kbps • A/S
Transmission Type
Features CMS network management support, integral automatic 4 wire dial backup, and an integral 6 -port TDM multiplexer. Integral DES encryption is an available option.

- Omnimode 96

High Speed Modem • 9600bps • A/S

## Transmission Type

Features CMS network management support, integral automatic 4 wire dial backup, and an integral 4-port TDM multiplexer. Integral DEC encryption is an available option

## - RM-1822E/2

Dial-up Modem • 19.2Kbps • FDX Operating Mode • Async Transmission Type • 103/212A Compatible
The RM-1822E/2 provides data throughput at speeds up to 19.2 Kbps with data compression. Features automatic error detection and correction and automatically matches speed with any slow modem in asynchronous mode.

## - RM-1916

High Speed Modem • 19.2Kbps •A/S
Transmission Type
The RM-1916 is equipped with a standard integral 2-port TDM multiplexer. CMS network management and an integral 8 port TDM multiplexer are available options.

## - RM-3296

V. 32 Modem • 9.6Kbps • FDX Operating Mode - A/S Transmission Type • 212A/103 Compatible
The RM- 3296 is a V. 32 multi-mode, multispeed 9600 bps full duplex modem. Features auto dial back-up and Class 5 MNP error correction.

## Rad Data

## Communications

■ FLM-1
Fiber Optic Modem • Async Transmission Type

## - MiniModem

Short Range Modem • 19.2Kbps • A/S
Transmission Type
The MiniModem Series are transformerisolated from telephone lines for uninterrupted transmission and equipment protection.

- SRM-1
$19.2 \mathrm{Kbps} \cdot \mathrm{FDX} /$ HDX Operating Mode $\bullet$ A/S
Transmission Type


## ■ SRM-2

19.2Kbps • FDX/HDX Operating Mode • A/S Transmission Type

## © SRM-31

19.2Kbps • FDX/HDX Operating Mode • Async Transmission Type

## - SRM-32

19.2Kbps • FDX/HDX Operating Mode • Async Transmission Type

## ■ SRM-4

19.2Kbps • FDX Operating Mode • A/S

Transmission Type

- SRM-6A
19.2Kbps • FDX Operating Mode • Async Transmission Type


## - SRM-6AC

19.2Kbps • FDX/HDX Operating Mode • Async Transmission Type

## - SRM-6D

19.2Kbps • FDX Operating Mode • Async Transmission Type

## © SRM-60X

19.2Kbps • FDX Operating Mode • Async Transmission Type

## - SRM-6H

64Kbps • FDX/HDX Operating Mode • Sync Transmission Type

## - SRM-6S

19.2Kbps • FDX Operating Mode • Sync Transmission Type

## ■ SRM-6SC

19.2Kbps • FDX/HDX Operating Mode • Sync Transmission Type

■ SRM-7
$72 \mathrm{Kbps} \cdot \mathrm{FDX} / \mathrm{HDX}$ Operating Mode • Sync Transmission Type

## SI Technology, Inc.

## - 2001

Fiber Optic Modem • $56 \mathrm{Kbps} \bullet$ FDX Operating
Mode • Async Transmission Type • N
Compatible

## © 2004

Fiber Optic Modem • 56Kbps • FDX Operating
Mode • Sync Transmission Type • N
Compatible

## - 2005

Fiber Optic Modem • $56 \mathrm{Kbps} \bullet$ FDX Operating
Mode • Async Transmission Type • $\mathbf{N}$
Compatible

- 2010

Fiber Optic Modem • 9600bps • FDX Operating
Mode • Async Transmission Type • $\mathbf{N}$ Compatible

## - 1025

Short Haul Modem • $56 \mathrm{Kbps} \bullet$ FDX Operating
Mode • Async Transmission Type • $\mathbf{N}$ Compatible

- 2105

Fiber Optic Modem • $56 \mathrm{Kbps} \bullet$ FDX Operating
Mode • Async Transmission Type • N Compatible

## - 2304

Fiber Optic Modem • $\mathbf{5 6 K} \mathrm{Kbps}$ - FDX Operating
Mode • Sync Transmission Type • N
Compatible

## - 2305

Fiber Optic Modem • $\mathbf{5 6 K b p s}$ • FDX Operating
Mode • Async Transmission Type • N Compatible

## - 2505

Fiber Optic Modem • 56Kbps • FDX Operating
Mode • Async Transmission Type • N
Compatible

- 2507
$19.2 \mathrm{Kbps} \bullet$ FDX Operating Mode • Async
Transmission Type • N Compatible


## - 2526

19.2Kbps • FDX Operating Mode • Async

Transmission Type • N Compatible

## - 2856

Fiber Optic Modem • 20Mbps • FDX Operating
Mode • Async Transmission Type • N Compatible

- 2857

Fiber Optic Modem • 10Mbps • FDX Operating
Mode • Async Transmission Type • N
Compatible

## Telcor Systems <br> Corporation

－1248ma
4800bps • Async Transmission Type •212N 103 Compatible
Password／callback security is standard with DES encrypted output as an optional feature．Hayes and MNP compatible．

## －2424MA

$2400 \mathrm{hps} \cdot$ Async Operating Mode • Async Transmission Type－212AN． 22 Compatible Provides comprehensive security features while being compatible with all other in－ dustry standard modems．DES encrypted output optional．Hayes and MNP compat－ ible．

## 2448MM

4800bps • Async Transmission Type－212N V． 22 Compatible
Provides comprehensive security features． DES encrypted output optional．MNPlevel 5 Data Compression．

## 2496MA

9600bps • FDX Operating Mode－Async Transmission Type－212AVV． 22 Compatible Provides comprehensive security features while being compatible with all other in－ dustry standard modems．DES encrypted output optional．Hayes and MNP compat－ ible．Modem speed of 9600 bps is possible using Telcor＇s patented data compression feature．

## 

38．4Khps • FDX Operating Mode • Async Transmission Type－212AN． 22 Compatible Provides comprehensive security features while being compatible with all other in－ dustry standard modems．DES encrypted output optional．Up to 400 passwords／tele－ phone numbers can be stored in each unit． Modem speeds up to 38.4 Kbps are avail－ able using Telcor＇s patented data compres－ sion feature．

## Telebit Corporation

## ． 11000

## Dial－up Modem • 9600hps • Async

Transmission Type－212A／103J Compatible
Features built－in support for UNIX UUCP， Kermit，Xmodem，and Ymodem file trans－ fer protocols for optimum performance in a broad range of computing environments． Remote access for modem configuration and testing from a central site．

## － $\mathbf{T 2 0 0 0}$

Dial－up Modem • 19．2Kbps • Async
Transmission Type－212A／103J Compatible Supports SDLC，UNIX UUCP，Kermit， Xmodem and Ymodem protocols．Allows critical，data intensive applications such as the remote transfer of high resolution graphics，CAD／CAE data，and medical images．Supports industry－standard modem command set and the MNP error－ control protocol．

## － 12500

Dial－up Modem • 19．2Kbps • A／S
Transmission Type－1031／212A Compatible
Modem employs PEP error control and data compression in high speeds and MNP class 5 error control and data compression in V． 32 and slow speeds．Built in PEP support for UNIXUUCP，Kermit，Xmodem， Ymodem and SDLC protocols．

國TrailBlazer Plus
Dial－up Modem • 19．2Kbps • Async

Transmission Type • 103／／212A Compatible
Allows critical，data－intensive applications such as the remote transfer of high resolu－ tion graphics，CAD／CAE data and medical images．Supports industry－standard mo－ dem command set and the widely used MNP error－control protocol．

## Telemetics Corporation

Voice Band Modem • 2400hps • FDX／HDX Operating Mode • A／S Transmission Type • 103／212A Compatible
The 24R－MP features CCITT V．22bis compliance and includes an X． 25 PAD （Packet Assembler－Disassembler），there－ fore eliminating the necessity for a sepa－ rate communications card．It is GTE Telenet and Canadian Datapac Certified．

## 国 245

Voice Band Modem • 2400bps • FDX Operating Mode • AS Transmission Type－103／212A Compatible
The 24S features CCITT V．22bis compli－ ance and is available with MNP error cor－ rection as an option for an additional $\$ 100$ ．

## 24S－MP

Voice Band Modem • 2400hps • FDX／HDX Operating Mode • A／S Transmission Type • 103／212A Compatible
The 24S－MP features CCITT V．22bis compliance and includes an X． 25 PAD （Packet Assembler－Disassembler），there－ fore eliminating the necessity for a sepa－ rate communications card．It is GTE Telenet and Canadian Datapac Certified．

## －24S／R

Voice Band Modem • 2400bps • FDX Operating Mode • A／S Transmission Type • 103／212A Compatible
The 24S／R features CCITTV．22bis compli－ ance and is also available with an MNP error correction option for an additional $\$ 100$ ．

## 国ED 14.4

Voice Band Modem • $14.4 \mathrm{Kbps} \bullet$ FDX Operating Mode • Sync Transmission Type The ED 14.4 features V． 29 compliance and is also availiable with optional V． 33 com－ pliance．

## － 19.2

Voice Band Modem • 19．2Kbps • FDX
Operating Mode • Sync Transmission Type The ED 19.2 features Trellis coded Viterbi algorithm capabilities．

## －$\quad$ ED 9.6

Voice Band Modem • 9600hps • FDX Operating
Mode－Sync Transmission Type
The ED 9.6 model features CCITT V． 29 compliance．

## －TC921S－12

Voice Band Modem • 1200bps • FDX／HDX
Operating Mode • AS Transmission Type •

## 103／212A Compatible

The TC921S－12 features MNP error cor－ rection and may be upgraded to the TC921S－24．

## －TCS21S－24

Voice Band Modem • 2400bps • FDXMDX Operating Mode • AS Transmission Type e 103／212A Compatible
The TC921S－24 features MNP error cor－ rection．

## Teltone Corporation <br> －DCs3

## 19．2Kbps • Async／sync Transmission Type

This system transmits data over standard phone lines at the same time those lines carry voice and switching signals．

## －DCS3MB

19．2Kbps • Async Transmission Type
This system transmits data over standard phone lines at the same time those lines carry voice signals．This system offers increased flexibility in office data commu－ nications by eliminating the need to install a separate data cable to each user worksta－ tion．

## T－IIne 3

Short Haul Modem • 19．2Kbps • Async Transmission Type
Provides data transmission anywhere a single cable pair is available．

## U．S．Robotics，Inc． <br> － 30 Modular Modem

Voice Band Modem • 2400bps • FDX Operating Mode • Async Transmission Type • 212A Compatible

## －Courier 1200

Voice Band Modem • 1200bps • FDX／HDX
Operating Mode • Async Transmission Type e 103／212A Compatible

## －Courier 2400

Voice Band Modem • 2400bps • FDX Operating
Mode • Async Transmission Type－212A Compatible

## －Courier 2400e

Voice Band Modem • 2400bps • FDX Operating
Mode • Async Transmission Type • 212A Compatible

## －Courier HST

Voice Band Modem • 9600bps • FDX Operating
Mode • Async Transmission Type • 212
Compatible
－Courier RST
9600 bps • FDX Operating Mode
－Courier MST Dwal Stad
19．2Khps • Async Transmission Type
This modem is compatible with CCITT V． 32 and all other major modulation stan－ dards from 300 through 19，200bps．

## －Courier UST／Kx

9600bps

## Versitron

© T 1
Fiber Optic Modem • 1．544Mbps

## Multiplexers

Algo，Imc．
unc som
\＄1，495
The NC600 is a switching multiplexer that connects up to 3300 RS232 devices．

## Astronautics Corporation of America

## －DialMux

5 Channels Supported • 19．2Kbps • \＄1，230
The DialMux features unique STDM capa－ bilities which utilize dial network voice lines．

## －Linelliax

5 Channels Supported • \＄1，545
The LineMux is a leased line multichannel device．

## at\＆T Paradyme <br> Corporation

## － 2030

The 2030 features four or eight channels， independently configurable channels，op－ tional internal 9600 bps modem and con－ figuration via CRT or front control panels．

## － 3210

The 3210 is a bit－or－byte interleaved，time division multiplexing in point－to－point or networking environments over T－1 digital facilities．Capacity of 96 circuits．Available with a networking option（3210－15）for companies requiring T－1 networking capa－ bilities．

## nex 840

The DCX 840 networking concentrator is a high performance statistical multiplexer and data exchange．Features central－site configuration，control and diagnostics，two configurations per node，local and remote operation．

## －DCX 850

The DCX 850 network concentrating ex－ change is an advanced statistical multi－ plexer with intelligent processor capabili－ ties．Data on up to 14 network lines and up to 63 nodes per network may be concen－ trated and transferred via telephone lines or satellite at an aggregate rate of up to two million bits per second．

## BICC Data Networks，Imc．

## －4610－0

Async Transmission Type
The 4610－0 provides access to IEEE 802.3 local area networks for dumb terminals and other asynchronous devices，allowing users access to any number of different hosts．This unit is equipped with one AUI port．

## －4610－5

## Async Transmission Type

The 4610－5 provides access to IEEE 802.3 local area networks for dumb terminals and other asynchronous devices，allowing users access to any number of different hosts．This unit is equipped with one AUI port as well as an integral thin Ethernet transceiver．

## Black Box Corporation <br> －Commenication Box II <br> \＄1，490

Features plug in cartridges and boards which allow for growth and changing of network environments．

## －Digital Multiplexer

\＄1295
Up to eight devices may share one Digital Data service line．Designed for use with 56 Kbps high speed data links．

## － 10470

$\$ 545$
This unit was designed with the in－house， multiuser system in mind．The units have built－in line－drivers，making them ideal for applications where clusters of termi－ nals are located at nearby sites． peration．
t.

[^4]$$
i=
$$






Connects up to eight local devices to the host over RJ-11 lines. Features include transmission up to 5000 feet, independent channel data rates up to 9600 bps ; composite rates up to $76,800 \mathrm{bps}$.

## - RS232 Fiber Optic

\$1,295
Device multiplexes up to 48 RS232 channels over one full-duplex, fiber optic line. Features include operation with synchronous or asynchronous equipment, built-in fiber optic modem and independent channel data rates up to 19.2 Kbps .

## Bo-SherReL

Company, Inc.

## ■ MX-2

8 Channels Supported • 19.2Kbps • Async Transmission Type • \$349
Equipped with a loopback test and DCE/ DTE selectable switch for each channel. No modem is needed since the MX-2 provides communication up to 3,000 feet between multiplexers.

## - mx-3

8 Channels Supported • 19.2Kbps • Async Transmission Type - $\$ 389.95$
Equipped with a loopback test and a DTE/ DCE selectable switch for each channel. No modem is needed since the MX-3 provides communication up to 5,000 feet between multiplexers.

## Camintonn Corporation

- CM-DHO11
38.4Kbps • Async Transmission Type

This module utilizes microprocessor based architecture for high-speed DMA transmission.

## © CM-DHV11

38.4Kbps • Async Transmission Type

This module utilizes microprocessor based architecture for high-speed DMA transmission.

## © CM-DHV16-D

38.4Kbps • Async Transmission Type

## Camoga-Perkins

## - cmx-320

32 Channels Supported • 19.2Kbps • Async/ Sync Transmission Type •\$1,795 Features full code transparency and channel interfaces with 25 pin D type connec tors.

## - CmX-3240

144 Channels Supported • 76.8Kbps • Async/ Sync Transmission Type •\$2,695 Enables users to multiplex a variety of channel types and signal formats over single or multimode fiber optic cable. Also features the ability to remove or insert I/O cards under power.

## © CMX-3248

8 Channels Supported • 1.544Mbps •Async/ Sync Transmission Type • \$3,295

## - CmX-3272

144 Channels Supported •19.2Kbps • Async/ Sync Transmission Type • \$2,395
The CMX- 3248 and -3272 feature loopback and are available with redundant optics/ power and 1300 nm single/multimode options.

- CMX-808

8 Channels Supported • 19.2Kbps • Asyne/ Sync Transmission Type • \$895

## - CMX-816

16 Channels Supported • $100 \mathrm{Kbps} \bullet$ Async/ Sync Transmission Type •\$2,695
Features three controls per channel and internal/external clocking

## Case/Datatel

- DCP5016

8 Channels Supported • 1200bps • Async Transmission Type

## - DCP5016

8 Channels Supported • 64Kbps • Async Transmission Type

## - DCP5016

16 Channels Supported • 64Kbps • Async Transmission Type

## - DCP5016

16 Channels Supported • 1200bps • Async Transmission Type

## - DCP5032

16 Channels Supported • 64Kbps • Async Transmission Type

## - DCP5032

8 Channels Supported • 64Kbps • Async Transmission Type

## DCP9050

6 Channels Supported • 64Kbps •Sync
Transmission Type
The DCP9050 supports up to 21 input channels when cascading.

## © DCP9100

1.544 Mbps

## - DCP9800

2048Kbps
The DCP9800 includes one power supply (DCP9820) and one common logic set (DCP9830).

## Coastcom

## - D/ Mux III

24 Channels Supported • 1.536Mbps • Async/ Sync Transmission Type - \$2,595
The D/I MUX III intelligent channel bank acts as a "fast lane" for fractional T1. When networks need to expand, it will accommodate one or two full T1s with no additional equipment required.

## - T1M III

8 Channels Supported • 1.536Mbps • Async/ Sync Transmission Type •\$2,295
The T1M III intelligent T1 DSU/CSU offers eight ports allowing add-on data cards or voice circuits if necessary. Ideal for high speed computer/telco interfacing and fractional T1 service.

## Codex Corporation

## - 6003 IMP

8 Channels Supported • 9600bps • Async
Transmission Type •\$1,250+
Combines the technology, performance, and reliability of larger Codex systems with the easy-to-use features of the smaller systems in a cost effective product.

## - 6015 IMP

10 Channels Supported • 9600bps • Async/ Sync Transmission Type - $\$ 1,500_{+}$
A statistical time diviison multiplexer
designed to provide cost-effective data concentration for up to 16 terminals over a single, high-speed composite link.

## - 6216

16 Channels Supported • Async/Sync
Transmission Type - \$4,020+
Operating over medium speed digital transmission facilities, the 6216 offers users a high degree of flexibility in terms of network control, configuration management, and diagnostics.

## Computer Products, Inc. <br> - 67304 <br> 38.4Kbps • \$275

Supports the LSI11/23 four level interrupt structure which is ideal for multiuser environments.

## - 6 GT309A

16 Channels Supported • 38.4Kbps • Async Transmission Type - \$995
Equipped with DMA and is compatible with DEC DH11 software. Connects multiple local and remote terminals and peripherals.

## ■ 6 T312

8 Channels Supported • 38.4Kbps • Async Transmission Type - \$795
Compatible with DEC DH11 software.
Connects multiple local and remote terminals and peripherals.

## DCB, Imc.

- Hub 2

2 Channels Supported • $56 \mathrm{Kbps} \bullet$ Async/Sync Transmission Type - \$1,095

## © Hub 4

4 Channels Supported • $56 \mathrm{Kbps} \bullet$ Async/Sync
Transmission Type • \$1,495

## - Hub 6

6 Channels Supported • $56 \mathrm{Kbps} \bullet$ Async/Sync Transmission Type • \$1,795
The HubSeries allows multiple SPL multiplexers to share one communication channel either directly attached or on an asynchronous or synchronous tail circuit. The tail circuits may be leased lines or dial-up linetypes.

## - SPL 10

10 Channels Supported • 56Kbps • Async/Sync Transmission Type •\$2,295

## - SPL 12

12 Channels Supported • 56Kbps • Async/Sync Transmission Type - $\$ 2,695$

- SPL 14

14 Channels Supported • $56 \mathrm{Kbps} \cdot$ Async/Sync
Transmission Type • \$2,995

## - SPL 2

2 Channels Supported • $56 \mathrm{Kbps} \bullet$ Async/Sync
Transmission Type •\$795

- SPL 4

4 Channels Supported • $56 \mathrm{Kbps} \bullet$ Async/Sync Transmission Type - $\mathbf{\$ 1 , 1 9 5}$

## - SPL 6

6 Channels Supported • $56 \mathrm{Kbps} \bullet$ Async/Sync Transmission Type e $\mathbf{\$ 1 , 4 9 5}$

- SPL 8

8 Channels Supported • $56 \mathrm{Kbps} \bullet$ Async/Sync
Transmission Type - \$1,995
The SPL Series feature executive port configurations for local or remote units as
well as front panel configurations for the local unit. May be used with leased lines or with dial-up FDX modems.

## Digital Communications Association

- 110

8 Channels Supported •\$1,995
$-120$
32 Channels Supported • $\$ 4,995$
125
16 Channels Supported • $\$ 5,795$
$\square 125$
32 Channels Supported • \$11,590
$\square 205$
128 Channels Supported •\$4,250+

- 207
\$4,995+
© $\mathrm{CH}-1$
64 Channels Supported • $\$ 25,000_{+}$
- CM-2

144 Channels Supported • $\$ 40,000_{+}$

## - MetLink

128 Channels Supported •\$4,395+

- MetLink II

128 Channels Supported • \$5,795

## Emulex Corporation

## - CSO8

8 Channels Supported • 57.6Kbps • Async
Transmission Type - $\$ 1,000_{+}$
The CS08 is an eight-line dual wide asynchronous communications multiplexer with DHV11 emulation.

## - CsO9

16 Channels Supported • 57.6Kbps • Async
Transmission Type - $\mathbf{\$ 1 , 0 0 0 +}$
The CS09 is a 16 -line dual wide asynchronous communications multiplexer with DEC DHV11 emulation.

## - CS11

19.2Kbps • \$4,100+

The CS11 emulates the DEC DH11 or DV11 and is available with an isochronous option.

## - CS21/F

$19.2 \mathrm{Kbps} \cdot \$ 2,950_{+}$
The CS21/F emulates the DEC DMF32.

## © CS21/M

19.2 Kbps • $\$ 2,950_{+}$

The CS21/H emulates the DEC DH11.

## - CS21/2

$19.2 \mathrm{Kbps} \cdot \$ 2,950_{+}$
The CS21/Z emulates the DEC DZ11.

## - CS23

38.4Kbps • $\$ 3,300+$

The CS23 emulates the DEC DH11.

## - C532

38.4Kbps • \$24,400

The CS32 emulates the DEC DMF32 and
is available with an isochronous option.

## - 0509

16 Channels Supported • 57.6Kbps • Async
Transmission Type - \$2,000
Designed specifically for the MicroVAX
$3500 / 3600$, the QS09 replaces two of the DEC CXY08 multiplexers, emulating two DHV11s. No software modifications are needed to use the QS09 with either MicroVMS or ULTRIX.

## Equinox Systems

- LM-48

48 Channels Supported •\$3,100

## LIM-8

8 Channels Supported - \$700

## Fibermux Corporation

## - FX4400

384 Channels Supported
A high capacity fiber-optic backbone that provides a fast flexible pathway for moving voice and data traffic. Features high bandwidth and a broad range of interface signaling support for two to nine sites . or more.

## Gandalf Data, Inc.

- DOU 3640

64Kbps • Async/Sync Transmission Type * $\$ 325$
Extends a single ISDN-B channel over a single twisted pair to a variety of Gandalf and non-Gandalf PADs and multiplexers. May also be used to multiplex voice channel on same pair wires.

## - GLM 518

8 Channels Supported • 640Kbps • Async/Sync Transmission Type • $\$ 800$
Extends up to eight ISDN-B channels at least 7500 feet on 24 AWG twisted pair
cable or 11,000 feet on 22 AWG. May also be used to extend asynchronous channels up to 18,000 feet at all speeds from 50 to 19.2 Kbps .

## - GLM 528E

128 Channels Supported • $1.544 \mathrm{Mbps} \cdot$ Async/ Sync Transmission Type • \$3,475
T1 compatible for interpremise multiplexing and digital multidrop via token ring capability on premise at D4/D5 transport standards. Integrates with MUX 2000 to support voice, X. 25 , SNA and statistically muxed asynchronous data.

## - KMUXX

7 Channels Supported • 38.4Kbps • Sync Transmission Type
Supports any protocol and features dynamic bandwidth allocation. Available with voice, X.25, and Stat mux options.

## - mMUUX 2000

8 Channels Supported • 19.2Kbps • $\$ 995$
Features an integral 9600 bps modem and support for both stat muxing and X. 25 on same linkage with voice traffic. Please review MUX 2000 network management which also works with the mMUX 2000.

## - MUX 2000

32 Channels Supported • 38.4Kbps • Async Transmission Type •\$2,000
Integral SNA, X. 25 PAD and voice multiplexer support with networking, routing and multidrop insert options. Integrated via outboard network management system.

## SwitchMux

16 Channels Supported • $\mathbf{1 9 . 2 K b p s} \bullet \mathbf{\$ 2 , 9 5 0}$ Features a five node ring network, star, or bus network, a switch providing contention and user switch, a starmaster gateway, and SNA support. Available with voice channel, X. 25 PAD, and TDM options.

## GEN/COMP, Inc.

- 2033
19.2Kbps • Async Transmission Type • $\mathbf{\$ 1 , 5 0 0}$ The 2033 Series emulates the DEC DZ11 and also supports current loop interfaces


## - 2036-01

16 Channels Supported • 38.4 Kbps • Async Transmission Type •\$1,600
The 2036 series emulates DEC's DH11 and DM11 units and features diagnostic modes including internal and external character loopback and fault isolation loopback Options include RS422 or current loop interfaces, as well as an extending buffer size to 256 characters

## - 2036-02

38.4Kbps • Async Transmission Type • $\mathbf{\$ 2 , 2 0 0}$

## 2036-04

38.4Kbps • Async Transmission Type • \$2,450 The 2036-02 and -04 also include a distribution panel, available in the following dimensions: $3.5 \times 19 \times 1.2$ or $4.7 \times 8.4 \times 2$.

## - 2036-05

$\mathbf{3 8 . 4 K b p s}$ • Async Transmission Type • \$1,750 This model includes one board only. It also includes three modem-control signals.

## - 2036-06

38.4Kbps • Async Transmission Type • \$2,450 The 2036 Series emulates the DEC DH11 and DM11 units and features diagnostic modes including internal and external character loopback and fault isolation loopback. Options include RS422 or current loop interfaces, as well as an extending the buffer size to 256 characters. This model includes a distribution panel in the same dimensions as mentioned above.

## ■ 2136

16 Channels Supported • $\mathbf{3 8 . 4 K b p s}$ • Async Transmission Type • \$1,600
The 2136 is a program controlled device, emulating a DEC DH11 and DM11, that connects communication lines to an LSI 11, MicroPDP-11, or MicroVAX system.

## ICS Datacom

- 2360
$\mathbf{3 8 . 4 K b p s} \bullet \mathbf{\$ 1 , 1 9 5}$


## Incomm Data Systems

- LocalMux 5005

8 Channels Supported • 9600bps • Async Transmission Type - \$599

## - SmartMux

14 Channels Supported • 9600bps • Async Transmission Type - \$799+

## Lan Systems, Imc.

## ■ LAN-MUX16A

16 Channels Supported • 19.2Kbps • Async
Transmission Type - \$795

## DEC Professional Answers Your Computing Questions

DEC Professional provides the information and insight you need to get the most out of your DEC computer. And it's absolutely FREE!

- Multivendor Environments
- UNIX
- Storage Technology
- Productivity Tools
- Hardcopy Devices
- Site Management
- Graphics
- Communications


## Request Your FREE Subscription Today!

To request a free subscription application to DEC Professional, contact:


Production Automation

Features built-in lightning protection, optical isolation on composite links, and LED indicators for each port. No modem is needed between multiplexers.

## © LAM-MUX8A

8 Channels Supported • 19.2Kbps • Async Transmission Type - $\$ 445$
Features built-in lightning protection, optical isolation on composite links, an LED indicator for each port, and self, line, and loopback tests.

## - LaN-mux8a PLUS

8 Channels Supported • 19.2Kbps • Async Transmission Type •\$545
Features optical isolation, built-in tail circuit modem support, any combination of RS232 and tail circuit modem support, LED indicators for each port, and self, line, and loopback tests.

## MCS Computer <br> Prooucts, lic.

## - CM-DHV11

38.4Kbps • Async Transmission Type • $\$ 650_{+}$

## MDB Systems, Inc.

## © MDB-DHU-MP

## \$4,995

This unit is equipped with a microprocessor board that features DMA capabilities.

## ■ MDB-Dz11-A

Async Transmission Type • $\mathbf{\$ 1 , 9 5 0}$

## - MDB-DZ11-N422-X

Async Transmission Type •\$2,100

- MDB-DZ11-AC-X

Async Transmission Type • \$2,100

## - MDB-D211-B

Async Transmission Type • \$1,500

## ■ MDB-Dz11-E

Async Transmission Type • $\$ \mathbf{\$ , 1 1 0}$

- MDB-D211-M

Async Transmission Type • \$1,300

## - MDB-F-A32-CKA

32 Channels Supported •\$3,835

## - MDB-F-DHU-A32

32 Channels Supported •\$6,495

## - MDB/MLSI-PBI-A32

32 Channels Supported - \$2,850
The above three units feature DMA capabilities.

## - MUX-C-32D

32 Channels Supported • $\mathbf{3 8 . 4 K b p s} \bullet$ Async Transmission Type

## © MUX-C-32D/T

32 Channels Supported • 38.4Kbps • Async Transmission Type
This unit is equipped with an RJ11 Telco connector.

## - MUX-C-32M

32 Channels Supported • 38.4Kbps • Async Transmission Type e $\$ \mathbf{6 , 4 9 5}$
The MUX-32C series is in a chassis configuration.

## - mux-R-320

32 Channels Supported • 38.4Kbps • Async Transmission Type •\$6,744

## ■ MUX-R-32D/T

32 Channels Supported • 38.4Kbps • Async Transmission Type
This unit is equipped with an RJ11 Telco connector.

## - MUX-R-32M

32 Channels Supported • 38.4Kbps • Async Transmission Type • $\$ 7,619$

## [ MUX-R-64D/T

64 Channels Supported • 38.4Kbps • Async Transmission Type
This unit is equipped with an RJ11 Telco connector.

■ MUX-T-32D
32 Channels Supported • $38.4 \mathrm{Kbps} \bullet$ Async Transmission Type • \$6,619

## ■ MUX-T-32D/T

32 Channels Supported • $38.4 \mathrm{Kbps} \bullet$ Async
Transmission Type
This unit is equipped with an RJ11 Telco conrector.

## - Mux-T-32M

32 Channels Supported • $\mathbf{3 8 . 4 K b p s} \cdot$ Async Transmission Type • \$7,495
Please note that additional MDB units may be added at any time to support up to 256 channels.

## © MUX-T-64D/T

64 Channels Supported • $38.4 \mathrm{Kbps} \cdot$ Async
Transmission Type
This unit is equipped with an RJ11 Telco connector.

## Метнod Systems, Inc.

- Mini-Mux

8 Channels Supported • 9600bps • Async Transmission Type - $\$ 395$
The Mini-Mux may be used transparently with all asynchronous machines at 9600 bps or less rates. Features transmission distance flexibility via internal jumpering.

## Micom Communications Corporation

- Micom Box Type 2
19.2Kbps • Async/Sync Transmission Type • $\$ 1,540+$
The Micom Box Type 2 is a modular statistical multiplexer offering both point-topoint and multipoint configurations in a single box solution.


## - Micom Box Type 3

16 Channels Supported • 19.2Kbps • Async/ Sync Transmission Type - $\mathbf{\$ 1 , 9 6 0 +}$
The Micom Box Type 3 is a modular multiplxer that also supports voice data for transmission at speeds from 1.2 to 72 Kbps .

## Motorola Imformation Systems

## - 6003 IMP

Async Transmission Type
Modular single nested device with redundant architecture that easily may be expanded in size. Supports up to 64 terminals and networks of 20 nodes may be constructed using this device.

## ■ 6015 INP

Async Transmission Type
The 6015 also features asynchronous port switching with contention and queuing hunt groups.

## - 6740 DCP

Modular single nested device with redun-
dant architecture that easily may be expanded in size. Supports up to 64 terminals and networks of 20 nodes may be constructed using this device.

## Mutit-Тесн <br> Systems, Inc.

- MurtiMux 32

32 Channels Supported • 14.4Kbps • Async Transmission Type • $\mathbf{\$ 1 0 , 2 9 5}$

## N.E.T. ComDesign Data Communications Group <br> - LS2000

32 Channels Supported • 19.2Kbps • Async Transmission Type - $\$ 2,800_{+}$
N.E.T.'s LS2000 terminal server supports up to 32 channels and provides an 802.3 link. It resides on Ethernet with SPX/50 and SPX VMS products as well as other DEC LAN products.

## - RS2000

32 Channels Supported • 19.2Kbps • Async Transmission Type • $\$ \mathbf{3 , 6 0 0 +}$
N.E.T.'s RS2000 is a high-performance network multiplexer that supports up to 32 terminals in mid-sized asynchronous remote sites.

## N.E.T. ComDesign

## Data Communications

## Group



## - SPX VMS

256 Channels Supported • 10Mbps •
Async Transmission Type
N.E.T. 's VMS interface is a software solution for host connections in a wide area network. Using DEC's standard Ethernet boards, each driver provides an economical direct host interface for 256 connections to remote locations in an SPX network. By eliminating asynchronous intertaces, SPX solutions costeffectively bridge distributed LANs, or connect remote users to a centralized LAN. Please contact vendor for pricing information.

## 图 SPX/30

72 Channels Supported • 19.2Kbps • Async Transmission Type $\mathbf{\$ 3 , 7 5 0 +}$ N.E.T.'s SPX/30 is designed for large capacity and higher performance requirements at non-LAN sites. The SPX/30 may interface to a large cluster of remote users, third party hosts or synchronous devices, and supports up to eight wide area links. Prices range from $\$ 3,750$ to \$24,500.

## SPX/5

8 Channels Supported • 9600bps • Async Transmission Type •\$1,195+
N.E.T.'s SPX/5 four or eight channel multiplexer offers cost savings in entry-level
point-to-point applications, or in larger SPX networks. Entry-level installations enjoy unprecedented growth options. Prices range from $\$ 1,195$ to $\$ 1,990$. . .

## - SPX/50

80 Channels Supported • 9600bps • Async Transmission Type • \$4,450+ N.E.T.'s SPX/50 is designed for data center capacity and LAN interface requirements. Individual SPX/50 chassis may be clustered to support up to 40 wide area links, multiple 802.3 interfaces, and as many as 1,500 integral asynchronous terminal ports. Switching, contention, dynamic routing and network management are common to all SPX family products. Prices range from $\$ 4,450$ $\$ 100,000$.

## © TS1000

32 Channels Supported • 19.2Kbps • Async
Transmission Type - \$2,100+
N.E.T.'s TS1000 multiplexer supports up to 32 terminal servers and is designed for asynchronous end-nodes or point-to-point networks with growth potential.

## Optical Data Systems

## - 00S 304

20Mbps
Features fully transparent DTR/DSR flow
control in rack and wall mount versions. Allows transmission up to four miles.

## ■ ODS 708

8 Channels Supported •1.544Mbps
This unit may be used by a wide variety of T1 equipment, including T1 feeds from satellites. Doppler shifts present no problem, even when all four T1 signals come from different systems.

## - ODS 730

1.544 Mbps

This unit is ideal for elimination of bulky multiconductor telephone trunk cables. The integral 15 pin T1 connector allows easy connection to a CSU, microwave link, or larger T1 mux.

## Patton Electronics <br> Company

■ 330
2 Channels Supported - \$295

- 340

2 Channels Supported •\$220

## - 354

4 Channels Supported •9600bps • Async
Transmission Type • \$295

- ${ }^{-158}$

8 Channels Supported • 9600bps • Async
Transmission Type • \$545

## Plexcom, Inc.

- 1904

4 Channels Supported • 64Khps • Async/Sync Transmission Type •\$895

## [1908

24 Channels Supported • 19.2Kbps • Async/ Sync Transmission Type

## - 1916

48 Channels Supported •19.2Kbps • Async/
Sync Transmission Type
The list price quoted above reflects 16 input channel model.

## ■1932

96 Channels Supported • 19.2Kbps•Async/ Sync Transmission Type - $\$ \mathbf{3}$,195
The list price quoted above reflects a 32 input channel model.

## - 4208

## - 5000

4 Channels Supported • $38.4 \mathrm{Kbps} \bullet$ Async/ Sync Transmission Type •\$1,295

## - 5000

16 Channels Supported • 38.4Kbps • Async/ Sync Transmission Type - \$1,895

## - 5000

32 Channels Supported • 38.4Kbps • Async/ Sync Transmission Type •\$3,195
90160

64 Channels Supported • $57.6 \mathrm{Kbps} \cdot$ Async/ Sync Transmission Type • \$3,500The list price quoted above reflects an eight input channel model.

## Rad Data Communications

 - DVI3 Channels Supported •\$145
© KiloMux
6 Channels Supported • Async/Sync
Transmission Type •\$1,600

## - KiloMux 56

6 Channels Supported • $56 \mathrm{Kbps} \bullet$ Async/Sync Transmission Type • $\mathbf{\$ 1 , 4 5 0}$

## © MAM-A

2 Channels Supported •\$295

## © MAM-S

2 Channels Supported • Async/Sync Transmission Type • $\$ 395$

## © MMM

2 Channels Supported • Async/Sync Transmission Type • \$350

## - MSM

2 Channels Supported • \$22

## - RCMCoax

2 Channels Supported •\$145

## - STM 4

4 Channels Supported •19.2Kbps •Async/ Sync Transmission Type $\bullet \$ 595$

## - STM-24

24 Channels Supported • 19.2Kbps• Async/ Sync Transmission Type - \$1,950

## STM-8

8 Channels Supported • 19.2Kbps • Async/ Sync Transmission Type • \$950

## - TRIMUMK 400

4 Channels Supported • 19.2Kbps • Sync
Transmission Type • \$3,950
Features an integral data compressor. Uses
the Ziv-Lempel compression algorithm, and compresses each channel individually prior to multiplexing them into a single aggregate.

## Raycom Systems, Inc. - 5100/5110

32 Channels Supported • 19.2Kbps •\$2,850+ SupportsT1, RS232,V.35, RS422, Current Loop, IBM 3270, 5088 graphics control, Token-Ring and ARCNET interfaces.

## SI Technology, Inc.

 - 100048 Channels Supported • 10Mbps • Async/ Sync Transmission Type •\$1,500+

## - 2006

8 Channels Supported • 19.2Kbps • Async/ Sync Transmission Type •\$1,500+

## - 2016

16 Channels Supported • 19.2Kbps • Async Transmission Type • $\$ 2,000$
The 1000, 2006, and 2016 models feature fiber optic cables for distances up to 2 km and are ideal for in-house data transmission within clustered terminal environments.

## Sigma Imformation <br> Systems

- SCD-DHV11/16

16 Channels Supported • $38.4 \mathrm{Kbps} \cdot$ Async Transmission Type - $\$ 780$

## - SCD-DHV11/8

8 Channels Supported • 38.4Kbps • Async Transmission Type - $\$ 673$

## - SCD-DZV11

8 Channels Supported • 19.2Kbps • Async Transmission Type - $\$ 867$
Designed for the LSI-11, the SCD-DHV11/ 16 and $11 / 8$ are addressed as two separate 8 -line devices that emulate two of DEC's DHV11 devices, and are software compatible with operating systems and diagnostics designed for the DEC module.

## Solana Electronics

 - SE 8228 Channels Supported • 9600hps • \$495

## n SE 822-CL

8 Channels Supported • 9600bps
The SE 822-CL features full hardware handshaking.

## Summus Computer

## Systems

## ■ SUM-COM

256 Channels Supported • 19.2Kbps • Async/ Sync Transmission Type

## - SUM-DHV16

38.4 Kbps

The maximum asynchronous baud rate is 9600 bps per line for the SUM-COM and the SUM-DHV16.

## This publication is available in microform.



UMI reproduces this publication in microform: microfiche and 16 or 35 mm microfilm. For information about this publication or any of the more than 16,000 periodicals and 7,000 newspapers we offer, complete and mail this coupon to UMI, 300 North Zeeb Road, Ann Arbor, MI 48106 USA. Or call us toll-free for an immediate response: 800-521-0600. From Alaska and Michigan call collect 313-761-4700. From Canada call toll-free 800-343-5299

Please send me information about the titles I've listed below:

| Name $\qquad$ <br> Title $\qquad$ <br> Company/Institution <br> Address $\qquad$ <br> City/State/Zip $\qquad$ <br> Phone $\qquad$ ) |  |
| :---: | :---: |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

## U•M•I A Bell \& Howell Company

300 North Zeeb Road, Ann Arbor, MI 48106 USA 800-521-0600 toll-free
313-761-4700 collect from Alaska and Michigan 800-343-5299 toll-free from Canada

## Now the admission price for wide area networking is only $\$ 1195$.

The SPX/5 is your ticket to advanced data networking. This asynchronous multiplexer combines traditional point-to-point benefits with wide area network compatibility. A value other muxes can't compete with. The SPX/5 is fully compatible with our highend SPX and Series 2000 networking processors. So when it comes time to expand to larger central hubs or add remote sites, our SPX/5 stays with your system. Discover how our SPX $/ 5$ can be a low cost investment in your networking future. Call 800-235-6935 \& ask for Dept. M87.


ComDesign Data Communications Group

## Systech Corporation <br> - HPS-6236 <br> \$1,185

## - HPS-6237

Gives users the same features as the HPS6236, but also provides a parallel printer port.

## Telebyte <br> Technology, Inc.

■ 570
8 Channels Supported •19.2Kbps • Sync
Transmission Type • \$548
The 570 model features TD and RD indicators per channel, data and synchronous loss indicators, a remote test and indicator, built in surge protection, and eight 25 foot cables.

## - 571

8 Channels Supported • 19.2Kbps • Sync Transmission Type •\$695
Same as above.

## - 572

8 Channels Supported • $19.2 \mathrm{Kbps} \cdot$ Sync Transmission Type •\$395
The 572 operates with models 570 and/or 571 and is equipped with a ribbon cable interface to DHV-11 and may be configured for multiuser systems.

## Teltone Corporation

## - M-825-01

32 Channels Supported • 19.2Kbps • Async Transmission Type
The M-825-01 is available with any or all of the following factory installed options: (A) EIA Status Control Card, (B) T1 Interface Lightning Protection, and (C) T1 Interface High Level Outputs.

## - M-825-02

32 Channels Supported • 19.2Kbps • Async Transmission Type
Same as above.

## - Max 1

This multiplexer has met compatibility standards for use with AT\&T's T1.5, R1.5, CCR, M24SDN, Megacom, and Megacom 800 services.

## - Max1 T1

32 Channels Supported
Provides DEC VT100 terminal emulation capability for AT\&T's ACCUMASTER integrator users. Interfaces voice and data devices to two T1 spans per unit.

## Universal Data Systems

## - $1406 T$

6 Channels Supported • $\mathbf{1 4 . 4 K b p s}$ • \$3,495
Six channel CCITT V. 33 compatible time division multiplexer combined with an integral 14.4 Kbps CCITT V. 33 compatible data modem.

## - 1408S

8 Channels Supported • $14.4 \mathrm{Kbps} \bullet \$ 3,995$ Full featured eight port statistical multiplexer combined with an integral 14.4 Kbps CCITT V. 33 modem, designed for point-topoint applications. Includes ARQ error control.

## - 9604T

4 Channels Supported • 9600hps • \$2,495
Four channel CCITT V. 29 compatible time
division multiplexer combined with an integral 9600bps CCITT V. 29 compatible modem.

## - 96085

8 Channels Supported • 9600bps • \$2,695
Full featured eight port statistical multiplexer with an integral 9600bps V. 29 modem. Includes ARQ error control.

## - SM-4A

4 Channels Supported • 19.2Kbps • Sync
Transmission Type • \$1,160
Four port statistical multiplexer designed for use with a standard, full duplex synchronous modem at rates up to 19.2 Kbps . Includes ARQ error control.

## - SM-8A

8 Channels Supported • 19.2Kbps • Sync
Transmission Type • \$1,550
Eight port statistical multiplexer designed for use with a standard full duplex, synchronous modem at data rates up to 19.2 Kbps . Includes ARQ error control.

## - TDM/MR

24 Channels Supported • 38.4Kbps • Async/ Sync Transmission Type
The TDM/MR multiplexes data terminal equipment over a variety of transmission devices such as low speed analog modems, leased line modems, subrate and 56 Kbps DSUs, T1 multiplexer channels, etc. Operates at aggregate data rates up to 38.4 Kbps .

## Webster Computer Corporation

## - WQDHV

16 Channels Supported • 38.4 Kbps • Async

## Transmission Type

RS232 asynchronous 16 -line ( $2 \times \mathrm{DHV} 11$ ) multiplexer that features programmable split speed baud rates, character length, parity, stop bits, and XON/XOFF. Four character/line FIFO silo and 256 character common silo.

## WQDZV

## ■ 8 Channels Supported • 38.4Kbps • Async

Transmission Type
RS232 asynchronous eight-line DZ11/ DZV11 multiplexer features programmable baud rates, character length, parity, stop bits, and transmitter enable; also features four character/line FIFO silo and 64 character common silo.

## Xylogics, Inc.

- Interface Multiplexer

16 Channels Supported • \$2,495

## Wiring Systems And Cables

## Accu-Tech Cable, Inc

ACCU-TECH features DEC compatible modular twisted pair wiring systems, including adapters, baluns, octupuses, feeders, patch panels, enclosures, wire and cable meeting plenum, and PVC codes.

## Belden Wire and Cable

Suppliers of multiconductor, paired, coaxial, plenum, and fiber optic cables. Offers custom design services and technical assistance programs.

## Belkin Components

Manufacturer of DEC compatible standard and custom cable assemblies, bulk cable, connectors and related hardware.

## Black Box Corporation



Whether you need ThinNet, Standard, or Twisted Pair, we have it at Black Box. The following cables are terminated: (1) Standard Ethernet PVC Coax Cable, 384 feet (117m) NK-LCN100-0384 at \$435; other lengths NK-LCN100 at $\$ 32+\$ 1.05 / f e e t$, (2) ThinNet Ethernet Coax Cable (RG-58), 100 feet ( 30.5 m ) NK-LCN300-0010 at \$41.50; other lengths NK-LCN300 at \$15 + $\$ .30 /$ feet, and (3) Ethernet Transceiver Cable, 10 feet ( 3 m ) NK-LCN200-0010 at $\$ 52.50$; other lengths NK-LCN300 at \$41 + $\$ .95 / f e e t$. All cables also available in plenum; bulk cable also available. We are also a complete source for DECconnect cables, connectors, and switches. We publish The LAN Catalog, a complete source of information and products for LANs. To order cables or the cata- . $\log$, call (412) 746-5530.

## Cabco Inc.

Suppliers of DEC compatible computer cables and Ethernet cable stripping tools.

## Cable Management Systems, Inc.

Suppliers of cables and cabling kits for LANs. Supports Ethernet and RS232C/ 422 from CPU to peripherals. Provides a standard line of cabling kits for DEC MicroVAX systems that support RS232/423 standards. Consists of two mini-patch panels providing 24 I/O ports that are evenly divided between the CPU and the terminals.

## Comm/Scope, Imc.

Electronic wire and cable for LANs. Ethernet, Token Ring, MAP/TOP, broadband, and multi-conductor cables. Cables meet UL and IEEE standards.

## CS Electronics

Specialists in cables for DEC compatible disk and tape subsystems using Emulex, DILOG, and MTI controllers and Imprimis, Fujitsu, and Exabyte drives. Cables for SUN disk and tape subsystems.

## Custom Cable Industries

DEC equivalent cables, DECconnect, cable assemblies (data, telecommunications \& video), transceivers, fiber optics, patch panels, LAN cabling baluns, data switch connectors, bulk wire, and cabling. Networking installations nationwide.

## Dynamic Systems Northwest, Inc.

Offers site surveys with customized cable design, assembly and installation of fiber optics, Ethernet, twisted pair, patch panels and connectors within the Techni-Cable division.

## General Instrument

Specializes in high performance cable for high performance manufacturing hardware, including DEC approved thinwire Ethernet cable for DEC system flexibility. Designed to meet IEEE 802.3 and IEEE 802.4 standards.

## Ilunois Computer Cable

Provides a full line of Ethernet and DECnet cables and Thinnet/Thinwire cabling and accessories. Offers standard length DEC cables or designs custom cables to meet specific requirements.

## Lanmark Telecom, Inc.

Contracting and consulting firm providing engineering and installation of network cabling systems. Utilizing their Wire-Right smart wiring system, Lanmark provides complete turnkey design, installation, and project management service.

## MOD-TAP System

MOD-TAP System designs and manufactures components and system level solutions to voice and data communications wiring. The MOD-TAP Communication Wiring System provides compatibility with Digital DECconnet, IBM Cabling System, Northern Telecom IBDN Wiring, AT\&T Premises Distribution System, and Integrated Services Digital Network (ISDN) capabilities. MOD-TAP System is not biased towards any particular manufacturer's equipment or LAN design. MODTAP System is guaranteed to interconnect any compatible equipment utilizing standard twisted pair wiring.

## South Hils Electronics

Sells DEC and FCC compliant cables.

We've Moved!
Our new address is 101 Witmer Road Horsham, PA 19044 (215) 957-1500

## Good News for IBM Midrange Pros

MIDRANGE Systems is a biweekly news-paper-the only news source for $\mathrm{S} / 3 \mathrm{X}$ and AS/400 users and buyers. And it's FREE! All the late breaking industry and product news and information you need to keep pace with changes in IBM midrange computing . . . every two weeks.


Regular Coverage of...

- New Products
- Late-Breaking Industry News
- AS/400
- Performance
- Communications
- SAA
- Law \& Technology
- RPG Programming Tips
- Product Reviews
- Financial Analysis
- Much More

To request a FREE subscription application to MIDRANGE Systems, contact Lori Ulbrich at (215) 957-1500

MIDRANGE Systems, Circulation Dept. 101 Witmer Road, Horsham, PA 19044

MIDRANGE


## ETHERNET DEVICES



## Allied Telesis <br> adds more functionality in the DECnet environment.

Allied Telesis is a specialist in Ethernet building blocks, adding more modular plug-in functionality and allowing more configuration options. Allied Telesis AT-5000 is the only Multimedia Concentrator offering IEEE 802.3 Ethernet based repeaters, transceivers, and a MAC Layer bridge in a coax, fiber optics, repeater and transceiver modules can be mixed with in the same chassis. ATI also offers single, dual, and multiport transceivers and repeaters.

627 National Avenue Mountain View, CA 94043 (415) 964-2771

FAX: (415) 964-0944


## WHY BORROW WHEN YOU CAN HAVE YOUR OWN COPY

> DEC Professional
> HARDWARE BUYERS GUIDE Order Your Own Copy at a Special Rate of Only $\$ 75$

To order, complete this form and return
it with your
payment to:
101 Witmer Road
P.O. Box 218

Horsham, PA
19044


## ETHERNET DEVICES



## ETHERNET DEVICES



## ETHERNET DEVICES



## ETHERNET DEVICES



## NETWORKING INTERFACES



## NETWORKING INTERFACES



## SWITCHING DEVICES

| む̃ |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3Com Corporation 408 562-6400 |  |  |  |  |  |  |  |  |  |  |  |  |
| LS/1 | 64 |  | LAN | Async | S | 19.2 K |  | Y | 802.3 | Y |  |  |
| Able Computer 714 553-1188 |  |  |  |  |  |  |  |  |  |  |  |  |
| NC3600 | 3600 | 3600 | Network | Sync | S | 38.4 K |  | Y |  | Y | 1 yr | \$12,500+ |
| Alantec 415 770-1050 |  |  |  |  |  |  |  |  |  |  |  |  |
| MLS | 6-16 |  | Multilan |  |  |  |  |  |  |  |  | \$9,800 |
| Applied Innovation, Inc. 614 846-9000 |  |  |  |  |  |  |  |  |  |  |  |  |
| AISwitch Series 90 | 64 | 16 | Data PBX | A/S | R/S | 19.2K | FDX | $Y$ | 232/422 | $Y$ | 1 yr | \$105/port |
| AISwitch Series180 | 256 | 4-16 | Data PBX | A/S | R/S | 19.2 K | FDX | $Y$ | 232/422 | $Y$ | 1 yr | \$105/port |
| Aviv Corporation 617 933-1165 |  |  |  |  |  |  |  |  |  |  |  |  |
| DPS 300 | 2 |  |  |  | R |  |  |  | Pertec |  | 90 d | \$2,100 |
| DPS 805 | 2 |  | Tape |  | R |  |  |  | STK |  | 90 d | \$2,400 |
| MPS 300 | 6 |  | Tape |  | R |  |  |  | Pertec |  | 90 d | \$6,250 |
| MPS 805 | 6 |  | Tape |  | R |  |  |  | STK |  | 90 d | \$6,700 |
| QPS 300 | 4 |  | Tape |  | R |  |  |  | Pertec |  | 90 d | \$3,900 |
| QPS 805 | 4 |  | Tape |  | R |  |  |  | STK |  | 90 d | \$4,200 |
| Datacom Technologies, Inc. 206 355-0590 |  |  |  |  |  |  |  |  |  |  |  |  |
| MetroSwitch 412 | 4 | 16 | Printer | Async | S | 19.2K |  |  | S/P |  | 1 yr | \$269 |
| MetroSwitch 413 | 4 | 16 | Printer | Async | S | 19.2K |  |  | S/P |  | 1 yr | \$324 |
| MetroSwitch 430 | 4 | 20 | Printer | Async | S | 19.2K |  |  | RS232 |  | 1 yr | \$595 |
| MetroSwitch 431 | 4 | 20 | Printer | Async | S | 19.2K |  |  | RS232 |  | 1 yr | \$745 |
| MetroSwitch 433 | 4 | 20 | Printer | Async | S | 19.2K |  |  | RS232 |  | 1 yr | \$249 |
| Digital Consultants 805 498-4577 |  |  |  |  |  |  |  |  |  |  |  |  |
| ITM | 4 | 4 | Tape |  | R/S |  |  |  | Pertec |  | 1 yr | \$1,950+ |
| Gold Key Electronics, Inc. 603 625-8518 |  |  |  |  |  |  |  |  |  |  |  |  |
| LN2-HP1 | 3 |  | Printer |  | S | 19.2K |  | $Y$ | RS232 | $Y$ | 1 yr | \$549 |
| LN3-HP1 | 4 |  | Printer |  | S | 19.2K |  | Y | RS232 | $Y$ | 1 yr | \$749 |
| SW2-2+2 | 4 |  | Printer |  | S | 19.2K |  | $Y$ | RS232 | $Y$ | 1 yr | \$749 |
| SW2-HP1 | 3 |  | Printer |  | S | 19.2 K |  | $Y$ | RS232 | $Y$ | 1 yr | \$549 |
| SW2-ID1 | 3 |  | Printer |  | S | 19.2K |  | $Y$ | RS232 | $Y$ | 1 yr | \$549 |
| SW3-HP1 | 4 |  | Printer |  | S | 19.2K |  | $Y$ | RS232 | $Y$ | 1 yr | \$749 |
| SW3-ID1 | 4 |  | Printer |  | S | 19.2K |  | $Y$ | RS232 | $Y$ | 1 yr | \$749 |
| SW6-HP2 | 8 |  | Printer |  | S | 19.2K |  | $Y$ | RS232 | $Y$ | 1 yr | \$1,295 |
| SW6-ID2 | 8 |  | Printer |  | S | 19.2K |  | $Y$ | RS232 | $Y$ | 1 yr | \$1,295 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Instanet6000-20 | 250 | 250 | TDM | A/S | R/S | 72K |  | $Y$ | S/V.35/T1 | $Y$ | 3 yrs | \$5,000+ |
| Instanet6000-40 | 2036 | 2036 | TDM | A/S | R/S | 72K |  | Y | SN. $\mathrm{N} / \mathrm{/T1}$ | Y | 3 yrs | \$9,000+ |
| Omicron Telesystems, Inc. 514 694-3457 |  |  |  |  |  |  |  |  |  |  |  |  |
| PFS |  |  |  |  | R/S |  |  |  | RS232 |  |  | \$495+ |
| Racal-Milgo 800 327-4440 |  |  |  |  |  |  |  |  |  |  |  |  |
| Omnimux 8000 | 576 | 8 | I1 Multiplexer | A/S | R | 19.2K | FDX/HDX |  | SN. 35 | $Y$ | 1 yr | \$30,000 |
| Omnimux 9000 | 1584 | 36 | Network | A/S | R | 1.536M |  |  | SN. 35 | $Y$ | 1 yr | \$25,000+ |
| Omnimux DCS | 60 | 36 | DACS | A/S | R | 19.2K |  |  | SN. 35 |  |  | \$10,000+ |
| Rose Electronics 713 933-7673 |  |  |  |  |  |  |  |  |  |  |  |  |
| CareTaker | 4-8 |  | Scanning |  | S |  |  | Y | S/P | $N$ | 1 yr | \$195+ |
| CareTaker Plus | 4-8 |  | Buffered | Async | S | 19.2K |  |  | S/P | $Y$ | 1 yr | \$395+ |
| MasterSwitch Family | 2-16 |  | Network | Async | S | 115.2K |  | $Y$ | S/P | Y | 1 yr | \$295+ |
| Porter | 4-8 |  | Code | Async | S | 19.2K | FDX | $Y$ | S/P |  | 1 yr | \$395+ |

## TERMINAL SERVERS

| む \% |  |  |  |  |  | $\mathbb{e}^{50}$ |  |  |  |  |  | む |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Able Computer 714 553-1188 |  |  |  |  |  |  |  |  |  |  |  |  |
| CS128 | 128 | 5-8 | RS232/423 | Y | Y | 0/E/N | 38.4K | Y | 1/1.5/2 | R | 1 yr | \$3,750+ |
| DS008 | 8 | 8 | RS232/423 | $Y$ | $Y$ | O/EN | 38.4K | $Y$ | 1/1.5/2 | S | 1 yr | \$2,000 |
| DS016 | 16 | 8 | RS232/423 | $Y$ | $Y$ | 0/E/N | 38.4K | Y | 1/1.5/2 | S | 1 yr | \$2,800 |
| Adac Corporation 617 935-6668 |  |  |  |  |  |  |  |  |  |  |  |  |
| 1750 | 2 | 5-8 | RS232 |  |  | 0/E/N | 19.2K |  | 1/1.5/2 | R |  |  |
| Black Box Corporation 412 746-5500 |  |  |  |  |  |  |  |  |  |  |  |  |
| NTS100 | 8 |  | RS232 |  |  |  | 38.4K |  |  | S |  | \$2,700 |
| cisco Systems, Inc. 800 553-NETS |  |  |  |  |  |  |  |  |  |  |  |  |
| ASM |  |  |  |  |  |  |  |  |  | S |  |  |
| STS-10 | 10 |  | RS232 |  |  | 0/E/N | 38.4K |  |  |  |  | \$2,995 |
| Communication Machinery Corporation (CMC) 805 968-4262 |  |  |  |  |  |  |  |  |  |  |  |  |
| TransServer | 4-10* |  | RS232/E | Y |  |  |  |  |  | S | 90 d |  |
| Computer Products, Inc. 305 974-5500 |  |  |  |  |  |  |  |  |  |  |  |  |
| GT360 |  |  |  |  |  |  |  |  |  | R | 1 yr | \$265 |
| GT362 | 16 |  |  |  |  |  |  |  |  | R | 1 yr | \$390 |
| GT370 | 16 |  |  |  |  |  |  |  |  | R | 1 yr | \$650 |
| Datability Software Systems, Inc. 800 342-5377 |  |  |  |  |  |  |  |  |  |  |  |  |
| VCP-1000 | 8 |  | RS232 |  |  |  |  |  |  | R/S |  |  |
| VCP-1000 | 128 | 7/8 | RS232 | Y | Y | 0/E/N | 38.4K | Y | 1/2 | R/S | 1 yr | \$3,499+ |
| VCP/LC-RS232-8 | 8 |  | RS232 |  |  |  | 38.4K |  |  | R/S |  |  |
| VCP/LC-RS423-32 | 32 |  | RS423 |  |  |  | 38.4K |  |  | R/S |  |  |
| VCP/NIC-LAT | 32 |  |  |  |  |  |  |  |  |  |  |  |
| Emulex 800 EMUULEX-3 |  |  |  |  |  |  |  |  |  |  |  |  |
| PERFORMANCE 4000 | 32 | 5-8 | RS232/423/P | Y |  | 0/E/N | 38.4K | Y | 1/1.5/2 | R/S | 1 yr | \$3,890+ |
| Encore Computer Corporation 800 336-2673 |  |  |  |  |  |  |  |  |  |  |  |  |
| ANNEX II | 16 |  | RS232/P | Y |  |  | 38.4K |  |  | R |  |  |
| ANNEX II | 32 |  | RS232/P | $Y$ |  |  | 38.4K |  |  | S |  |  |
| GEN/COMP, Inc. 617 828-2008 |  |  |  |  |  |  |  |  |  |  |  |  |
| 2031 |  |  |  | Y |  | 0/E/N | 9600 |  |  | R | 2 yrs | \$525 |
| Interlan Inc. 508 263-9929 |  |  |  |  |  |  |  |  |  |  |  |  |
| INTS/MicroVMS | 32 |  | RS232/E |  |  |  |  |  |  | R |  | \$3,225 |
| INTS32NMS | 32 |  | RS232/E |  |  |  |  |  |  | R |  | \$3,850 |
| NTS100 | 8 | 5-8 | RS232/E | Y |  | 0/E/N | 38.4K | Y | 1/1.5/2 | S |  | \$2,750 |
| NTS200 LAT/TCP | 8 |  |  |  |  |  |  |  |  |  |  | \$2,750 |
| MDB Systems, Inc. 714 998-6900 |  |  |  |  |  |  |  |  |  |  |  |  |
| MDB-MDL11 |  | 5-7 | RS232 | $Y$ | $Y$ | O/E/N | 19.2K | $Y$ | 1/1.5/2 | R | 1 yr | \$868 |
| MLSI-DLV1-ED |  | 5-7 | RS232 | $Y$ | $Y$ | 0/E/N | 19.2K | $Y$ | 1/1.5/2 | R | 1 yr | \$350 |
| MLSI-DLV11-F |  | 5-7 | RS232 | $Y$ | Y | 0/E/N | 19.2K | $Y$ | 1/1.5/2 | R | 1 yr | \$350 |
| MUX-T/R-32 | 32 | 7/8 | RS232/423 | $Y$ |  |  | 38.4K | $Y$ | 1 | R/S | 1 yr | \$6,495 |
| Sigma Information Systems 714 630-6553 |  |  |  |  |  |  |  |  |  |  |  |  |
| SCD-DLV11E | 1 | 5-8 | RS232N. 24 | $Y$ | $N$ | 0/E/N | 19.2K | $Y$ | 1/1.5/2 | R | 1 yr | \$353 |
| SCD-DLV11J | 4 | 5-8 | RS232 | $Y$ | $N$ | O/E/N | 38.4K | Y | 1/2 | R | 1 yr | \$319 |
| SCD-DLV11J/8S | 8 | 7-8 | RS232 | Y | N | 0/E/N | 19.2K | $Y$ | 1/2 | R | 1 yr | \$657 |
| Simpact Associates, Inc. 619 565-1865 |  |  |  |  |  |  |  |  |  |  |  |  |
| EXC 1612 | 12 |  |  | Y | Y |  |  |  |  | R |  |  |
| Systems Concepts, Inc. 415 984-1000 |  |  |  |  |  |  |  |  |  |  |  |  |
| RX-30 |  |  | RS232 |  |  |  | 38.4K |  |  | S |  |  |
| TX-30 |  |  | RS232 |  |  |  | 38.4K |  |  | S |  |  |

## TERMINAL SERVERS


X. 25 PAD PROCESSORS


Have You Moved?
Complete and return the enclosed DEC Professional Qualification Form Now!

## Ethernet Devices

## Advanced Computer Communications (ACC)

## - ACS 4030

$19.2 \mathrm{Kbps} \bullet$ Remote Bridge • Provides protocol independent routing between separate Ethernet networks which are interconnceted via point-to-point communication links \$4,975+
The ACS 4030 is a remote Ethernet bridge that provides transparent connection between multiple Ethernet LANs through point-to-point HDLC/LAPB lines or an X. 25 packet switched network.

## - ACS 4110

1.544Mbps $\bullet$ Remote Bridge • Provides transparent connection between mulitple LANs - $\mathbf{\$ 7 , 5 0 0}$

The ACS 4110 is a remote Ethernet bridge that provides transparent connection between multiple Ethernet LANs through point-to-point HDLC/LAPB lines. Supports data speeds up to T1 rates.

## Alantec

## - Multi LaN Switch

160Mbps • Fiber Optic Bridge • Interconnects up to 16 networks, up to 10 km , while providing advanced filtering and network management features •\$9,800
Maintains three databases for self-learning address tables, custom filtering, and network groups. Especially suited for networks supporting high-performance workstations.

## - SMARTBridge 1000

## Bridge

Boosts, tracks and analyzes network performance while providing transparent communications for large multiprotocol Ethernet LANs.

## ■ SMARTBridge 2000

10Mbps • Bridge • Allows transmission up to 10km.
Provides remote ALANTEC bridge management through IP routers on a TCP/IP network, enhanced graphic display output, and selective filtering of network data for enhanced routing and security.

## - SMARTLan Manager

10Mbps • Network Management • Provides dynamic control, configuration and reallocation of network resources based on network traffic loads or failures.

## Alied Telesis, Inc.

- CentreCOM 104

10Mbps • Thinnet Coax Transceiver • Used to make device tap to Ethernet cable and is equivalent to DEC's $\mathbf{H 4 0 0 0}$ model - $\mathbf{\$ 1 9 9}$
Small cable tap tranceiver that may be pulled into a small cable conduit. It also is equipped with a BNC-JACK coax connector.

## - Centrecom 105

10Mbps • Coax Transceiver • Used to make device tap to Ethernet cable and is equivalent to DEC's $\mathbf{H} 4000$ model • $\$ 169$
Tranceiver that may be pulled into a small cable conduit.

## - CentreCOM 106

10Mbps • Thicknet Coax Transceiver • Used to
make device tap to Ethernet cable and is equivalent to DEC's $\mathbf{H 4 0 0 0}$ model - $\mathbf{\$ 1 9 9}$ Small cable tap tranceiver that may be pulled into a small cable conduit. Equipped with a non-intrusive (vampire or stinger) type connector. Requires an installation tool kit (AT-1220-K).

## - CentreCOM 107

10Mbps • Thinnet Coax Transceiver • Used to make device tap to Ethernet cable and is equivalent to DEC's $\mathbf{H 4 0 0 0}$ model • $\$ 199$
Small cable tap tranceiver that may be pulled into a small cable conduit. Equipped with a BNC-T type coax connector.

## - CentreCOM 108

10Mbps • Thicknet Coax Transceiver • Used to make device tap to Ethernet cable and is equivalent to DEC's $\mathbf{H 4 0 0 0}$ model • $\$ 199$
Small cable tap tranceiver that may be pulled into a small cable conduit. Equipped with an N series type connector.

## - CentreCOM 1604

10Mbps • Multiple Transceiver • May be used to create standalone networks or as a concentrator to group several devices onto a single tap of an Ethernet coaxial cable \$1,145
Connects eight stations for remote operation and may be cascaded to serve 256 stations. Equipment linked to the 1604 may be isolated from the main network while still allowing local connectivity and networking. Modular to 16 ports; equivalent to the DEC DELNI.

## CentreCOM 1608

$10 \mathrm{Mbps} \cdot$ Multiple Transceiver • May be used to create stand-alone networks or as a concentrator to group several devices onto a single tap of an Ethernet coaxial cable - $\mathbf{\$ 1 , 7 9 5}$ Connects 16 stations for remote operation and may be cascaded to serve 256 stations. The equipment linked to the 1604 may be isolated from the main network while still allowing local connectivity and networking. Modular to 16 ports; equivalent to the DEC DELNI.

## - CentreCOM 2000

1/10Mbps • MAC Layer Learning Bridge Connects Ethernet-to-Ethernet or Ethernet-toStarLAN networks • $\$ 2,950$
May be used to solve network interconnection problems and alleviates network congestion by partitioning.

## - CentreCOM 204

10Mbps • Thinnet Coax Transceiver • Used to make device tap to Ethernet cable and is equivalent to DEC's $\mathbf{H 4 0 0 0}$ model - \$225
Small cable tap tranceiver that may be pulled into a small cable conduit. Equipped with a BNC-JACK coax connector. The CentreCOM 2xx series features additional status LEDs.

## - CentreCOM 205

10Mbps • Coax Transceiver • Used to make device tap to Ethernet cable and is equivalent to DEC's $\mathbf{H 4 0 0 0}$ model - $\$ 199$
Tranceiver that may be pulled into a small cable conduit.

## - CentreCOM 206

10Mbps • Thicknet Coax Transceiver • Used to make device tap to Ethernet cable and is equivalent to DEC's $\mathbf{H 4 0 0 0}$ model - $\$ 225$ Small cable tap tranceiver that may be pulled into a small cable conduit. Equipped with a non-intrusive (vampire or stinger) type connector. Requires an installation tool kit (AT-1220-K).

- CentreCOM 207

10Mbps•Thinnet Coax Transceiver • Used to make device tap to Ethernet cable and is equivalent to DEC's H 4000 model • $\$ 225$ Small cable tap tranceiver that may be pulled into a small cable conduit. Equipped with a BNC-T type coax connector.

## - CentreCOM 208

10Mbps • Thicknet Coax Transceiver • Used to make device tap to Ethernet cable and is equivalent to DEC's $\mathbf{H 4 0 0 0}$ model - $\$ 225$
Small cable tap tranceiver that may be pulled into a small cable conduit. Equipped with an N series type connector.

## - CentreCOM 250

10Mbps • Dual Port Transceivers • Provides electronic and physical interfaces between Ethernet coaxial cable and Ethernet DTEs Available in a variety of configurations and features user selectable switches and extensive LED status indicators.

## - CentreCOM 2900

10Mbps • MAC Level Bridge • Provides an efficient way to connect homogeneous or heterogeneous networks using different media.
Provides connectors for the following network types: (1) a sub-miniature connector for thick Ethernet/10BASE5 and (2) an RJ45 connector for StarLAN/BASE5.

## - CentreCOM 2920

10Mbps • MAC Level Bridge • Provides an efficient way to connect homogeneous or heterogeneous networks using different media.
Provides the same connectors as the CentreCOM 2900 including a BNC connector for thin Ethernet/10BASE2.

## - CentreCOM 5000

10Mbps • Multimedia Concentrator • Allows networks utilizing different media to be designed and installed and concentrated on a single device - \$1,295
May be (1) used as a standalone hub for remote stations or (2) connected to existing Ethernet segments or (3) operated in local mode. It also may be daisy-chained or cascaded with other CenterCOM 5000 devices.

## - CentreCOM 800

$10 \mathrm{Mbps} \cdot$ Multiple Transceiver - Connects eight stations for remote operation through one cable tap, which may be cascaded to serve 64 stations - $\$ 945$
Equipment linked to the 800 may be isolated from the main network while maintaining local connectivity and networking. Applications include securing data from general traffic, local maintenance, and alterations in network configurations. Equivalent to the DEC DENI.

## BICC Data

## Networks, Inc.

- 1112-1

10Mbps • Slimline Tranceiver • Provides a connection to local baseband CSMA/CD networks.
This unit is equipped with a cable piercing tap for standard Ethernet cables.

## -1112-2

10Mbps • Slimline Tranceiver • Provides a connection to local baseband CSMA/CD networks.
This unit is equipped with an N series tap for standard Ethernet cables.

- 1112-3

10Mbps • Slimline Tranceiver • Provides a connection to local baseband CSMA/CD networks.
This unit is equipped with BNC connectors for use with thin Ethernet cables.

- 1113-1

10Mbps • Slimline Tranceiver • Provides a connection to local baseband CSMA/CD networks.
This unit is equipped with a cable piercing tap for standard Ethernet cables.

■ 1113-2
10Mbps • Slimline Tranceiver • Provides a connection to local baseband CSMA/CD networks.
This unit is equipped with an N series tap for standard Ethernet cables.

- 1113-3

10Mbps • Slimline Tranceiver • Provides a connection to local baseband CSMA/CD networks.
This unit is equipped with BNC connectors for use with thin Ethernet cables.

## ■ 1114

10Mbps • Transceiver • Receives and transmits data and detects data collision - $\$ 295$ Features interchangeable cable piercing and N series or BNC connector taps.

## - 1120

10Mbps • Repeater • Connects two segments of a local baseband CSMA/CD network.
When used in conjunction with BICC's Isolan tranceivers, the 1120 repeater connects five standard Ethernet cable segments, thin Ethernet segments, or standard and thin Ethernet segments.

## - 1125

10Mbps • Thin Ethernet Repeater • Provides a connection between a large number of network segments in a baseband CSMA/CD network.
This unit is equipped with six thin Ethernet ports and two AUI ports.

## ■ 1126

10Mbps • Fiber Optic Repeater • Provides a
connection between a large number of network segments in a baseband CSMA/CD network.
This unit is equipped with seven fiber ports and one AUI port.

## - 1130

10Mbps • Fan Out Unit - Connects a group or cluster of external data processing equipment to a baseband CSMA/CD network.
The 1130 acts as a transceiver multiplexer and provides the full data rate of the network to up to eight AUI connections.

## ■ 1150

10Mbps • Fiber Optic Repeater • Interconnects two segments of a local baseband CSMA/CD network that may be located in different buildings.
To configure the interconnection of LAN segments between buildings, two units are required, separated by BICC's Isolan transceiver and an AUI cable. Each unit performs loopback of data, jabber protection, $100 \%$ reliable collision detection, idle signal modulation, and loss of light detection and indication.

## -1160-0

10Mbps $\bullet$ Fiber Optic Hub • Allows remote copper segments to be interconnected in a
cost-efficient manner via optical repeaters through a central remote star.
This unit is equipped with six fiber ports and one AUI port. It is used in conjunction with BICC's Isolan Fiber Optic Repeaters, which are connected to each copper segment. It forms the basis of a simple star network, providing a means of connecting nodes up to 2 km onto an all fiber network.

## - 1160-1

10Mbps • Fiber Optic Hub • Allows remote copper segments to be interconnected in a cost-efficient manner via optical repeaters through a central remote star.
This unit is equipped with 12 fiber ports and one AUI port. It is used in conjunction with BICC's Isolan Fiber Optic Repeaters, which are connected to each copper segment. It forms the basis of a simple star network, providing a means of connecting nodes up to 2 km onto an all fiber network.

## ■ 1180

10Mbps • Fiber Optic Tranceiver • Provides a connection between a variety of DTEs or PCs and fiber optic baseband CSMA/CD local area networks.
This unit performs loopback of data, jabber protection, $100 \%$ reliable collision detection, idle signal modulation, and loss of light detection and indication.

## - 1400

10Mbps • Primary Bridge • Connects two CSMA/CD IEEE 802.3 or Ethernet networks and filters unnecessary traffic.
Learns the source addresses on either side of the bridge and then only forwards a packet across to the other side if the destination is not on the originating network.

## ■ 1410

Bridge - \$7,500
The 1410 may be used in conjunction with BICC's ISOVIEW Network Manager $(\$ 5,995)$ that controls the functions of the 1410 from a single location. It gathers statistics on network events and monitors the entire network.

## Black Box Corporation

- Fan Out Unit

10Mbps • Fan Out Unit • Allows eight DTE devices to share one transceiver and creates a standalone star network without trunk cable • \$1,250
Provides the full data rate of the network to each AUI connection.

## - Fiber Optic Repeater

10Mbps • Fiber Optic Repeater • Connects two LAN segments up to 4000 feet, providing electrical isolation and low error rates • $\$ 2,180$ Features preamble regeneration, fragment extension, data retiming and auto-partitioning of faulty segments. Two fiber optic repeaters are needed and must be used with non-SQE transceivers.

## - Local Repeater

10Mbps • Repeater • Connects two Ethernet segments and transmits retimed data packets between each segment - \$1,460
Regenerates preamble and extends collision fragmetns. Also performs automatic partitioning and reconnection functions in the event of a segment failure.


- Ethernet Transceiver-2

10Mbps • Transceiver • Detects collisions on coaxial cables and protects the network from errant transmissions $\$ 260$
Black Box stocks one of the largest selection of transceivers available: (1) Singleport Transceivers BNC model (NK-LN002) at $\$ 189$ and Vampire (NK-LN001) at $\$ 189$, (2) Dual-port Transceivers BNC model (NKLEO51A) at $\$ 425$ and Vampire (NK-LNO5OA) at \$425, (3) Four-port Transceivers BNC model (NK-LE053A) at $\$ 699$ and Vampire NK-LE052A at $\$ 699$, (4) Fiber Optic Transceivers (NK-LE020B) at $\mathbf{\$ 6 4 5}$ and (5) Fan Out Units (NK-LN43OB) that connect eight DTEs to an Ethernet backbone with one transceiver at $\$ \mathbf{1 , 2 5 0}$. Black Box features these and other network products in The LaN Catalog. Call $412746-5530$ to order or receive a copy of our catalog.

Black Box Corporation

Black Box Corporation


- Multiport Repeater 10Mbps • Multiport Repeater • Forms central segments of ThinNet Ethernet in star topology or connects up to six Ethernet segments - \$2,900
Black Box stocks the network repeater you're looking for including (1) Local Repeater (NK-LN420B) at $\$ 1,460$, (2) Multiport Repeater (NK-LN410B) at \$2,900, (3) Fiber Optic Repeater (NK-LN320B) at $\$ 2,180$, and (4) Fiber Optic Multiport Repeater (NK-LE415B) at $\$ 7,800$. Black Box features these and other network products in The LAN Catalog. Call 412 746-5530 to order your repeater or :receive a copy of our catalog.


## Cabletron Systems, Inc.

- CPT-100

15 Mbps • Twisted Pair Media Adapter Allows network designers to interconnect existing thin Ethernet devices into newly installed schemes.
Designed for use with Cabletron's twisted pair product line; daisy chains thin Ethernet connections from one twisted pair segment. Connects directly to an on-board RJ-45 port and supports up to ten nodes.

## - FOT-1

10Mbps • Fiber Optic Transceiver • Assists managers in troubleshooting the network.
Supports a full 10 Mb ps Ethernet data rate over fiber optic cable. Features selectable SQE test and provides one standard AUI connector and one fiber optic connector. Use with the FR-3000 and the FOT-MIM in the MMAC hub.

## - FR3000

10Mbps • Fiber Optic Repeater • Interconnects two thick or thin Ethernet coax segments up to 2000 meters •\$2,650
Functions include: (1) transmission of data packets, (2) regeneration of preamble, (3) extension of collision fragments, (4) automatic partitioning of problem segments and (5) automatic reconnection of non-problem segments.

## 彦 IRM

10Mbps • Intelligent Repeater Module • Provides flexibility in network design by allowing users to expand the networks over a variety of media.
Features three-tiered management and control, total redundancy, and an automatic or manual reconfiguration connection, and allows access to password protected module through the network or via a dual RS232 connector.

## - LR2000

10Mbps • Repeater • Interconnects two thick or thin Ethernet coaxial segments •\$1,365 Functions include: (1) transmission of data packets, (2) regeneration of preamble, (3) extension of collision fragments, (4) automatic partitioning of problem segments and (5) automatic reconnection of non-problem segments.

## - MR9000 C

10Mbps • Thin Mulitport Repeater • Connects up to eight thick or thin Ethernet segments together - \$2,795
Functions include: (1) transmission of data packets, (2) regeneration of preamble, (3) extension of collision fragments, (4) automatic partitioning of problem segments and (5) automatic reconnection of non-problem segments.

## - MR9000TPT

10Mbps • Multiport Repeater • Retimes data packets, generates preambles and automatically partitions problem segments - $\$ 2,895$
The MR9000TPT allows network designers to attach up to eight Ethernet network devices to networks, using inexpensive shielded or unshielded twisted pair cabling.

## - MT800

10Mbps• Multiport Transceiver • Implements transmit, receive and collision functions for up to eight ports $\boldsymbol{\bullet} \$ 975$
Provides eight ports connecting to Ethernet host units and features a selectable SQE test. User selectable for standalone use or for attachment to the network backbone.

## - MB20E

MAC-level Bridge • Connects to two or more segments to create extended-distance LANs and isolates traffic on heavy utilized segments - \$2,995

The NB20E is a low cost bridge which applies a software hashing algorithm to process as many as 15 K packets per second with a forwarding rate of 8 K packets per second.

## - MB25E

MAC-level Bridge - Connects to two or more segments to create extended-distance LANs and isolates traffic on heavily utilized segments - \$5,495
High performance bridge that utilizes a hardware filter to process data up to 28 K packets per second with a forwarding rate of 10 K packets per second.

## ■ ST500

10Mbps • Transceiver • Assists installers of
LANs by troubleshooting problem areas •\$275 Adaptable for thick or thin Ethernet cable and features a selectable SQE test and offers (1) nonintrusive tap, (2) intrusive N Series tap, and (3) BNC tap connections.

## - THN-MIM

10Mbps • Coaxial Media Module • Provides flexibility in network design by allowing users to expand the networks over a variety of media.
Module that allows users to expand their networks over a variety of media types. Each module provides 12 IEEE 802.3/ Ethernet thick or thin segment connections.

## - TMS-3

10Mbps • Thin Ethernet Transceiver • Assists installers of LANs utilizing thin Ethernet cables by troubleshooting problem areas $\mathbf{~} \mathbf{\$ 1 8 5}$
Provides basic transmit/receive functions. Features a lightweight design that complements thin Ethernet cabling applications. Installed in areas of thin Ethernet networks previously restricted by bulky, heavier transceivers.

## ■TPT-2

10Mbps • Twisted Pair Transceiver • Connects to Cabletron's MT-800 Multiport Transceiver or to the host via an AUI cable.

Supports a full 10 Mbps Ethernet data rate over shielded or unshielded twisted pair cable. Connects two active Ethernet devices such as repeaters, multiport repeaters and host devices using twisted pair cabling.

## Canoga-Perkins <br> - 4020

10Mbps • Fiber Optic Extender • Extends the normal 50 foot limitation on copper cable to more than 10 km depending upon the type of optics used • \$3,095
Allows CPUs with DACU interfaces to be located long distances from graphics controllers, printers, and other CPUs.

## - 8891

Line Monitor • Directly measures all signals in the transceiver cable while indirectly monitoring signals in the coaxial cable - $\$ 155$ The 8801 mounts directly on the transceiver and provides four pairs of buffered test points for the four active signals.

## 8802

10Mbps • Fiber Optic Repeater • $\$ 1,295$

## 国8803

Transceiver - Connects a LAN device to a baseband coaxial cable - $\$ \mathbf{2 6 5}$
The 8803 offers Vampire or Obstrusive taps for Ethernet cables and a Thin Eth ernet tap for RG-58 cable. It supports up to 100 taps attached per 500 meter segments, 2.5 meters apart

## [ 8806

10Mbps $\bullet$ Expander • Extends the distance between transceivers and controllers up to 250 meters - $\$ 245$
The 8806 supports AC/DC coupling, back-to-back frames, and signal compatibility.

## - 8820

10Mbps • LAN Hub • Allows up to eight Ethernet devices to share one transceiver or RF modem - $\mathbf{\$ 1 , 3 0 0}$
The 8820 prevents collisions between port devices and may be configured to form a daisy chain or cascaded network. It also operates in loopback mode as part of a standalone, non-cable network without a transceiver.

## Casat Technology, Inc.

 - 4000 Series10Mbps • LAN Hub • Creates small workgroups or departmental LANs by connecting up to eight workstations or DTEs • \$1,295 A star or tree hub that may be cascaded to three levels. Unique LANCAST collision avoidance circuitry provides increased throughput. May be connected to backbone.

## ■ ENT-4303

10Mbps • Transceiver • Provides trouble-free connections from LAN devices to baseband coaxial cable networks •\$265
IEEE 802.3 transceiver for coax media conections. Features transmit, receive, collision and power LEDs in remote devices attached to nodes. Provides simplified verification of operation and diagnostics.

## Chipcom Corporation <br> - 7000H

10Mbps • LAN-to-LAN MultiMedia Hub • Modular multiport repeater - $\$ \mathbf{1 , 4 9 5}$
Chipcom's LAN-to-LAN MultiMedia Hub is a modular, multiport repeater that provides a central platform for connecting
multisegment multimedia Ethernet net works.

## - 8023FT

10Mbps • Frequency Translator • Receives signals on the reverse band and translates the signals up in frequency by 192.25 MHz to the desired forward band - $\$ 4,400$
The 8023 FT is another Ethermodem product that is used only in single cable broadband networks that extends the Ethernet network to 4900 meters when used with Ethermodems.

## - 8312BS

10Mbps $\bullet$ Bridge $\bullet$ Connects broadband and baseband Ethernet networks to expand coverage and capacity - $\$ 8,950$
This model supports a 12 Mhz single cable EtherModem network and features redundancy and loop detection.

## ■8312 HE

Ethermodem Remodulator ${ }^{-}$Receives signals on the reverse band and translates the signals up in frequency by 192.25 MHz to the desired forward band - \$7,900

## - 8312 ms

10Mbps • Ethermodem Transceiver • Connects Ethemet V2.0 and IEEE 802.3 devices over broadband LANs on 12 MHz of bandwidth • \$5,150
The 8312MS is a single cable configuration that supports eight ports. It uses existing broadband cable and connects with standard IEEE 802.3 transceiver cable, eliminating the need for additional cables.

## - 83125

10Mbps • Ethermodem Transceiver • Connects Ethernet V2.0 and IEEE 802.3 devices over broadband LANs on 12 MHz of bandwidth •

## \$3,950

The 8312 S is a single cable configuration that supports two ports. It uses existing broadband cable and connects with standard IEEE 802.3 transceiver cable, elimi nating the need for additional cables.

## - 8318BD

10Mbps $\bullet$ Bridge • Connects braodband and baseband Ethernet networks to expand coverage and capacity - $\mathbf{\$ 8 , 9 5 0}$
This model supports an 18 Mhz dual cable EtherModem network and features redundancy and loop detection.

## [83188S

10Mbps • Bridge • Connects a baseband Ethernet running on standard or thin coaxial cable to a broadband Ethernet network $\mathbf{\$ 8 , 9 5 0}$
This model supports an 18 Mhz single cable EtherModem network and features redun dancy and loop detection.

## - 8318MS

10Mbps • Broadband Transceiver • Connects baseband Ethernet nodes to broadband networks - \$5,150
The 8318 MS is a single cable configuration that supports eight ports. Please note that this model requires a Chipcom Frequency Translator or Remodulator.

## - 83185

10Mbps • Broadband Transceiver • Connects baseband Ethernet nodes to broadband networks - $\$ \mathbf{3 , 9 5 0}$
The 8318 S is a single cable configuration that supports two ports. Please note that this model requires a Chipcom Frequency Translator or Remodulator. The entire family of Chipcom's Ethermodems allow
users to select the frequencies at which the Ethernet will run.

## © 8412BS

10Mbps • Bridge • Interconnects Ethernet IEEE 802.3 subnetworks over IEEE 802.4 token bus broadband backbone •\$9,950
Extends networks up to 12 miles, providing up to three data channels on broadband cables without the need for guard bands, offering greater total network capability and longer distances, yet using less bandwidth.

## - 93085

10Mbps • Fiber Optic Network • Interconnects all devices including minicomputers, engineering workstations, PC networking servers and bridges •\$4,150
System consists of a transceiver with a single AUI port and an active star coupler with eight ports, redundancy features such as up-links and a temperature control fan.

## - 93145

10Mbps • Fiber Optic Network • Interconnects all devices including minicomputers, engineering workstations, PC networking servers and bridges.
System consists of a transceiver with a single AUI port and an active star coupler with 14 ports, redundancy features such as up-links and a temperature control fan.

## cisco Systems, Inc.

## ■ HyBridge

Hybrid Bridge Router • Allows DECnet to interoperate with TCP/P and other protocols \$5,950
Full performance network-level router that simultaneously provides the ability to fal back to bridging functions in specified cases

## Communication Machinery Corporation (CMC)

## © DRN-1700

Ethernet Monitor • Provides information on the status of the Ethernet network $\mathbf{\$ 6 , 2 0 0}$ The DRN-1700 is equipped with a $144^{\prime \prime}$ monitor, 80 columns $\times 25$ rows, a keyboard with 16 function keys and an RS232 printer interface. It also features an 80186 CPU at 7.4 MHz with a trace memory size of 192 KB . It monitors both single machines and total networks and provides traffic generation, statistics, testing, and summary information.

## - DRN-3100

Ethernet Bridge • Links two Ethernet LANs together.
The DRN-3100 features multiple 10 MHz 68000 processors, $512 \mathrm{KBDRAM}, 16-128 \mathrm{~KB}$ EPROM, and 8KB EEPROM.

## - DRN-3200

DDN-Ethernet Gateway • Connects Ethernet and DDN networks together.
The DRN-3200 features multiple 10 MHz 68000 processors, $640 \mathrm{KBDRAM}, 16-128 \mathrm{~KB}$ EPROM, and $2-16 \mathrm{~KB}$ EEPROM.

## ■ EMO-50

Runs the communication protocols between $\mathbf{Q}$ bus hosts and other devices on the Ethernet.

## © ENP-40

Runs communication protocols between UNIBUS hosts and other devices on the Ethernet.
The ENP-50 and -40 feature sophisticated diagnostics, on-board processing, and

### 12.5 MHz 68010 microprocessors.

## - Transerver

Ethernet Terminal Server • Interfaces terminal groups to an Ethernet LAN, supporting either four or ten terminals.
The Transerver features a 10 MHz 68000 processor at $10 \mathrm{MHz}, 512 \mathrm{~KB}$ DRAM, 128 KB EPROM, and 8KB EEPROM. It supports asynchronous RS232 line interface channels.

## CrossComm Corporation <br> - ILAM

Ethernet and StarLAN Bridge • Provides protocol transparent connectivity between multiple similar and/or dissimilar LANs. Plug-in interface modules that (1) bridge two or more Ethernet or StarLANs, (2) bridge between Ethernet and StarLAN networks, and (3) connect Ethernet/StarLAN LANs to WANs.

## EILAN-1

LAN Bridge • Provides protocol transparent connectivity between multiple similar and/or dissimilar LANs.
Connects Ethernet, StarLAN, Twisted Pair, Fiber Optic, Token Ring, and T1 networks. Also contains IMS-1 management software and a spanning tree algorithm.

## $\square$ nTB

1.544Mbps • WAN Bridge • Connects Novell Netware LANs using high speed telecommunication lines.
Installs in Novell (Network Products Corporation) file servers and external bridges to provide high-speed connectivity.

## © T1 Interface

1.544Mbps • T1 Interface • Connects multipe

LANs using high- speed telecommunication facilities in ILAN nodes.
Plug-in interface module that features AMI/ B8ZS coding and D4/ESF framing (DS1 interface) and is also available with an RS422 option with data rates of up to 2.048 Mbps .

## David Systems, Inc.

- David ExpressiVet

10Mbps • Star with central Hub - Links Ethernet devices into high-speed networks using unshielded twisted-pair wiring, allowing workgroups to access and share computing resources •\$2,495
Computers may be located up to 100 meters from the Hub and may also be cascaded to support greater distances and up to 1024 nodes. Used with TP-MAU adapter units.

## Excelan, Inc.

## - EXOS 203

$10 \mathrm{Mbps} \cdot$ Intelligent Controller • Connects a Q-bus system to an Ethernet LAN • \$2,530
The EXOS 203 controller offloads the most CPU-intensive protocol processing functions from the Q -bus system.

## - EXOS 204

10Mbps • Controller • Connects a UNIBUS system to an Ethernet LAN • \$2,230
The EXOS 204 controller offloads the most CPU-intensive protocol processing functions from the UNIBUS system.

E EXOS 204-4
10Mbps • Intelligent Controller • Connects a UNIBUS system to an Ethernet LAN - \$2,120 The EXOS 204-4 offloads the CPU-intensive protocol processing functions from the

- ExOS 304

10Mbps • Intelligent Controller •Connects a UNIBUS system to an Ethemet LAN • $\$ 3,520$ The EXOS 304 uses an Intel 80286 microprocessor to offload network tasks from the UNIBUS system. Offers up to an $85 \%$ performance increase.

## FiberCom, Iluc.

## - WhisperLAM/DPT

10Mbps • Fault Tolerant Transceiver ${ }^{\bullet}$ Connects between a redundant fiber backbone and Ethernet devices • $\$ 2,500$
Connects between a redundant fiber optic backbone and Ethernet/IEEE 802.3 compatible devices. Multiple levels of fault tolerance are achieved. Ideal for high reliability requirements.

## © WhisperLAMMPT

10Mbps ${ }^{-}$Fiber Optic Transceiver • Connects between a fiber backbone and eight Ethemet devices •\$2,500
Connects a fiber optic backbone to up to eight Ethernet/IEEE 802.3 compatible devices; up to 100 transceivers may be connected up to $\mathbf{4 k m}$.

## - WhisperLAMPC

10Mbps • Fiber Optic Transceiver • Connects between a fiber backbone and IBM/PC or compatibles on internal board - $\$ \mathbf{1 , 7 5 0}$
Connects PC compatible to fiber optic backbone. Includes Ethernet controller with fiber transceiver on a single board.

## - WhisperLAMRPT

10Mbps • Transceiver/Repeater - Connects between a fiber backbone and transceiver on another Ethernet segment - $\$ 1,500$
Combines a fiber transceiver and an Ethernet repeater in a single unit. Up to 100 devices may be connected to 4 km .

## - WhisperLAMSPT

10Mbps • Fiber Optic Transceiver • Connects between a fiber backbone and Ethemet device - \$1,100

Connects a fiber optic backbone to any Ethernet/IEEE 802.3 compatible device. Up to 100 transceivers may be connected up to 4 km .

## Fibermux Corporation

## - CC 44652

LAN Bridge • Stores and forwards data packets, filters out illegal packets, and regenerates and retimes data signals.
Transfers Ethernet traffic through the network, providing distances between Fibermux's FX4400 multiplexer, limited only by the fiber type and optical gain. Also supports V2.0.

## - CC 44652

4.7Mbps • LAN Bridge • Stores and forwards data packets, filters out illegal packets, and regenerates and retimes data signals.
Transfers Ethernet traffic through the network, providing distances between Fibermux's FX 4400 multiplexer, limited only by the fiber type and optical gain.

## - FX701

10Mbps $\bullet$ Repeater $\bullet$ Regenerates and retimes all data signals, restoring them to original quality.
Connects two segments of a V2.0 or IEEE 802.3 LAN by way of an Ethernet transceiver (AUI) cable or duplex optical fiber
cable up to 1000 meters in length, or BNC (Thin Ethernet).

## Interlan Inc.

[ 8-4-1
10Mbps - Multiport Transceiver • Connects eight devices to the Ethernet using only one tap into the coaxial cable - $\$ 995$
May be cascaded in a standalone or networked mode and is used to either expand an exisitng LAN or to create an independent network.

## - 1810

$10 \mathrm{Mbps} \cdot$ Bridge • Connects an Ethernet LAN to a StarLAN • \$2,295
Increases network performance and size, automatically engages backup units to provide fault tolerance, and reports abnormal conditions on the network. Examines 14 K packets per second from the Ethernet side and transmits 1.4 K packets per second.

## $\square 1830$

10Mbps • Bridge • Transparently connects two standard or two thin Ethernet LANs •\$2,295
Increases network performance and size, automatically engages backup units to provide fault tolerance, and reports abnormal conditions on the network. Examines 14 K packets per second and transmits 6 K packets per second.

## - 183000

10Mbps • Bridge • Transparently connects two standard or thin Ethermet LANs • \$4,495
Increases network performance and size, automatically engages backup units to provide fault tolerance, and reports abnormal conditions on the network. Examines 28 K packets per second and transmits 6 K packets per second.

## - MT100

10Mbps • Transceiver • Connects hosts and terminal servers to standard or Thin Ethernet cabling systems •\$290
Detects collisions on the coaxial cable, provides electrical isolation of the station from the coaxial cable and protects the network from errant transmissions. Features AC coupling and jabber control.

## ■ MT1000

10Mbps • Transceiver • Provides physical layer connections to standard and thin Ethernet cables.
Detects packet collisions on the coaxial cable, protects the network from errant transmissions, and electrically isolates the node from the coaxial cable. Features AC coupling and jabber control.

## Kimetics, A Division of Excelan

E Ethernet SEI
10Mbps ${ }^{-}$Controller for Macintosh SE Connects an entire AppleTalk network to an Ethernet LAN • $\$ 695$
The EtherPort SEL, developed in conjunction with SynOptics Communications, Inc., connects the Macintosh SE directly to a LattisNet Ethernet network, where it communicates with a variety of hosts and peripherals.

## EtherPort II

10Mbps • Controller for Macintosh II •
Interconnects the Macintosh II, IIx, and Ilex to an Ethernet LAN and allows communication
with other Macintosh computers and network peripherals •\$695
The EtherPort II controller board connects the Macintosh II directly to an Ethernet network where it communicates with a variety of Ethernet hosts and peripherals.

## E EtherPort III

10Mbps • Controller for Macintosh II * Connects an entire AppleTalk network to an Ethernet LAN • $\$ 695$
The EtherPort IIL, developed in conjunction with SynOptics Communications, Inc., connects the Macintosh II directly to a LattisNet Ethernet network, where it communicates with a variety of hosts and peripherals.

## - EtherPort SE

10Mbps • Controller for MAC SE • Allows true AppleTalk software to use high speed high bandwidth Ethernet, transparent to any applications •\$695
The EtherPort SE controller board connects the Macintosh SE directly to an Ethernet network where it communicates with a variety of Ethernet hosts and peripherals.

## EtherPort SE/30

10Mbps • Controller for Macintosh SE/30 Connects an entire AppleTalk network to an Ethernet LAN •\$795
The Ethernet SE/30 controller board connects the Macintosh SE/30 directly to an Ethernet network where it communicates with a variety of Ethernet hosts and peripherals.

## EtherPort SE/30L

10 Mbps • Controller for Macintosh SE/30 • Connects an entire AppleTalk network to an Ethernet LAN - \$795
The Ethernet SE/30L, developed in conjunction with SynOptics Communications, Inc., connects the Macintosh SE/30 directly to a LattisNet Ethernet network, where it communicates with a variety of hosts and peripherals.

## E EtherSC

10Mbps•Controller for Macintosh • Connects the Macintosh to an Ethernet using a SCSI interface - \$1,150+
The EtherSC external Ethernet controller connects a Macintosh II, Macintosh SE/30, Macintosh SE, or Macintosh Plus directly to an Ethernet network. The Macintosh communicates with a variety of Ethernet hosts and peripherals.

## - FastPath 4

10Mbps • AppleTalk-Ethernet Gateway • Connects an entire AppleTalk network to an Ethernet LAN •\$2,795
The FastPath 4 gateway connects AppleTalk networks to Ethernet networks, allowing the Macintosh on AppleTalk to communicate with a variety of Ethernet hosts and peripherals. LANRanger network management software is included.

## Метнод Systems, Inc.

- FiberLink I

15Mbps • Fiber Optic Transceiver • Carries digital data at high speeds up to 6000 feet through noisy or hazardous environments \$395
The FiberLink I provides point-to-point fiber optic channel for equipment using RS232, RS422, RS485, or TTL interfaces.

## - MEQMA

MEQNA offers complete software compati bility with DECnet, LAVC and LAT while conforming to the data link and physical layer functions of Ethernet specifications.

## - mesta

10Mbps • Thin Wire Transceiver • Provides for the sensing of collisions and is selectable to run in receive mode or transmit mode - $\$ 300$ Features jabber control (auto reset), jabber timeout and jabber reset time. Direct push mount and no drop cable needed.

## Microcom, Inc.

- MLB/1000
$19.2 \mathrm{Kbps} \bullet$ LAN Bridge • Connects LANs at high speeds over dial-up, ISDN or dedicated leased lines.
Turnkey bridge system with a dial-up WAN interface, a LAN interface that features MNP data compression, packet filtering, security, and network management capabilities.


## - mLB/1200

30Kbps • LAN Bridge • Connects LANs at high speeds over dial-up, ISDN or dedicated leased lines.
Turnkey bridge system with a dial-up WAN interface, a LAN interface that features MNP data compression, packet filtering, security, and network management capabilities.

## - MLB/2000

500Khps • LAN Bridge • Connects LANs at high speeds over dial-up, ISDN or dedicated leased lines.
Turnkey bridge system with a leased line WAN interface, a LAN interface that features MNP data compression, packet filtering, security, and network management capabilities.

- MLB/2500
$500 \mathrm{Kbps} \cdot$ LAN Bridge • Connects LANs at high speeds over dial-up, ISDN or dedicated leased lines.
Turnkey bridge system with a leased line WAN interface, a LAN interface that features MNP data compression, packet filtering, security, and network management capabilities.


## Optical Data Systems

- ODS 234

10Mbps • Fiber Optic Transceivers • Provides a fiber optic interface to copper Ethernet transceivers in the network.
Designed to plug into a thickwire Ethernet transceiver to provide a fiber optic interface. May be connected to a user via the ODS-236 or to the fiber network port of ODS 241, 251 , or 261.

## - 005236

10Mbps • Fiber Optic Transceivers • Provides a fiber optic interface for Ethernet users.
Powered by Ethernet user hosts.

## - ODS 238

10Mbps • Thin Wire Transceivers • Provides connection to thinwire Ethernet segments.

## - ODS 241

10Mbps • Optical Multiport Transceivers • Connects up to 16 users in star topology so that any user may be added to or removed from the network without interruption of traffic.
Provides packet and signal regeneration. Preambles are restored to 64 bits and each bit is retimed with a 20 MHz clock.

## - 00S 243

10Mbps • Optical Multiport Transceivers • Connects up to eight users in star topology so that any user may be added to or removed from the network without interruption of traffic.
Provides packet and signal regeneration, preambles are restored to 64 bits and each bit is retimed with a 20 MHz clock.

## - ODS 251

Multiport Transceiver - Connects to any Ethernet user via transceiver or fiber optics cable.
Provides packet and signal regeneration. Preambles are restored to 64 bits and each bit is retimed. Supports 16 AUI user ports and fiber optic or AUI network ports.

## - ODS 261

Multiport Star • Connects a fiber optic or twisted pair network to any user port on another ODS 261 or 263.
Provides packet and signal regeneration, preambles are restored to 64 bits and each bit is retimed. Has 16 twisted-pair user ports and fiber optic or twisted pair network ports.

## - ODS 263

Multiport Star • Connects a fiber optic or twisted pair network to any user port on another ODS 261 or 263.
Provides packet and signal regeneration, preambles are restored to 64 bits and each bit is retimed. Has eight twisted pair user ports and fiber optic and twisted pair network ports.

## - 0 OS 264

Twisted Pair Transceiver • Connects a twisted pair network port to a multiport transceiver. Provides packet and signal regeneration, preambles are restored to 64 bits and each bit is retimed.

■ ODS 266
Twisted Pair Transceiver • Connects a twisted pair network port to a multiport transceiver.
Powered by Ethernet user signals. Provides packet and signal regeneration, preambles are restored to 64 bits and each bit is retimed.

## - ODS 268

Thin Wire Gateway • May be used as a gateway between two pair and one pair implementations of Ethernet.
Provides packet and signal regeneration, preambles are restored to 64 bits and each bit is retimed.


## Plexcom, Imc.

-1112/3
10Mbps • Thinnet Transceiver • Connects to a baseband CSMA/CD network.

## © 1120

10Mbps • Repeater • Allows connection between two standard Ethernet cable segments, or two thin Ethernet segments, or between standard and thin Ethernet segments.

## $\square 1125$

10Mbps • Multiport Repeater • Connects a large number of network segments to a baseband CSMA/CD network.

## ■ 1125

10Mbps • Fan Out Unit • Connects a group, or cluster of data processing equipment to a baseband CSMA/CD network.

## ■ 1126

$10 \mathrm{Mbps} \bullet$ Fiber Optic Multiport Repeater ${ }^{\circ}$ Connects a large number of network segments to a baseband CSMA/CD network.
This device may be used to form central nodes in fiber optic networks in a star configuration, or to connect a large number of fiber optic inter-repeater links, thereby extending the full network diameter to 3 km .

## $\square 1150$

10Mbps • Fiber Optic Repeater • Interconnects two segments of a baseband CSMA/CD network.
This device features loopback of data, jabber protection, collision detection, and idle signal modulation.

## 1160

10Mbps • Fiber Optic Hub • Interconnects copper segments by forming a central fiber hub for the star point connection interrepeater links, thereby extending the full network diameter to 3 km .
This device supports either six or 12 ports.

## - 1170/

10Mbps • Compact Transceiver • Connects to silicon decoders, encoders, and CSMA coontrollers.

- 1180

10Mbps • Fiber Optic Transceiver • Connects to DTEs or PCs, supporting two optical fiber ports, one for transmitting and one for receiving within a LAN.

## Raycom Systems, Inc.

- Bridge + Fiber
$10 \mathrm{Mbps} \bullet$ Fiber Optic Bridge • Remote bridge AUl to fiberoptics $850 \mathrm{~nm} / 1300 \mathrm{~nm}$ operation \$7,875+
Part of Raycom's 3700 Series, the Bridge + Fiber connects IEEE 802.3 LANs via a 10 Mbps fiber link over distances $>10 \mathrm{~km}$ using standard multi- or single-mode fiber cable.
- Bridge +1.5
$1.544 \mathrm{Mbps} \bullet$ Remote Bridge $\bullet$ Remote bridge with RS232, V.35, and RS422 interfaces and AUI - $\$ 6,975+$
Part of Raycom's 3700 Series, the Bridge+ 1.5 connects geographically separated IEEE 802.3 LANs at speeds up to 1.544 Mbps with a forwarding rate of 3,200 frames per second.


## - Local Bridge+

10Mbps • Local Bridge • Local Ethernet Bridge $\bullet \$ 5,875$
Part of Raycom's 3700 Series, the Local Bridge+ connects IEEE 802.3 LANs including Ethernet, Thinnet, and StarLAN with a forwarding rate of over 6,000 frames per second.

## Retix

## - 4820

128Kbps • LAN Bridge • Interconnects Etherne and Thin Ethernet and bridges StarLAN
networks with a StarLAN port option. Supports up to 2 K LAN stations - $\$ 4,950$
Equipped with a single LAN port and either one or two WAN interfaces. Features include self-configuration, forward-if-remote mode, load balancing, end-to-end data integrity, spanning tree protocol, traffic management, and remote network management.

## - 4880

2.048Mbps • LAN Bridge • Provides Ethernet media access in T1 and M1 networks, supporting up to 2K LAN stations. Equipped with a single LAN port and either one or two WAN interfaces - $\mathbf{\$ 1 0 , 4 0 0}$
Features include self-configuration, for-ward-if-remote mode, load balancing, end-to-end data integrity, spanning tree protocol, T1 Day/Night service, traffic management, and remote network management.

## Richard Hirschmann of America

- Active Star

Active Star Coupler • Intermixes transmission media and extends the distance between any two DTEs to 4.5 km .
A single network may accommodate up to 343 Active Star Couplers. Any card may be intermixed or removed from the chassis without affecting the entire network. Equipped with twin receiver, coaxial, fiber optic, and optical transceiver interface cards.

## Siecor Corporation

## - Active Star System

10Mbps • Active Concentrator • Connects up to 32 Ethernet devices up to 2 km apart to a central hub via fiber optic cable $\mathbf{~} \$ \mathbf{1}, \mathbf{1 0 0} /$ node The Active Star System consists of an active star concentrator, plug-in dual-port modules, plug-in power supply, and plugin collision detection module. These features afford expandability and flexibility When configured as a universal concentrator, the star is able to house both Ethernet and Token Ring dualport modules, thereby enabling both networks to operate in parallel, but sharing common hardware.

## - EOT-122

10Mbps • Optical Transceiver • Determines whether or not a collision has occurred by analyzing the incoming signal for evidence that two or more stations are transmitting simultaneously - $\$ 800$
The EOT-122 is used with Siecor's Passive and Hybrid Star Systems. It provides the collision detection capabilities required by Ethernet.

## - EOT-200

10Mbps • Optical Transceiver • Determines whether or not a collision has occurred by analyzing the incoming signal for evidence that two or more stations are transmitting simultaneously - \$860
The EOT-200 is used with Siecor's Passive and Hybrid Star Systems when DC-coupling is required. It provides the collision detection capabilitites required by Ethernet.

## - EOT-322

10Mbps • Optical Transceiver • Connects Ethernet stations to active concentrator (hub) via fiber optic cable and provides SQE test, jabber, and loopback functions; conforms to IEEE 802.3 FOIRL standards • \$660
This model may be used with Siecor's Active Star System or as a fiber optic Inter-Repeater Link (FOIRL) to connect networks up to 2 km . Available with SMA or ST-type connectors; compatible with all major multimode fiber sizes.

## - Hybrid Star System

$10 \mathrm{Mbps} \bullet$ Passive Star Coupler • Connects Ethernet devices via fiber optic cable in a starbased transmission system, with enhanced collision detection circuitry at the network hub - \$1,000/node

The Hybrid Star System incorporates collision detection capabilities at thenetwork's hub, thereby providing $100 \%$ collision detection for large and/or heavily loaded networks while maintaining the inherent reliability of a passive star-based network.

## - IRL-222H

10Mbps • Fiber Optic Transceiver • Connects remote Ethernet segments up to 4.5 km via fiber optic cable and provides information on
the status of transmit, receive, collision, and power signals •\$860
The IRL 222 H is a high power point-to point link device which serves networks up to 4.5 km . Available with SMA or ST-type connectors and is compatible with all major multimode fiber sizes.

## - Passive Star System

10Mbps • Passive Star Coupler • Passive (requires no power) star-based fiber optic Ethernet transmission system that connects Ethernet devices via fiber optic cable \$1,000/node
The use of a passive star coupler yields a highly reliable system where a node fail ure or break in a cable affects only that node and not the entire system. Its use is recommended for networks where the distance between nodes is less than 500 meters, or in larger networks where loading is relatively light.

## R R 3000

10Mbps • Coax Transceiver • Provides access to Ethernet//EEE 802.3 networks via 10Base5 (Thick) or 10Base2 (Thin) coaxial cable - $\$ 249$ The RL3000 is fully compatible with IEEE 802.3 specifications and features a switchable SQE test and a wide array of LED indicators for monitoring network activity.

## - R16000L

10Mbps • Repeater • Provides automatic and manual segmentation functions for the isolation of faulty network segments • \$895
The RL6000L is one of the most compact and versatile Ethernet local repeaters available, with extensive diagnostic indicators, the ability to operate either with or without SQE tests, and is less than half the size of other repeaters.

## - RL6000Li

10Mbps • Repeater • Provides connection of two Ethernet segments via Etherne transceiver cables, each up to 50 meters in length •\$1,295
The RL6000Li provides the features of Siecor's RL6000L repeater and operates in most electrical environments worldwide, without modification.

## SynOptics <br> Communications

## - 2500

10Mbps • Workgroup Concentrator • Activ Star CSMA/CD (Ethernet) for unshielded twisted pair, shielded twisted pair, and fiber optic cabling • \$1,295
Provides eight connections for a 10 Mbps Ethernet in a star topology over unshielded twisted pair wiring

## . 2510

10Mbps • Workgroup Concentrator • Active star CSMA/CD (Ethernet) for unshielded twisted pair, shielded twisted pair, and fiber optic cabling • \$1,495
Provides eight connections for a 10 Mbps Ethernet in a star topology over unshielded twisted pair wiring. Retiming feature is included for large hierarchical star networks.

## 2530

10Mbps • Workgroup Concentrator • Active star CSMA/CD (Ethernet) for unshielded twisted pair, shielded twisted pair, and fiber optic cabling • \$1,495
Provides eight connections for a 10 Mbps

Ethernet in a star topology over unshield ed twisted pair wiring. Built-in AUI port provides direct connection to coaxial Eth ernet.

## - 2530

$10 \mathrm{Mbps} \bullet$ Concentrator $\bullet$ Connects coaxial Ethernet and telephone wire LattisNet LANs •

## \$2,99

Features eight unshielded twisted pair down-ports that allow connections to host devices, computer terminals or other Lat tisNet workgroup concentrators and net work interface cards via standard RJ-45 modular receptacles.

## - 2600

10Mbps • Thinnet Adapter • Merges Ethernet LANs running on telephone wire with those using existing thin coaxial cable •\$725 Daisy chains small clusters of workstations with thin coaxial cable in areas where unshielded twisted pair wire has not been previously installed, or is limited.

## - 502A

10Mbps • Shld Twisted Pair Transceiver • Interfaces between the Ethernet network interface card and the cabling media through which the data signals are transmitted • \$155 The 505 is equipped with shielded twisted pair cabling media.

## ■ 504-ST

10Mbps • Fiber Optic Transceiver • \$565
Part of SynOptics' LattisNet system, a physical layer implementation of the Ethernet LAN. Basic system includes concentrators, transceivers, and cables. This model features an active star topology and reaches distances over 4 km . Used in conjunction with SynOptics' fiber optic host module (404-ST).

## - 505

10Mbps • Unshid Twisted Pair Transceiver • Interfaces between the Ethernet network interface card and the cabling media through which the data signals are transmitted • \$155 The 505 is equipped with unshielded twisted pair cabling media.

## - System 1000

10Mbps • Concentrators • Active Star CSMA CD (Ethernet) for unshielded twisted pair, shielded twisted pair, and fiber optic cabling e \$300/port
Provides Ethernet for structured cabling systems using unshielded twisted pair wire, shielded twisted pair wire, and fiber optic cables, configured in an active hierarchial star.

## - System 3000

10Mbps • Concentrators • Active Star CSMA CD (Ethernet) for unshielded twisted pair, shielded twisted pair, and fiber optic cabling • \$350/port
Built upon SynOptics' Network Utility Architecture, System 3000 provides a modular platform for physical layer connectivity (Ethernet for structured cabling systems), internetworking, and integrated network management

## Talaris Systems Inc.

## - T-LAP-Ethernet

Controller • Controls network traffic to and from Talaris' Printstations that reside on the network. Provides a direct Ethernet connection to the PCS board - $\mathbf{\$ 1 , 6 5 0}$
Provides a complete solution for interfac-
ing the Printstations to Ethernet, includ ing the required hardware, cables, and host software. Supports both Thickwir and Thinwire.

## TCL, Inc.

$-2200$
10Mbps • Transceiver •\$235

## Telematics

- Transaction Accelerator

Transaction Accelerator • Supports up to 30\% more users, reduces network costs by decreasing traffic up to $80 \%$ and provides remote terminal users with the same fast response as local terminals e $\$ 45,000$
Consists of an Ethernet FEP for network processing and management and remote VT cluster controllers to provide remote users with local terminal handling.

## Versitron

- Tempest

Fiber Optic Ethernet • Allows the mixing of bus and star topologies.

## Vitalink Communcations Corpooation

- TransLAN 320

Bridge • Protocol transparent remote bridge that extends multiple Ethernet or IEEE 802.3 LANs to create a high-performance, integrated WAN - \$9,750
Features include full mesh network configurations, 56 Kbps dial support, and the capability to assign class-of-service priorities to types of traffic. Supports one or two remote links at speeds of up to 64 Kbps .

## - TransLAN 350

Bridge • Protocol transparent remote bridge that extends multiple Ethernet or IEEE 802.3 LANs to create a high-performance, integrated wide area network based on the 802.3 standard.
Features include full mesh network configurations, 56 Kbps dial support, and the capability to assign class-of-service priorities to types of traffic. Also supports two T1 inks or up to eight lower-speed links with a forwarding rate of 5000 frames per second.

## TransLAM III

Bridge - Protocol transparent remote bridge that extends multiple Ethernet or IEEE 802.3 LANs to create a high-performance, integrated wide area network based on the 802.3 tandard.
Features include full mesh network configurations, 56 Kbps dial support, and the capability to assign class-of-service priorities to types of traffic. Also supports two T1 links or up to eight lower-speed links with a forwarding rate of 2000 frames per second

## TransRING 550

Bridge • Protocol transparent remote bridge that extends multiple Ethernet or IEEE 802.3
LANs to create a high-performance, integrated WAN.
Features include full mesh network configurations, 56 Kbps dial support, and the capability to assign class-of-service priorities to types of traffic. Also supports two T1 links or up to eight lower-speed links.

## Xyplex, Inc.

## © MX-REPTR-E1

10Mbps • Ethernet Repeater • Provides a connection between Xyplex's MAXserver 5000 and an Ethernet LAN • \$1,495
Multiple MX-REPTR-E1 units may be used to create an Ethernet multiport repeater, linking up to 16 separate networks. Provides redundant Ethernet connec-
tion.

## Networking <br> Interfaces

## 3Com Corporation

- CB/

IEEE 802.3 Interface(s) Supported
The CB/1 is a broadband-to-broadband ( $5 \mathrm{Mbps}-5 \mathrm{Mbps}$ ) interface that provides protocol-transparent routing up to 15 miles. It features a multiple 68000 processor architecture, intelligent broadband controllers, and a main processor for packet processing.

## - IB/1

IEEE 802.3 Interface(s) Supported
The IB/1 is a broadband-to-baseband ( $5 \mathrm{Mbps}-10 \mathrm{Mbps}$ ) interface that provides protocol-transparentrouting up to 10 miles. It features a multiple 68020 processor architecture, an intelligent broadband controller, an intelligent Ethernet controller, and a main processor for packet processing.

## 直 $18 / 2$

IEEE 802.3 Interface(s) Supported
The IB/2 is a protocol transparent Eth-ernet-to-Ethernet interface that utilizes cables or fiber-optic links to create a LAN beyond 500 meters. It features a multiple 68020 processor architecture, two Ethernet controllers, and a main processor for packet processing.

## Able Computer <br> AT300

2 Line(s) Supported • RS422 Interface(s)
Supported • 1Mbps •\$5,200
The AT300 (Resource Manager) provides the communication path into and out of the EASYsay network and the Resource Manger interface provides dedicated network management functions via a dedicated system to be controlled and configured by the system manager, to record assignments and to monitor module status.

## - LS320

4 Line(s) Supported • RS422 Interface(s)
Supported • 1Mbps • \$4,000
The LS320 (Server Link) attaches terminal servers and host servers to each of four high-speed twisted pair links.

## - MB300

RS422 Interface(s) Supported • 1Mbps • \$850 The MB300 connects up to eight of Able's EASTway server link segments in star topology. It may be daisy chained to allow EASYway components to be placed at distances up to 10 miles over twisted pair wire.

## MC3600

20Mbps • \$12,500+
The NC3600 combines centralized network management, security, and access control diagnostics. Supports up to 3600 host and terminal connections and up to 32 routing
and server links in eight rackmountable modules.

## © WC480

1Mbps •\$5,000
The NC480 (Network Control System) combines centralized network management, security, and access control diagnostics. Supports up to 480 host and terminal connections in a standalone desktop model.

## - RE300 Remotefate

X.21/V. 35 Interface(s) Supported •80Kbps * \$5,000
Interconnects one or more LANs over WANs including leased lines, satellites, packet data networks, and microwave links.

## Advanced Computer Communications (ACC)

## - ACP 6640

23 Line(s) Supported • 19.2Kbps
The ACP 6640 uses the Digital Multiplex Interface (DMI) protocol. Each channel appears as an auto-answer/dial-out modem to the host and as a locally attached terminal to the user.

## C \& C Technology, Imc. <br> - Q-ARC-01

1 Line(s) Supported • 2.5Mbps
Intelligent slave that interfaces the SMC 9026 Arcnet controller to the Q-bus. Supports distributed priority with interrupt level selection from levels BR4 to BR6.

## U-ARC-01

1 Line(s) Supported • 2.5Mbps
Intelligent slave that interfaces the SMC 9026 Arcnet controller to the UNIBUS. Supports distributed priority with interrupt level selection from levels BR4 to BR6.

## cisco Systems, Inc.

## $\square$ ScI

4 Line(s) Supported • 4Mbps • \$7,100
The SCI board performs full OSI Level 3 internetwork routing and supports MAClayer bridging. Also available to support four low-speed ports ( 64 Kbps ) at $\$ 3,800$ and two high- and two low-speed ports at \$6,200.

## Design Analysis <br> Associates

## - ALD II

The ALID II is a proprietary bus allowing multiple general purpose computers to equally share data that is mapped into the memory address range of the computers so it appears as physical memory to the processor.

## Digital Limi Corporation <br> - T1-ISO DL551A

1 Line(s) Supported • RJ48C Interface(s)
Supported • 1.544Mbps • \$1,295
Connects PBXs, T1 multiplexers, T1 voice compressors, DACS, channel banks and FEPs. Protects networks and provides DTE loopback, industry standard remote loopback, local or line powering, and a built-in self test capability.

## ■ T1-ISO DL551C

1 Line(s) Supported • RJ48C Interface(s)
Supported • 1.544Mbps • \$2,095
Connects PBXs, T1 multiplexers, T1 voice compressors, DACS, channel banks and FEPs. Protects networks and provides

DTE loopback, industry standard loopback, local or line powering, and self test.

## © T1-ISO DL551E

1 Line(s) Supported • RJ48C Interface(s) Supported • 1.544Mbps • $\$ 795$
Connects D1-D4 DTEs to PBXs, T1 multiplexers, T1 voice compressors, DACS, channel banks and FEPs to ESF lines. Protects networks and provides DTE loopback, industry standard remote loopback, local or line powering, and a built-in self test capability.

## [ T1-ISO DL551V

1 Line(s) Supported • RJ48C Interface(s)
Supported • 1.544Mbps • \$2,995
Takes raw data from LAN bridges, routers, or gateways, CPUs, or CAD/CAM equipment and converts it to a format that allows direct connectivity to a T1 network.

## © T1-ISO DL551X

1 Line(s) Supported • RJ48C Interface(s) Supported • 1.544Mbps • $\$ 2,880$
Connects PBXs, T1 multiplexers, T1 voice compressors, DACS, channel banks and FEPs. Protects networks and provides DTE loopback, industry standard remote loopback, local or line powering, and a built-in self test capability. Includes eight character display and a host port for network management

## Forest Computer

## Wins3000 • $\$ 37,000$

If the NS3000 and DECnet share the same physical 802.3 LAN, it requires only a single LAN tap to bridge the two networking products. If there are separate dedicated LANs, the NS3000 acts as a gateway between the two, forming a single, comprehensive LAN.

## Intel Corporation

intel

## - FASTPATH 9770

128 Line(s) Supported - $\$ 25,000+$
Connects an IBM System/370 directly to a DECVAX or MicroVAX II system. Utilizes Flexlink software that provides bidirectional connectivity capabilities, including high-speed file transfer, protocol conversion, terminal emulation, and remote printing, logon, task activation and file editing.

## Interlink Computer <br> Sciences, Inc.

## - 3711S (VM)

8 Line(s) Supported
The 3711 S combines proprietary software and a network controller allowing IBM and IBM compatible mainframes to operate in a DECnet network.

## - 3732 Model 450

Offers multichannel support and support of the TCP/IP protocol simultaneously with DECnet. Additional features include transfer rates greater than 1 Mbps and 256 simultaneous sessions.

## KMW Systems

Corporation

## -8900A

Connects a DEC UNIBUS or Q-bus system to an IBM or plug compatible host with
data rates of up to 1.2 Mbps . The 8010 driver/receiver module must be used in conjunction with the 8900A.

## 8911A

Connects a DEC UNIBUS or Q-bus system to an IBM or plug compatible host with data rates of up to 1.2 Mbps . The 8911 emulates a standard control unit in the host and is fully programmable.

## McComb Research

- Sharellet-5100

256 Line(s) Supported • RS232 Interface(s)
Supported • 115,200bps •\$199

- ShareWet-5110

256 Line(s) Supported • RS232 Interface(s) Supported • 115,200bps •\$199

## - ShareNet-5120

256 Line(s) Supported • RS232 Interface(s) Supported • 115,200bps • $\$ 249$
This ShareNet Series features autobaud parallel and serial port modules with menu driven and "AT" modem command sets, compatible interfaces, and password security. Link PCs, minicomputers, printers, terminals and other devices via non-polarized twisted-pair cable up to 4,000 feet.

## - ShareMet-5122

256 Line(s) Supported • RS232 Interface(s) Supported • 115,200bps •\$495
Same as ShareNet-5120 including a 256 KB RAM buffer which is expandable up to 2MB to support desktop publishing.

## Plexcom, Inc.

## - Plexring 8031

IEEE 802.3 Interface(s) Supported
Connects IBM systems to DEC Q-bus systems with interface cards and a multistation wiring center.

## Simpact Associates, Inc. - MAP6000

Provides a high-speed serial link between DEC hosts and any Interim Network Interface Unit (NIU) which conforms to the HDLC LAPB portion of the MAP 2.1 specification and which provides an upper layer interface, such as Session or CASE. Supports UNIBUS, Q-bus and BIbus architectures.

## - MAP6400

## 10Mbps

Provides a high-speed serial link between UNIBUS DEC hosts and MAP broadband networks. Includes a resident seven layer MAP 2.1 token bus interface and Simpact's hardware and software that offloads communication tasks from the host.

## Teltone Corporation

- DCS-3SE

16 Line(s) Supported • RS232 Interlace(s) Supported • 19.2Kbps
Transmits data simultaneously with voice on standard telephone lines. Data terminals may be connected and moved wherever an available phone jack exists. Features remote digital loopback and an internal self-test.

## - Tellan M-8201

1 Line(s) Supported • RS232 Interface(s) Supported • 19.2Kbps
Local data network with plug-in components that transfer data simultaneously with voice on the existing telephone wiring. DTEs are interconnected and communicate through a 1 Mbps data link.

## [ TelLAM M-8208

8 Line(s) Supported • RS232 Interface(s) Supported • 19.2Kbps
Local data network with plug-in components that transfer data simultaneously with voice on the existing telephone wiring. DTEs are interconnected and communicate through a 1 Mbps data link.

## - TelLAM M-8216

16 Line(s) Supported • RS232 Interface(s) Supported • 19.2Kbps
Local data network with plug-in components that transfer data simultaneously with voice on the existing telephone wiring. DTEs are interconnected and communicate through a 1 Mbps data link.

## Swiching Devices

## 3Com Corporation

## [1S/1

64 Port(s) Supported • 19.2Kbps • LAN Switch

- 802.3 Interface(s) Supported


## Able Computer

- MC3600

3600 Port(s) Supported • 38.4Kbps • Network Switch •\$12,500+
May be configured for automatic load balancing, multisessions, and port contention.

## Alantec

- MLS

6-16 Port(s) Supported • MultiLAN Switch •
$\$ 9,800$
The MLS is capable of fully interconnecting as many as 16 local area networks while providing advanced filtering and network management features.

## Appled Innovation, Inc.

## - AISwitch Series 90

64 Port(s) Supported • 19.2Kbps • Data PBX
Switch • RS232/422 Interface(s) Supported • \$105/port
The AISwitch Series 90 supports up to 64 ports for ASCII host and device connections, and allows all 64 asynchronous ports to run at simultaneous speeds up to 19.2 Kbps . The software-intensive design yields a small unit with few components, which assures reliability and easy maintenance. Options include an X. 25 gateway card to synchronous packet switch networks.

## ■ AISwitch Series180

256 Port(s) Supported • 19.2Kbps • Data PBX Switch • RS232/422 Interface(s) Supported • \$105/port
The AISwitch Series 180 supports up to 256 ports for ASCII host and device connections, and allows all 256 asynchronous ports to run at simultaneous speeds up to 19.2 Kbps . The software-intensive design yields a small unit with few components, which assures reliability and easy maintenance. Options include (1) secure dialback, (2) full internal redundancy, and (3) an X. 25 gateway card to synchronous packet switch networks.

## Aviv Corporation

- DPS 300

2 Port(s) Supported • Pertec Interiace(s)
Supported •\$2,100
The Dual Port System (DPS 300) is an
electronic switch that allows two computers to share any tape drive with Pertec formatted I/O.

## DPS 805

2 Port(s) Supported • Tape Switch - STK
Interface(s) Supported •\$2,400
The Dual Port System (DPS 805) is an electronic switch that allows two computers to share any tape drive with STK formatted I/O.

## EMPS 300

6 Port(s) Supported • Tape Switch • Pertec Interface(s) Supported • \$6,250
The MultiPort System (MPS 300) is an electronic switch that allows six comput ers to share any tape drive with Pertec formatted I/O.

## - MPS 805

6 Port(s) Supported • Tape Switch - STK Interface(s) Supported • \$6,700
The MultiPort System (MPS 805) system is an electronic switch that allows six computers to share any tape drive with STK formatted I/O.

## - QPS 300

4 Port(s) Supported • Tape Switch • Pertec Interface(s) Supported • \$3,900
The Quad Port System (QPS 300) is an electronic switch that allows four computers to share any tape drive with Pertec formatted I/O.

## © OPS 805

4 Port(s) Supported - Tape Switch - STK Interface(s) Supported •\$4,200
The Quad Port System (QPS 805) is an electronic switch that allows four computers to share any tape drive with STK formatted I/O.

## Datacom <br> Technologies, Imc.

- MetroSwitch 412

4 Port(s) Supported • 19.2Kbps • Printer Switch • Serial/Parallel Interface(s) Supported - $\$ 269$

Allows up to 16 users to share one printer Features automatic input port selection, automatic conversion of serial input to parallel output, and selectable options for timeout, auto-feed serial speed and flow control.

## - MetroSwitch 413

4 Port(s) Supported • 19.2Kbps • Printer
Switch • Serial/Parallel Interface(s) Supported - $\$ 324$

Allows up to 16 users to share one printer. Features automatic input port selection, automatic conversion of serial input to parallel output, and selectable options for timeout, auto-feed serial speed and flow control.

## - MetroSwitch 430

4 Port(s) Supported • 19.2Kbps • Printer Switch • RS232 Interface(s) Supported •\$595

## - MetroSwitch 431

4 Port(s) Supported • 19.2Kbps • Printer Switch • RS232 Interface(s) Supported • \$745 The MetroSwitch 430 and 431 allow up to 20 users to share two printers simultane ously. Feature a 256 KB buffer size, spooling capabilities, and selectable options to send different documents between the two printers.

- MetroSwitch 433

4 Port(s) Supported • 19.2Kbps • Printer Switch • RS232 Interface(s) Supported • $\mathbf{2 4 9}$ Allows up to 20 users to share two printers simultaneously. Features a 256 KB buffer size, spooling capabilities, and selectable options to send different documents between the two printers.

## Digital Consultants

■ITM
4 Port(s) Supported • Tape Switch • Pertec Interface(s) Supported - $\mathbf{\$ 1 , 9 5 0 +}$
The ITM (Intelligent Tape Manager) is a general purpose digital switch allowing two to four CPUs to share one to four Pertec interfaced tape drives. Allows users to integrate CPUs and tape vendors.

## Gold Key <br> Electronics, luc.

## © L 12 -HP1

3 Port(s) Supported • 19.2Kbps • Printer Switch • RS232 Interface(s) Supported •\$549 The Switchmate Jr. LN2-HP1 provides automatic shared access for two systems to one HP LaserJet printer and emu- . lates DEC's LN03 laser printer.

## - L43-HP1

4 Port(s) Supported • 19.2Kbps • Printer Switch • RS232 Interface(s) Supported • $\$ 749$ The LN3-HP1 SWITCHmate provides automatic shared access for up to three systems to one HP LaserJet printer and emulates DEC's LN03 laser printer.

## ■ SW2-2+2

4 Port(s) Supported • 19.2Kbps • Printer Switch • RS232 Interface(s) Supported •\$749 The SWITCHmate $2+2$ connects two sharing systems to two printers and allows for automatic printer sharing

## - SW2-HP1

3 Port(s) Supported • 19.2Kbps • Printer Switch • RS232 Interface(s) Supported • \$549 The Switchmate Jr. SW2-HP1 provides automatic shared access for two systems to one HP LaserJet printer and emulates DEC's LA100.

## - SW2-1D1

3 Port(s) Supported • 19.2Kbps • Printer Switch • RS232 Interface(s) Supported • $\$ 549$ The SWITCHmateJr.SW2-ID1 is a printer switching device that allows two systems to share one DEC printer automatically.

## ■ SW3-HP1

4 Port(s) Supported • 19.2Kbps • Printer Switch • RS232 Interface(s) Supported •\$749 The SWITCHmate SW3-HP1 provides automatic shared access for up to three systems to one HP LaserJet printer and emulates DEC's LA100.

## - SW3-101

4 Port(s) Supported • 19.2Kbps • Printe Switch • RS232 Interface(s) Supported •\$749 The SWITCHmate SW3-ID1 is a printer switching device that allows three systems to share one DEC printer automatically.

## - SW6-HP2

8 Port(s) Supported • 19.2Kbps • Printer Switch • RS232 Interface(s) Supported • \$1,295
The SWITCHmate SW6-HP2 provides automatic shared access for up to six systems to one or two HP LaserJets.

- SW6-102

8 Port(s) Supported • 19.2Kbps • Printer Switch • RS232 Interface(s) Supported • \$1,295
The SWITCHmate SW6-ID2 is a printer switching device that allows six systems to share two DEC printers automatically.

## Micom Communications <br> Corporation

- Instanet6000-20

250 Port(s) Supported • 72Kbps • TDM Switch - SerialN. $\mathbf{3 5} / \mathrm{T} 1$ Interface(s) Supported • $\$ 5,000+$
Provides switching functions for up to 250 channels and allows direct access to all resources on the network.

## - Instanet $6000-40$

2036 Port(s) Supported • 72Kbps • TDM
Switch • Serial/N.35/T1 Interface(s) Supported

- $\$ 9,000+$

Provides switching functions for up to 2036 channels and allows direct access to al resources on the network.

## Omicron <br> Telesystems, Imc.

## - PFS

RS232 Interface(s) Supported - \$495+
The PFS (Programmable Fallback Switch) is designed for $\mathrm{A} / \mathrm{B}$ switching applications and may be operated in automatic fallback mode, programmed priority mode, and contention mode.

## Racal-Migo

## - Omnimux 8000

576 Port(s) Supported • 19.2Kbps • T1 Multiplexer Switch • Serial/N. 35 Interface(s) Supported • \$30,000
Designed to maximize the economic payback inherent in integrated voice, data, and digitized video communications.

## ■ Omnimux 9000

1584 Port(s) Supported • 1.536Mbps Network Switch • Serial/N. 35 Interface(s) Supported •\$25,000+
Sophisticated networking T1 multiplexer supporting meshed voice/data/video networks. SUN-based network management system that features a graphics-based user interface and automatic or user-defined control of T-1 netwroks. Supplies management reports

## - Omnimux DCS

60 Port(s) Supported • 19.2Kbps • DACS Switch - Serial/N. 35 Interface(s) Supported Serves as either a simple digital access and cross-connect switch or a full networking T-1 mux supporting applications including digital hubbing, bypass, groom and fill, drop and insert, and direct PBX interface.

## Rose Electronics

## - CareTaker

4-8 Port(s) Supported • Scanning Switch • Serial/Parallel Interface(s) Supported - $\$ 195+$ Shares one peripheral with many hosts but does not support buffering.

## - CareTaker Plus

4-8 Port(s) Supported • 19.2Kbps • Buffered Switch • Serial/Parallel Interface(s) Supported - $\$ 395+$

Shares one peripheral with many hosts. Accepts data simultaneously on all ports and will connect each port automatically on a first-come first-serve basis. Supports buffering.

## - MasterSwitch Family

2-16 Port(s) Supported • 115.2Kbps • Networt Switch • Serial/Parallel Interface(s) Supported - \$295+

Interconnects computers and peripherals through serial and parallel interfaces Features automated operation with commands or interactive menus. Includes modem support.

## ■ Porter

4-8 Port(s) Supported • 19.2Kbps • Code Switch • S/P Interface(s) Supported • \$395+ Connects one computer to several devices and supports buffering.

## Terminal Servers

## Able Computer

## CSI28

128 Port(s) Supported • $38.4 \mathrm{Kbps} \cdot 0 / \mathrm{E} / \mathrm{N}$ Parity •\$3,750+
The CS128 is a communication system that connects up to 128 users to a host system up to 2000 feet away using twisted pair cable. Full modem support is available on all lines and 38.4 Kbps baud rates are supported regardless of operating system restrictions.

## - Dspos

8 Port(s) Supported • 38.4Kbps • 0/EN Parity

## - \$2,000

The DS008 is a distributed terminal server designed to locate terminal servers with PCs, terminals, printers and computers and to extend Ethernet/LAT access or direct DEC host access to the user

## - 0 S016

16 Port(s) Supported • $38.4 \mathrm{Kbps} \cdot$ 0/E/N Parity - \$2,800

The DS016 is a distributed terminal server designed to locate terminal servers with PCs, terminals, printers and computers and to extend Ethernet/LAT access or direct DEC host access to the user.

## Adac Corporation

- 1750

2 Port(s) Supported • 19.2Kbps • 0/E/N Parity Provides dual asynchronous serial line communication with on-board PROM capability. Plugs directly into the Q-bus backplane.

## Black Box Corporation

- WTS100

8 Port(s) Supported • 38.4Kbps • \$2,700

## cisco Systems, Inc.

- ASM

Connects asynchronous devices such as terminals, printers, modems, and microcomputers to any LAN or WAN that uses TCP/IP or X. 25 .

## - STS-10

10 Port(s) Supported • $38.4 \mathrm{Kbps} \bullet$ 0/E/N Parity - \$2,995

Provides simultaneous Ethernet network access and support for terminals and other devices and each RS232 interface operates as a DCE or DTE device with a variety of dial-in or dial-out modems.

## Communication Machinery Corporation (CMC) <br> - TransServer

4-10* Port(s) Supported
Interfaces terminal groups to an Ethernet LAN and may be configured to operate as a DCE or a DTE. Features multiple connection switching, user configurable options, on-line help, and power-up diagnostics.

## Computer Prooucts, Inc. - ersso <br> $\$ 265$

Parallel interface for general purpose input and output TTL compatible data lines Features a four level interrupt structure

## - 67362

## 16 Port(s) Supported • $\$ 390$

Parallel interface that features four handshake signals per port, 16 programmable vectors, a four level interrupt structure, and data ports that support byte write accesses.

## ■ 67370

16 Port(s) Supported - $\$ 650$
DMA interface equipped with ports that contain various handshaking and control signals to enable one GT370 board to transceive data with another system or device

## Datablity Software Systems, Inc.

## - VCP-1000

## 8 Port(s) Supporte

Part of the VISTA Series; provides four expansion slots that replace the operation of 16 DECserver 200s

## Datability Software

 Systems, Inc.

- vCP-1000

128 Port(s) Supported • 38.4Kbps • 0/EN Parity - $\$ 3,499$ +
VISTA (VCP-1000) is a $\mathbf{1 0 0 \%}$ LAT compatible terminal server that supports from one to 128 users in a single $5.25^{-1}$ high chassis at per port costs that are among the lowest in the industry. A slide-in Network Interface Card (NIC) contains all the hardware and software necessary to implement a particular industry standard networkstrategy. The LAT compatible NIC is $\mathbf{1 0 0 \%}$ compatible with the DECserver 200, including full support of NCP and TSM commands. Future NIC cards include TCP/P, concurrent LAT/TCP, and OSI protocols. VISTA provides four expansion slots for VISTA line cards. Current line cards include 8 -port RS232, 32 -port RS423, eight on-board 24008 mo- ?

## - VCP/C-RS232-8

8 Port(s) Supported • 38.4Kbps
Part of the VISTA Series; provides four expansion slots that replace the operation of 16 DECserver 200s. Connects termi nals, PCs, printers and modems to the VCP-1000.

## ■ VCP/LC-RS423-32

32 Port(s) Supported • 38.4Kbps
Part of the VISTA Series; provides four expansion slots that replace the operation of 16 DECserver 200s. Connects terminals, PCs, printers and modems to the VCP-1000.

## - VCPMIC-LAT

32 Port(s) Supported
Part of the VISTA Series; features an Intel 80185 processor and an Intel 2586 network coprocessor; it is a fully LAT compat ible, transparent interface to a DEC Ethernet network.

## Emulex

- PERFORMANCE 4000

32 Port(s) Supported • 38.4Kbps • 0/EN Parity

## - $\$ 3,890+$

The Performance 4000 is fully compatible with DEC's LAT and plugs directly into the Ethernet Network without special hardware or software. It offers twice the performance and four times the line capacity for about half the cost per line as the DECserver 200.

## Encore Computer Corpobation

## ■ AmmeX II

16 Port(s) Supported • 38.4Kbps

## - AMMEX II

32 Port(s) Supported • 38.4Kbps
The ANNEX II connects peripherals to CPUs supporting TCP/IP and Ethernet and features a watchdog timer and security system.

## GEN/COMP, Inc.

- 2031

9600bps - 0/EN Parity - $\$ 525$
The 2031 emulates the DEC DL11A and features switch selectable device address, interrupt vector, data format, and baud rates to 9600 bps .

## Interlan Inc.

■ IWTS/Microvms
32 Port(s) Supported •\$3,325
Multiplexes 32 devices onto an Ethernet LAN. Combines the power of four asynchronous controllers on one intelligent board, and features an intelligent protocol processor architecture that provides a highperformance connection toa MicroVAX host.

## - IITS32NMS

32 Port(s) Supported •\$3,850
Multiplexes 32 devices onto an Ethernet LAN. Combines the power of four asynchronous controllers on one intelligent board, and features an intelligent protocol processor architecture that provides a highperformance connection to a VAX/VMS host.

## - ITSI00

8 Port(s) Supported • 38.4Kbps • 0/E/N Parity

- \$2,750

Uses virtual circuits that handle commu-
nications among a large group of heteroge neous RS232 devices including terminals, printers, plotters, and modems. Features a multilevel password system and is available with a TCP/IP software featurepack at $\$ 2,900$.

## ■ VTS200 LAT/TCP

8 Port(s) Supported - \$2,750
Supports up to 64 virtual circuits to allow multiple session support to DECnet or TCP/IP based hosts. Software cartridges that download both LAT and TCP/IP operating software across the network are available at $\$ 3,245$.

## MDB Systems, Inc.

## - MDB-MDL 11

### 19.2Kbps • O/E/N Parity • $\$ 868$

Incorporates all features of DECs DL11-A, -B, -C, -D, and DL11-E. Also features RS422 circuitry and a Printer Busy/Buffer Ready Monitor Circuit. LEDs indicate Transmit/Recieve Data and Printer Busy. Baud rate may be set by edge mounted Piano Switch without power down of system to remove board. FCC cable cabinet available.

## E MLSI-DLV1-ED

19.2Kbps • O/E/N Parity • \$350

Compatible to DEC DLV11-E (DLVJ1). Features LEDs to indicate transmit and receive activity and all modem signals. FCC cable cabinet kit available.

## - MLSI-DLV11-F

19.2Kbps • 0/E/N Parity • \$350

Module has Printer Busy/Buffer Ready Monitor Circuit. LEDs indicate Transmit/ Receive Data and Printer Busy. Baud rate may be set by edge mounted Piano Switch without power down of system to remove board. FCC cable cabinet available.

## - MUX-T/R-32

32 Port(s) Supported • 38.4Khps • \$6,495 One quad size microprocessor board installs in Q-bus or UNIBUS backplane. Terminal server units connect to CPUboard via RS422 signals. Includes adjustable input silo timer.

## Sigma Imformation <br> Systems

## - SCD-DLV11E

1 Port(s) Supported • 19.2Kbps • 0/E/N Parity - \$353

Provides switch selectable device address and vector interrupt, word format, and baud rates.

## - SCD-DLV11J

4 Port(s) Supported • 38.4Kbps • 0/E/N Parity - \$319

Provides switch selectable device address and vector interrupt, word format, and baud rates. Supports multiple data protocols.

## CDD-DLV11J/8s

8 Port(s) Supported • 19.2Kbps • 0/E/N Parity - \$657

Provides switch selectable device address and vector interrupt, word format, and baud rates.

## SImpact Associates, Inc. - EXC 1612 <br> 12 Port(s) Supported <br> Expands the number of communication channels of Simpact's intelligent communication processors (ICP 1600 or 1622).

## Systems Concepts, Inc.

- RX-30


### 38.4Kbps

The RX-30 allows remote terminals to appear to be directly connected to the host CPU. Options include connections to an Ethernet communications network as well as the TM-30 card which incorporates a group of $300 / 1200 / 2400 \mathrm{bps}$ baud modems into the RX-30.

## - TX-30 <br> 38.4Kbps

The TX-30 allows remote terminals to appear to be directly connected to the host CPU, through an Ethernet network. Options include the TM-30 card which incorporates a group of $300 / 1200 / 2400 \mathrm{bps}$ baud modems into the TX- 30 .

## XYplex, Inc. <br> © MX-ASYMC-J8

8 Port(s) Supported • 38.4Kbps
Designed for Xyplex's MAX5000 communication server and is compatible with XYPLEX System Software version 2.1E3 or later. It connects asynchronous terminals, personal computers, printers and modems to the MAX5000 and network users may access any device within the local and wide network geographies.

## X. 25 PAD Processors

## Case/Datatel

- PSX8500

4-64 Port(s) Supported
All activity is monitored and suspect conditions are alarmed. The operator can select from an array of diagnostic routines

## Micom Communications Corporation

## - MB2

16 Device(s) Supported • Async Transmission Type • 1 Port(s) Supported •\$1,840
Allows asynchronous devices to be connected to X. 25 networks. Offers local switching to off-load the network and supports local or remote network management.

## - MB3

22 Device(s) Supported • Async Transmission Type • 1/2 Port(s) Supported • \$2,650
Allows asynchronous devices to be connected to X. 25 networks. Supports network security, offers local switching to offload the network, and supports local or remote network management.

## Michotronix <br> Systems, Lto.

- CSI-X. 25

Async Transmission Type
Converts asynchronous data from termi nal equipment to the CCITT X. 25 synchronous protocol. Interfaces into the public PSDN or private X. 25 network at a rate of 70 packets per second. X. 25 switching may be performed on the two links.

- CSI-X. 25 Switch

Async Transmission Type • 6-18 Port(s) Supported
Supports character or block mode terminals and features XON/XOFF or CTS/RTS signal flow control, autoband and autoparity detection, and modem control support.

## © KXT-X. 25

Async Transmission Type
Allows any Q-bus system to connect directly to a public or private packet switched network.


- PacketPlus/50

16 Device(s) Supported • X. 25 Transmission Type $\bullet 16$ Port(s) Supported N.E.T. 's PacketPlus/ 50 is a high-performance $X .25$ packet switch designed for wide area networks. Based on worldwide CCITT X. 25 standards, PacketPlus/50 supports a variety of applications including private backbone network, and it also provides concentrated access to VAX/PSI hosts, Packet Data Networks, and IDNX networks. A single revolutionary architecture accommodates heavy-traffic sites as reliably and cost-effectively as low-traffic locations and allows modular growth at both the node and network level. PacketView, an integral real-time network manager, facilitates rapid network deployment, modification, expansion and problem solving functions, making the PacketPlus/50 easy to use even by those not technically inclined.

## - TX-700

32 Device(s) Supported • Async
Transmission Type • 1 Port(s) Supported - $\$ 2,145$
N.E.T.'s TX-700 concentrates asynchronous data traffic and converts it to X. 25 for single connection to X .25 host interfaces and public or private
X .25 Packet Data Networks.

Simpact Associates, Inc. - CPI 2000

# BUILD YOUR COMPUTER LIBRARY DEC Professional 

## Back Issue Sets Now Available!

DEC users read our magazine from cover to cover, use it and reuse it to help solve daily problems, improve their professional skills, and widen their perspectives.
Now you can build your computer library, receive issues you missed and replace well-worn copies.
Order over 50 back issues of DEC Professional, July 1983 to present, as a set and save.


Order Now! Supplies Are Limited!
(Offer limited to US and Canada Only.)
TO ORDER CALL (215) 957-1500 with your credit card information. Or complete and return the orter form below. Prepayment must be inctuded with your orter.
$\nabla$ Clip and Send $\boldsymbol{\nabla}$
$\nabla$ Clip and Send $\boldsymbol{\nabla}$

## BACK ISSUE ORDER FORM - DEC Professional

Please send $\qquad$ set(s) of over 50 back issues of DEC Professional. $\$ 200$ for each set ordered. Includes shipping by surface mail. Add $\$ 10$ for each set delivered to Canada.
PLEASE MAKE PAYMENT IN U.S. DOLLARS AND DRAWN ON A U.S. BANK. Offer Limited to US and Canada only.

## $\square$ Check enclosed for \$

Charge to: $\square$ VISA $\square$ MASTERCARD $\square$ American ExpressAccount \# $\qquad$ Ex. Date $\qquad$
Signature Date

NaME $\qquad$ ADDRESS

CITY
STATE $\qquad$ ZIP

COUNTRY $\qquad$ TELEPHONE ( ) $\qquad$
Mail completed form with payment to:
PROFESSIONAL PRESS INC., P.O. Box 218, Horsham, PA 19044-0218

## DISK STORAGE

## DISK CONTROLLERS




## DISK CONTROLLERS



## DISK CONTROLLERS



## DISK DRIVES



## DISK DRIVES

|  |  |  |  |  |  |  |  |  |  |  |  | む |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Century Data Systems 714 632－7500（continued） |  |  |  |  |  |  |  |  |  |  |  |  |
| DS400 | $14{ }^{\prime \prime}$ | R |  | 384M |  | UNIBUS | 26.5 | 8.3 | 1．8M | ＞9K | 823 |  |
| T2801 | $8{ }^{\prime \prime}$ | F | SMD－M | 692M |  | UNIBUS | 15 | 8.3 | 2.5 M | ＞20K | 845 | \＄16，400 |
| T472 | 5．25＂ | R | SMD－E | 472M | 26 | UNIBUS |  |  | 1．8M |  |  | \＄12，400 |
| EMC Corporation 508 435－1000 |  |  |  |  |  |  |  |  |  |  |  |  |
| MRA 1200 | $8{ }^{8 \prime}$ |  |  | 1．2G | 25.5 |  | 16 |  |  |  |  |  |
| MRA 1600 | 8＂ |  |  | 1.66 | 25.5 |  | 16 |  |  |  |  |  |
| MRA 1800 | 8＂ |  |  | 1．9G | 25.5 |  | 16 |  |  |  |  |  |
| MRA 2400 | $8{ }^{\prime \prime}$ |  |  | 2.56 | 25.5 |  | 16 |  |  |  |  |  |
| MRA 3200 | 8＂ |  |  | 3．3G | 25.5 |  | 16 |  |  |  |  |  |
| MRA 600 | 8＂ |  |  | 622M | 25.5 |  | 16 |  |  |  | 1380 |  |
| MRA 800 | 8＂ |  |  | 825M | 25.5 |  | 16 |  |  |  | 1634 |  |
| Exsys Storage Systems 408 292－0343 |  |  |  |  |  |  |  |  |  |  |  |  |
| RACE－380 | 5．25＂ | F | ESDI | 313M |  | U／B | ＜16 | 8.3 | 15M | 30K | 1632 |  |
| RACE－760 | $5.25{ }^{\text {＂}}$ | F | ESDI | 587M |  | U／B | $<16$ | 8.3 | 15M | 30K | 1632 |  |
| First Computer Corporation 312 920－1050 |  |  |  |  |  |  |  |  |  |  |  |  |
| DSSVME1K | 10．5＂ |  |  | 474M |  | UNIBUS |  |  |  |  |  | \＄38，625 |
| DSSVMEEK | 10．5＂ |  |  | 948M |  | UNIBUS |  |  |  |  |  | \＄51，850 |
| DSSVMEEO | 10．5＂ |  |  | 948M |  | UNIBUS |  |  |  |  |  | \＄46，325 |
| DSSVMEXQ | 10．5＂ |  |  | 474M |  | UNIBUS |  |  |  |  |  | \＄33，125 |
| DSSVSE1K | 10．5＂ |  |  | 474M |  | UNIBUS |  |  |  |  |  | \＄44，150 |
| DSSUSEEK | 10．5＂ |  |  | 948M |  | UNIBUS |  |  |  |  |  | \＄57，300 |
| DSSVSEEO | 10．5 ${ }^{\text {＂}}$ |  |  | 948M |  | UNIBUS |  |  |  |  |  | \＄51，750 |
| DSSVSEXQ | 10．5＂ |  |  | 474M |  | UNIBUS |  |  |  |  |  | \＄38，550 |
| DSSVSEXa | 10．5＂ |  |  | 474M |  | UNIBUS |  |  |  |  |  | \＄38，550 |
| DSSVUE1K | 10．5＂ |  |  | 474M |  | UNIBUS |  |  |  |  |  | \＄33，475 |
| DSSVUEEK | 10．5＂ |  |  | 948M |  | UNIBUS |  |  |  |  |  | \＄46，700 |
| DSSVUEEQ | 10．5＂ |  |  | 948M |  | UNIBUS |  |  |  |  |  | \＄41，175 |
| DSSVUEXQ | 10．5＂ |  |  | 474M |  | UNIBUS |  |  |  |  |  | \＄29，950 |
| VM23514773 | 10．5＂ |  |  | 474M |  | UNIBUS |  |  |  |  |  | \＄23，675 |
| VU23514782 | 10．5＂ |  |  | 474M |  | UNIBUS |  |  |  |  |  | \＄18，275 |
| Fujitsu America，Inc． 408 432－1300 |  |  |  |  |  |  |  |  |  |  |  |  |
| M2246E／S | 5．25＂ | F | ESDI | 389M |  |  | 18 | 8.3 | 1．25M | 30K | 1243 |  |
| M2249E／S | 5．25＂ | F | ESDI／SCSI | 389M |  |  | 18 | 8.3 | 1．87M | 30K | 823 |  |
| M2263E／S | $5.25{ }^{\prime \prime}$ | F | ESDI／SCSI | 778M |  |  | 16 | 8.3 | 1．87M | 30K | 823 |  |
| M2333K／KS | 8＂ | F | SMD－H／SCSI | 168M |  |  | 20 | 8.3 | 1.229 M | 20K | 823 |  |
| M2333P | 8＂ | F | IPI－2 | 337M |  |  | 20 | 8.3 | 2．458M | 20K | 823 |  |
| M2344K／KS | 8＂ | F | SMD－H／SCSI | 690M |  |  | 16 | 8.3 | 2．458M | ＞35K | 624 |  |
| M2350 | 10．5＂ | F | SMD－M | 474M |  |  | 18 | 7.58 | 9．295M | 35K | 842 |  |
| M2360 | 10．5＂ | F | SMD－H | 689M |  |  | 18 | 8.17 | 12．534M | 35K | 842 |  |
| M2372K／KS | $8{ }^{\prime \prime}$ | F | SMD－H／SCSI | 823M |  |  | 16 | 8.3 | 2．458M | 35K | 745 |  |
| M2380A | 8＂ | F | SMD－E | 1G |  |  | 16 | 8.25 | 18．07M | 30K | 745 |  |
| M2382K／KS | $8{ }^{\prime \prime}$ | F | SMD－E／SCSI | 16 |  |  | 16 | 8.3 | 3M | 35K | 745 |  |
| M2382P | 8＂ | F | IPI－2 | 1G |  |  | 16 | 8.3 | 3M | 35K | 745 |  |
| M2392K | $8{ }^{\prime \prime}$ | F | SMD | 2.02 G |  |  | 12 | 8.3 | 3M | 50K | 1916 |  |
| Imprimis Technology，Inc．612 931－8658 |  |  |  |  |  |  |  |  |  |  |  |  |
| FSD 9715－300 | $9^{\prime \prime}$ | F | SMD | 315M | 28.3 | UNIBUS | 20 | 8.3 | 1．2M | 30K | 823 |  |
| FSD 9715－340 | $9{ }^{\prime \prime}$ | F | SMD | 344M | 26.3 | UNIBUS | 18 | 8.3 | 1．2M | 30K | 711 |  |
| FSD 9715－500 | 9＂ | F | SMD／SMD－E | 515M | 26.3 | UNIBUS | 18 | 8.3 | 1．8M | 30K | 711 |  |

## Saved.

## Laserdrive 51/4" Removable 810MB WORM Cartridges: How they'll change the way you store data.

## Save Time.

Just plug and play. The Laserdrive Model 840 looks just like a Winchester to your MicroVAX II host. No overhead. No special utilities. No wasted time. Performance over three times faster than other optical disk sub-systems. Fast access, streaming and data caching. 810 MB formatted cartridges make backup and archiving fast and painless. And no waiting to get them. They're available today!

## Save Money.

Half the cost per MB of conventional magnetic tape! And the Model 840's data security and compactness will save you a fortune in data distribution, archiving and use. Save Peace of Mind.

Data integrity and security that will have you sleeping like a baby. Media life of 10 years for data that can't be written over or erased.

## Save On-board Memory.

Unlike other optical disk sub-
 systems, the Model 840 uses none of your host's memory.

## Save Critical Data.

No solution even compares. Simple to install and use. Easier and more secure than tape. The Model 840 will change the way you handle your CAD/CAM, engineering, database, archiving, software distribution, financial, imaging and other storage-intensive applications.

## Call our hotline today!

We'll send you a Model 840 information kit that will save you
from outmoded data storage solutions forever!

Call 1-800-952-6300.
Ask for Dept. L53.

## DISK DRIVES



## DISK DRIVES



## DISK DRIVES



## DISK DRIVES



## DISK SUBSYSTEMS

| む̀ |  |  |  |  |  |  |  |  |  |  |  | $3$ | ※ Nix |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| American Data Systems Marketing 617 341-0171 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SMD |  |  | 80M | 2.7G |  |  |  | 1.8M | UNIBUS |  |  |  | \$5,000+ |
| American Digital Systems, Inc. 508 443-7711 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MasterDisk Mxxx51 | 1-4 | 1 | 152M | 607M | 5.25" |  | 16 | 10M | U/Q | 8.33 | Y | F/R | \$6,450+ |
| MasterDisk Mxxx52 | 1-4 | 1 | 390M | 1.56 G | 5.25" |  | 16 | 10M | U/0 | 8.33 |  | F/R | \$9,350+ |
| MasterDisk Mxxx55 | 1-4 | 1 | 677M | 2.708G | 5.25" |  | 16 | 15M | U/Q | 8.33 | $Y$ | F/R | \$10,700+ |
| MasterDisk Mxxx81 | 1-4 | 1 | 732M | 2.93 G | $8^{81}$ |  | 16 | 19.7M | U/0 | 8.33 | Y | F | \$16,750+ |
| MasterDisk Mxxx82 | 1-4 | 1 | 1055M | 4.22G | 8" |  | 16 | 6.39 | U/Q | 8.33 | Y | F | \$19,250+ |

## DISK SUBSYSTEMS



 $\qquad$

| American Digital Systems, Inc. 508 443-7711 (continued) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MasterDisk SDI MSExx82 | 1-30 | 1 | 866M | 2.927G | 8" | SDI | 16 | 24M | U/Q | 8.33 | Y | F | \$24,640+ |
| MasterDisk/SDI MSExx55 | 1-40 | 1 | 550M | 20.76 | 5.25" | SDI | 16 |  | U/Q | 8.33 | Y | F/R | \$15,640+ |
| Aptec Computer Systems, Inc. 503 626-9000 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DSK-1412 | 1 |  | 1.2G | 3.6G |  |  | 16 | 12M |  |  |  | F | \$118,000 |
| Aquidneck Systems International 401 295-2691 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OAS 100 |  |  | 1024M |  |  |  |  |  |  |  |  |  | \$14,500 |
| Aviv Corporation 617 933-1165 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| APEX | 4 | 1 | 152M | 2.56 | $5.25{ }^{\prime \prime}$ | ESDI | 16 | 3M | U/0 | 8.33 | $Y$ | F/R | \$2,800+ |
| DFS 61X | 4 | 1 | 550M | 2.2 G | 5.25" | ESDI | 18 | 1.875M | U/Q/B | 8.3 | $Y$ | F | \$8,500+ |
| DFS 62X | 4 | 2 | 1.16 | 2.2 G | 5.25" | ESDI | 18 | 1.875M | U/Q/B | 8.3 | $Y$ | F | \$15,000+ |
| DFS 660x-X | 12 | 12 | 655M | 7.8G | 8" | SMD | 16 | 2.4M | U/Q/B | 8.3 | $Y$ | F | \$28,000+ |
| DFS 680x-X | 12 | 12 | 850M | 10.2G | 5.25" | SMD | 16 | 2.7M | U/Q/B | 8.3 | $Y$ | F | \$32,000+ |
| DFS 817-9720/500 | 4 | 1 | 430M | 1.7G | 8" | SMD | 18 | 3M | UNIBUS | 8.3 | $Y$ | F | \$9,000 |
| Summit IV |  | 1 | 720M | 2.86 | $8^{\prime \prime}$ | SMD | 16 | 3M | U/Q | 8.33 | $Y$ | F | \$7,860+ |
| Summit V |  | 1 | 1050M | 4.2G | 8" | SMD | 16 | 3M | U/Q | 8.33 | $Y$ | F | \$10,275+ |
| CMD Technology, Inc. 714 549-4422 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CDU-620 Series | 7 |  | 20-400M | 400M | 3.5" |  |  | 2M | UNIBUS | 17 | Y | F | \$1,995+ |
| COD-120 Series | 7 |  | 20-200M | 200M | 3.5" |  |  | 1.5M | Q-bus | 28 | Y | F | \$1,495+ |
| CMS Enhancements, Inc. 714 259-9555 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CPF-155S |  |  | 155M | 1.36 |  |  |  | 1.25M | U/0 | 16.5 | $Y$ |  |  |
| CPF-180 |  |  | 155M | 2.6G |  |  |  | 1.25M | a-bus | 16.5 | $Y$ |  | \$4,380 |
| CPF-300S |  |  | 300M | 1.3 G |  |  |  | 1.25M | U/Q | 16.5 | $Y$ |  |  |
| CPF-380 |  |  | 319M | 2.6G |  |  |  | 1.25M | Q-bus | 18 | $\boldsymbol{Y}$ |  |  |
| CPF-383H |  |  | 319M | 2.66 |  |  |  | 1.80M | a-bus | 14.5 | $Y$ |  |  |
| CPF-760 |  |  | 677M | 2.6G |  |  |  | 1.80M | a-bus | 18 | $Y$ |  |  |
| EQR-180 |  |  | 155M | 1.3 G |  |  |  | 1.25M | U/Q | 16.5 | $\boldsymbol{Y}$ |  | \$4,022 |
| EQR-380 |  |  | 319M | 1.3G |  |  |  | 1.25M | U/Q | 18 | $\boldsymbol{Y}$ |  |  |
| EQR-380 |  |  | 677M | 1.36 |  |  |  | 1.80M | U/Q | 18 | $Y$ |  |  |
| EQR-383H |  |  | 319M | 1.3G |  |  |  | 1.80M | U/Q | 14.5 | Y |  |  |
| Codar Technology, Inc. 303 776-0472 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 925RD | 4 |  | 650M | 2.6 G | 5.25" | SCSI/ESDI | 16 | 1.5M | U/Q/B | 8.33 | Y | R |  |
| Computer Upgrade Corporation 714 630-3457 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CU-SMDI | 1-12 |  |  | 7.6G |  | HSC50/70 |  | 3M | UNIBUS | 15 |  | F | \$20,000+ |
| DILOG 714 937-5700 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| FDR Series | 1-8 |  | 760M | 9G | 5.25/8" | ESDI/SMD | 16 | 2.8M |  | 8.3 | Y | F | \$13,500+ |
| FSS Series | 2/4 |  | 380M | 2.56 | 5.25/8" | ESDI/SMD | 16 | 1.8/3M | u/0 | 8.3 | Y | F | \$6,185+ |
| MSS Series | 2 |  | 380M | 2.46G | 5.25/8" | ESDI/SMD | 16 | 2M | U/Q | 8.3 | $Y$ | R | \$7,850+ |
| MV Series | 2 |  | 442M | 760M | 5.25" | ESDI/SCSI | 16 | 1.8M | U/Q | 8.3 | Y |  | \$4,455+ |
| PowerDisk Series | 1-4 |  | 673M |  | 5.25" | ESDI | 16 | 2.4M | a-bus |  |  |  | \$7,400+ |
| QDR Series | 1-8 |  | 760M | 6 G | 5.25/8 ${ }^{\text {n }}$ | ESDI/SMD | 16 | 1.8-2.8M |  | 8.3 | $Y$ | R | \$18,155+ |
| RDA Series | 2 |  | 848M | 1.76 | 8" | SMD | 16 | 2.8M | UNIBUS | 8.33 | $Y$ | F | \$34,105 |
| SSS Series | 1 |  | 442M | 760M | $5.25{ }^{\prime \prime}$ |  | 16 | 1.8M | U/Q | 8.3 | $Y$ | F | \$4,955+ |
| Emulex Corporation 714 662-5600 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EPS Family | 4 | 2 | 7.41M | 4.3G |  | SMD-E | 18 | 3.0M | U/Q |  | Y | F | \$14,400+ |
| ER2/S | 2 | 1 | 180M | 1.5G | 5.25" | SCSI |  | 15M | UNIBUS | 8.33 |  | R | \$5,970+ |
| ER2E | 2 | 1 | 180M | 1.56 | 5.25" | ESDI | 18 | 10M | U/Q | 8.33 | Y | R | \$6,150+ |
| ER2E-III | 2 | 1 | 180M | 1.5G | 5.25" | ESDI | 18 | 10M | a-bus | 8.33 | Y | R | \$7,390+ |
| SM202 | 4 | 4 | 663M | 2.65 G | $8^{\prime \prime}$ | SDI/SMD-E | 16 | 2.48M | UNIBUS | 24.33 |  | F | \$17,580+ |

## DISK SUBSYSTEMS

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Emulex Corporation 714 662-5600 (continued) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SM206 | 12 | 3 | 663M | 7.96G |  | SDI/SMD-E | 16 | 2.48M | UNIBUS | 8.33 |  | $F$ | \$71,425 |
| SM208 | 8 | 2 | 663M | 5.3G |  | SDI/SMD-E | 16 | 2.48M | UNIBUS | 8.33 |  | F | \$24,595+ |
| SM212 | 4 | 1 | 873M | 3.49G |  | SDI/SMD-E | 16 | 2.75M | UNIBUS | 8.33 |  | R | \$20,306+ |
| SM216 | 12 | 3 | 873M | 10.5G |  | SDI/SMD-E | 16 | 2.75M | UNIBUS | 8.33 |  | F | \$30,296+ |
| SM218 | 8 | 1.5 | 873M | 6.98G |  | SDI/SMD-E | 16 | 2.75M | UNIBUS | 8.33 |  | F | \$27,246+ |
| SM602 | 4 | 1 | 590M | 2.36 G |  | SDI/ESDI | 18 |  | UNIBUS | 8.33 |  | R | \$17,165+ |
| SM712 | 4 | 1 | 1.75G | 6.98G |  | SDI/SMD-E | 16 | 2.75M | UNIBUS | 8.33 |  | F | \$33,994+ |
| SM718 | 6 | 1.5 | 1.756 | 10.5G |  | SDI/SMD-E | 16 | 2.75 M | UNIBUS | 8.33 |  | F | \$41,989+ |
| SM802 | 4 | 1 | 288M | 1.15G | 5.25" | SDI/ESDI | 18 | 1.25 M | UNIBUS | 8.33 |  | R | \$15,498+ |
| Epoch Systems, Inc. 508 481-3717 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EPOCH-1 Model 30 | 14 | 2 | 30G | 600M | 5.25" | SCSI | 18 | 1.875M |  | 8.33 |  | R | \$155,000 |
| Exsys Storage Systems 408 292-0343 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| RACE 4000 | 8 |  | 380M | 2.07G | 5.25" | ESDI | 16 | 2.5M | U/Q |  |  |  |  |
| RACE 4000 | 8 |  | 760M | 2.07 G | $5.25{ }^{\circ}$ | ESDI | 16 | 2.5M | U/Q |  |  |  |  |
| RACS 4000 | 8 |  | 350M | 2.28G | 8" | SMD | 16 | 2.8M | U/Q |  |  |  |  |
| FPS Computing 800 635-0938 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| P64/110 |  |  | 256M | 15.7G | 5.25" |  |  | 44M |  |  |  |  |  |
| P64/20 | 2 | 1-6 | 256M | 6.1 | $5.25{ }^{\circ}$ |  | 30 | 1.2M |  |  |  |  |  |
| P64/20 | 2 | 1-6 | 855M | 20.5G | 5.25" |  | 18 | 2M |  |  |  |  |  |
| P64/30 | 2 |  | 500M | 6G | $5.25{ }^{\circ}$ |  | 25 | 1.2M |  |  |  |  | \$130,000+ |
| P64/30 | 4 |  | 1G | 6G | 5.25" |  | 25 | 1.2M |  |  |  |  | \$130,000+ |
| P64/40 | 2 | 1-6 | 855M | 20.5G | 5.25" |  | 18 | 2M |  |  |  |  |  |
| Group Three Electronics 408 747-1800 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3410 |  |  | 155M |  | 8" | ESDI | 16.5 | 10M | Q-bus |  |  |  |  |
| 3420 |  |  | 320M |  | 8" | ESDI | 27 | 10M | Q-bus |  |  |  |  |
| 3440 |  |  | 305M |  | $8^{\mathbf{n}}$ | SMD | 18 | 1.8M | a-bus |  |  |  |  |
| 3441 |  |  | 415M |  | 8" | SMD | 18 | 2.4M | Q-bus |  |  |  |  |
| 3442 |  |  | 610M |  | 8" | SMD | 16 | 1.8M | Q-bus |  |  |  |  |
| 3480 |  |  | 701M |  | 14" | SMD | 16 | 1.8M | Q-bus |  |  |  |  |
| 3481 |  |  | 729M |  | $14^{\prime \prime}$ | SMD | 16 | 3M | a-bus |  |  |  |  |
| 3482 |  |  | 1.1G |  | 14" | SMD | 16 | 3M | Q-bus |  |  |  |  |
| MDB Systems, Inc. 714 998-6900 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Data Shuttle 2000 | 2 | 1 | 760M | 1.52G | 5.25" | SDI | 18 | 15M | U/Q/B | 8.33 | Y | R | \$21,667 |
| Data Shuttle 1000 | 1 | 1 | 760M | 760M | $5.25{ }^{\circ}$ | SCSI/ESDI | 18 | 15M | 3100 | 8.33 | $Y$ | R | \$10,045 |
| Data Shuttle 1000 | 1 | 1 | 380M | 760M | 5.25" | SCSI/ESDI | <16 | 15M | 3100 | 8.33 | $Y$ | R | \$6,484 |
| Data Shuttle 2000 | 2 | 1 | 380M | 760M | $5.25{ }^{\prime \prime}$ | SCSI/ST506 | <16 | 15M |  | 8.33 | N | R | \$9,160 |
| Data Shuttle 2000 | 2 | 2 | 760M |  | 5.25" | SCSI/ESDI | 18 | 15M |  | 8.33 | N | R | \$12,541 |
| Data Shuttle 2000 | 2 | 1 | 760M | 1.52G | $5.25{ }^{\prime \prime}$ | SCSI/ESDI | 18 | 15M | U/Q | 8.33 | $Y$ | R | \$11,833 |
| Data Shuttle 2000 | 2 | 2 | 380M | 760M | 5.25" | SDI | <16 | 15M | U/Q/B | 8.33 | $Y$ | R | \$18,433 |
| Data Shuttle 2000 |  | 1 | 380M | 760M | 5.25" | ESDI/SCSI | <16 | 15M | U/Q | 8.33 | $Y$ | R | \$7,750 |
| Data Shuttle 3000 | 2 |  | 380M | 760M | 5.25" | SCSI/ESDI | <16 | 15M | U/Q | 8.33 | $Y$ | R | \$14,053 |
| Data Shuttle 3000 | 2 |  | 760M | 1.5G | $5.25{ }^{\circ}$ | SCSI/ESDI | <16 | 15M | U/Q | 8.33 | $Y$ | R | \$17,313 |
| Data Shuttle 4000 | 2 |  | 750M | 1.5G | 5.25" | SCSI/ESDI | <16 | 15M | U/Q | 8.33 | $Y$ | R | \$24,188 |
| Data Shuttle 4000 | 2 |  | 380M | 760M | $5.25{ }^{\prime \prime}$ | SCSI/ESDI | <16 | 15M | U/Q | 8.33 | $Y$ | R | \$20,938 |
| Memory Sciences Corporation 703 361-9745 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| FASTOR | 64 |  | 760M | 486 | 5.25" |  | 24.8 | 40M |  | 8.3 | $Y$ | F/R |  |

## DISK SUBSYSTEMS



## DISK SUBSYSTEMS

| $$ |  |  |  | E |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| System Industries 408 432-1212 (continued) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CLUSTOR 5/SI83 | 2-16 | 2 | 550M | 88G | 8" | SDI | 16 | 2.458M | U/Q/B | 8.3 |  | F | \$85,400+ |
| CLUSTOR 5/SI85 | 2-16 | 2 | 657M | 10.5G | 8 | SDI | 16 | 2.458M | U/Q | 8.3 |  | F | \$78,200+ |
| CLUSTOR 5/SI93 | 2-16 | 2 | 904M | 14.5G | 9" | SDI | 15 | 2.45M | U/Q | 8.3 |  | F | \$76,500+ |
| MP PAC S S156 | 2-4 | 1 | 384M | 1.54G | 5.25" | SDI | 18 | 1.8m | Q-bus | 8.33 |  | F | \$22,900+ |
| MP PAC S S 157 | 2-4 | 1 | 576M | 2.3G | 5.25" | SDI | 18 | 1.8M | Q-bus | 8.33 |  | F | \$31,900 |
| MP PAC S SI57/QD | 2-4 | 1 | 576M | 2.3G | 5.25" | SDI | 18 | 1.8M | a-bus | 8.33 |  | R | \$29,800+ |
| MP PAC SI56 | 2-4 | 1 | 384M | 844M | 5.25" | SDI | 18 | 1.8M | a-bus | 8.33 |  | F | \$19,900+ |
| MP PAC SI56/QD | 2-4 | 1 | 384M | 1.54 G | 5.25" | SDI | 18 | 1.8m | Q-bus | 8.33 |  | R | \$17,200+ |
| MP PAC SI57 | 2-4 | 1 | 576M | 2.3G | 5.25" | SDI | 18 | 1.8M | Q-bus | 8.33 |  | F | \$23,500+ |
| QDA 4E/QUAD PAC | 1-4 | 1 | 577M | 2.3G | 5.25 " |  | 18 | 1.8M | Q-bus | 8.33 | $Y$ | F | \$13,700+ |
| QDA 4E/SI56 | 1-4 | 1 | 319M | 1.2G | 5.25" |  | 18 | 1M | Q-bus | 8.33 | $Y$ | F | \$7,600+ |
| QDA 4E/SI56/QD | 1-2 | 1 | 319M | 638M | 5.25" |  | 18 | 1M | Q-bus | 8.33 | $Y$ | R | \$9,900+ |
| QDA 4E/SI57 | 1-4 | 1 | 577M | 2.3G | 5.25" |  | 18 | 1.8M | Q-bus | 8.33 | $Y$ | F | \$12,900+ |
| QDA 4E/SI57/QD | 1-2 | 1 | 577M | 1.156 | 5.25" |  | 18 | 1.8M | a-bus | 8.33 | $Y$ | R | \$14,400+ |
| QDA 4S/SI83/QD | 1-4 | 1 | 551M | 2.2G | 8" |  | 16 | 2.458M | Q-bus | 8.3 | $Y$ | R | \$25,600+ |
| QDA 4S/S185 | 1-4 | 1 | 659M | 2.66 | 8" |  | 16 | 2.458M | Q-bus | 8.3 | $Y$ | F | \$19,100 |
| QDA 4S/SI93 | 1-4 | 1 | 905M | 3.6G | 8" |  | 16 | 2.458 M | Q-bus | 8.3 | $Y$ | F | \$24,900+ |
| DDA 4S/ST83 | 1-4 | 1 | 551M | 2.26 | $8{ }^{\text {" }}$ |  | 16 | 2.458 M | Q-bus | 8.3 | $Y$ | F | \$21,900+ |
| SI56C Quick Disconnect | 1-8 | 2 | 384M | 3.07G | 5.25" | SDI | 18 | 1.2M | U/Q | 8.33 |  | R | \$13,500+ |
| SI57C QUAD PAC | 2-16 | 4 | 558M | 8.96 | 5.25" | SDI | 18 | 1.8M | U/Q | 8.33 |  | F | \$29,300+ |
| SI57C Quick Disconnect | 1-8 | 2 | 558M | 4.46G | 5.25" | SDI | 18 | 1.8M | U/Q | 8.33 |  | R | \$20,250+ |
| SI83C | 2-8 | 2 | 520M | 4.16 G | 8" | SDI | 16 | 2.458 M | U/Q | 8.3 |  | F | \$38,500+ |
| SI83C Quick Disconnect | 2-8 | 2 | 520M | 4.16G | 8" | SDI | 16 | 2.458M | U/Q | 8.3 |  | R | \$24,800+ |
| SI85C | 2-8 | 2 | 622M | 4.96 | 8" | SDI | 16 | 2.458M | U/Q | 8.3 |  | F | \$41,400+ |
| SI85C/Quick Disconnect | 2-8 | 2 | 622M | 4.9G | 8" | SDI | 16 | 2.458M | U/Q | 8.3 |  | R | \$41,400 |
| S193C | 2-8 | 2 | 842M | 6.76 | 9" | SDI | 15 | 2.45M | U/Q | 8.3 |  | F | \$35,350+ |
| SI95C | 2-8 | 2 | 1.7G | 13.6G | 9" | SDI | 16 | 2.75M | U/Q | 8.3 |  | F | \$59,800+ |


| Systems Concepts, Inc. 415 984-1000 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DS-30 |  | 4 | 10G |  |  |  |  |  | Clbus |  |  |  |  |
| Tech Labs 201 944-2221 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| WL-84 | 1 | 2 | 84M | 84M | 8" |  | 20 |  | SMD | 8.3 |  | F | \$5,525 |
| Trimarchi, Inc. 814 234-5659 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DATAKEG-300 | 1 | 1 | 300M | 600M | 5.25" |  | 18 | 1.2M | MV 2000 | 8.33 | Y | F | \$5,500 |
| DATAKEG-600 | 1 | 1 | 600M | 600M | 5.25" |  | 18 | 1.2M | MV 2000 |  | $Y$ | F | \$8,500 |
| DQ696-9380E | 1 |  | 300M | 300M | 5.25" | ESDI | 16 |  | Q-bus |  | $Y$ | F | \$3,915 |
| DQ696-XT8760E | 1 |  | 600M | 600M | 5.25" | ESDI | 18 | 1.8M | a-bus | 8.3 | $Y$ | F | \$5,345 |
| EZ5FI4-DQ686-9380E-2 | 2 |  | 600M | 600M | 5.25" | ESDI | 16 | 1.2M | Q-bus |  | Y | R | \$8,460 |
| EZ5F14-QDO-XT4380S | 1 |  | 300M | 300M | 5.25" | SCSI | 18 | 1.2m |  |  |  | F | \$5,970 |
| EZ5FI4-QDO-XT4380S | 1 | 1 | 300M | 300M | 5.25" | SCSI | 18 | 1.2M | Q-bus | 8.33 | $Y$ | F | \$5,970 |
| EZ5F14-QDO-XT8760S-5030 | 1 |  | 600M | 600M | 5.25" | SCSI | 18 | 1.8m | a-bus | 8.33 | $Y$ | F | \$11,740 |
| EZ5FI4-UDT-87605 | 1 | 1 | 600M | 600M | 5.25" | SCSI | 18 | 1.8M | UNIBUS | 8.33 | $Y$ | F | \$12,205 |
| EZ5MV-Da696-9380E | 1 |  | 300M | 300M | 5.25" | ESDI | 16 |  | a-bus |  | $Y$ | R | \$10,385 |
| EZ5MV-QDO-XT87605 | 1 |  | 600M | 600M | 5.25" | SCSI | 18 | 1.2M | MV 2000 | 8.33 | Y | R | \$12,436 |
| EZ5MV-uD0-XT-87605 | 1 | 1 | 600M | 3.6G | 5.25" | SCSI | 18 |  | UNIBUS | 8.33 | $Y$ | R | \$12,645 |
| MV2000-EX5FA-LASERASE | 1 | 1 | 300M | 600M | 5.25" | SCSI |  | 1.2M | MV 2000 |  | $Y$ | F | \$6,200 |
| 000-9380S-5030 | 1 |  | 300M | 300M | $5.25{ }^{\text {" }}$ | SCSI | 16 | 1.2M | U/Q |  | $Y$ | F | \$7,945 |
| QDO-LASERASE 5030 | 1 | 1 | 300M | 600M | 5.25" | SCSI |  | 1.2M | a-bus |  | $Y$ | R | \$5,295 |
| QDT-9380S-EXB8200 | 1 | 1 | 300m | 300M | 5.25" | SCSI | 16 | 1.2 M | a-bus |  | $Y$ | F | \$8,210 |

## DISK SUBSYSTEMS



## OPTICAL DRIVES



## OPTICAL DRIVES

| む |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Maxtor Corporation 408 432-1700 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| RXT-800S | $5.25{ }^{\prime \prime}$ |  | 800M | 108 | 60 | SCSI | 1.25M |  |  |  | 30K |  | \$1,300 |
| Tahiti | 5.25 " |  | 650M/1G* | 35 | 13.6 | SCSI | 10M |  |  |  | 30K |  |  |
| Optimem 415 961-1800 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1000 |  | 25K | 2G | 150 | 27 | SCSI* |  | 256K |  | Y | 10K |  | \$13,600 |
| Perceptics Corporation 615 966-9200 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 101200 | 12" |  | 2G |  |  |  |  |  | UNIBUS |  |  | Y |  |
| Optimem 1000 |  |  | 2G |  |  |  |  |  | UNIBUS |  |  | Y |  |
| Optimem 2400 |  | 47K | 2.4G | 150 | 27 | SCSI* | 625K |  | UNIBUS | Y | 12K |  |  |
| Pioneer Communications of America, Inc. 800 421-6450 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DD-M5001 |  | 2000 | 654M | 60 | 16.7 | 101 | 1.5M | 256 | U/Q/B | Y | 30K |  |  |
| DD-U5001 |  | 2000 | 654M | 60 | 16.7 | SCSI | 1.5M | 256K | U/Q/B | $Y$ | 30K |  |  |
| Summus Computer Systems 713 492-6611 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| LightDisk 650 |  |  |  | 90 |  |  | 680K |  |  |  |  |  | \$6,995 |
| TECEX 714 632-6672 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| TEC-OAS/1 |  |  | 2G |  |  |  |  |  | UNIBUS |  |  |  | \$15,000+ |
| TX-2200 |  |  | 2 G |  |  |  |  |  | UNIBUS |  |  |  | \$14,500 |
| Toshiba America 714 583-3108 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| WM-S070 | 5.25" |  |  | 90 |  | SCSI |  |  | U/Q/B |  | 10K |  | \$3,595 |
| WM-S500 | 12" |  | 5G | 160 | 49 | SCSI | 4-8M |  | UNIBUS |  | 10K |  | \$16,500 |
| XM-3100B | 5.25" |  | 680M |  |  | SCSI |  |  | UNIBUS |  |  |  |  |
| U. S. Design Corporation 301 577-2880 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| QT650 |  |  | 650M |  |  |  |  |  | U/Q |  |  | Y | \$8,230 |
| Unbound, Inc. 800 862-6863 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OPT0-5020 QUBE |  |  | 800M |  |  |  |  |  | UNIBUS |  |  |  | \$4,500+ |
| Winchester Systems, Inc. 617 933-8500 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Optical Disk |  |  | 800M |  |  |  | 3M |  |  |  | 30K |  |  |

## OPTICAL SUBSYSTEMS




## Announcing 5-1/4" WORM Optical Disk Subsystems.

Perceptics introduces LaserSystem 525. Based on an ISO standard 5-1/4" WORM optical disk drive, the subsystem stores up to 654 megabytes of data on each removable media. And it's brought to you by the leader in DEC VAX/VMS-based optical storage solutions.

LaserSystem 525 has the same advantages as larger Perceptics 12" optical disk subsystems-and more. You receive the same low cost per megabyte of storage, use removable media and retain the data integrity and long life of the larger subsystem. Plus superior access time and transfer rates. And, naturally, the LaserSystem 525 is compatible with the LaserStar 525 jukebox subsystem.

A complete, integrated, ready-to-use optical disk subsystem. It includes: 5-1/4" write-once read-many (WORM) optical disk drive, SCSI host adapter, cables and the industry standard optical disk software . . . LaserWare, also by Perceptics.

There's no need to modify your current software. LaserWare features a VAX/VMS transparent file system which allows true magnetic disk drive emulation, so existing software and applications require no modification to utilize the massive storage capacity of optical disks. Media, installation and on-site maintenance services are also available.

Take advantage of the lower cost. LaserSystem 525 costs more than the $\$ 5.25$ pictured above, but it's about one-third of the cost of 12 " optical disk subsystems. This makes it ideal for individual workstations or any application requiring low cost, high capacity, removable media and data integrity. Call us at Perceptics to find out how we can help you solve your mass storage needs.


# perceptics 

725 Pellissippi Parkway Knoxville, Tennessee 37922

## OPTICAL SUBSYSTEMS

| む |  |  |  |  |  |  |  |  |  |  |  | 51 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Computer Upgrade Corporation 714 630-3457 |  |  |  |  |  |  |  |  |  |  |  |  |
| OSR-VAX/U1 | 5.25" |  | 40G | 220 | 25 | SCSI |  |  | UNIBUS | 20K |  | \$19,995 |
| Cygnet Systems, Inc. 408 773-0770 |  |  |  |  |  |  |  |  |  |  |  |  |
| 5250 | 5.25" |  |  |  |  | SCSI |  |  | UNIBUS |  |  |  |
| Series 1800 | 12" |  |  |  |  |  |  |  |  |  |  |  |
| EMC Corporation 508 435-1000 |  |  |  |  |  |  |  |  |  |  |  |  |
| Archeion 1000 |  |  | 56G |  |  | SCSI |  |  | U/Q |  |  |  |
| Emulex Corporation 714 662-5600 |  |  |  |  |  |  |  |  |  |  |  |  |
| LX410 | 12" | $N$ | 2G | 150 | 27 | SCSI | 190K |  | U/Q | 10K | Y | \$19,340+ |
| LX412 | 12" | N | 2G | 150 | 62.5 | SCSI | 190K |  | UNIBUS | 10K | Y | \$20,350+ |
| IPS Technology 713 870-0880 |  |  |  |  |  |  |  |  |  |  |  |  |
| 2000 | 12" |  | 6 G | 150 |  |  | 250K |  | U/B | 5K |  | \$24,495 |
| 2058 | $5.25{ }^{\text {" }}$ |  |  | 168 |  |  | 250K |  | U/B | 20K |  |  |
| OptiServer |  |  | 820G |  |  |  |  |  | U/Q |  |  |  |
| Laserdrive 408 920-3600 |  |  |  |  |  |  |  |  |  |  |  |  |
| 840 | 5.25" | N | 810M | 175 | 65 | SCSI | 2.18M |  | Q-bus | 20K | $\gamma$ |  |
| MCS Computer Products, Inc. 612 770-5232 |  |  |  |  |  |  |  |  |  |  |  |  |
| OAS 100/150 |  |  | 2 T |  |  |  |  |  | UNIBUS |  |  | \$38,500+ |
| Perceptics Corporation 615 966-9200 |  |  |  |  |  |  |  |  |  |  |  |  |
| LaserStar | 12' |  | 200G |  |  |  |  |  |  |  |  |  |
| LaserStar 2400 | 12' |  | 338G |  |  |  |  | 64K |  |  |  |  |
| LaserSystem |  |  | 2G | 150 | 62.5 | SCSI |  |  |  | 12K | Y |  |
| LaserSystem 525 | $5.25{ }^{\prime \prime}$ |  |  | 150 | 62.5 | SCSI |  |  | U/Q | 12K | Y |  |
| Pioneer Communications of America, Inc. 800 421-6450 |  |  |  |  |  |  |  |  |  |  |  |  |
| DD-S5001 | $5.25{ }^{\prime \prime}$ | N | 1.36 | 76.7 | 16.7 | SCSI | 490K | 256K |  | 30K | $N$ |  |
| Qualogy 408 434-5200 |  |  |  |  |  |  |  |  |  |  |  |  |
| QLC-5000 | 12" |  | 2.46 |  |  |  | 270K |  | Q-bus |  | Y | \$19,000 |
| Scientific Micro Systems, Inc. 415 964-5700 |  |  |  |  |  |  |  |  |  |  |  |  |
| 601 | 12" |  | 3.26 | 800 |  | SCSI | 1.1m |  | Q-bus |  | Y |  |
| 661 | 5.25" |  | 800M | 800 |  | SCSI | 1.1M |  | Q-bus |  | Y |  |
| Summus Computer Systems 713 492-6611 |  |  |  |  |  |  |  |  |  |  |  |  |
| LightDisk-650 | 5.25" |  |  | 90 |  | SCSI | 620K | 64K | U/Q |  |  |  |
| Tristar Technology 201 784-1557 |  |  |  |  |  |  |  |  |  |  |  |  |
| PE 3660-1D | 5.25" | Y | 650M | 61 |  | SCSI |  | 256K | U/Q |  | Y | \$5,914 |
| PE 3660-2d | $5.25{ }^{\prime \prime}$ | $Y$ | 1.3G | 61 |  | SCSI |  | 256K | U/Q |  | Y | \$11,498 |
| U. S. Design Corporation 301 577-2880 |  |  |  |  |  |  |  |  |  |  |  |  |
| JukeVOS | 5.25" | Y | 164G |  |  | SCSI |  |  | U/Q | 15K | Y | \$35,000 |
| JukeVOS | 12" | $Y$ | 164G |  |  | SCSI |  |  | U/Q | 15K | $Y$ | \$35,000 |
| Q0650 |  | $Y$ |  |  |  |  |  |  | U/Q |  | $Y$ | \$8,723 |
| QS650 |  | Y |  |  |  |  |  |  | U/Q |  | $Y$ | \$17,005 |
| VOS-T | $5.25{ }^{\prime \prime}$ |  | 3.26 |  |  | SCSI |  |  | U/Q | 20K | $Y$ | \$1,995 |
| VOS-T | 12" |  | 3.2G |  |  | SCSI |  |  | U/Q | 20K | Y | \$1,995 |

## SOLID STATE STORAGE



To Order Additional Copies
Call Lori Ulbrich at
(215) 957-1500. (\$75)

## Performance This Good Should Be Shared.

Some things are meant to be shared. Like our SI93 disk drive for instance. With a 15 ms average seek time and 50,000 hour MTBF, the SI93 is one of the fastest, most reliable disk drives ever made. But how can you share its performance without the high cost of VAXclusters?

Enter Clustor 1. It's the newest addition to System Industries' Clustor Series of high-performance shared storage subsystems.


Shared, Fast And Affordable.
Clustor 1 connects up to four DEC CPUs with four SI93 drives -3.6 GB - at data transfer rates of 2.5 MB per second. And because Clustor 1 supports MicroVAXes as well as full VAXes, your system costs drop dramatically. In fact, the Clustor family is the only directconnect shared storage for MicroVAXes. As you grow, Clustor 1 keeps pace.
There's an upgrade to our 8 MB Disk Cache Processor and support for more CPUs and drives.

System Industries is the DEC-compatible market's storage subsystem leader. And customer support is a major reason. Call System Industries today at 800-333-2220 for complete information.

System Industries
560 Cottonwood Drive
Milpitas, CA 95035
(408) 432-1212

## Disk Controllers

## Andromeda

## Systems, Inc.

## - ESDC RX50/33

7 Supported Drive(s) • 1MByte • ESDI Supported • $Q$-bus Supported
Optional 16 MB cache expansion board available, supports Winchester and RX50/ RX33 floppy drives, and reduces seek time and rotational latency to zero $80 \%$ of the time. Upgrades to the ESDC are available via modem

## - RDC1

4 Supported Drive(s) • ST506 Supported •
Q-bus Supported
Equipped with an Online Configuration Tool (OCT) which allows the user to configure the controller to operate any ST506 compatible Winchester or cartridge drives and $5.25^{\prime \prime}$ or $8^{\prime \prime}$ floppy drives. This eliminates the need for factory configured PROMs. Removable controller that sup ports both cartridges and Winchesters.

## - SDC11

1 Supported Drive(s) • ST506 Supported • Qbus Supported
Equipped with an Online Configuration Tool (OCT) which allows the user to configure the controller to operate any ST506 compatible Winchester or cartridge drives and 5.25 " or $8^{\prime \prime}$ floppy drives. This eliminates the need for factory configured PROMs. The SDC11 supports one Winchester.

## - SMDC

2 Supported Drive(s) • 1MByte • SMD
Supported • Q-bus Supported
Equipped with an Online Configuration Tool (OCT) which allows the selection/al teration of caching parameters, drive configuration and formatting with the use of EEPROMs.

## - UDC11

4 Supported Drive(s) • ST506 Supported • Q-bus Supported
Equipped with an Online Configuration Tool (OCT) which allows the user to configure the controller to operate any ST506 compatible Winchester or cartridge drives and $5.25^{\prime \prime}$ or $8^{\prime \prime}$ floppy drives. This eliminates the need for factory configured PROMs. The UDC11 supports Winchester or RX33/50 floppy drives.

## ■ UDC11X

4 Supported Drive(s) • ST506 Supported •

## a-bus Supported

Equipped with an Online Configuration Tool (OCT) which allows the user to configure the controller to operate any ST506 compatible Winchester or cartridge drive and 5.25 " or 8 " floppy drives. This eliminates the need for factory configured PROMs. The UDC11X supports Winchester and RX02 floppy drives.

## - WDC11

4 Supported Drive(s) • ST506 Supported •
Q-bus Supported
Equipped with an Online Configuration Tool (OCT) which allows the user to configure the controller to operate any ST506 compatible Winchester or cartridge drive and 5.25 " or $8^{\prime \prime}$ floppy drives. This eliminates the need for factory configured PROMs. The WDC11 supports two Winchesters and two RX02 compatible floppy drives.

## Aviv Corporation

■ DFC 804
8 Supported Drive(s) • ESDI Supported -
UNIBUS Supported • \$2,000

- DFC 817

8 Supported Drive(s) - SMD Supported UNIBUS Supported • \$2,300

## - DFC 904

8 Supported Drive(s) • ESDI Supported • Q-bus Supported •\$1,650
Features 1MB cache buffer high-speed access, four ESDI disk drives and extensive on-board diagnostics utilities.

- DFC 917

4 Supported Drive(s) • SMD Supported • Q-bus Supported •\$1,650

## CMD Technology, Inc.

## ■ CDU620/100

7 Supported Drive(s) • 100MBytes • SCSI Supported • UNIBUS Supported • \$3,695

## - CDU620/140

7 Supported Drive(s) • 140MBytes • SCSI Supported • UNIBUS Supported

## ■ CDU620/170

7 Supported Drive(s) •170MBytes • SCSI Supported • UNIBUS Supported

## - CDU620/20

7 Supported Drive(s) • 20MBytes • SCSI
Supported • UNIBUS Supported • \$1,995
The CDU620 series supports $31 / 2^{\prime \prime}$ drives with bus transfer rates up to 2 Mbps .

## ■ CDU620/40

7 Supported Drive(s) • 40MBytes • SCSI
Supported • UNIBUS Supported

## ■ CDU620/70

7 Supported Drive(s) • $70 \mathrm{MBytes} \cdot$ SCSI
Supported • UNIBUS Supported • \$3,195

## - CQD-300

2 Supported Drive(s) •170MBytes •EDSI
Supported • Q-bus Supported • \$1,250
Features hard or soft sectoring.

## CMS

## Enhancements, Inc.

## - CQE-30

2 Supported Drive(s) $\cdot 2.8 \mathrm{GBytes} \cdot \mathrm{Q}$-bus Supported •\$1,020
Q-bus to ESDI disk controller with block mode DMA and DMA throttle that is equipped with a menu-driven, firmware based utility that maintains opera- : tions via the system console.

## - CQS-20

7 Supported Drive(s) • 4MBytes - SCS
Supported • Q-bus Supported • \$924
Q-bus to SCSI disk controller with block mode DMA that is equipped with a menudriven, firmware based utility that maintains operations via the system console.

- CUS-70

7 Supported Drive(s) •2.8GBytes • UNIBUS Supported •\$1,180
UNIBUS to SCSI disk controller that supports 16 KB sector buffering, command queuing, standard SCSI bus arbitration, disconnect, reconnect and all SCSI commands

DILOG

- $\mathbf{D Q 2 3 5}$

2 Supported Drive(s) • SMD Supported • Q-bus Supported •\$1,800
Features RK06 and RK07 emulation and block mode DMA.

## - $\mathbf{D Q 2 4 6}$

4 Supported Drive(s) • 4GBytes • SMD
Supported • Q-bus Supported • \$1,950

## - 0 Q256

2 Supported Drive(s) •6GBytes • SMD
Supported • Q-bus Supported •\$2,250
The DQ246 and 256 feature queuing for 21 commands, DILOG's dynamic transfer segmentation, and DILOG's universal formatting. Also support SMD-H interfaces.

## ■ DU236

4 Supported Drive(s) • 6GBytes • SMD
Supported • UNIBUS Supported • \$2,600
Supports SMD-H interfaces.

## - 0 U256

4 Supported Drive(s) • SMD-E Supported • UNIBUS Supported • \$2,950
Features DILOG's universal formatting and dynamic transfer segmentation. Also supports SMD-4 interfaces.

## ■ DU686

4 Supported Drive(s) • 4GBytes • ESDI
Supported • UNIBUS Supported • $\$ 1,950$

## ■ SQ706A

7 Supported Drive(s) • 4.5 GBytes • SCSI
Supported • Q-bus Supported •\$1,500
Features a SCSI pass through mode.

## - SQ716A

7 Supported Drive(s) • 4.5GBytes • SCSI
Supported • Q-bus Supported •\$1,675
Features DILOG's universal formatting and block mode DMA.

## Emulex Corporation

## - QD21

1-4 Supported Drive(s) • ESDI Supported -Q-bus Supported •\$1,495

## - 0024

1-4 Supported Drive(s) • ESDI Supported • Q-Bus Supported •\$1,795
Designed for MicroVAX 3500/3600. Supports ESDI Media Defect List (MDL) in 256 - or 512 -byte format. Data transfer commands sent to a 15 -command buffer and put in cylinder ascending order. QD24 also performs tasks to allow the four ESDI drives to have different capacities and parameters. Self-configureable, or customized drive geometries can be entered into the nonvolatile RAM.

## - QD33

2 Supported Drive(s) • SMD-E Supported • Q-bus Supported •\$2,200

## - 0034

1-4 Supported Drive(s) • SMD-E Supported • Q-bus Supported •\$2,495
Emulates the KDA50 and features a switchenabled adaptive DMA capability which allows the device to monitor the bus for pending DMA requests.

## - SC7003

4-8 Supported Drive(s) • SMD Supported • UNIBUS/BIbus Supported • $\$ 8,950$
The SC7003 also supports CMI and SBI bus and SMD-E device interfaces, respectively.

■ SC72/BX
4 Supported Drive(s) • 80MBytes • SMD Supported • PDP-11 Supported • \$7,950 Emulates the DEC RH70 with a standard RM03 logical drive.

## - UD23

4 Supported Drive(s) • ESDI Supported •
UNIBUS Supported • \$2,800
Self-configurable, or customized drive geometries may be entered into nonvolatile RAM. Firmware Resident Diagnostics (FRD) allows testing, format, and diagnostic functions to be performed without external media.

## ■ UD33

4 Supported Drive(s) • SMD-E Supported • UNIBUS Supported • $\$ 3,500$
Self-configureable, or customized drive geometries can be entered into nonvolatile RAM. Firmware Resident Diagnostics (FRD) allows configure, format, and diagnostic functions to be performed without external media.

## - VMASTER 780

4 Supported Drive(s) - SMD Supported -
UNIBUS Supported • $\$ 8,550$
This VMASTER 780 system chassis houses two MASSBUS controllers that interface to the SBI.

## - VMASTER 783

4 Supported Drive(s) • UNIBUS Supported • \$13,000
This VMASTER 783 system chassis houses one MASSBUS controller that interfaces to the SBI.

## KOM, Inc.

- Optifile II

800MBytes • SCSI Supported • UNIBUS/Q-bus Supported • \$12,000
The Optifile II (WORM) is designed to support $5.25^{\prime \prime}$ or $12^{\prime \prime}$ drives and also includes the OPTIFILE software kit. Also features a dual size card that supports both optical and magnetic drives.

## - Optifile III

800MBytes • SCSI Supported • UNIBUS/Q-bus Supported
The Optifile III (WORM) is designed to support $5.25^{\prime \prime}, 12^{\prime \prime}$, and $14^{\prime \prime}$ drives and also includes the OPTIFILE software kit. Also features a dual size card that supports both optical and magnetic drives.

## Lago Systems

## - LS/100E

4 Supported Drive(s) • $2.2 \mathrm{GBytes} \bullet$ ESDI
Supported •\$3,000
Used in Lago's disk adapter to interface ESDI disk drives to DEC DSA disk controllers. The LS/100 attached drives are DEC RA compatible.

## - LS/100M

1 Supported Drive(s) • 1.7GBytes • SMD
Supported •\$1,500+
Used in Lago's disk adapter to interface SMD disk drives to DEC DSA disk controllers. The LS/100 attached drives are DEC RA compatible.

## - LS/100X

1 Supported Drive(s) •1.7GBytes • SMD
Supported • \$1,500+
Used in Lago's disk adapter to interface SMD disk drives to DEC DSA disk controllers. The LS/100 attached drives are DEC RA compatible.

## Lago Systems

LAGO Systems


- LS/100

4 Supported Drive(s) • 13.5 GBytes -
ESDI Supported - $\$ 6,500+$
Lago Systems' LS/100 Disk Adapter links industry standard SMD and ESDI disk drives to DEC VAX systems. With the LS/100, disk storage arrays using both reliable, large capacity SMD disk drives and lowcost ESDI drives are able to connect to VAXBI and VAXcluster systems. The LS/ 100 series attached disk drives are compatible with DEC RAxx drives, requiring no changes to systems or application software. Lago Systems also offers the LS/ 100E, LS/100M, and the LS/100x. The LS/ 100E is used in Lago's LS/100 disk adapter to interface ESDI disk drives to DEC DSA disk controllers. The LS/100M and LS/ 100X are used in Lago's LS/100 disk adapterto interiace SMD disk drives . to DSA disk controllers.

## MDB Systems, Inc.

- MDB-DK11-RM

SMD Supported • UNIBUS Supported • $\$ 3,900$

## $\square$ MDB-DK11-RP

SMD Supported • UNIBUS Supported • \$3,900

## Memory Sciences <br> Corporation

## - FASTOR

64 Supported Drive(s) • 49GBytes • UNIBUS/Qbus/Blbus Supported •\$12,500
FASTOR is a VMEbus based computer that interfaces to any computer operating under a multitasking operating system.

## Micro Technology, Inc.

## - MQD-19

4 Supported Drive(s) - 2480 MBytes • ESDI
Supported • Q-bus Supported • \$1,850
The MQD-19 interacts with the microprocessor in the Intercept removable chassis and the DEC host CPU operating system. The MQD-19 interfaces with up to four disk drives for a total on-line capacity of 2480 MB . Also supports dynamic disk shadowing.

## - MQDX4

4 Supported Drive(s) • 800 MBytes ${ }^{\circ}$ ESDI
Supported • Q-bus Supported • \$1,850
The MQDX4 includes an on-board monitor and utility program and sets drive speed and emulation automatically. It is the only dual size Q -bus controller that supports three different types of drive interfaces. Also supports ST506 interfaces.

## Mini Computer <br> Technology

## - MCT 1300

2 Supported Drive(s)
Interfaces one or two SMD or SMD-E disk drives with data transfer rates up to 2 Mbps .

■ SMV-15
2 Supported Drive(s) • 1.2GBytes • SMD Supported

## Pioneer Communications of America, Imc.

- DD-C500

4 Supported Drive(s) - SCSI Supported
Designed to be used in conjunction with Pioneer's optical disk drive (DD-M5001). Also supports IPI interfaces.

## Qualogy

- QLC-1000
2.4GBytes • SCSI Supported • Q-bus

Supported •\$1,995
Optical disk controller allows partitioning optical disks into multiple volumes and emulates a DEC TK-501/2" magnetic tape.

## Scientific Micro Systems, Inc.

## - SMS 0108

2 Supported Drive(s) • ESDI Supported • Q-bus Supported
Features advanced VLSI technology and also supports $.25^{\prime \prime}$ cartridge tape drives, and $5.25^{\prime \prime}$ and $8^{\prime \prime}$ floppy disk drives and includes a resident SENSE monitor for rapid systems configuration and testing. Also supports ST506 interfaces.

## - SMS 0109

1 Supported Drive(s) • ESDI Supported • Q-bus Supported
Supports 5.25 " or 12 " WORM optical disks. Features advanced VLSI technology and also supports two Winchester and two floppy disk drives and includes a resident SENSE monitor for rapid systems configuration and testing. Also supports ST506 interfaces.

## Sigma <br> Information Systems

## - SDC-RQ011-D

2 Supported Drive(s) • 290MBytes • ST506 Supported • Q-bus Supported • $\$ 701$
Features block mode DMA, a front panel/ maintenance connector and self-
diagnostics.

## - SOC-RQD11-DESDI

4 Supported Drive(s) • 3.04GBytes • ESDI Supported • Q-bus Supported • $\$ 778$ Interfaces two ESDI devices to a Q-bus architecture and features block mode DMA, drive shadowing, media defect management, and statistics recording.

## - SDC-RQD11-EC

4 Supported Drive(s) • 3.04GBytes - ESDI
Supported • Q-bus Supported • \$1,357
Features block mode DMA, a front panel/ maintenance connector, self-diagnostics, drive shadowing, a 1 MB cache memory, and statistics recording.

## - SDC-RQD11-RLL

2 Supported Drive(s) • ST412 Supported • a-bus Supported • \$744
Features block mode DMA, a front panel/ maintenance connector, and self-diagnostics.

## - SDC-RQD11-SC

2 Supported Drive(s) • 4.86Bytes • SMD Supported • Q-bus Supported • \$1,357 Features block mode DMA and 1 MB cache with parity.

## - SDC-RQD11-SC

2 Supported Drive(s) • 2.46Bytes • SMD Supported • Q-bus Supported • \$1,651
Features block mode DMA, 1MB cache with parity, self-diagnostics, drive shadowing, a front panel/maintenance connec tor, and statistics recording

## ■ SDC-ROD11-SCSI

7 Supported Drive(s) • SCSI Supported • Q-bus Supported • \$1,211
Interfaces SCSI devices to a Q-bus architecture and features block mode DMA, drive shadowing, media defect management, and statistics recording.

## EST-412/RL

2 Supported Drive(s) •\$744
Controller interfaces two ST-412 drives to a MicroVAX or LSI-11 system. Menudriven, firmware based utilities permit interactive disk formatting and maintenance operations via the system console.

## Webster Computer Corporation

## - SRQD11-B

2 Supported Drive(s) • 566MBytes • ST506 Supporied • Q-bus Supported
The SRQD11-B is an MSCP ST506/ST412 Winchester disk controller that features WOMBAT comprehensive on-board interactive formatting and diagnostic firmware, block mode DMA, command queuing, seek optimization and overlap.

## - WQESD

4 Supported Drive(s) •1.7GBytes • ESDI Supported • Q-bus Supported
The WQESD is a 1 MB cached MSCP ESDI Winchester disk controller that features WOMBAT comprehensive on-board interactive formatting and diagnostic firmware, programmable look ahead, drive shadowing and seek optimization.

## - WQSMD

2 Supported Drive(s) • 1.17GBytes • SMD
Supported • Q-bus Supported
The WQSMD is a 1 MB cached MSCP SMD Winchester disk controller that supports Standard, Modified, Enhanced, and Extended SMD. Features WOMBAT on-board interactive formatting and diagnostics, and progammable look ahead.

## - WUESD

4 Supported Drive(s) •1.7GBytes • ESDI
Supported • UNIBUS Supported • \$2,800
The WUESD is a 1 MB cached MSCP ESDI Winchester disk controller that features WOMBAT comprehensive on-board interactive formatting and diagnostic firmware, programmable look ahead, drive shadowing, and seek optimization.

## - WUSMD

4 Supported Drive(s) • 1.17GBytes • SMD Supported • UNIBUS Supported • \$3,020 The WUSMD is a 1 MB cached MSCP SMD Winchester disk controller that supports Standard, Modified, Enhanced, and Extended SMD. Features WOMBAT on-board interactive formatting and diagnostics, and programmable look ahead.

## Wespercorp

## - DC231A

4 Supported Drive(s) • SMD Supported
UNIBUS Supported •\$3,150

## Winchester Systems, Inc.

## - Converter Board

UNIBUS Supported
Q-bus to UNIBUS converter board which allows the use of Q-bus peripherals on UNIBUS machines.

## - MSCP/ESDI

4 Supported Drive(s) • ESDI Supported • Q-bus Supported

## - MSCP/ESDI

8 Supported Drive(s) • SCSI Supported • Q-bus Supported

## - MSCP/ST506

4 Supported Drive(s) • ST506 Supported • Qbus Supported

## - RLO2/ST506

4 Supported Drive(s) • ST506 Supported • Qbus Supported
Emulates DEC RL02/RL01 disk subsystems.

## Disk Drives

## Alpha Data, Inc.

- Atlas 520

ESMD Supported • 520MBytes
Reads and writes a full 2.25 MB data block while all heads remain stationary. Reduces queuing time as the arrival rate exceeds 45 requests per second. Heads are automatically retracted and locked up during power-off modes.

## - Atlas 520-8R

SMD Supported - 520MBytes
Same as the Atlas 520. This model is a parallel transfer machine that features a proprietary media management system, a 16 Mbps burst transfer rate, and a 15.2 Mbps continuous transfer rate.

## American Digital Systems, Inc.

## - Series 5

$5.25^{\prime \prime} \bullet$ ESDI Supported • 152MBytes

- Series 5
$5.25^{\prime \prime}$ • ESDI Supported • 303MBytes
- Series 5
$5.25^{\prime \prime}$ • ESDI Supported • 369MBytes
- Series 5
$5.25^{\prime \prime}$ • ESDI Supported - 455MBytes
■ Series 5
$5.25^{\prime \prime}$ • ESDI Supported • 607MBytes
- Series 5
5.25 " ESDI Supported • 737MBytes
- Series 5
5.25" • ESDI Supported • 1.1GByte
- Series 5
$5.25^{\prime \prime}$ • ESDI Supported • 1.5GBytes
- Series 8
$8^{n}$ - SMD Supported - 721MBytes
- Series 8

8" - SMD Supported •1.4GBytes

- Series 8
$8^{\text {n }} \cdot$ SMD Supported • 2.2GBytes


## - Series 8

$8^{\prime \bullet}$ SMD Supported • 2.88GBytes
MasterDisk disk drive systems, available in the above configurations, dramatically improve performance on all VAXs and MicroVAXs. For high-speed 8 mm tape backup, MasterTape II is available.

## Century Data Systems

5.25 - $\bullet$ ESDI/SCSI Supported • 114MBytes • \$1,500

- 14404
$5.25^{\circ} \cdot$ ESDI/SCSI Supported • 140MBytes $\bullet$ \$1,700
$\square 14404$
5.25 " • ESDI/SCSI Supported • 170MBytes • \$2,000


## - AMS200

14"• 174MBytes
Upgradable to the AMS 300.

## - AMS300

14- 256 MBytes
The AMS 300 features a direct connection into the MASSBUS architecture.

## - C12000

ESMD Supported •1.2GBytes

## - 62400

SMD Supported • 344MBytes

- $\mathbf{C 2 4 7 6}$

ESMD Supported • 474MBytes

## - $\mathbf{C 2 6 0 0}$

ESMD Supported • 515 MBytes

## - $\mathbf{C 2 8 0 0}$

ESMD Supported • 696MBytes
The Cxxxx Series includes a power supply, dual access, and self-diagnostics.

## - DS21000

8"•1GByte

- DS21200

8"•1GByte

- DS21500

8"•1.3GBytes

- DS2600
$8^{\mathbf{n}} \cdot \mathbf{\$ 1 4 , 5 0 0}$
- DS2800
$\mathbf{8}^{\mathbf{n}} \cdot \mathbf{7 1 6 M B y t e s} \cdot \mathbf{\$ 1 7 , 1 0 0}$
- DS300

14"• 256 MBytes

## - DS400

14" - 384MBytes
The DS Series features plug compatibility with DEC's RA-series disk drives.

## - 12801

8" - MSMD Supported • 692MBytes • \$16,400
The T2801 model is compatible with the Fujitsu M2360A and is equipped with a one channel operation. The quoted storage value reflects an unformatted capacity.

## - 1472

5.25" • ESMD Supported • 472MBytes •
\$12,400

## EMC Corporation

- MRA 1200
$8^{8-1.2 G B y t e s}$
- MRA 1600
$8^{n} \cdot 1.6 \mathrm{GBytes}$


## - MRA 1800

$8^{\prime \prime} \cdot 1.9$ GBytes

- MRA 2400
$8^{\text {n }} \cdot 2.5$ GBytes
- MRA 3200
$8^{\text {" }} \cdot 3.3$ GBytes
- MRA 600
$8^{\prime \prime} \cdot 622 \mathrm{MBytes}$


## - MRA 800

$8^{\prime \prime} \cdot 825 \mathrm{MBytes}$
The Maxport Series is fully DSA/MSCP compatible and is completely hardware, software, and diagnostic compatible with DEC's HSC 50, HSC 70, KDA 50, KDB 50, and UDA disk controllers. Dual-channel capabilities and automatic failover are standard. Suitable for any VAXcluster VAXBI, Q-bus, or UNIBUS system.

## Exsys Storage Systems

- RACE-380
5.25 " $\cdot$ ESDI Supported • 313MBytes


## - RACE-760


5.25 " - ESDI Supported • 587MBytes

The RACE- 380 and -760 support the KDB50 and UDA50 controllers for the BI and UNIBUS architectures, respectively. Also support the HSC50 and HSC70 VAXcluster controllers.

## First Computer

Corporation

## - DSSVMEIK

10.5" - 474MBytes • $\$ 38,625$

## - DSSVMEEK

10.5" - 948MBytes •\$51,850

## - DSSVMEEQ

$10.5^{\prime \prime} \cdot 948 \mathrm{MBytes} \cdot \$ 46,325$

## - DSSVMEXG

10.5" • 474MBytes • $\$ 33,125$

- DSSVSE1K

- DSSVSEEK
10.5" - 948MBytes • $\$ 57,300$
- DSSVSEEQ
$10.5^{\prime \prime} \cdot 948$ MBytes $\cdot \$ 51,750$
- DSSVSEXQ
10.5" • 474MBytes •\$38,550


## - DSSVSEXG

$10.5^{n} \bullet$ 474MBytes $\bullet \$ 38,550$

## DSSVUE1K

$10.5^{n} \cdot$ 474MBytes $\bullet \$ 33,475$

## - DSSVUEEK

$10.5^{\prime \prime} \cdot 948 \mathrm{MBytes} \cdot \$ 46,700$

## - DSSVUEEO

10.5" - 948MBytes • \$41,175

- DSSVUEXQ
10.5"• 474MBytes •\$29,950
- VM23514773
$10.5^{\prime \prime} \cdot 474$ MBytes $\bullet \$ 23,675$
- VU23514782
10.5" - 474MBytes • $\$ \mathbf{1 8 , 2 7 5}$

All of the above quoted storage values reflect unformatted capacities.

## Fuitsu America, Inc. <br> Imastes

$5.25^{\prime \prime} \cdot$ ESDI Supported • 389MBytes
The storage and track values reflect unformatted capacities. The M2246E/S also supports an embedded SCSI with a transfer rate of 2.5 Mbps .

## - M2249E/S

$5.25^{\prime \prime} \cdot$ ESDI/SCSI Supported • 389MBytes
The storage and track values reflect unformatted capacities. This model also supports an embedded SCSI with a transfer rate of 4 Mbps .

## - M2263E/S

$5.25^{\prime \prime} \cdot$ ESDI/SCSI Supported • 778MBytes

## a $\mathbf{1} 2333 \mathrm{~K} / \mathrm{KS}$

$8^{\prime \prime} \cdot$ HSMD/SCSI Supported - 168MBytes
The above data transfer value reflects an asynchronous rate; the synchronous data transfer rate is 2.458 Mbps .

## © M2333P

8"•IPI-2 Supported • 337MBytes

## C M2344K/KS

$8^{\text {m }} \cdot$ HSMD/SCSI Supported • 690MBytes
The storage and track values reflect unformatted capacities.

## - M2350

10.5" • MSMD Supported • 474MBytes

This model is equipped with 1,4 , or 5 channel operation.

## - M2360

10.5" • HSMD Supported • 689MBytes

This model is equipped with 1,4 , or 5 channel operation.

## - M2372K/KS

$8^{n} \cdot$ HSMD/SCSI Supported • 823MBytes

## - M2380A

$8^{n}$ - SMD-E Supported • 1GByte
This model is equipped with 1,4 , or 5 channel operation.

## - M2382K/KS

$8^{\prime \prime}$ - ESMD/SCSI Supported • 1GByte

## - M2382P

$8^{\text {n }}$ • IPI-2 Supported • 1GByte

## M2392K

$8^{\text {n }}$ - SMD Supported - 2.02GBytes
The storage and track values reflect unformatted capacities.

## ImPRIMIS

Technology, Inc.

- FSD 9715-300

9"• SMD Supported • 315MBytes

## - FSD 9715-340

## 9"• SMD Supported • 344MBytes

The FSD Series features half-rack rigid disks offering high-capacity, high-speed storage, supporting fixed or variable soft sectoring. The MTBF life with power supply is 24,000 hours. Both start and stop performance times are 35 seconds. In addition, the interface transfer rates are 9.67 MHz .
and local area networks with file server requirements.

## - Wren 94196

$5.25^{\prime \prime} \bullet$ ESDI Supported • 766MBytes
Ideal for multiuser, multitasking systems and local area networks with file server requirements.

## - Wren 94211

$5.25^{\circ} \cdot$ SCSI/ESDI Supported • 91MBytes •
$\$ 795$
The SCSI controller has a data buffer for increased performance and has a burst transfer rate of 1.25 Mbps . The ESDI supports serial mode and the (1) address marks or (2) sector pulse sector modes. The quoted price reflects a quantity purchase of 2500 drives or more

## - Wren 94216

$5.25^{\prime \prime}$ - SCSI/ESDI Supported • 91MBytes * \$795
The SCSI controller has a data buffer for increased performance and has a burst transfer rate of 1.25 Mbps . The ESDI supports serial mode and the (1) address marks or (2) sector pulse sector modes The quoted price reflects a quantity purchase of 2500 drives or more

## - Wren 94246-182

$5.25^{\prime \prime} \cdot$ ESDI Supported • 182MBytes

## ■ Wren 94246-383

5.25 " • ESDI Supported • 182MBytes

The Wren $94246-\mathrm{xxx}$ drives feature patented, lifetime environmental control systems.

## - Wren 94601-126

5.25 " • SCSI Supported • 1.2GBytes

Features a 256 KB buffer with Read LookAhead capabilities. Employs ZBR (Zone Bit Recording), Imprimis' patented technique of variable track capacity recording that permits more capacity and faster average data transfer rates than conventional recording techniques.

## - Wren IV 94171

5.25" • SCSI Supported • 376MBytes • \$1,645 The SCSI interface supports a one-to-one interleave and features a 48 -bit ECC. The asynchronous transfer rate is 1.50 Mbps . The quoted price reflects a quantity purchase of 2500 drives or more.

## - WrenV 94171

5.25" - SCSI Supported • 344MBỵtes - \$1,895 A full-height disk drive that features a synchronous data transfer rate of 4 Mbps while the asynchronous rate is 2 Mbps The quoted price reflects a quantity purchase of 2500 drives or more.

## - WrenV 94181

5.25" • SCSI Supported • 702MBytes •\$2,195 A full-height disk drive that features an asynchronous data transfer rate of 4 Mbps while the asynchronous rate is 1.25 Mbps . The quoted price reflects a quantity purchase of 2500 drives or more.

## © WrenV 94186-383

5.25" - ESDI Supported - 383MBytes • \$1,795 The quoted storage value reflects an unformatted capacity and the quoted price reflects a quantity purchase of 2500 drives or more.

## - WrenV 94186-383H

5.25 - • ESDI Supported • 383MBytes • \$1,795 The quoted storage value reflects an unformatted capacity and the quoted price re-
flects a quantity purchase of 2500 drives or more.

## - WrenV 94186-442

5.25 " • ESDI Supported • 442MBytes • \$1,995 A full-height disk drive that features a synchronous data transfer rate of 4 Mbps while the asynchronous rate is 1.25 Mbps . The quoted price reflects a quantity purchase of 2500 drives or more and the quoted storage value reflects an unformatted capacity.

## WrenV HH94221-209

$5.25^{\prime \prime}$ • SCSI Supported • 209MBytes • \$1,225 A half-height disk drive that features a synchronous data transfer rate of 4 Mbps while the asynchronous rate is 1.25 Mbps . The quoted price reflects a quantity purchase of 2500 drives or more

## XMD III

14" • SMD-E Supported • 1.3GBytes
The SMD-E interface features a 24 MHz data transfer rate, rotational position sensing, and extended cylinder addressing. The IPI provides a growth plan for future products which require transfer rates up to 10 Mbps . On-board diagnostics simplify trouble-shooting without external test equipment. Also supports the IPI2 interface.

## Maxtor Corporation


$3.5^{\text {" }}$ - SCSI Supported • 96MBytes

- LXT-200
$3.5^{\prime \prime} \cdot$ SCSI Supported • 202MBytes
줄 1085
$5.25^{\prime \prime}$ - ST506 Supported • 71.3MBytes
XT 1140
$5.25^{\prime \prime}$ • ST506 Supported • 120MBytes

XT-1120R
$5.25^{\prime \prime}$ • ST506 Supported • 104MBytes

## © XT-1240R

5.25" - ST506 Supported • 196MBytes

## XT-2190

$5.25^{\prime \prime}$ • ST506 Supported • 160MBytes

## - XT-4170E

5.25" - ESDI Supported • 158MBytes

Supports both hard and soft sectoring.

## XT-4170S

5.25" - SCSI Supported • 158MBytes

## XT-4380E

$5.25^{\prime \prime}$ - ESDI Supported • 340MBytes

## ■ XT-4380S

5.25 " $\operatorname{\text {SCSISupported}}$ • 340MBytes

## - XT-8380E

$5.25{ }^{\prime \prime}$ • ESDI Supported • 360MBytes
The XT-4380E, -4380 S , and 8380 E support both hard and soft sectoring.

## XT-8389S

5.25 - SCSI Supported • 360MBytes

## - XT-8760E

5.25 " $\cdot$ ESDI Supported • 670MBytes

## XT-8760S

5.25 " - SCSI Supported • 676MBytes

Maxtor Corporation supplies OEM products. Please consult factory for interface information.

## Micropolis Corporation

■1323
5.25 - ST506/412 Supported • 35MBytes

## -1323A

5.25 " - ST506/412 Supported • 44MBytes

## 132

$5.25^{\prime \prime}$ - ST506/412 Supported • 53MBytes

## -1324A

5.25 - ST506/412 Supported • 62MBytes

- 1325
$5.25^{\prime \prime}$ - ST506/412 Supported • 71MBytes


## 1353

5.25" • ST506/412 Supported • 75MBytes
-1353A
$5.25^{\prime \prime}$ - ST506/412 Supported • 94MBytes

## 1354

5.25 " - ST506/412 Supported • 113MBytes

## 1354A

5.25 - - ST506/412 Supported • 132MBytes

- 1355
5.25 * ST506/412 Supported • 150MBytes


## - 1373

5.25 - SCSI Supported • 72MBytes

1373A
5.25 • SCSI Supported • 91MBytes

- 1374
5.25" - SCSI Supported • 109MBytes
-1374A
$5.25^{\prime} \cdot$ SCSI Supported • 127MBytes
- 1375
5.25" - SCSI Supported • 145MBytes

The 137x Series features SCSI CCS compatibility.

## - 1516-10S

5.25 • ESDI Supported • 678MBytes

- 1517-13
5.25 " • ESDI Supported • 922MBytes
- 1518-14
$5.25^{\prime \prime}$ • ESDI Supported • 993MBytes
- 1518-15
5.25 " $\bullet$ ESDI Supported • 1064MBytes
- 1556-11
5.25 " $\cdot$ ESDI Supported • 248MBytes
- 1557-12
5.25 " ESDI Supported • 270MBytes
- 1557-13
5.25 - ESDI Supported - 293MBytes


## -1558-14

5.25 " • ESDI Supported • 315MBytes

## 1558-15

$5.25^{\prime \prime} \cdot$ ESDI Supported • 338MBytes

## 1566-11

$5.25^{\prime \prime} \cdot$ ESDI Supported • 496MBytes
-1567-12
$5.25^{\prime \prime} \cdot$ ESDI Supported • 541MBytes
-1567-13
$5.25^{*}$ • ESDI Supported • 586MBytes

HighPerformance OpticalStorage For VAX/VMS.

Perceptics


Integrated optical storage subsystems and jukeboxes for VAX/VMS. ${ }^{\text {. }}$
VMS utilities and applications need not be modified to use the optical disk.
UNIBUS ${ }^{\circledR}$ and Qbus ${ }^{\circledR}$ connectivity.
MSCP compatible.
Up to 1.2 GB online per drive.
Up to 2.4 GB on removable media.
Installation and onsite service available.
Available with $51 / 4$ inch or 12 inch WORM drive.
Supports reading and writing of RMS sequential, relative or indexed files.
DECnet ${ }^{\circledR}$ access is supported.

VAX, VMS, UNIBUS, Qbus and DECnet are registered trademarks of Digital Equipment Corporation.


TECHNOLOGY GORPORATION
9720 Patuxent Woods Dr. Columbia, MD 21046 Columbia, MD Lowell, MA Mifford, CT 800/950-6372 800/999-6780 800/777-0984 301/290-8150 508/458-4100 203/878-6800 Moorris Plains, NJ Philadelophia, PA Charlotte, NC 800/444-9238 800/333-8641 800/777-234 201/538-8004 215/644-3100 704/529-1792

Springfield, MA Burlington, VT
300/999-6780 800/999-6780
$\begin{array}{ll}\text { Raleigh, NC } & \text { Richmond. VA } \\ 800 / 777-2340 & 800 / 777-2340\end{array}$ Q
$5.25^{\circ}$ • ESDI Supported • 631MBytes

## -1568-15 <br> 5.25 • ESDI Supported • 676 MBytes

## 1576-11

5.25 - SCSI Supported • 243MBytes

## -1577-12

5.25 - SCSI Supported • 265MBytes

- 1577-13
$5.255^{\bullet}$ SCSI Supported • 287MBytes
- 1578-14
5.25 • SCSI Supported • 309MBytes
- 1578-15
5.25 - SCSI Supported • 331MBytes

The 157x Series features buffer sizes of 64 KB with parity.

## ■1586-11

5.25 - SCSI Supported • 490MBytes

- 1587-12
5.25 • SCSI Supported • 535MBytes
- 1587-13
5.25 - - SCSI Supported • 579MBytes


## -1588-14

5.25 - SCSI Supported • 624MBytes

## -1588-15

5.25 - SCSI Supported • 668MBytes

The 158x Series features SCSI CCS compatibility as well buffer sizes of 64 KB with parity

## - 1596-10S

$5.25^{*}$ - SCSI Supported • 668MBytes

- 1597-13
5.25 " - SCSI Supported • 909MBytes
- 1598-14
5.25 • SCSI Supported • 979MBytes
- 1598-15
5.25 " • SCSI Supported • 1049MBytes

The 159x Series features buffer sizes of 64 KB with parity.

## - 1653-4

5.25 " $\bullet$ ESDI Supported • 92MBytes

## ■1653-5

5.25 - ESDI Supported • 115MBytes

## - 1654-6

5.25 - ESDI Supported • 138MBytes

## -1654-7

5.25 " $\bullet$ ESDI Supported • 161MBytes

- 1663-4
5.25 " $\bullet$ ESDI Supported • 197MBytes
- 1663-4
5.25 " • ESDI Supported • 246MBytes
- 1664-6
5.25 " • ESDI Supported • 295MBytes


## - 1664-7

5.25" • ESDI Supported • 345MBytes

The $166 x$ Series features half height drives.
■ 1673-4
5.25 - $\operatorname{SCSI}$ Supported • 90MBytes

- 1673-5
5.25 - $\operatorname{SCSI}$ Supported • 112MBytes

■ 1674-6
5.25" - SCSI Supported • 135MBytes

The 167 x Series features 64 KB buffer sizes with parity in half-height drives.

- 1683-4
$5.255^{\bullet}$ - SCSI Supported • 193MBytes


## - 1683-5

5.25 " - SCSI Supported • 242MBytes

## - 1684-6

5.25" • SCSI Supported • 291MBytes

■1684-7
$5.25^{\prime \prime}$ - SCSI Supported • 340MBytes
The 168 x Series features half height drives with SCSI CCS compatibility and 64 KB buffer sizes with parity.
-1773-5
3.5" $\cdot$ SCSI Supported • 112MBytes

- 1774-6
3.5" - SCSI Supported • 135MBytes
-1774-7
$3.5^{\circ} \cdot$ SCSI Supported • 157MBytes
-1775-8
3.5" - SCSI Supported • 180MBytes
-1775-9
$3.5^{5} \cdot$ SCSI Supported • 202MBytes
The 177 x Series features 32 KB buffer sizes with parity, and SCSI CCS compatibility
Mutope Corporation
- RDS-1501
$5.25^{\circ} \bullet$ ESDI/SCSI* Supported •
$18.5 \mathrm{MByytes} \cdot \$ 21,850$
- RDS-1502
$5.25 "$ - ESDI/SCSI* Supported • 37MBytes • \$37,900
- RDS-1721
$5.25^{*}$ - ESDI/SCSI* Supported • 160.8MBytes ${ }^{\circ}$ \$29,325
- RDS-1722
5.25 " • ESDI/SCSI* Supported • 344MBytes • $\$ 48,875$
- RDS-1724
5.25 • ESDI/SCSI* Supported • 642.2MBytes • $\$ 87,400$
- RDS-2342
$8^{\bullet \bullet}$ SMD Supported • 361.2MBytes • \$85,100


## - RDS-2344

8- © SMD Supported • 722MBytes • \$96,000

- RDS-3401
3.5" • ESDI/SCSI* Supported • 30MBytes •
\$21,900


## ■ RDS-3402

$3.5^{\circ} \cdot$ ESDI/SCSI* Supported • 60MBytes $\bullet$

## $\$ 23,000$

The RDS Series is designed for mass data storage and retrieval applications in military computer systems and is MIL qualified.

## Ramtek Corporation <br> $\square$ ImageDisk <br> 560MBytes - \$65,999 <br> Designed to be used with Ramtek's 4660 <br> high resolution imaging display system. <br> Stores up to 16GB of data and communi-

cates with the CPU and single or multiple imaging display systems to provide links for high-speed image and data transfers.

| Sony Corporation of America C MP-F52W $3.5^{\prime \prime} \cdot 1$ MByte |
| :---: |
| n MP-F52W000 |
| MP-F53W 3.5"•1 MByte |
| - MP-F53W000 |
| 0A D32V $3.5^{\prime \prime} \cdot .5 \mathrm{MBytes}$ |
|  |
| - 0A-D32W $3.5^{\prime \prime} \cdot 1$ MByte |
| Summus Computer <br> Systems <br> [ SUM-11 |
| System Industries - $100-2$ 14. 1 Bomemes |

## - 6100-51

10.5" • 474MBytes

- 6100-66

256MBytes

- 9722
$8^{\prime \prime} \cdot 134$ MBytes


## - 9733

$5.25 " \cdot 256$ MBytes
The 9733 disk drive features advanced Winchester contact start/stop heads to eliminate moving parts during loading and unloading and a head IC design to shield against electrical noise.

## - 9751

$10.5^{*}$ - 414MBytes $\boldsymbol{\$ 1 6 , 0 0 0 +}$
■ 9751C
10.5 • SMD Supported • 360MBytes • $\mathbf{\$ 1 4 , 5 0 0}$

## - 9761

10.5" - HSMD Supported • 512MBytes • \$19,000+

- 9761C
$10.5^{\prime \prime} \bullet$ HSMD Supported • 530MBytes • \$16,500
- 9766

256MBytes

## - 9798

$10.5^{*} \cdot 512$ MBytes $\cdot \$ 16,000_{+}$

## - 9900

8"• 300MBytes

- 9900-22
$8^{\boldsymbol{n}} \cdot 160 \mathrm{MBytes}$
- 9900-23
$8^{\text {" }} \cdot 330 \mathrm{MBytes}$
- 9920-51
10.5" • 474MBytes


## - 9920-66

$8^{\prime \prime} \cdot 300 \mathrm{MBytes}$

- 9920-98

14 - 670MBytes

## ■ $\mathbf{S I}^{5} 5$

5.25 " $\bullet 338$ MBytes

The SI56 may be configured as either a hard or soft sectored drive and is available in subsystems utilizing the QDA4E caching controller or the C-Series storage arrays that provide full DSA-compatibility.

- 8157
$5.25{ }^{\bullet} \bullet 601$ MBytes $\bullet \$ 19,000+$
- 1836
$8^{\bullet \bullet} \cdot$ HSMD Supported $\cdot 522$ MBytes $\boldsymbol{\$ 1 6 , 5 0 0}$
© 5185 C
8"•638.5MBytes
- 5193

906MBytes

## - 1936

9"•844MBytes
The SI93C features a dual supported spindle for greater rigidity and read-write accuracy.

## - SI95 C

3.4GBytes

These disk drives are compatible with any VAXcluster, VAX, or MicroVAX system. The SI95C is offered in 2, 4, 6, 8 drive configurations with formatted capacities of $3.4 \mathrm{~GB}, 6.9 \mathrm{~GB}, 10.3 \mathrm{~GB}, 13.7 \mathrm{~GB}$.

## System Technology <br> Associates

- Ras 8-1100
$5.25 " \cdot 1.1$ GByte
A GIGA-RIG tower cabinet is available which house up to four RA 8-1100 drives, holding over 4GB of RA storage.


## - RA 8-2100

5.25 " 2.1 GByte

The GIGA-RIG cabinet houses up to 12 RA $8-2100$ drives, holding over 20GB of RA storage.

## - RA 8-550

$5.25^{\prime \prime} \cdot 550 \mathrm{MBytes}$
Available with a GIGA-RIG cabinet that houses up to four RA 8-550 drives holding nearly 2.2GB of RA storage.

## Talaris Systems Inc.

## - 9032 Disk

3.5" - SCSI Supported • 32MBytes - \$950

A storage disk loaded with Talaris fonts to increase the productivity of the Talaris printstation. This disk extends the resident memory of a printstation.

## Tech Labs

## - WL-84-D

$8^{\text {m }}$ - SMD Supported • 84MBytes • \$4,514
The WL-84-D is also available with a dual port option allowing two separate host controllers to share access to the same storage module string.


## DEC Professional Helps You Manage Your System Better

Just as the right hardware is important, informed system management is vital to any productive computer system. DEC Professional provides the information and insight you need to get the most out of your DEC computer. And it's absolutely free!
$\checkmark$ Expert solutions to your computing problems
$\checkmark$ In-depth Lab Reviews to help you buy and intergrate new products
$\checkmark$ Relevant \& applicable articles written by expert users for hands-on users
$\checkmark$ Analysis of how developments affect you and your system
Subscribe to DEC Professional today for a better working understanding of your DEC computer system tomorrow.

# Request Your FREE Subscription Today! 

To request a free subscription application to DEC Professional, contact Lori Ulbrich at (215) 957-1500
DEC Professional

## Toshiba America <br> - MKM-355FA <br> 5.25 " $\mathbf{3 8 0}$ MBytes $\cdot \$ 1,815$

© MK-355FB
5.25 - 380MBytes • $\$ 1,965$

- MK-358FA
$5.25 \cdot \bullet$ 760MBytes $\cdot \$ 2,495$


## ■ MK-358FB

5.25 - - SCSI Supported • 760MBytes • $\$ 2,645$

The MK Series features hybrid servo design for high data integrity and reduced susceptability to environmental extremes.

## U. S. Design <br> Corporation

- CSS-800-870

8- $\cdot 59$ MBytes $\cdot \$ 7,895$

## Winchester Systems, Inc.

- Half-Height Winchester

ST506 Supported • 100MBytes
Half height drive.

- High Speed Winchester

ESDI Supported • 760MBytes
Full height drive.

- Removable Cartridge

ST506 Supported • 26MBytes
Full height drive.
nemovable Cartridge
ST506 Supported • 40MBytes
Half height drive.

- Standard Winchester

ST506 Supported • 190MBytes
Full height drive.

## Disk Subsystems

## American Data

Systems Marketimg
.smo
2.7GBytes $\boldsymbol{\$} \mathbf{\$ , 0 0 0 +}$

## American Digital Systems, Inc.

- MasterDisk Muxa51

1-4 Supported Drive(s) • 1 Supported Controller(s) • 607MBytes • $\$ 6,450+$

- MasterDisk Mux 52

1-4 Supported Drive(s) • 1 Supported Controller(s) • 1.56GBytes • $\$ 9,350+$

- MasterDisk Mxuc55

1-4 Supported Drive(s) • 1 Supported Controller(s) - 2.708GBytes •\$10,700+

## - MasterDisk Muxo81

1-4 Supported Drive(s) • 1 Supported Controller(s) • $2.93 \mathrm{GBytes} \bullet \$ 16,75 \mathbf{O}_{+}$

- MasterDisk Muxx82

1-4 Supported Drive(s) • 1 Supported Controller(s) • 4.22GBytes • $\$ 19,250$

## - MasterDisk SDI MSExx82

1-30 Supported Drive(s) 1 Supported Controller(s) - $2.927 \mathrm{GBytes} \cdot \$ 24,640+$

- MasterDisk/SDI MSExry5

1-40 Supported Drive(s) • 1 Supported Controller(s) • 20.7GBytes • $\$ 15,640+$
The MasterDisk Series dramatically improves performance on all VAXs and MicroVAXs. For high speed 8 mm tape backup, the MasterTape II is available.

## Aptec Computer Systems, Inc.

E DSN-1412
1 Supported Drive(s) • 3.6GBytes The DSK-1412 is classified as a non-striped disk and is designed to support Aptec's IOC-200 and IOC-24 specialized systems.

## Aquidmeck Systems Intermational

- OAS 100
$\$ 14,500$


## Aviv Corporation

- APEX

4 Supported Drive(s) $\cdot 1$ Supported Controller(s) • $2.5 \mathrm{GBytes} \bullet \$ 2,800+$

## - DFS 61X

4 Supported Drive(s) $\cdot 1$ Supported
Controller(s) • 2.2GBytes •\$8,500+

## - DFS 62X

4 Supported Drive(s) • 2 Supported
Controller(s) • 2.2GBytes •\$15,000+

## E DFS 660x-X

12 Supported Drive(s) • 12 Supported Controller(s) • 7.8GBytes • $\$ 28,000+$

## - DFS 680X-X

12 Supported Drive(s) • 12 Supported Controller(s) • 10.2GBytes • $\$ 32,000+$

## ■ DFS 817-9720/500

4 Supported Drive(s) - 1 Supported
Controller(s) • 1.7GBytes • $\$ 9,000$

- Summit IV

1 Supported Controller(s) • 2.8GBytes \$7,860+
© Summit V
1 Supported Controller(s) • 4.2GBytes • $\$ 10,275+$
Aviv Corporation's subsystems are compatible with all DEC operating systems that support the MSCP protocol.

## CMD Technology, Imc.

- CDU-620 Series

7 Supported Drive(s) • 400MBytes •\$1,995+ Used with PDP-11 and VAX 700 Series CPUs. Mounts directly on the backplane and provides hard disk storage without external power supply. Features on-board auto and utility bootstrapping, on-board formatting and bad block replacement.

## - CQD-120 Series

7 Supported Drive(s) • 200MBytes • \$1,495+ Used with LSI-11, MicroPDP-11 and MicroVAX II CPUs. Mounts directly on the backplane and provides hard disk storage. Features on-board auto and utility bootstrapping, on-board formatting and bad block replacement.

## CMS

Enhancements, Imc.

- CPF-155S
1.3GBytes

SCSI drive that features simultaneous transfer, non-interleaved disk format, block mode DMA, command queuing, overlapped seeks and an on-board formatter with diagnostics.


## [ CPF-180

2.6GBytes •\$4,380

ESDI drive that features simultaneous transfer, non-interleaved disk format, block mode DMA, command queuing, overlapped seeks and an on-board formatter with diagnostics.

## CPF-300S

1.3GBytes

SCSI drive that features simultaneous transfer, non-interleaved disk format, block mode DMA, command queuing, overlapped seeks and an on-board formatter with diagnostics.

## CPF-380

2.6GBytes

CPF-383H
2.6GBytes

## © CPF-760

2.6GBytes

日 EQR-180
1.3GBytes - \$4,022

## E EQR-380

1.3GBytes

## EQR-380

1.3GBytes

## EQR-383H

1.3GBytes

The CPF-380, $-383 \mathrm{H},-760$, EQR-180, -380 , and -383 H models are ESDI drives that feature simultaneous transfers, non-interleaved disk formats, block mode DMAs, command queing, overlapped seeks and on-board formatters with diagnostics.

## Codar Technology, Imc.

## 925RD

4 Supported Drive(s) • 2.6 GBytes • 5.25" SCSI/ESDI Supported
The 925RD is a fully TEMPEST compliant subsystem that is designed to pass the most stringent EMI/RFI requirements of MIL-STD-461B A4 procedure.

## Computer Upgrade <br> Corporation

## - Cu-Smol

1-12 Supported Drive(s) • 7.6GBytes * \$20,000+
The CU-SMDI is an HSC50/70 compatible subsystem that installs into any VAXcluster configuration.

## DILOG

- FDR Series

1-8 Supported Drive(s) • 9GBytes • $\$ 13,500+$

## FSS Series

2/4 Supported Drive(s) • 2.5GBytes • $\mathbf{\$ 6 , 1 8 5 +}$

## - MSs Series

2 Supported Drive(s) • 2.46GBytes •\$7,850+

- IVI Series

2 Supported Drive(s) - 760MBytes •\$4,455+

- PowerDisk Series

1-4 Supported Drive(s) • \$7,400+

- QDR Series

1-8 Supported Drive(s) • 6GBytes •\$18,155+

ERDA Series
2 Supported Drive(s) • 1.7GBytes •\$34,105
© SSS Series
1 Supported Drive(s) • 760MBytes •\$4,955+

## Emulex Corporation

## EPS Family

4 Supported Drive(s) - 2 Supported
Controller(s) • 4.3GBytes • $\mathbf{\$ 1 4 , 4 0 0}+$
Low-profile pedestal mounted SMD subsystem is ideally suited for deskside or office environments. Each subsystem is completely integrated and tested by Emulex, including formatting, mounting, and cabling. Installation consists of simply connecting the external cable assembly to your host.

## ER2/S



2 Supported Drive(s) $\cdot 1$ Supported
Controller(s) • 1.5GBytes • \$5,970
The ER2/S is the Emulex Removable Subsystem that is equipped with a standard 19" rack mount chassis, a power supply, an Emulex MD21/S2 controller, a connector logic board, and internal cables. Please note that this unit requires Emulex's UC14 SCSI-UNIBUS or UC04 SCSI-Q-bus host adapters.

## ER2E

2 Supported Drive(s) • 1 Supported
Controller(s) • 1.5GBytes • $\mathbf{\$ , 1 5 0}$
The ER2E consists of one or two lightweight, easily removable 5.25 " ESDI Winchester disk drives, the appropriate Emulex UNIBUS or Q-bus controller, and an enclosure chassis with its own power supply.

## - ER2E-III

2 Supported Drive(s) • 1 Supported Controller(s) • 1.5GBytes • \$7,390
Designed for the MicroVAX 3500/3600, this subsystem is well suited for any application requiring portable, modular data storage. Each Portable Drive Module (PDM) has a single connector, folding handles, and a mechanical latch. On-board microprocessor monitors drive functions and controller states as well as automatic head locking and shut-down procedures by a temperature sensor monitor.

## SM202

4 Supported Drive(s) • 4 Supported
Controller(s) • 2.65GBytes • $\$ 17,580$
The SM202, designed for use in VAX cluster systems, includes the 9642 low-boy cabinet with SMDI chassis, one to four SM80 PCB adapters, one to four disk drives, and all internal cables.

## - Sm204

4 Supported Drive(s) • 1 Supported Controller(s) • 2.65GBytes •\$20,265+

## SM206

12 Supported Drive(s) • 3 Supported Controller(s) • 7.96GBytes • \$71,425

## SM208

8 Supported Drive(s) • 2 Supported Controller(s) • 5.3GBytes •\$64,190+
The SM206 and 208 include SMDI converters to connect SMD/E drives to the HSC40/50/70 controllers within VAXcluster systems. These subsystems are contained within 60 -inch cabinets.

## - SM 212

4 Supported Drive (s) $\cdot 1$ Supported Controllers) • 3.49GBytes • $\$ 20,720+$ The SM212 is designed for use in VAX cluster systems. The subsystem is contained within a 42 -inch cabinet.

## - SM 214

4 Supported Drives) • 1 Supported Controllers) • 3.49GBytes •\$23,405+

## - SW216

12 Supported Drive (s) • 3 Supported Controllers) • 10.5GByles • $\$ 69,685$

## - SM 218

8 Supported Drives) $\cdot 1.5$ Supported Controllers) • $6.98 \mathrm{GBytes} \bullet \mathbf{\$ 7 , 9 0 0 +}$
The SM214, 216, and 218 include SMDI converters to connect SMD/E drives to the HSC40/50/70 controllers within VAX cluster systems. These subsystems are contained within 60 -inch cabinets.

## - SM 602

4 Supported Drive (s) $\bullet 1$ Supported Controllers) • 2.36GBytes • \$17,165+

## - SM 712

4 Supported Drive (s) • 1 Supported Controllers) • $6.98 \mathrm{GBytes} \bullet \$ 34,110+$ The SM602 and 712 are designed for use in VAXcluster systems. These subsystems are contained within a 42 -inch cabinets.

## - SM 718

6 Supported Drives) •1.5 Supported
Controllers) • 10.5GBytes •\$41,240+
The SM 718 includes an SMDI converter to connect SMD/E drives to the HSC50/70 controllers within VAXcluster systems. The subsystem is contained within a 60 -inch cabinet.

## - SM802

4 Supported Drives) • 1 Supported Controllers) •1.15GBytes
The SM802 is designed for use in VAXcluster systems.

## Еросн Systems, Inc.

- EPOCH-1 Model 30

14 Supported Drives) • 2 Supported Controllers) • 600MBytes •\$155,000 An NFS File Server that connects to two Ethernet networks and allows on line access to up to 150 GB . It is the only storage system that integrates magnetic and optical storage. Applies virtual memory concepts to magnetic storage. Support for up to 7.7 GB of magnetic disks. Includes automatic backup. Specifications for fixed magnetic storage include support for $5.5^{\prime \prime}$ drive size and a 760 MB storage capacity.

## Exsys Storage

Systems

- RACE 4000

8 Supported Drive (s) $\cdot 2.07$ GBytes

## - RACE 4000

8 Supported Drives) • 2.07GBytes

## - mACS 4000

8 Supported Drive (s) $\cdot 2.28 \mathrm{GBytes}$
The RACE 4000 and RACS 4000 Series features up to 2.28 GB formatted storage per port and supports any controller that is RA compatible.

## FPS Computing

## - P64/110

15.7GBytes

The P64/110 is a mass storage device for the MP64/60 mini-supercomputer, providing near-zero latency and seek times. It also features a modular design for prospective expansion requirements.

## - P64/20

2 Supported Drives) - 1-6 Supported Controllers) • 6.1 Bytes
The $\mathrm{P} 64 / 20$ is a removable disk system designed for the M64/60.

## - P64/20

2 Supported Drives) - 1-6 Supported Controllers) • 20.5GBytes
The P64/40 was designed to provide disk capability for the MS 64/60 mini-supercomputer. It interfaces through a controller, allows data transfer, and may be upgraded to support up to 20.5 GB of storage in 12 external cabinets.

## - P6A/30

2 Supported Drive (s) • 6GBytes • $\$ 130,000+$

## - P64/30

4 Supported Drive (s) $\cdot 6 \mathrm{GBytes} \cdot \$ 130,000+$ The P64/30 is designed to provide disk capability for the MS64/30 mini-supercomputer. It interfaces through a controller and transfers data to and from the minisupercomputer's main memory. Upgrades are available to support up to 24 drives in six external cabinets and may be configured for up to 6 GB of storage.

## © P64/40

2 Supported Drives) - 1-6 Supported Controller (s) • 20.5 GBy yes
The P64/40 was designed to provide disk capability for the MS64/60 mini-supercomputer. It interfaces through a controller and transfers data to and from the minisupercomputer's main memory. Upgrades are available to support up to 20.5 GB of storage in 12 external cabinets.

## Group Three Electronics

 - 3410
## 3420

- 3440


## - 3441

■ 3442
The 341 x , 342 x , and 344 x models feature programmable interleaves of $1: 1$, DNA capabilities, and overlapped seek optimeration.

## - 3480

## © 3481

## - 3482

The 348x Series features programmable interleaves of $1: 1$, overlapped seek optimiration, DMA capabilities, and data transfer fragmentation reducing overall latency.

## MDB Systems, Inc.

## Data Shuttle 2000

2 Supported Drives) • 1 Supported
Controllers) - 1.52GBytes • $\$ 21,667$
Removable disk canister provides shock protection to drive when installed or removed from chassis. LIF connector; no cable to disconnect. Rack, table or pedestal

Removable Shock Isolated Disk Subsystem/Chassis


## DATA SHUTTLE ${ }^{\text {TM }} 2000$

The Data Shuttle 2000 is a rack mountable or table top chassis that allows one or two 5 1/4" devices to be mounted in individual removable shock isolated canisters.

- Compatible with all computer systems
- Automatic parking of heads when removing canister
- Available with or without disks or disk controllers
- Low Insertion Force connectors; no cables to disconnect
- Canister resident write protect switch and indicator
- Optional solenoid interlock


## DATA SHUTTLE

This new rack mountable or desktop configuration connects directly to DEC's UDA-50, KDA-50 and HSC-50/70 controllers.

## DATA SHUTTLE

This desk top configuration provides a single disk mounted in a removable shock isolated disk canister.

## DATA SHUTTLE 3000

This ruggedized removable subsystem is designed for harsh environments without the added cost of MIL-Spec.

## DATA SHUTTLE

The most ruggedized, militarized, Tempest-certifiable removable-drive subsystem today. A true NDI product.

Corporate Headquarters,
1110 West Taft Ave., Box 5508,
Orange, CA, 92613-5508
Tel (714) 998-6900 FAX (714) 637-4060
Outside CA (800) 556-0222
MOB

CA (800) 637-2028
MOB SYSTEMS, INC.

For United Kingdom, MDB Systems U.K., Ltd.,
Intec 2, Wade Road, Basingstoke, Hants., RG24 ONE,
Tel 0256464767 Telex 858389 MDBSYS G FAX 025659748
For Western Europe, MDB Systems IRL, Ltd., St Josephs Road, Portumna, Co. Galway, Republic of Ireland, Tel (353) 509 41163/ 41413 Telex 50918 MDB EI FAX (353) 50941447

Data Shuttle is a trademark of MDB SYSTEMS, INC
A

[^5]

[^6]

[^7]$\qquad$

[^8]+
$$
1
$$

mounting. Connects to DEC KDA50, UDA50, UDB50, or HSC50/70 controllers.

- Data Shuttle 1000

1 Supported Drive(s) • 1 Supported
Controller(s) • 760MBytes • $\$ 10,045$

## - Data Shuttle 1000

1 Supported Drive(s) $\cdot 1$ Supported
Controller(s) • 760MBytes • $\$ \mathbf{6 , 4 8 4}$
The Data Shuttle 1000 Series feature removable disk canisters that provide shock protection to the drives when installed or removed from the chassis. LIF connector; no cables to disconnect. Rack, table or pedestal mounting.

## - Data Shuttle 2000

2 Supported Drive(s) 1 Supported
Controller(s) • 760MBytes •\$9,160

## ■ Data Shuttle 2000

2 Supported Drive(s) 2 Supported Controller(s) - \$12,541
The above two models of the Data Shuttle 2000 Series feature removable disk canisters that provide shock protection to the drives when installed or removed from the chassis. LIF connector; no cables to disconnect. Rack, table or pedestal mounting. Also feature integral SCSI to ESDI converter.

## - Data Shuttle 2000

2 Supported Drive(s) • 1 Supported Controller(s) • 1.52GBytes • \$11,833 Removable disk canister provides shock protection to drive when installed or removed from chassis. LIF connector; no cable to disconnect. Rack, table or pedestal mounting.

## - Data Shuttie 2000

2 Supported Drive(s) - 2 Supported Controller(s) • 760MBytes - $\$ 18,433$
Removable disk canister provides shock protection to drive when installed or removed from chassis. LIF connector; no cable to disconnect. Rack, table or pedestal mounting. Connects to DEC KDA50, UDA50, UDB50, or HSC50/70 controllers.

## ■ Data Shuttle 2000

1 Supported Controller(s) • 760MBytes •
\$7,750
Removable disk canister provides shock protection to drive when installed or removed from chassis. LIF connector; no cable to disconnect. Rack, table or pedestal mounting.

## - Data Shuttle 3000

2 Supported Drive(s) • 760MBytes • $\$ 14,053$

## - Data Shuttie 3000

2 Supported Drive(s) • 1.5GBytes • \$17,313
The Data Shuttle 3000 Series provides all of the operational features of the Ruggedized Data Shuttle 4000, but features a commercial power supply and commercial I/O connecters.

## - Data Shuttle 4000

2 Supported Drive(s) • 1.5GBytes •\$24,180

## - Data Shuttle 4000

2 Supported Drive(s) • 760MBytes •\$20,938 The Data Shuttle 4000 Series (RCS-P) provides shock and vibration protection to the removable disks and has MIL-Spec power supplies and MIL-Spec I/O connec-
tors. Used in military airborne, vehicular, and shipboard applications.

## Memory Sciences Corporation

## - FASTOR

64 Supported Drive(s) • 48GBytes
This array of drives is operated by a VMEbus and a multitasking operating system using a Motorola 68020 computer. Four 760 MB drives are connected to a single controller, and 18 controller boards with 4.8 Mbps transfer rates may be connected to the host interface. Multiseeking and multitransfers occur.


## - Intercept Removable

14 Supported Drive(s) • 2 Supported Controller(s) • 8.12GBytes • $\$ 38,328$ Intercept is designed to be the systems solution to removable Winchester technology. It houses up to two removable canisters for $1,160 \mathrm{MB}$ of on-line storage. It's compatible with the DEC HSC70/50, KDB50, KDA50 and UDA50 controllers.

## - MDI-276

9 Supported Drive(s) • 2 Supported Controller(s) • 10.44GBytes • $\$ 25,882$ Employs IBM 3380 type technology. The MDI-276 also has built-in diagnostics as well as on off-line auto formatter.

## © MDI-276R

7 Supported Drive(s) • 2 Supported Controller(s) • 8.12GBytes • $\$ 38,000$ The MDI-276R provides removable Winchesters for users of classified data. It offers data integrity through its controller/ operating system level spin down.

## - MDI-476

9 Supported Drive(s) • 2 Supported

Controller(s) • 20GBytes •\$51,764
The MDI-476 uses multiple HDAs synchronized together to form a 2.3 GB storage array. Compatible with DEC HSC70, HSC50, KDB50, KDA50, and UDA50 controllers.

## - MDI-476 PLUS

9 Supported Drive(s) $\cdot 2$ Supported Controller(s) • 18GBytes •\$50,558 The MDI-476 uses multiple HDAs synchronized together to form a 2 GB disk device. Compatible with DEC HSC70, HSC50, KDB50, KDA50 and UDA50 controllers. Allows up to 8GB per HSC5X-BA DA card.

## - MDI-6005

2 Supported Drive(s) • 2 Supported Controller(s) • 4.64GBytes • $\$ 75,000$ Compatible with DEC HSC70, HSC50, KDB50, KDA50 and UDA50 controllers. Provides high capacity per foot print. Direct replacement for DEC's SA600.

## - MDI-6010

4 Supported Drive(s) • 2 Supported Controller(s) • 9.28GBytes •\$145,000

## - MDI-6015

7 Supported Drive(s) • 2 Supported Controller(s) • 16.24GBytes •\$245,000

## - MDI-6020

9 Supported Drive(s) • 2 Supported Controller(s) - 20.88GBytes • $\$ 310,000$ The MDI-6010, -6015, and -6020 are compatible with DEC HSC70, HSC50, KDB50, KDA50 and UDA50 controllers. Provide high capacity per foot print.

## - MDI-6207

2 Supported Drive(s) - 2 Supported Controller(s) • 580MBytes • \$30,000

## - MDI-6227

2 Supported Drive(s) • 2 Supported Controller(s) • 1.16GBytes • \$40,000 The MDI-6227 and -6247 Plus are compat ible with DEC HSC70, HSC50, KDB50, KDA50 and UDA50 controllers. Combines both RA compatible disk and TA/ 8 mm HSC compatible tapes in the same chassis. Also available in a pedestal version with UNIBUS and $Q$-bus interfaces.

## - MDI-6247 Plus

2 Supported Drive(s) • 2 Supported
Controller(s) • 2GBytes • $\$ 65,760$
Compatible with DEC HSC70, HSC50, KDB50, KDA50 and UDA50 controllers. Combines both RA compatible disk and $\mathrm{TA} / 8 \mathrm{~mm}$ HSC compatible tape drives in the same chassis. Also available in a pedestal version with UNIBUS and Q-bus interfaces.

## ■ MDI-76

9 Supported Drive(s) - 2 Supported
Controller(s) • 5.2GBytes •\$15,800
Compatible with DEC HSC70, HSC50, KDB50, KDA50 and UDA50 controllers and with MTI's intercept removable chassis.

## - MDQ-238

2 Supported Drive(s) • 1 Supported
Controller(s) • 1.28GBytes • \$19,194
Q-bus compatible featuring disk shadowing. Available in rackmount or tabletop versions.

## - MDQ-238R

2 Supported Drive(s) - 1 Supported Controller(s) • 1.28GBytes •\$19,194
Q-bus compatible features disk shadowing in
tabletop, or rackmountconfigurations.
Controller/operating system controlled spindown of the disk to ensure data integrity.

## - MDQ-276

2 Supported Drive(s) - 1 Supported Controller(s) - 2.48GBytes •\$30,235
Compatible with DEC HSC70, HSC50, KDB50, KDA50 and UDA50 controllers Q-bus compatible featuring disk shadowing. Also available in desktop or pedestal versions.

## - MDQ-276R

2 Supported Drive(s) • 1 Supported
Controller(s) • 2.48GBytes •\$30,235
Q-bus compatible drive that features controller operating systems spindown and disk shadowing.

## ■ MDQ-38

4 Supported Drive(s) • 1 Supported
Controller(s) • 1.28GBytes • \$14,295
Availableinrackmountandtabletopconfigurations. Features disk shadowing.

## - MDQ-76

4 Supported Drive(s) • 1 Supported Controller(s) • 2.48GBytes •\$18,970 Q-bus compatible drive that features disk shadowing. Available in desktop or rackmount versions.

## - MDQ-76R

4 Supported Drive(s) • 1 Supported
Controller(s) • 2.48GBytes •\$18,970
Data integrity is provided through controller/operating system spindown. Features disk shadowing and is available in tabletop or rackmount versions.

## PMC Associates

## - ESDX Series

## 1 Supported Drive(s) •\$5,566

The ESDX Series features a controller I/O panel that provides switch-selectable configurations of single- or dual-controller operation, allowing two hosts access to one dual-drive subsystem. It also features 1 MB cache memory and a 3 Mbps data transfer rate. The storage capacity is unformatted.

## Recognition Concepts, Inc.

## - Visistore

1 Supported Controller(s) •1.6GBytes • \$30,000+
The VisiSTORE is best suited for applications requiring high speed data acquisition and retrieval. It is available with an optional (isolated) network connection, VisiNET ( 20 Mbps ), that is capable of serving up to ten nodes.

## Scientific Micro Systems, Inc.

## ■ SMS 1000-60

2 Supported Drive(s) • 1 Supported

## Controller(s)

Includes a disk controller and features configuration flexibility 5.25 " and 8 " floppy drives and .25 cartridge tape drives are also supported. Includes a resident SENSE monitor for rapid systems configuration and testing.

## E SMS 1000-68

2 Supported Drive(s) • 1 Supported
Controller(s) • 380MBytes
Includes a disk controller and features
configuration flexibility 5.25 " floppy drives and .25 cartridge tape drives are also supported. Includes a resident SENSE monitor for rapid systems configuration and testing.

## Storage Concepts, Inc.

- Concept 21
- Concept 31

The Concept 31 offers high speed disk transfer rates, delivering rate of 12.3 Mbps and a sustained rate of 10.7 Mbps .

## - Concept 51

The Concept Series of disk processors provides high speed disk storage for image storage and supercomputer data storage. Requires the Storage Concepts' host adapter (UBHA) board to provide a link to the CPU for system control and access of stored data.

## - MV21

MV21 subsystems include a QBHA board, a Concept 21 and 1-4 M2350A PTDs.

## - MV31

MV31 subsystems include a QBHA board, a Concept 31 and 1-4 M2360A PTDs.

## Summus Computer Systems

## - Ethemet File Server

## 3GBytes

Designed to enhance the productivity of any interconnected MicroVAX system.

## © CigaBox-102

4 Supported Drive(s) - 20GBytes

CigaBox-104
4 Supported Drive(s) • 20GBytes

- GigaBox-106

4 Supported Drive(s) • 20GBytes

- CigaBox-117

8 Supported Drive(s) • 20GBytes

- GigaBox-119

4 Supported Drive(s) • 20GBytes
The GigaBox Series offers maintenance support options through an award winning National Support Group with investment/upgrade protection plans

## - GigaTape JBL 125

120GBytes • $\mathbf{\$ 3 8 , 0 0 0}$

## System Industries

- CUSTOR 3/SI56/4D

2-16 Supported Drive(s) • 4 Supported Controller(s) • 4.8GBytes •\$45,700+

## - CLUSTOR 3/S183

2-16 Supported Drive(s) • 2 Supported
Controller(s) • 8.8GBytes • $\mathbf{\$ 6 5 , 5 0 0 +}$

## CUSTOR 3/SI85

2-16 Supperted Drive(s) • 2 Supported
Controller(s) • 10.5GBytes • $\mathbf{\$ 6 0 , 4 0 0 +}$

## - CLUSTOR 3/SI93

2-16 Supported Drive(s) - 2 Supported Controller(s) • 14.5GBytes • $\mathbf{\$ 6 1 , 0 0 0 +}$
The CLUSTOR 3 Series supports up to eight CPUs.

## CLUSTOR 5/SI56 OB

2-16 Supported Drive(s) • 4 Supported Controller(s) • 4.8GBytes •\$63,500+

- CLUSTOR 5/SI83

2-16 Supported Drive(s) • 2 Supported Controller(s) • 88GBytes • $\$ 85,400_{+}$

## - CLUSTOR 5/SI85

2-16 Supported Drive(s) - 2 Supported Controiler(s) • 10.5GBytes • \$78,200+

## CLUSTOR 5/SI93

2-16 Supported Drive(s) - 2 Supported Controller(s) - 14.5GBytes - $\$ 76,500+$ The CLUSTOR 5 Series supports up to eight CPUs.

## - MP PAC S SI56

2-4 Supported Drive(s) • 1 Supported Controller(s) • 1.54GBytes • $\$ 22,900_{+}$

## - MP PAC S SI57

2-4 Supported Drive(s) • 1 Supported Controller(s) • 2.3GBytes •\$31,900

## - MP PAC S SI57/QD

2-4 Supported Drive(s) • 1 Supported Controller(s) • 2.3 GBytes • $\$ 29,800+$

## © MP PAC S156

2-4 Supported Drive(s) • 1 Supported Controller(s) - 844MBytes - $\$ 19,900+$

## - MP PAC SI56/QD

2-4 Supported Drive(s) • 1 Supported Controller(s) • 1.54GBytes • $\$ 17,200_{+}$

## - MP PAC SI57

2-4 Supported Drive(s) • 1 Supported Controller(s) • 2.3GBytes • $\$ 23,500+$

## - qoa 4e/quad Pac

1-4 Supported Drive(s) • 1 Supported Controller(s) - 2.3GBytes • \$13,700+

## - QOA 4E/SI56

1-4 Supported Drive(s) • 1 Supported Controller(s) - 1.2GBytes - \$7,600+

## - OOA 4E/SI56/20

1-2 Supported Drive(s) • 1 Supported Controller(s) • 638MBytes • $\$ 9,900+$

## - QDA 4E/SI57

1-4 Supported Drive(s) • 1 Supported Controller(s) • 2.3 GBytes $\boldsymbol{\$ 1 2 . 9 0 0 +}$

## - QDA 4E/SI57/MO

1-2 Supported Drive(s) • 1 Supported Controller(s) $\cdot \mathbf{1 . 1 5 G B y t e s} \boldsymbol{\bullet} \mathbf{\$ 1 4 , 4 0 0 +}$

## - qDA 4S/SI83/QD

1-4 Supported Drive(s) • 1 Supported Controller(s) • 2.2GBytes • $\$ 25,600+$

## QDA 4S/S185

1-4 Supported Drive(s) • 1 Supported Controller(s) • 2.6GBytes • $\mathbf{\$ 1 9 , 1 0 0}$

## - QOA 4S/SI93

1-4 Supported Drive(s) • 1 Supported Controller(s) • 3.6GBytes • $\$ \mathbf{2 4 , 9 0 0 +}$

## - qDA 4S/ST83

1-4 Supported Drive(s) • 1 Supported Controller(s) • 2.2GBytes • \$21,900+

## - SI56C Quick Disconnect

1-8 Supported Drive(s) • 2 Supported Controller(s) • 3.07GBytes • \$13,500+

## - SI57C QUAD PAC

2-16 Supported Drive(s) • 4 Supported Controller(s) • 8.9GBytes • $\$ 29,300+$

- SI57C Quick Disconnect

1-8 Supported Drive(s) $\cdot 2$ Supported Controller(s) • 4.46GBytes •\$20,250+

## - S183C

2-8 Supported Drive(s) • 2 Supported Controller(s) • 4.16GBytes •\$38,500+ - sis3C Quick Disconnect

2-8 Supported Drive(s) $\bullet 2$ Supported Controller(s) • 4.16GBytes $\boldsymbol{\$} \mathbf{2 4 , 8 0 0 +}$

## - S185C

2-8 Supported Drive(s) • 2 Supported Controller(s) • $\mathbf{4 . 9 G B y t e s} \cdot \mathbf{\$ 4 1 , 4 0 0 +}$

- S185C/Quick Disconnect

2-8 Supported Drive(s) • 2 Supported
Controller(s) • 4.9GBytes • \$41,400

## - S193C

2-8 Supported Drive(s) -2 Supported
Controller(s) • 6.7GBytes •\$35,350+

## - SI95C

2-8 Supported Drive(s) • 2 Supported Controller(s) • 13.6GBytes • $\$ \mathbf{5 9 , 8 0 0}+$ The SI95C subsystem incorporates a unique dual-actuator design.

## Systems Concepts, Inc.

## DS-30

4 Supported Controller(s)
The DS-30 is available with an optional two-channel interface.

## Tech Labs

- Wh-84

1 Supported Drive(s) - 2 Supported
Controller(s) • 84MBytes • $\$ 5,525$
The WL-84 features fast access with reliability. Cost effective storage solution for small computer systems and intelligent workstations.

## Trimarchi, Inc.

- DATAKEG-300

1 Supported Drive(s) • 1 Supported
Controller(s) • 600MBytes • \$5,500

## - DATAKEG-600

1 Supported Drive(s) • 1 Supported Controller(s) • 600MBytes • \$8,500
The DATAKEG Series is similar in appearance to the MV 2000 chassis.

## D0696-9380E

1 Supported Drive(s) • 300MBytes • $\$ 3,915$

## D0696-XT8760E

1 Supported Drive(s) - 600MBytes - $\$ 5,345$

E EZ5F14-DQ686-9380E-2
2 Supported Drive(s) • 600MBytes • $\mathbf{\$ 8 , 4 6 0}$

## - E5FFI4-QD0-XT4380S

1 Supported Drive(s) • 300MBytes • \$5,970

## - E25F14-000-XT43805

1 Supported Drive(s) • 1 Supported
Controller(s) • 300MBytes •\$5,970

## [ ELFFI4-QDO-XT8760S-5030

1 Supported Drive(s) • 600MBytes • $\$ 11,740$ This subsystem contains a 600 MB hard drive and an erasable optical disk drive with removable cartridges.

## - EFFFI4-UDT-87605-EXB8200

1 Supported Drive(s) • 1 Supported Controller(s) • 600MBytes •\$12,205
This subsystem is also equipped with one helical scan tape drive.


Plug compatible with DEC* disc controllers (UDA/ KDA/HSC, etc.), VAX UNIBUS, ${ }^{\text {® }}$ MicroVax II Q-bus, ${ }^{\circledR 1}$ MicroVax III Q-bus ${ }^{\text {® }}$ and Sun $\mathrm{VME}^{\oplus}$ based workstations.
■ All subsystems feature proven reliable $51 / 4$ inch drives by Hewlett-Packard ${ }^{\text {® }}$ and Hitachi. ${ }^{\text {P }}$

- MTBF ratings to 150,000 hrs. on HP drives.
$\square$ Five year warranty on HP drives.
- Available in removable, shock-mounted canisters in desk and rack mount.
■ Non-removable configurations available in floor and rack mount.
-Up to 3 GB per subsystem.

A variety of enclosure styles for office/workstation and traditional computer room environments.

- All subsystems are shipped complete with interfacing and installation documentation.
- MESA also offers expert installation, as well as onsite service.
- MESA has nearly two decades of integration experience.

The following are registered trademarks of The following are registered trademarks of their respective companies: DEC, VAX UNIBUS, MicroVax II and III, Q-bus of Digital Equipment Corporation; HewlettPackard of Hewlett-Packard Corporation;
Hitachi of Hitachi, Ltd.; Sun VME of Sun Micro Systems, Inc.


9720 Patuxent Woods Dr. Columbia, MD 21046
9720 Patuxent Woods Dr. Columbia, MD 21046 $\begin{array}{lll}\text { Columbia, MD } & \text { Lowell, MA } & \text { Milford, CT } \\ 800 / 950-6372 & 800 / 999-6780 & 800 / 777-09\end{array}$ 301/290-8150 508/458-4100 203/870 6800 $301 / 290-8150 \quad 508 / 458-4100$ 203/878-6800 Moris Plains, NJ Philadelphia, PA Charlotte, NC $\begin{array}{llll}800 / 444-9238 & 800 / 333-8641 & 800 / 77-2340 \\ 201 / 538-8004 & 215 / 644-3100 & 704 / 529-1792\end{array}$ Springfield, MA Burlington, VT 300/999-6780 800/999-6780 $\begin{array}{ll}\text { Raleigh, NC } & \text { Richmond, VA } \\ 800 / 777-2340 & 800 / 777-2340\end{array}$ - An Electrocomponents Company

- ET5MV-D0696-9380E

1 Supported Drive(s) • 300MBytes $\boldsymbol{\$ 1 0 , 3 8 5}$

- ELSMN-qDo-KT87605

1 Supported Drive(s) • 600MBytes $\boldsymbol{\bullet} \mathbf{\$ 1 2 , 4 3 6}$
■ E5MN-UDO-KT-87605
1 Supported Drive(s) $\cdot 1$ Supported
Controller(s) • 3.6GBytes • $\mathbf{\$ 1 2 , 6 4 5}$

## - MV2000-Ex5FA-Laserase

1 Supported Drive(s) $\cdot 1$ Supported Controller(s) • 600MBytes • $\mathbf{\$ 6 , 2 0 0}$ Similar in appearance to the MV 2000 chassis.

## - 000-93805-5030

1 Supported Drive(s) • 300MBytes •\$7,945
This subsystem contains a 300 MB hard drive and an erasable optical disk drive.

## - qDo-LASERISE 5030

1 Supported Drive(s) $\cdot 1$ Supported Controller(s) • 600MBytes • $\$ \mathbf{5 , 2 9 5}$ Erasable optical media.

## - qut-9385s-EXB8200

1 Supported Drive(s) $\cdot 1$ Supported Controller(s) • 300MBytes - \$8,210
This subsystem contains a $300+\mathrm{MB}$ hard drive and an 8 mm helical scan tape drive.

## - RP54-FA

1 Supported Drive(s) • 1 Supported
Controller(s) • 150MBytes $\mathbf{\$ 2 , 7 5 0}$

## - UUT-XT8760S-EXB8200

1 Supported Drive(s) • 1 Supported Controller(s) - $\mathbf{6 0 0 M B y t e s} \cdot \mathbf{\$ 1 0 , 4 6 0}$
This subsystem contains a 600 MB hard drive and an 8 mm helical scan tape drive.

## Tristar Technology

## - Orion 1000

2 Supported Drive(s) • 1 Supported Controller(s) • 380MBytes • $\$ 2,300+$

■ Orion 2000
2 Supported Drive(s) • 1.5GBytes $\mathbf{\$ 2 , 3 0 0 +}$

## ■ Orien 3000

2 Supported Drive(s) • 1 Supported
Controller(s) • 1.5GBytes $\boldsymbol{\bullet} \$ 2,300+$

## ■ Orion 4000

2 Supported Drive(s) • 1 Supported Controller(s) $\cdot 1.5$ GBytes $\bullet \$ 8,000+$ The Orion Series features solid shock protection and large capacity high performance removable disk storage providing security, quick back-up, and transportability.

## - PSAEDO-FA

4 Supported Drive(s) •2.69GBytes •\$32,564

## - PSA600-JA

16 Supported Drive(s) • 9.97GBytes •
\$124,352

- PSAEO1-JA

12 Supported Drive(s) • 9.75GBytes •

## \$179,674

Direct connection to all DEC SDI controllers. Fully compatible with all DEC diagnostics and other utilities. Large capacity; utilizes fewer SDI ports.

## U. S. Design

Corporation

- $\mathrm{a}-\mathrm{xit}$

4 Supported Drive(s) • 1 Supported
Controller(s) • 760MBytes • $\$ 3,250$
The $Q$-Kit is a family of internal drives for
a DEC BA23 or BA123 system. The Q-Kit includes U.S. Design's HA1108Q-bus host adapter, cables, installation manual and choice of $170 \mathrm{MB}, 380 \mathrm{MB}$, or 760 MB magnetic disks, an 800MB WORM optical disk, or a 2.3 GB 8 mm tape drive.

## - 90

2 Supported Drive(s) • 2.3GBytes •\$2,800 The QD is a family of dual drive tabletop units that interface to DEC or SUN systems. The QD may be configured with any mixture of $170 \mathrm{MB}, 380 \mathrm{MB}$, or 760 MB magnetic disks, an 800 MB WORM optical disk, a 2.3GB 8 mm tape drive, or a 650 MB erasable optical disk.

## - 0 [s

4 Supported Drive(s) • 3.2GBytes • \$4,095 The QS is a family of four drive rack or pedestal mount storage systems for interfacing to DEC or SUN systems. The QS may be configured as a $170 \mathrm{MB}, 380 \mathrm{MB}$, or 760 MB magnetic disk, an 800 MB WORM optical, a 2.3 GB 8 mm tape drive, or a 650 MB erasable optical disk.

## - 9

1 Supported Drive(s) • 2.3GBytes •\$2,600 The QT is a family of single drive tabletop units for interfacing to DEC or SUN systems. The QT may be configured as a $170 \mathrm{MB}, 380 \mathrm{MB}$, or 760 MB magnetic disk, an 800 MB WORM optical, a 2.3 GB 8 mm tape drive, or a 650 MB erasable optical disk.

## $\square \mathrm{VP}$

1-4 Supported Drive(s)
The VIP is a high speed, high density storage peripheral that is equipped with a management processor (Intel 8088) that analyzes how the CPU stores and retrieves data from the disk drives. It also features a control processor (Intel 8085) that manages all disk control sequences and data transfers. The VIP requires the USDC 1158 UNIBUS board.

## - VIP/E

1-4 Supported Drive(s) - 2.63GBytes •\$4,600 The VIP/E is a high capacity, high performance storage system that is equipped with the KA4190 cache controller that reduces the disk average seek time. The VIP/E is a storage system that supports four peripheral units available from U.S. Design.

## - VIPM

4 Supported Drive(s) $\bullet 2$ Supported Controller(s) • 2.2 GBytes • $\$ 18,000$
The VIP/H is a high capacity storage system that is equipped with a KA2200 protocol converter to allow easy connection to DEC via the SDI interface. The VIP/H may be added to the DECHSC 40/50/70, KDA50, KDB50, and the UDA50.

Uивоино, Imc.

- Series QB-500
1.3GBytes $\boldsymbol{\$} \mathbf{5 , 0 0 0 +}$
- Series 91 -600
2.6GBytes $\boldsymbol{-} \$ 8,500_{+}$

meries UB-500
1.36 Bytes $\cdot \$ 6,000+$
- Series UT-600
1.3GBytes •\$9,500+


## Winchester Systems, Inc.

## - DataSafe

7 Supported Drive(s) •6GBytes •\$8,995+ The DataSafe Series features a unique combination of controller cache memory and continuous disk optimization and includes a 2.3 GB helical scan 8 mm tape. These subsystems replace DEC RA and RD disk drives and the TK and TU tape drives.

## Optical Drives

## Aviv Corporation

- 0ss 2000/825B
2.04GBytes • UNIBUS/Blbus Supported • $\$ 35,000$
The OSS 2000/825B system includes an OSC 2000 controller, an optical disk drive, host interface, and a VT100 compatible terminal, housed in a 42" VAX style cabinet. Also supports the Pertec interface.


## Computer Upgrade Corporation

- OSRNAX-U1

2GBytes • UNIBUS Supported • $\$ 20,000$

## Imformation Storage

inc. (ISI)

- 52568
1.28GBytes • UNIBUS/Q-bus/Blbus Supported - \$4,282

The ISi 525 GB optical disk drive features high-capacity and high-performance. It is ideal for a wide range of data storage applications. The quoted price reflects a purchase of 100 units.

## - 5256BX2

2.56GBytes - \$7,833

The ISi 525 GBX 2 optical storage system features high-capacity and high-performance. As such, it is ideal for a wide range of data storage applications. The quoted price reflects a purchase of 100 units.

## Laser Magnetic Storage - 1200

1GByte - \$9,450
The Laser Drive 1200 stores up to 1000 MB on each side of a 12" disk, which is housed in a removable cartridge. Head crashes are nonexistent because the optical head does not fly close to the disk. Also supports the ISI interface.

## - 510

5.25 - 654MBytes • \$2,880

The Laser Drive 510 is a double-sided removable optical drive featuring WORM capabilities and sampled servo (4/15 data format) technologies.

## Laserdrive

## - 840

810MBytes - Q-bus Supported
Features multiple track buffering with sector caching and bad sector mapping and a data access time of less than 175 ms over the entire 405 MB surface.

## Maxtor Corporation

- Rxt-800s
$5.25^{\circ} \cdot 800 \mathrm{MBytes} \cdot \$ 1,300$
The RXT-800S is an optical drive with removable media.


## - Tahiti

5.25- ${ }^{-650 M / 1 G B y l e s * ~}$

The Tahiti is an erasable optical disk drive with removable media.

## Optimem <br> - 1000

## 2GBytes • \$13,600

The 1000 is also available with the 1001 and the 1002 optical media products.

## Perceptics Corporation - LD1200 <br> 12" ${ }^{\text {• }}$ 2GBytes $\cdot$ UNIBUS Supported

- Optimem 1000


2GBytes • UNIBUS Supported

## - Optimem 2400

2.4GBytes • UNIBUS Supported

The Optimem 2400 provides MSCPemulation and features a removable $12^{\prime \prime}$ disk media, microprocessor controlled electronics, internal diagnostics, a modular design and is available with an advanced SCSI interace as an option.

## Pioneer Communications of America, Inc. <br> \section*{- DD-M5001}

654MBytes • DEC Supported
Half-height drive, designed to be used in conjunction with Pioneer's DD-C5001 optical disk controller.

## - DD-U5001

654MBytes • DEC Supported
The DD-U5001 is a combination of Pioneer's DD-M5001 optical drive and DDC5001 disk controller.

## Summus

Computer Systems

- Lightilisk 650
\$6,995


## TECEX

- TEE-0AS/1

2GBytes • UNIBUS Supported - $\mathbf{\$ 1 5 , 0 0 0 +}$

## - TX-2200

2GBytes • UNIBUS Supported • \$14,500

## Toshiba America

- WM-S070
$5.25^{*} \cdot$ UNIBUS/Q-bus/BIbus Supported • $\$ 3,595$


## - WM-S500

12 ${ }^{\text {² }}$ - 5GBytes • UNIBUS Supported • $\$ \mathbf{1 6 , 5 0 0}$

- XIM-31008
$5.25^{-} \cdot 680 \mathrm{MBytes} \cdot$ UNIBUS Supported
The XM-3100B is a half-high drive intended for the OEM and VAR market, priced at less than $\$ 600$ in quantities over 100 units.

U. S. Desian<br>Corporation<br>- 0 GT650<br>650MBytes • UNIBUS/ $/$-bus Supported • \$8,230

## Unbound, Inc.

- OPTO-5020 QUBE

800MBytes • UNIBUS Supported • $\$ 4,500+$
The quoted storage capacity is unformatted.

## Winchester

Systems, Imc.
■ Optical Disk
800MBytes
Embedded SCSI controller.

## Optical Subsystems

## Adept Digital <br> Systems, Inc.

## - OSI LD1200

## UNIBUS Supported

The OSI LD1200 includes an OSI LD1200 drive, cables, a host bus adapter, device driver software for VMS, RSX, and RT-11 operating systems, a software utility library, and sample application and demo software. An optical disk interface package is also available for $\$ 4,000$.

## Alphatronix

- Infinity

UNIBUS/Q-bus Supported
Infinity is a removable subsystem, available in single or dual drive units as well as standalone tower or desktop models. Provides random access to stored files. Designed to support DEC workstations.

## Aquidneck Systems International

## - 0AS 100

SCSI Supported • UNIBUS Supported \$23,300+

## - OAS 150

SCSI Supported • UNIBUS Supported \$28,300+

## - OAS 2000

SCSI Supported • UNIBUS Supported • $\$ 95,000+$

## - 0AS 3420

SCSI Supported • UNIBUS Supported • \$34,500+

## Aviv Corporation

## -assrano

UNIBUS/Q-bus Supported • \$32,000
Features three operating modes: Optical on-line (data transfer between host and disk), off-line copy (data transfer between disk and tape drive), and tape on-line for tape to host operation. Includes host adapter.

## Computer Upgrade <br> Corporation

## ■ OSR-VAX/U1

SCSI Supported • UNIBUS Supported • \$19,995

## Cygnet Systems, Inc. . 5250

SCSI Supported • UNIBUS Supported
The 5250 supports drives that are both

ISO and non-ISO conforming. It contains 25 cartridges and one or two drives.

## - Series 1800

The Series 1800 is an expandable jukebox that supports ATG, Hitachi, Optimem, and LMSI WORM drives. Contains up to five optical disk drives and up to 141 optical disks, providing up to 550 billion bytes of information.

## EMC Corporation

- Archeion 1000

SCSI Supported • UNIBUS/Q-bus Supported The Archeion 1000 emulates either a magnetic tape drive or a disk drive.

## Emulex Corporation

## -uxalo

SCSI Supported • UNIBUS/Q-bus Supported • \$19,340+
The LX400 requires Emulex's UC14 SCSIUNIBUS or UC04 SCSI-Q-bus host adapters. It also features a 340 Kbps read sustained data rate.

## - LX412

SCSI Supported • UNIBUS Supported • \$20,350+
The LX400 requires Emulex's UC14 SCSIUNIBUS or UC04 SCSI-Q-bus host adapters. It also features a 340 Kb bs read sustained data rate.

## IPS Technology

## - 2000

UNIBUS/BIbus Supported e $\$ \mathbf{2 4 , 4 9 5}$
The 2000 supports both disk and tape devices and includes an optical disk drive, a CPU adaptor and application software. It also supports random access of extremely large user databases on a removable optical media unit. The system is available with an optional disk storage capacity up to 4 GB . When ordering, please specify board number 2250 .

## ■ 2058

UNIBUS/BIbus Supported
Same as above. However, 1.6GB is the optional disk storage capacity. When ordering, please specify board number 2058

## KOM, Inc.

- OptiServer

UNIBUS/Q-bus Supported
Magnetic disk emulation allows application programs to be run against disk files. Cluster support provides cluster wide mounting of optical disk volumes.

## Laserdilive <br> - 840

SCSI Supported • Q-bus Supported
Features multiple track buffering with sector caching and bad sector mapping and a data access time of less than 175 ms over the entire 405 MB surface.

## MCS Computer <br> Prooucts, Imc.

## ons 100/150

UNIBUS Supported • \$38,500+

## Perceptics Corporation

## - LaserStar

May be configured with either the (LMS) ODSR featuring one drive holding 20 double-sided media or two drives holding 16 double-sided media or the Cygnet Se-
ries 1800 featuring one to five drives with double-sided media capacities from 15 to 42. The media capacity is 2 GB per doublesided disk. Includes a robotic disk handling mechanism, a media storage unit, and Perceptics LaserStar software.

## - LaserStar 2400

Includes LaserStar magnetic disk emulating software and jukebox management software, a Cygnet 1800 series expandable jukebox, Perceptics' Optimem 2400 optical disk drive, a SCSI host adapter, and associated cables and hardware.

## - LaserSystem

SCSI Supported
Includes Perceptics LaserWare file system software. This system may store up to 1GB on-line per drive or 2 GB on a removable cartridge. VAX/VMS 4.0 or higher is required

## - LaserSystem 525

SCSI Supported • UNIBUS/Q-bus Supported Includes Perceptic's LaserWare, a VMScompatible optical disk file system software package, providing directories using the standard WORMS-11 optical disk format.

## Pioneer Communications of America, Inc. <br> -55001 <br> SCSI Supported

## Qualogy, Inc.

## - QLC-5000

Q-bus Supported • \$19,000
Complete hardware and software product that partitions the optical media into multiple logical volumes to reduce the file access time to 300 ms .

## Scientific Micro Systems, Inc.

## $-601$

SCSI Supported • Q-bus Supported
Includes a formatter, an OSS software license with object code, cables and documentation.

## © 661

SCSI Supported • Q-bus Supported
Includes a formatter, an OSS software license with object code, cables and documentation. Designed for permanent storage for lower-volume standalone back-up, archive, and database applications.

## Summus <br> Computer Systems

- LightDisk-650

SCSI Supported • UNIBUS/Q-bus Supported
Used for augmenting disk capacities, offloading data files, providing high-capacity back-up for networks, archiving and distributing databases, image storing and retrieving, electronic publishing and fileserver applications.

## Tristar Technology

## - PE 3660-10

SCSI Supported • UNIBUS/Q-bus Supported • \$5,914
The PE $3660-1 \mathrm{D}$ is $100 \%$ plug compatible, removable media. Rackmount, table top or pedestal congifurations available. Features a SCSI interface for system configuration flexibility.

The Only $100 \%$
RACompatible DriveWith BetterPrice AndPerformance.

## Century Data



## 100\% RA Compatible

- Plug compatibility at disk level with no third party protocol conversion.
Totally transparent to DEC ${ }^{\circledR}$ hardware and operating system software.
- Runs all DEC system diagnostics with no system patches.
Can be used in conjunction with existing DEC drives.


## Superior Performance

■Up to 1.8 GB formatted per port.
■ 15 to 18 ms average seek.

- Data transfer rate up to $2.5 \mathrm{MB} / \mathrm{sec}$.
■Up to 8 GB in a single cabinet, 8 drive configuration.
- Substantially lower cost per MB.
- Mountable in existing DEC cabinet.

DEC is a registered trademark of Digital Equipment Corporation.


20 Pauren
9720 Patuxent Woods Dr. Columbia, MD 21046 $\begin{array}{lll}\text { Columbia, MD } & \text { Lowell, MA } & \text { Mifford, CT } \\ 800 / 950-6372 & 800 / 999-6780 & 800 / 777-0984\end{array}$ 301/290-8150 508/458-4100 203/878-6800
Morris Plains. NJ Philadelohia PA Charlotte. NC
Morris Plains, NJ Philadelphia, PA Chariotte, NC
$800 / 444-9238$
$800 / 333-8641$

$800 / 777-2340$ 201/538-8004 $215 / 644-3100 \quad 704 / 529-1792$ | Springfield, MA | Burlington, VT |
| :--- | :--- |
| $800 / 999$ |  | 800/999-6780 800/999-6780 Raleigh, NC Richmond, VA $\boldsymbol{e}_{\text {An Electrocomponents Company }}$

## - PE 3660-2D

SCSI Supported • UNIBUS/Q-bus Supported The PE $3660-2 \mathrm{D}$ is $100 \%$ plug compatible, removable media. Rackmount, table top or pedestal congifurations available. Features a SCSI interface for system configuration flexibility.

## U. S. Design <br> Corporation

- JukeVos

SCSI Supported • UNIBUS/Q-bus Supported • $\$ 35,000$

## - JukeVOS

SCSI Supported • UNIBUS/Q-bus Supported • $\$ 35,000$
The JukeVOS optical package is a complete package that controls the robotics of the 5.25 " and the 12 " jukebox. It interfaces with the VOS-T for DEC system operation and the VOS-U for SUN system operation.

## 00650

UNIBUS/Q-bus Supported • $\$ 8,723$

## 10S650

UNIBUS/Q-bus Supported • \$17,005
vos-t
SCSI Supported • UNIBUS/Q-bus Supported • \$1,995

## a VOS-T

SCSI Supported • UNIBUS/Q-bus Supported •
\$1,995
The VOS-T features optical software that is a complete optical subsystem that requires no changes to current systems. It allows the optical WORM cartridge to emulate a true magnetic disk as well as a DEC "Files II" device.

## Solid State Storage

Dataram Corporation

- DRD-202
- $\$ 16,400+$


## - DRD-204

- $\$ 12,500+$


## - DRD-207

- \$16,700

This model was designed for all VAX 11 Series under the VMS and RSX operating

# THE FASTEST RAM DISK in the world for DEC Q-bus \&Unibus computers 

-Available from 16MB to 512 MB -Ideal for use in hostile environments -MILITARY and MANUFACTURING USES -Fully emulates * MSCP protocol - Eliminates rotational latency \& seek time -NOW cost effective -Battery backup available



SEE FIRST TECHNOLOGY INC. 4655 Old Ironsides Drive. Suite 100 Telephone (408) 748-7717 Santa Clara CA 95054-3013 Facsimile (408) 748-7621
"the RAM disk \&RAM drive company"
*VAX, MSCP are rade marks of DIGITAL EOUIPMENT CORPORATION
systems and is also available with a dual porting option. It is capable of improving the performance of the existing CPU by $500 \%$ and is useful in I/O intensive applications.

## Digital Instruments Corporation

## QMDISK/internal - \$3,130

Quad width 4MB hardware subsystem with DEC VM: type device handler. For use with Q-bus systems (LSI-11, 16- to 22-bit) under RT-11, TSX+, I/O page mapped. Device may be shared, made bootable, linked with Fortran, etc., for extemely fast file access. Up to eight boards (32MB) may be installed in one backplane, fully auto configured, and accessible as one logical device. Acceleration may be increased three times when used as a boot-device and/or in CAD/CAM or other I/O intensive environments. Application areas include electronic imaging, CAD/CAM, data acquisition and hostile environments

## FPS Computing

- P64/110

The 64/110 unit is a solid-state disk designed for FPS Computing's M64 CPU Series.

## Imperial

Technology, Inc.

## - MegaCard-MP

The MegaCard-MP is a complete solid state disk emulating board that plugs directly into a backplane (two to five slots) interfacing to the UNIBUS. Also available with a multiport option.

## - MegaCard-RL

The MegaCard-RL is a complete solid state disk emulating board that plugs directly into a backplane (two to five slots) interfacing to the UNIBUS.

## - MegaCard-RL

The MegaCard-RL is a complete solid state disk emulating board that plugs directly into a backplane (two to five slots) interfacing to the UNIBUS.

## - MegaRam

## - MegaRam- VX

The MegaRam and MegaRam-VX are seven inch high rack-mountable modules that may be daisy-chained to provide over 2GB of data storage.

## - MG-K11

## - MG-L11

The MG-K11 and L-11 are solid state, nonrotating storage systems that interface to the CPU as if they were rotating disks. Equipped with internal microprogrammable controllers to provide several different emulations of DEC compatible disk drives.

## Memory Sciences Corporation

## FASTOR

## - \$12,000+

This product is most effective when used (1) as system disks, (2) to store data that is accessed constantly,(3) as temporary work storage for sorting, compiling, and linking, or (4) for database management systems.

## Pioneer Communications of America, Inc.

## CD-ROM Minichanger

The CD-ROM Minichanger is equipped with a six disk magazine cartridge

## See First

Technology, Inc.
-n0. 16

- RDE-32


## System Industries

## 1 MegaCart-MP

## - \$10,500+

Add-in high-speed solid state disks with MSCP emulation for UNIBUS and Q-bus systems. Provides head positioning times and high transfer rates. Optional high speed interface available. The transfer rate for Q -bus systems is 3.3 Mbps .

## - MegaCard-RL

- \$7,300+

Add-in solid state disk for UNIBUS systems, providing RL01 and RL02 emulations. Provides significant throughput increases. Optional high-speed interface available.

## - MegaRam-K11

- \$10,600+

The MegaRam-K11 is a solid state, nonrotating storage system which interfaces to the DEC CPU as if it were a rotating disk providing significant improvements in I/O throughput. It is equipped with an internal microprogrammable controller, providing several different emulations of DEC compatible disk drives.

## - MegaRam-L11

- $\$ \mathbf{1 0 , 6 0 0}+$

The MegaRam-L11 is a solid state disk storage system that appears to the DEC CPU as a standard RL01/02 device. It provides significant improvements in system throughput.

## - MegaRam-SDI

- $\$ \mathbf{1 8 , 0 5 0}+$

First solid state disk to provide direct connection to any DSA controller, including HSC and KDB50, for significantly improved I/O throughput performance. The access time is 1.25 milliseconds.

## - MegaRam-VX

- $\$ 14,00+$

A modular, MSCP compatible solid state disk for UNIBUS and Q-bus sytems that significantly improves I/O throughput performance. Optional high speed interface available.

## TAPE CONTROLLERS

| O゙ |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Aviv Corporation 617 933-1165 |  |  |  |  |  |  |  |  |  |  |  |
| TFC 835A | 4 |  | STC |  |  | UNIBUS | 64K |  | 1.25M |  |  |
| TFC 835B | 4 |  | Pertec |  |  | UNIBUS | 64K |  | 1m |  |  |
| TFC 835C | 4 |  | STC |  |  | UNIBUS | 64K |  | 1.5M |  |  |
| TFC 845 | 4 | 1/2" | STK/Pertec | $Y$ | $Y$ | UNIBUS | 64K | 60K | 3M | 1 yr | \$2,100+ |
| TFC 845C-1 | 4 |  | STK | Y | $Y$ | UNIBUS | 64 K | 60K | 3M | 1 yr |  |
| TFC 845C-2 | 4 |  | STK | $Y$ | $Y$ | UNIBUS | 64K | 60K | 3M | 1 yr | \$3,300 |
| TFC 8450-1 | 4 | 8mm | SCSI | $Y$ | $Y$ | UNIBUS | 64K | 60K | 3M | 1 yr | \$1,800 |
| TFC 8450-2 | 4 |  | SCSI | $Y$ | $Y$ | UNIBUS | 64K | 60K | 3M | 1 rr |  |
| TFC 9035 | 4 |  | STK/Pertec | $Y$ | $Y$ | Q-bus | 64K | 60K | 3M | 1 yr | \$2,155 |
| TFC 919 | 1 |  | Pertec | $Y$ | $Y$ | Q-bus | 16K | 60K | 1M | 1 rr | \$1,400 |
| TFC 925 | 4 |  | STC/Pertec | $Y$ | $Y$ | Q-bus | 8K | 60K | 1.25M |  | \$2,800 |
| TFC 925C | 4 |  | STK | Y | $Y$ | a-bus | 8K | 60K | 1.5M | 1 yr | \$2,900 |
| TFC 935 | 4 |  | STK/P/SCSI | $Y$ | $Y$ | Q-bus | 64K | 60K | 3M | 1 yr | \$2,000+ |
| TFC 935C-1 | 4 |  | STK | $Y$ | $Y$ | Q-bus | 64K | 60K | 3M | 1 yr |  |
| TFC 935C-2 | 4 |  | STK | $Y$ | $Y$ | U/Q | 64K | 60K | 3M | 1 yr | \$3,300 |
| TFC 9350-1 | 4 |  | SCSI | $Y$ | $N$ | Q-bus | 64K | 60K | 3M | 1 yr | \$1,800 |
| TFC 935D-2 | 4 |  | SCSI | $Y$ |  | Q-bus | 64K | 60K | 3M | 1 yr |  |
| CMS Enhancements, Inc. 714 259-9555 |  |  |  |  |  |  |  |  |  |  |  |
| CQS-20T | 7 |  | SCSI |  |  | Q-bus | 64K |  | 2M |  | \$1,020 |
| CUS-70T | 7 | 8 mm | SCSI |  |  | UNIBUS | 64K |  | 2M |  | \$1,244 |
| DILOG 714 937-5700 |  |  |  |  |  |  |  |  |  |  |  |
| SQ703A | 4 | 8 mm | SCSI |  | $Y$ | Q-bus | 64K |  | 1.5M | 1 yr | \$1,500 |
| SQ713A | 4 | 8 mm | SCSI |  | $Y$ | Q-bus | 64K |  | 2-4M | 1 yr | \$1,675 |
| SU723A | 4 | 8 mm | SCSI |  | $Y$ | UNIBUS | 64K |  | 1.5M | 1 rr | \$1,875 |
| IPS Technology 713 870-0880 |  |  |  |  |  |  |  |  |  |  |  |
| IPS 8715 |  |  |  |  |  | U/B |  |  |  |  | \$14,000+ |
| Miltope Corporation 516 420-0200 |  |  |  |  |  |  |  |  |  |  |  |
| TC 11 | 4 |  |  | N |  | UNIBUS |  |  |  | 120 d | \$20,500 |
| Secondary Computer Storage 215 362-7050 |  |  |  |  |  |  |  |  |  |  |  |
| 6000 TAPESTORE | 4 |  | SCSI |  |  |  |  |  |  |  | \$3,000+ |
| Sigma Information Systems 714 630-6553 |  |  |  |  |  |  |  |  |  |  |  |
| STC-TAK11/SCSI |  |  | SCSI |  |  | UNIBUS |  |  |  |  | \$1,600 |
| STC-TQK11A |  |  | QIC-02 |  |  | UNIBUS | 32K |  |  |  | \$1,600 |
| STC-TSV11 | 2 |  |  |  |  | Q-bus | 32K |  |  |  | \$1,495 |
| Spectra Logic Corporation 408 734-8121 |  |  |  |  |  |  |  |  |  |  |  |
| S-121 + | 4 |  | Pertes |  |  |  | 64 K |  | 1M |  |  |
| System Industries 408 432-1212 |  |  |  |  |  |  |  |  |  |  |  |
| 9700 FCU | 3 |  | S1 9700-53 |  |  | UNIBUS |  |  |  |  |  |
| Telebyte Technology, Inc. 516 423-3232 |  |  |  |  |  |  |  |  |  |  |  |
| TDX-1050 | 4 |  | RS232 | N | $N$ | UNIBUS | 4K |  |  | 1 yr | \$2,000 |
| U. S. Design Corporation 301 577-2880 |  |  |  |  |  |  |  |  |  |  |  |
| 1158-01 | 8 |  |  |  |  | UNIBUS |  |  |  |  | \$2,000 |

## TAPE CONTROLLERS



## TAPE COUPLERS

| む |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DILOG 714 937-5700 |  |  |  |  |  |  |  |  |  |  |  |  |
| DQ132 | 4 | 1/2" | Q-bus | 9 T | Y | 800-6250 | 450K | 1K | 12.5-100 | 0 | 1 yr | \$1,200 |
| D0142 | 4 | 1/2" | Q-bus | 9 T | $Y$ | 800-6250 | 450K |  | 12.5-125 | 0 | 1 yr | \$1,675 |
| D0152 | 1 | 1/2" | a-bus | $9{ }^{9}$ | Y | 800-6250 | 1.25M | 64K | 12.5-100 | D | 1 yr | \$1,200 |
| D0153 | 4 | 1/2" | 0-bus | 9 T | $Y$ | 800-6250 | 1.25M | 64K | 12.5-200 | D | 1 yr | \$1,200 |
| D03153 | 4 | 1/2" | Q-bus | 9 T | $Y$ | 800-3200 | 1.25M | 64K | 12.5-200 | 0 | 1 yr | \$1,350 |
| DU132 | 4 | 1/2" | UNIBUS | 9 T | $Y$ | 800-3200 | 450K | 1K | 12.5-100 | 0 | 1 yr | \$1,550 |
| DU142 | 4 | $1 / 2^{\prime \prime}$ | UNIBUS | 9 T | $Y$ | 800-6250 | 1M | 4K | 12.5-125 | 0 | 1 yr | \$2,000 |
| Emulex Corporation 714 662-5600 |  |  |  |  |  |  |  |  |  |  |  |  |
| QT13 | 1-2 | 1/2" | Q-bus | 9 T | Y | 800-6250 | 1M | 64K | 12.4-140 | 0 | 1 yr | \$1,095 |
| QT14 | 1-2 | 1/2" | Q-bus | 9 gT | $Y$ | 800-6250 | 1M | 64K | 12.5-140 | 0 | 1 yr | \$1,395 |
| TC13 | 1-4 | 1/2" | U/B | $9 \mathrm{9T}$ | Y | 800-6250 | 800K | 3.5K | 12.5-125 | 0 | 1 yr | \$1,700 |
| TC7000 | 1-8 | $1 / 2^{\prime \prime}$ | UNIBUS | 9 T | $Y$ | 800-6250 | 1.5M | 512K | 12.5-125 | XH |  | \$4,500 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| TC-30 | 8 | 1/2" | UNIBUS | 9 T | N | 800-6250 | 640K | 64 K |  | 0 | 1 yr | \$1,575 |
| TC-50 | 8 | 1/2" | Q-bus | $9{ }^{9}$ | N | 800-6250 | 640K | 64K | 125 | 0 | 1 yr | \$1,575 |
| TD-IV | 1 | 1/2" | UNIBUS | 9 T | $Y$ | 1600/6250 |  | 64K | 125 | H | 1 yr | \$1,925 |
| TDQ-III | 1 | 1/2" | a-bus |  | $Y$ | 1600/6250 | 1.67M | 64K | 125 | 0 | 1 yr | \$1,375 |
| TDQ-IV | 1 | 1/2" | Q-bus |  | Y | 1600/6250 | 1.67M | 64K | 125 | 0 | 1 yr | \$1,375 |

## TAPE DRIVES



# The advantage to our 8 mm tape drive iswritten acrossour face. 

Get the tape backup system that makes it easy to find out the facts. Our CY-8200 has a 2-line, 40 column LCD option that gives you complete status information. In easy-to-read, precise format, you see transfer rate, command under execution, unused tape in megabytes, and the ECC rate indicating backup integrity. No guesswork... just the facts.

## State-of-the-art helical scan tech-

 nology. You get all the advantages of advanced helical scan technology, operating speeds of up to 15 Mb per minute, 2.3 Gb of formatted capacity on a single 8 mm tape, major time savings from unattended backup, and tremen-

an unsurpassed price/performance ratio.

## Total flexibility, total support. The

 CY-8200 can be configured to meet all your site requirements. Choose from tabletop or 19 " rack mounting options, hard disk combinations, and cable lengths up to 80 feet. The CY-8200 subsystems provide turnkey solutions for a wide variety of systems, such as true plug-and-play compatibility with direct interface to Pertec standard 9 -track tape controllers.And nobody matches our support. The CY-8200's full 12-month warranty includes unlimited technical support, direct from our in-house engineering and technical support group.


Up to four
CY-8200 drives can be mounted in our standard $19^{\prime \prime}$ rack.

For full information on the CY-8200 high-speed, high-capacity, 8 mm tape subsystem call us at (804) 873-0900.


11830 Canon Boulevard Newport News, Virginia 23606
(804) 873-0900

FAX (804) 873-8836

## TAPE DRIVES



## TAPE DRIVES




The Only VAXBI Bus Backup Device You Can Buy.

t's sort of ironic that so many big, powerful VAX systems have to get by with little, slow cartridges or reel-to-reel drives for disk backup.

Wouldn't it be great if somebody offered a high-capacity cartridge drive with a direct, high-performance attachment to the VAXBI Bus?

Now, somebody does. Presenting MegaTape's GT-88 VAXBI 8mm car-
tridge subsystem. A breakthrough that lets high-end VAX users enjoy the enormous capacity of 8 mm without bus adapters or other bottlenecks.
The result is far greater capacity and convenience than 9-track streamers -at a fraction of the cost.

Each GT-88 cartridge stores up to 2 gigabytes of data, costs around $\$ 10$, and fits easily into your shirt pocket.

Exabyte-compatible data formatting lets you interchange cartridges with virtually any other 8 mm subsystem.

MegaTape's proprietary VAXBI controller is completely TMSCPcompatible, and lets your system zip through backup chores using your standard VMS or Ultrix backup utilities.

## NOW: 8MM ON VAXBI BUS. ANOTHER MEGATAPE EXCLUSIVE!

The GT-88 VAXBI subsystem offers something else that's crucially important, too: support capability built on nearly a decade of advancing the state of the backup art.

So if youd like your VAX backups to really fly, there's only one place to catch the Bus: MegaTape.
P.S. We also offer the industry's "best buy" QBUS and Unibus subsystems, too!
VAX, VAXBI, QBUS, Unibus, VMS and Ultrix are trademarks of Digital Equipment Corp.
© 1989 MegaTape Corporation

## MEGATAPE CORPORATION

1041 Hamilton Road
Duarte, CA 91010-0317
(818) 357-9921 • Telex: 5106007131

Telefax: (818) 357-2369

## * 뚤ㅌ

TheGreat Leap Forward In Backup.

## TAPE SUBSYSTEMS



## TAPE SUBSYSTEMS

| む్ İ |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DILOG 714 937-5700 |  |  |  |  |  |  |  |  |  |  |  |  |
| 3480 |  |  |  | Cart | .5" |  |  | 2.3G | U/Q | 512K |  | \$15,000 |
| MVO-K | 1 |  | 35 m | Cart | 8 mm | SCSI | . 429 | 2.3 G | U/Q | 256K | Y |  |
| SSSO-K | 1 | 1 | 35m | Cart | 8 mm | SCSI | . 429 | 2.3G | U/Q | 256K | $Y$ | \$4,950 |
| T3834 | 1 |  |  | Cart | .5" | Pertec | 111 | 570M | U/Q | 512K | $Y$ | \$11,610 |
| T9610 | 1 |  |  | 9 T | 10.5" | Pertec | 50-100 | 180M | U/Q |  | $Y$ | \$10,755 |
| T990 | 1 |  |  | 9 T | 14" | Pertec |  | 180M | U/Q | 64K | Y | \$9,945 |
| Emulex Corporation 714 662-5600 |  |  |  |  |  |  |  |  |  |  |  |  |
| EH23 |  |  |  | Cart | 8 mm | SCSI |  | 2.3G | Q-bus |  |  |  |
| S13C04/J | 2 | 1 | 1600 | Cipher |  |  | 45-300 |  |  |  | N | \$8,920+ |
| S13C04/0 | 1 | 1 | 1600 | Cipher |  |  | 45-300 |  |  |  | Y | \$8,800 |
| S13C07/J | 2 | 1 | 1600-6250 | Cipher |  |  | 70-100 |  |  |  | N | \$13,655+ |
| S13C07/0 | 2 | 1 | 1600-6250 | Cipher |  |  | 70-100 |  |  |  | Y | \$13,545 |
| Exabyte Corporation 303 442-4333 |  |  |  |  |  |  |  |  |  |  |  |  |
| EXB-8200 | 1 | 1 | 54K | Cart | 8mm | SCSI | . 43 | 2.36 | U/Q | 256K | Y | \$3,850 |
| Gigatrend, Inc. 619 931-9122 |  |  |  |  |  |  |  |  |  |  |  |  |
| GIGA-1230 | 8 | 5 |  | Cass | 4mm | SCSI/Pertec | . 32 | 16 | U/Q | 512K | Y |  |
| Group Three Electronics 408 747-1800 |  |  |  |  |  |  |  |  |  |  |  |  |
| 4489 |  |  | 1600/3200 | 9 T | .5" | Pertec |  | 90M | Q-bus |  |  |  |
| 4490 |  |  | 1600/3200 | R-R | .5" | Pertec |  | 180M | Q-bus |  |  |  |
| Honeywell 303 773-4491 |  |  |  |  |  |  |  |  |  |  |  |  |
| VLDS |  |  |  |  |  |  |  | 5.2G |  |  |  |  |
| Innovative Data Technology 619 587-0555 |  |  |  |  |  |  |  |  |  |  |  |  |
| MTS1012-1/130 | 1 |  | 1600 | 9 T | 7/10.5" | Pertec |  | 45M | UNIBUS | 1K |  | \$5,995 |
| MTS1012-2/130 | 1 |  | 1600 | 97 | 7/10.5" | Pertec |  | 45M | UNIBUS | 1K |  | \$5,995 |
| MTS1012-3/130 | 1 |  | 1600 | $9{ }^{9}$ | 7/10.5" | Pertec |  | 45M | UNIBUS | 1K |  | \$5,995 |
| MTS1053/130 | 4 |  | 800/1600 | 7/9T | .5" | Pertec | 45 | 45M | UNIBUS | 1K |  | \$7,500 |
| MTS1054/130 | 4 | 8 | 800/1600 | 7/9T | .5" | Pertec | 45 | 45M | UNIBUS | 1K |  | \$7,450 |
| MTS1753/130 | 4 |  | 800/1600 | 7/9T | .5" | Pertec | 75 | 45M | UNIBUS | 1K |  | \$8,800 |
| MTS1754/130 | 4 |  | 800/1600 | 7/9T | .5" | Pertec | 75 | 45M | UNIBUS | 1K |  | \$8,750 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 8715 |  |  |  |  |  |  | 24-200 |  | U/B |  |  | \$14,000+ |
| Megatape Corporation 818-357-9921 |  |  |  |  |  |  |  |  |  |  |  |  |
| GT-88/3 | 4 | 1 | 54K | Cart | 8mm |  | 150 | 2G | Q-bus | 256K | Y |  |
| GT-88/4 | 4 | 1 | 54K | Cart | 8 mm |  | 150 | 2 G | Unibus | 256K | Y |  |
| GT-88/5 | 4 | 1 | 54K | Cart | 8 mm |  | 150 | 2 G | Q-bus | 256K | $Y$ |  |
| GT-88/6 | 7 | 1 | 54K | Cart | 8 mm |  | 150 | 2 G | Blbus | 256K | $Y$ |  |
| MT-750 | 1 | 1 |  | Cart | .5" |  | 120 | 630M | Blbus | 512K | $Y$ |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| MA-100 | 4 |  | 1600/6250 | 9 T |  | SCSI | 50-100 | 145M |  |  |  | \$35,000 |
| MA-200 | 4 | 2 | 1600/6250 | $9{ }^{9}$ |  |  | 200 | 145M | U/Q | 512K | Y | \$58,000 |
| MA-24 | 16 | 2 | 35m | Cart | 5.25" |  | 150 | 4 G | U/Q | 768K | $Y$ | \$28,500 |
| MTQ-223 | 2 | 1 | 35m | 8 mm | $5.25{ }^{\prime \prime}$ |  | 150 | 4 G | a-bus | 768K | Y | \$14,000 |
| MTQ-23 | 1 | 1 | 35m | Cart | 5.25 " |  | 150 | 2 G | a-bus | 768K | $Y$ | \$7,500 |
| MTU-223 | 2 | 1 | 35m | 8 mm | $5.25{ }^{\prime \prime}$ |  | 150 | 46 | UNIBUS | 768K | Y | \$14,500 |
| MTU-23 | 1 | 1 | 35m | 8 mm | $5.25{ }^{\prime \prime}$ |  | 150 | 2G | UNIBUS | 768K | $Y$ | \$8,500 |
| Scientific Micro Systems, Inc. 415 964-5700 |  |  |  |  |  |  |  |  |  |  |  |  |
| SMS 1000-10 | 1 |  |  | Cart | .25" |  | 90 | 120M | Q-bus |  |  |  |

## TAPE SUBSYSTEMS



## Extra Copies @ \$75


Call Lori Ulbrich at
(215) 957-1500. (\$75)

## Tape Controllers

## Aviv Corporation

- TFC 835A

4 Supported Drive(s) - STC Interface(s)
Supported • UNIBUS Supported

## TFC 835B

4 Supported Drive(s) • Pertec Interface(s) Supported • UNIBUS Supported

## - TFC 835 C

4 Supported Drive(s) - STC Interface(s)
Supported • UNIBUS Supported
The TFC 835A, 835B, and 835C are programmed to delay tape acceleration until a preset amount of data is transferred into the data buffer and then to interrupt as soon as the record is contained in the buffer on the controller.

## - TFE 845

4 Supported Drive(s) • $1 / 2^{\prime \prime} \cdot$ STK/Pertec Interface(s) Supported • UNIBUS Supported • \$2,100+
Compatible with DEC operating systems RSX-11,TSX-11 PLUS, RT-11, VMS, UNIX and ULTRIX. Compatible with all .5 " GCR tape drives equipped with STK interface operating up to 125ips.

## - TFC 845C-1

4 Supported Drive(s) • STK Interface(s)
Supported • UNIBUS Supported

## - TFC 845C-2

4 Supported Drive(s) - STK Interface(s)
Supported • UNIBUS Supported • \$3,300

## - TFC 8450-1

4 Supported Drive(s) • $8 \mathrm{~mm} \cdot$ SCS Interface(s) Supported • UNIBUS Supported • $\$ 1,800$

## ITFC 8450-2

4 Supported Drive(s) - SCSI Interface(s)
Supported • UNIBUS Supported
The TFC 845C and 845D Series is compatible with DEC operating systems RSX-11, TSX-11 PLUS, RT-11, VMS, UNIX and ULTRIX.

## - TFC 9035

4 Supported Drive(s) • STK/Pertec Interface(s)
Supported • Q-bus Supported •\$2,155
Compatible with VMS and ULTRIX.

## $\square$ TFC 919

1 Supported Drive(s) • Pertec Interface(s)
Supported • Q-bus Supported •\$1,400

## - TFC 925

4 Supported Drive(s) - STC/Pertec Interface(s) Supported • Q-bus Supported • $\$ 2,800$

## - TFC 925C

4 Supported Drive(s) - STK Interface(s)
Supported • Q-bus Supported • \$2,900

## - TFC 935

4 Supported Drive(s) • STK/Pertec/SCSI Interface(s) Supported • Q-bus Supported • $\$ 2,000+$

## - TFC 935C-1

4 Supported Drive(s) - STK Interface(s)
Supported • $\mathbf{Q}$-bus Supported

## - TFC 935C-2

4 Supported Drive(s) • STK Interface(s)
Supported • UNIBUS/Q-bus Supported •
$\$ 3,300$
The TFC 919, 925, 925C, 935, and 935C-1
are programmed to delay tape acceleration until a preset amount of data is transferred into the data buffer and then to interrupt as soon as the record is contained in the buffer on the controller.

## - TFC 9350-1

4 Supported Drive(s) - SCSI Interface(s) Supported • Q-bus Supported • $\$ 1,800$ Programmed to delay tape acceleration until a preset amount of data is transferred into the data buffer and then to interrupt as soon as the record is contained in the buffer on the controller. Compatible with slower drives such as helical scan.

## - TFC 935D-2

4 Supported Drive(s) • SCSI Interface(s) Supported • Q-bus Supported
Programmed to delay tape acceleration until a preset amount of data is transferred into the data buffer and then to interrupt as soon as the record is contained in the buffer on the controller.

## CMS

Enhancements, Inc.

## COS-20T

7 Supported Drive(s) • SCSI Interface(s) Supported • Q-bus Supported1,020
Q-bus to SCSI controller that supports DMA block mode and utilizes error recovery algorithms to correct media errors that are concurrent with operating system backup/restore operations to ensure data :integrity.

## - Cus-70T

7 Supported Drive(s) • $8 \mathrm{~mm} \cdot$ SCSI
Interface(s) Supported • UNIBUS Supported • \$1,244
Intelligent UNIBUS toSCSI controller that supports 16 KB data buffering, command queuing, standard SCSI bus arbitration, disconnect, reconnect, and all SCSI commands.

## DILOG

## ■

4 Supported Drive(s) •8mm • SCSI
Interface(s) Supported • Q-bus Supported • \$1,500
Features block mode memory capability, a 16 entry command queue, and a single ended, asynchronous interface. Also supports 9 track tape drives.

## - SQ713A

4 Supported Drive(s) • 8mm • SCSI Interface(s) Supported • Q-bus Supported • \$1,675
Features block mode memory capability, a 16 entry command queue, and a single ended, asynchronous interface

## - SUT23A

4 Supported Drive(s) • $8 \mathrm{~mm} \cdot$ SCSI
Interface(s) Supported • UNIBUS Supported • \$1,875
Features an automatic self-test function that prevents critical data from being overwritten. Also supports 9 track tape drives.

## IPS Technology

- IPS 8715

UNIBUS/BIbus Supported • $\$ 14,000^{+}$
The IPS 8715 is also available as a subsystem.

## Miltope Corporation

- TC 11

4 Supported Drive(s) • UNIBUS Supported • \$20,500
The TC 11 is MIL qualified.

## Secondary Computer Storage

## 6000 TAPESTORE

4 Supported Drive(s) • SCSI Interface(s) Supported • $\$ 3,000+$

## Sigma Information Systems

## - STC-TQK11/ScsI

SCSI Interface(s) Supported • UNIBUS
Supported •\$1,600
Interfaces a SCSI cartridge tape drive to any DEC UNIBUS system with self-diagnositc features.

## STC-TQK11A

OIC-02 Interface(s) Supported • UNIBUS
Supported •\$1,600

## - STC-TSV11

2 Supported Drive(s) • Q-bus Supported • \$1,495

## Spectra Logic Corporation

## - S -121+

4 Supported Drive(s) • Pertec Interface(s) Supported

## System Industries

## - 9700 FCU

3 Supported Drive(s) • SI 9700-53 Interface(s) Supported • UNIBUS Supported

## Telebyte <br> Technology, Inc. <br> - TDX-1050

4 Supported Drive(s) • RS232 Interface(s) Supported • UNIBUS Supported • \$2,000
The TDX-1050 features asynchronous and synchronous RS232 serial support up to 56 Kbps , an intelligent controller, programmable \& non-programmable modes, as well as bisynchronous transparent protocol.

## U.S. Design Corporation

-1158-01
8 Supported Drive(s) • UNIBUS Supported • \$2,000

## Wespercorp

- TC-130

1-8 Supported Drive(s) • Pertec/Kennedy/CDC Interface(s) Supported • UNIBUS Supported • \$4,000

- TC-131

1-8 Supported Drive(s) • Pertec/Kennedy/CDC Interface(s) Supported • UNIBUS Supported • \$3,500
Equipped with a bit slice microprocessor and provides an interface for a tape system operating at 25 to 125 ips . It requires Wespercorp's TM11 tape drive.

- TC-151

1-8 Supported Drive(s) $\bullet 1 / 2^{\bullet} \bullet$ Pertec/ Kennedy/CDC Interface(s) Supported • UNIBUS Supported - \$3,300
Standard Pertec interface for use with $1 / 2^{\prime \prime}$ start-stop unformatted tape drives. Emulates TM11/TU10.

## DILOG

## - DQ132

4 Supported Drive(s) • 1/2" • 9T•Q-bus
Supported •\$1,200
Features DEC TS11/TSV05 emulation.

## 00142

4 Supported Drive(s) • 1/2" • 9T• Q-bus
Supported • \$1,675
Features DEC TS11/TSV05 emulation.

## - DQ152

1 Supported Drive(s) • 1/2" • 9T• Q-bus
Supported • \$1,200
Features DEC TS11/TSV05 emulation.

## - DQ153

4 Supported Drive(s) • 1/2" $\cdot 9 T \cdot$ Q-bus
Supported • \$1,200
TU driver compatible

## $\square 003153$

4 Supported Drive(s) • $1 / 2^{\prime \prime} \cdot 9 T \cdot$ Q-bus
Supported •\$1,350
Designed for use with MicroVAX $3 \times 00$ systems. Features include TU driver compatibility, parity generation and verification, volume check, logical end of tape and data error status from the tape drive. Meets new EMI and RFI standards.

## - DU132

4 Supported Drive(s) • $1 / 2^{\text {n }} \cdot 9$ • UNIBUS
Supported •\$1,550

## BU142

4 Supported Drive(s) $\cdot 1 / 2^{\text {n }} \cdot 9 \mathrm{~T} \cdot$ UNIBUS
Supported •\$2,000

## Emulex Corporation

1-2 Supported Drive(s) • 1/2" • 9T • Q-bus Supported •\$1,095

## - 0 T14

1-2 Supported Drive(s) • 1/2" • 9T • Q-bus
Supported •\$1,395
The QT13 and 14 are designed specifically for the MicroVAX 3500/3600. Toggle switches allow either TMSCP or TSV05 emulation. Perform in either standard 16 block mode DMA or adaptive DMA modes to allow bus releases in middle of block mode DMA transfers, allowing other CPU functions during high speed tape data transfers.

## TC13

1-4 Supported Drive(s) • 1/2"•9T•UNIBUS/
Blbus Supported •\$1,700
This is a high speed 8 -bit bipolar micropro-cessor-based tape coupler for formatted tape transports. It supports both start/ stop and streaming tape drives, although the two different types may not be mixed in one configuration.

## - TC7000

1-8 Supported Drive(s) • 1/2" • 9T • UNIBUS Supported - \$4,500
This is a high speed bipolar microproces-sor-based tape coupler for formatted tape transports. It supports both start/stop and streaming tape drives, although the two different types may not be mixed in one configuration. Emulates TGU77 and TEU77 functions.

## Wespercorp

- TC-30

8 Supported Drive(s) • $1 / 2^{\prime \prime} \cdot 9 \mathrm{~T} \cdot$ UNIBUS
Supported •\$1,575

## TC-50

8 Supported Drive(s) • 1/2" • 9T • Q-bus Supported • $\mathbf{\$ 1 , 5 7 5}$
The TC-30 and -50 emulate the DEC TM11/ TU10 tape system, and transparently control both start/stop and streaming drives. Require Wespercorp's TM11 tape drive as well as additional software for streaming applications.

## ■TD-IV

1 Supported Drive(s) • $1 / 2^{2} \cdot 9 \mathrm{~T} \cdot$ UNIBUS Supported - \$1,925
Emulates the DEC TS11 tape subsystem Stores multiple records to ensure that streaming drives operate at 125 ips and that start/stop drives with 6250 bpi operate at 200 ips .

## - TDQ-III

1 Supported Drive(s) • 1/2" • Q-bus Supported - \$1,375

This model is for a Pertec interface. Emulating the DEC TS11 and TSV05 tape subsystems, the TDQ-III uses standard TS11 and TSV05 registers and vector to simplify system interface.

## - TDQ-IV

1 Supported Drive(s) • 1/2" • Q-bus Supported - \$1,375

This model is compatible with a STC or Telex interface. Emulating the DEC TS11 and TSV05 tape subsystems, the TDQ-IV uses standard TS11 and TSV05 registers and vector to simplify system interface.

## Tape Drives

## 3M Corporation

- CompacTape
$.5 " \cdot$ Cartridge Tape


## American Digital Systems, Inc.

- MasterTape II
$8 \mathrm{~mm} \cdot$ Cartridge Tape • SCSI Interface(s) Supported • UNIBUS/Q-bus Supported • $\$ 4,995$
The MasterTape II features helical scan technology and low and high streaming tape speeds of 246 Kbps and 1.5 Mbps , re spectively.


## Appled Data <br> Communications

## - CD-2500

$.5 " \bullet$ Cartridge Tape • Pertec/SCSI Interface(s) Supported • UNIBUS Supported
The CD-2500 is a standalone unit that transfers file images from source media to its 337 MB internal disk drive and then to the target tape or optical drive. This unit duplicates two to 16 data cartridges simultaneously.

## - CD-2500

$.5 " \bullet$ Cartridge Tape • Pertec/SCSI Interface(s) Supported • UNIBUS Supported

## - CD-2500

$.5^{\prime \prime} \bullet$ Cartridge Tape • Pertec/SCSI Interface(s) Supported • UNIBUS Supported
© CD-2500
$.5 " \bullet$ Cartridge Tape • SCSI Interface(s) Supported • UNIBUS Supported • $\$ 83,000$ The CD-2500 Series features standalone units that transfer file images from source media to 337 MB internal disk drives and then to the target tape or optical drives.

## Cipher Data <br> Prooucts, Inc.

- 5880
$.5^{\prime \prime} \bullet 97 \bullet$ SCSI* Interface(s) Supported •


## $\$ 4,000$

The F880 Microstreamer is equipped with a microprocessor; however, a coupler is required. Read and write access times are 40 ms at 25 ips and 260 ms at

## - F880-1I

.5" • 9T • SCSI* Interface(s) Supported The F880 Microstreamer II is equipped with a microprocessor; however, a coupler is required. Read and write access times are 120 ms .

## - 1890

$5 " \bullet 9 \mathrm{e} \bullet$ SCSI* Interface(s) Supported • $\$ 5,100$

## - M890

$.5 " \bullet 9 \mathrm{e} \bullet$ SCSI* Interface(s) Supported • \$5,100
The M890 is a cache tape drive that features both a microprocessor and a DMA controller, which supervise drive and data management functions of the cache. Consists of 64 KB RAM. Requires a coupler.

## - M891

. $5^{\prime \prime}$ • $9 \mathrm{~T} \bullet$ SCSI* Interface(s) Supported • $\$ 5,100$

## - M891

$.5 " \bullet 9 T$ - SCSI* Interface(s) Supported • \$5,100
The M891 is a cache tape drive and features both a microprocessor and a DMA controller, which supervise drive and data management functions of the cache. The cache consists of 64 KB RAM. This tape drive requires a tape coupler.

## - Mg90

$.5^{\prime \prime} \bullet 9 \mathrm{C} \cdot$ SCSI* Interface(s) Supported •

## \$9,000

The M990 GCR cache tape drive is ideal for large volume disk file users requiring high performance. This device requires a coupler.

## - 9990

$.5 " \bullet 9 \mathrm{e} \bullet$ SCSI* Interface(s) Supported • \$9,000
Cache tape drive is ideal for large volume disk file users requiring high performance. Requires a coupler.

## - 9990

$.5 " \bullet 9 \mathrm{P} \bullet$ SCSI* Interface(s) Supported • \$9,000
The M990 GCR cache tape drive is ideal for large volume disk file users requiring high performance. This device requires a coupler.

## © ST150S

$.5^{5} \cdot$ Cartridge Tape • SCSI Interface(s) Supported • UNIBUS Supported

- TD 1751
$.5^{\bullet} \cdot \mathrm{R}-\mathrm{R} \cdot \$ 7,100_{+}$
- TD 1752
$.5^{*} \cdot \mathrm{R}-\mathrm{R} \cdot \$ 7,100_{+}$
- TD 1753
$.5^{*} \cdot \mathrm{R}-\mathrm{R} \cdot \$ 7,100_{+}$
- TD 1754
$.5^{*} \bullet$ R-R $\bullet$ UNIBUS Supported $\bullet \$ 7,100+$
- TD1012-1
.5 • R-R • UNIBUS Supported • $\$ 3,250$
© TD1012-2
$.5^{\circ} \bullet$ R-R • UNIBUS Supported • $\$ 3,250$
- TD1012-3
. $5^{-} \cdot \mathrm{R}$-R • UNIBUS Supported •\$3,250


## - T01051

$.5^{\prime \prime} \bullet$ R-R • UNIBUS Supported • $\$ 5,400+$ Innovative Data Technology's line of tape drives supports both traditional tape storage and data interchange in the start/stop mode and disk backup in the streaming mode. Up to eight drives may be daisychained together

## Kemiedy Company

- 9000
$.5^{\bullet} \bullet 7 / 9 \mathrm{P} \bullet$ Kennedy Interface(s) Supported • UNIBUS Supported - $\$ 5,100+$
The 9000 features a built-in test panel and a 480DC power requirement option.


## - 9100

.5" • 7/9T • Kennedy Interface(s) Supported • UNIBUS Supported - $\$ 6,500+$

## - 9300

.5" $\cdot 7 / 9 \mathrm{~T} \bullet$ Kennedy Interface(s) Supported $\bullet$ UNIBUS Supported • $\$ 7,550+$
The 9100 and the 9300 feature built-in test panels. Please note that the storage capacity reflects an unformated value

## $\square 9400$

.50 - 9 T - STC/Pertec Interface(s) Supported • UNIBUS Supported • $\$ 12,000$
The 9300 features power up and off line diagnostics.

## 19600 A

$.5^{\circ} \bullet 9 \mathrm{~T} \bullet$ Pertec Interface(s) Supported • UNIBUS Supported • $\$ 5,300$

## ■ 9602

$.5^{5}$ - 9 T - SCSI Interface(s) Supported • UNIBUS Supported - $\$ \mathbf{6 , 3 0 0}$
The data access time is 100 ms at 100 ips for the 9600 A and 9602 models.

## . 9610

$.5^{\circ} \bullet 9 \mathrm{P}$ • Pertec Interface(s) Supported • UNIBUS Supported
The 9610 features extensive power up and off line diagnostics. The data read access times at 50 ips and 100 ips are .7 ms . The read and write data access times for 800/ $1600 / 3200$ formats are 4.2 ms and 3.8 ms , respectively. The read and write data access times for the 6250 format are 2 ms and 1.2 ms , respectively.

## - 9650

$.5^{-} \bullet 9 \mathrm{~T} \bullet$ Pertec Interface(s) Supported • UNIBUS Supported • $\$ 5,500$

## . 9652

$.5^{5} \bullet 9 \mathrm{~T}$ • SCSI Interface(s) Supported • UNIBUS Supported • $\$ 6,500$
The 9650 and 9652 feature desktop enclosures as well as extensive power up and off
line diagnostics. Data access times are 100 ms at 100 ips .

## -9660

$.5 \mathrm{~m} \cdot 9 \mathrm{~T} \bullet$ Pertec Interface(s) Supported • UNIBUS Supported

## - 9662

. 5 • 9T • SCSI Interface(s) Supported • UNIBUS Supported
The 9660 and the 9662 feature extensive power up and off line diagnostics. Data read access times at 50 ips and 100 ips are .7 ms . The read and write data access times for $800 / 1600 / 3200$ formats are 4.2 ms and 3.8 ms , respectively. The read and write data access times for the 6250 format are 2 ms and 1.2 ms , respectively.

## - 9700

.5 • $7 / 9 \mathrm{P} \cdot$ Kennedy Interface(s) Supported • UNIBUS Supported • \$4,050+

## - 9800

$.5 " \bullet 7 / 9 \mathrm{~T} \bullet$ Kennedy Interface(s) Supported • UNIBUS Supported • $\$ 4,500_{+}$
The 9700 and the 9800 feature 480 DC power options.

## Laser Magnetic Storage

## - Keystone-92181

$.5^{5} \bullet$ R-R • Pertec/SCSI Interface(s) Supported - UNIBUS Supported • $\$ \mathbf{3}, \mathbf{2 1 5 +}$

Keystone drives feature a short tape path (13") with air bearings and edge guides to ensure easy tape handling and threading. There is also a diagnostic panel to help detect operational faults. The data transfer rate for the unbuffered Pertec is 160 Kbps . The storage capacity reflects an unformatted value

## - Keystone-92185

$.5^{5} \bullet$ R-R • Pertec/SCSI Interface(s) Supported - UNIBUS Supported • $\mathbf{\$ 6 , 8 8 0 +}$

The maximum data transfer rates for the unbuffered Pertec and the buffered STC are 469 Kbps and 1.4 Mbps , respectively.

## - Keystone-92815-01

$.5^{\prime \prime} \bullet$ R-R • SCSI Interface(s) Supported • UNIBUS/Q-bus Supported

## - Keystone-92815-02

$.5^{\prime \prime} \cdot R-R \cdot S C S I$ Interlace(s) Supported • UNIBUS/Q-bus Supported

## - Keystone-92815-04

.5 - $\cdot$ R-R • SCSI Interface(s) Supported • UNIBUS/Q-bus Supported

- Keystone-92815-05
$.5^{\prime \prime} \bullet R-R \quad$ SCSI Interface(s) Supported • UNIBUS/Q-bus Supported
- Keystone-92815-15
$.5^{*} \cdot R-R-S C S I$ Interface(s) Supported -UNIBUS/Q-bus Supported
The Keystone-92815-xx Series features upgrade kits that include SCSI I/O boards, SCSI connector/bracket assemblies, signal cable assemblies and instructions. Prices for single-ended and differential kits are $\$ 4,600$ and $\$ 5,000$, respectively.


## - Patriot

$.5^{5} \cdot$ Cartridge Tape • SCSI Interface(s)
Supported •\$1,250
The Patriot tape drive is capable of backup for disks with up to 800 MB . A 250 kilobyte per second transfer rate allows backup of 240 MB in 17 minutes.

## Megatape Corporation

 - 6T-88/1$8 \mathrm{~mm} \cdot$ Cartridge Tape • Pertec Interface(s) Supported
The GT-88/1 is an 8 mm back-up tape drive with 1.25 MB of cache memory. It is com patible with most PERTEC controllers on a variety of DEC systems.

## - GT-88/2

$8 \mathrm{~mm} \bullet$ Cartridge Tape $\bullet$ Pertec Interface(s) Supported
The GT-88/2 features the same capabilities as the GT-88/1 and also includes a front panel switch allowing two computers to share the GT-88. See pg. 134

## Miltope Corporation

- AT-1161

5" • 7/9T • \$35,900
The AT-1161 is MIL qualified.

## Secondary

Computer Storage

## - 6221

.25 • $16 \mathrm{~T} \cdot$ UNIBUS Supported • $\$ 4,800$

- 6421
.25"•10T• UNIBUS Supported •\$5,000


## System Industries



## - 9625

10.5 - 9 T

The 9625 is equipped with a tape transport, integral formatter/controller, power supply, and resident microdiagnostics. This drive also features a 256 KB cache buffer to achieve optimum streaming performance. In addition, the data transfer rate is 312.5 Kbps at 50 ips .

- 9700-53
.5"• 9T • UNIBUS Supported


## - SI 2480

$\$ 85,000$
This tape drive is compatible with the HSC controller.

## System Technology <br> Associates

## - GT-8

$8 \mathrm{~mm} \bullet$ Cartridge Tape • SCSI/Pertec Interface(s) Supported
Features a tape speed of 150 ips , a cache buffer up to 1.25 MB , and is available with a GIGA-RIG tower cabinet that houses the GT-8 plus three $8^{\prime \prime}$ disk drives, each with over 1 GB storage capacity.

## Telebyte <br> Technology, Inc.

## Tox-45

.5" • 9T • RS232 NEEE-488 Interface(s) Supported • UNIBUS Supported • $\mathbf{\$ 6 , 0 0 0}$

## - TDX-4500

.5" • 9T • SCSI/EEE-488 Interface(s)
Supported • UNIBUS Supported • $\$ \mathbf{6 , 0 0 0}$

## - TDX-50

.5" • 9T • RS232/EEE-488 Interface(s) Supported • UNIBUS Supported •\$5,000+

## [ TDX-75

$.5^{\circ} \bullet 9 \mathrm{~T} \cdot$ UNIBUS Supported • $\$ 7,000+$

Winchester Systems, Inc.

- 26

SCSI Interface(s) Supported

## Streaming Cartridge

.25" • Cartridge Tape • SCSI Interface(s) Supported

## Tape Subsystems

## American Data Systems Marketimg

- ©

UNIBUS/BIbus Supported $\bullet \$ 26,000+$

- GCR Streamer

UNIBUS Supported • \$8,600+

## - TDU 2435

R-R • UNIBUS Supported • \$23,900

## - TDU 2436

R-R • UNIBUS Supported •\$28,500
The GCR Streamer, the TDU 2435 and 2436 are equipped with a 256 KB intelligent cache buffer.

## - TDU 2442

R-R • UNIBUS Supported •\$10,000
■ TDU 2444
R-R - UNIBUS Supported - $\$ 12,000$
The TDU 2442 and 2444 emulate the TS11.

## Applied Digital Systems

- ADS 1500
\$4,950


## Aviv Corporation

- TFS 1953

4 Supported Drive(s) • 9T • STK Interface(s) Supported • UNIBUS/Q-bus/BBbus Supported Includes Aviv's GCR controller and an STK 1935/1953 formatter/drive in a 60" cabinet and features tape autoload.

## - TFS 2436

4 Supported Drive(s) • 9T • STK Interface(s) Supported • UNIBUS/Q-bus/Blbus Supported Includes Aviv's GCR controller and FUJITSU's 2436 formatter/drive in a dual bay cabinet and features tape autoload.

## - TFS 2921

4 Supported Drive(s) • 9T • STK/Pertec Interface(s) Supported • UNIBUS/Q-bus Supported
Includes Aviv's GCR controller and an STK 2921 tape drive in a $60^{\prime \prime}$ cabinet and features tape autoload.

## - TFS 2925

4 Supported Drive(s) •STK/Pertec Interface(s) Supported • UNIBUS/Q-bus Supported Includes Aviv's GCR controller and an STK 2925 tape drive in a $60^{\prime \prime}$ cabinet and features tape autoload.

## - TFS 3480

4 Supported Drive(s) • 18T • .5" Drive •STK/ SCSI Interface(s) Supported • UNIBUS/Q-bus/ Blbus Supported
The TFS 3480 is $100 \%$ compatible and media interchangeable with IBM 3480 cartridge tape systems. Compatible with VMS and ULTRIX.

## ETFS 8200-S8

$9 \mathrm{~T} \cdot 8 \mathrm{~mm}$ Drive • SCSI Interface(s) Supported - $\$ 3,800$

## - TFS 8450-8200

4 Supported Drive(s) • 8 mm Drive • UNIBUS Supported • \$4,950
Differential drives are available to allow the system to use an 82 foot cable as well as a shielded cable.

## ■ TFS 9270

4 Supported Drive(s) • 9T • STK/Pertec Interface(s) Supported • UNIBUS/Q-bus Supported
Includes Aviv's GCR controller and TELEX's 9270 formatter/drive in a $60^{\prime \prime}$ cabinet and features tape autoload.

## - TFS 935D-8200

4 Supported Drive(s) • 8 mm Drive • SCSI Interface(s) Supported • Q-bus Supported • $\$ 4,500$
Differential drives are available to allow the system to use an 82 foot cable as well as a shielded cable.

## ■ TFS 990

4 Supported Drive(s) • Pertec Interface(s) Supported • UNIBUS/Q-bus Supported Includes Aviv's GCR controller and CIPHER's 990 formatter/drive and features tape autoload.

## CMS

Enhancements, Inc.

## - CxB22/ロ

8mm Drive - SCSI Interface(s) Supported • Q-bus Supported • \$5,528

## - $\mathrm{CxB22} / \mathrm{N}$

Cartridge Tape - 8 mm Drive - SCSI Interface(s) Supported • UNIBUS Supported • \$5,856
The CXB22/Q and the CXB22/U (Exabyte Subsystems) utilize the helical scan recording technique and the standard SCSI error correction codes and error recovery algorithms.

## Codar Technology, Inc. - 809mT

8 Supported Drive(s) • 9T • . 5 " Drive -UNIBUS/Q-bus Supported
Ruggedized top-loading, rackmountable tape drive with full MIL-STD-810D and 461 B shock and vibration characteristics. Also meets TEMPEST requirements.

## Contemporasy

Crbernetics Group, Inc.


## - CY 8200-PIF

Cartridge Tape $\bullet 8 \mathrm{~mm}$ Drive - Pertec Interface(s) Supported • UNIBUS/Q-bus Supported
High speed, high capacity archival subsystem that interfaces as a 9 track drive with any Pertec compatible drive or controller.

## - Cr 8200-011

Cartridge Tape • 8 mm Drive • SCSI Interface(s) Supported • $\mathbf{Q}$-bus Supported High speed, high capacity archival subsystem that interfaces as a 9 track drive with TS11 emulation.

## - CY 8200-081

Cartridge Tape 08 mm Drive - SCSI Interface(s) Supported • Q-bus Supported High speed, high capacity archival subsystem that interfaces as a 9 track drive with TU81 emulation.

## E CY 8200-U11

Cartridge Tape $\cdot 8 \mathrm{~mm}$ Drive - SCSI Interface(s) Supported • UNIBUS Supported High speed, high capacity archival subsystem that interfaces as a 9 track drive with TS11 emulation.

## - CY 8200-481

4 Supported Drive(s) - Cartridge Tape $\bullet 8 \mathrm{~mm}$ Drive • SCSI Interface(s) Supported • UNIBUS Supported
High speed, high capacity archival subsystem that interfaces as a 9 track drive with TU81 emulation.

## Digi-Data

- 2000U-TM 2010

9T•\$4,395
Compatible with DEC's TM-11 model. A tabletop model is available for $\$ 4,695$

## - 2000u-TM 2020

9T • \$4,795
A tabletop model is available for $\$ 5,095$.

## - 2000u-TM 2020

9T•\$4,795
A tabletop model is available for $\$ 5,095$.

- 2000U-TM 2112

9T • \$4,995
A tabletop model is available for $\$ 5,295$.


### 5.4 Gigabytes Unattended Backup

Digi-Data's GIGASTORE ${ }^{\text {™ }}$ provides up to 5.4 Gigabytes of data storage on a single T-120 VHS video cartridge. That permits backup of your largest disk drive on off-hours without an operator.

Utilizing true read-after-write coupled with very powerful error correction, GIGASTORE gives you an unsurpassed error rate of 1 in $10^{23}$ bits. In addition, you get a high speed search capability not available in most 9 -track drives.

GIGASTORE can be provided with an interface for IBM PC/XT/ AT/PS-2 ${ }^{\text {TM }}$. It is available with DEC interface for VAX and MicroVAX. It is also available for backup of data on Novell LANs.

Call Digi-Data, an organization with a 25 year history of manufacturing quality tape drives, at (301) 498-0200.
${ }^{* *}$ GIGASTORE is a trademark of Digi-Data Corporation. PC/XT/AT/PS-2 are trademarks of IBM Corporation.


DIGI-DATA CORPORATION
8580 Dorsey Run Road Jessup, MD 20794-9990 (301) 498-0200 Telex 87-580
... First In Value


In Europe contact: Digi-Data Ltd. • Unit 4 - Kings Grove •Maidenhead, Berkshire England SL6 4DP •Telephone No. 0628 29555/6• Telex 847720

- 2000u-TM 2112

9T • \$4,995
A tabletop model is available for $\$ 5,295$.

## - 2000U-TM 2122

## 9T • \$5,395

A tabletop model is available for $\$ 5,695$.

## - 2000u-TM 2122

9T • \$5,395
A tabletop model is available for $\$ 5,695$.

## - 2000U-TS 2010

9T • \$4,195

- 2000U-TS 2010

9T • \$4,595
A tabletop model is available for $\$ 4,895$.

## ■ 2000U-TS 2020

9T • \$4,595
A tabletop model is available for $\$ 4,895$.

## - 2000U-TS 2020

9T • \$4,795
A tabletop model is available for $\$ 5,095$.

## - 2000U-TS 2112

9T • \$4,795
A tabletop model is available for $\$ 5,095$.

## - 2000U-TS 2122

9T • \$5,195
A tabletop model is available for $\$ 5,495$.

## - 2000U-TS 2122

9T • \$5,195
This 2000U-TS Series is microprocessor based and includes an automatic self-test feature that causes on-board diagnostics to be run each time the unit is powered up. Additionally, this system is compatible with DEC's TS-11 model. A tabletop model is available for $\$ 4,495$.

## - GIGASTORE

9T • .5" Drive • Pertec Interface(s) Supported • \$4,780
GIGASTORE is a mass storage device that features high density helical scanning technology with sophisticated error correction techniques. It stores up to 2.5 GB , which is equivalent to more than 501600 bpi tapes. This device is also available in a tabletop version at no additional cost.

## - GIGASTORE/UVMS

9T • .5" Drive • Pertec Interface(s) Supported • \$6,675
The GIGASTORE/U-VMS system includes GIGASTORE, a UNIBUS compatible interface and a modified VMS compatible software driver on a 1600bpi tape or on a TK50 cartridge.

## DILOG

## - 3480

Cartridge Tape • . $5^{\prime \prime}$ Drive • UNIBUS/Q-bus Supported •\$15,000
Uses multi-track serpentine recording (MSR) techniques allowing cartridges to be moved from system to system, yet allowing them to be read from other drives. Optional expansion to 3.2 GB available.

## - MVO-K

1 Supported Drive(s) • Cartridge Tape $\bullet 8 \mathrm{~mm}$ Drive • SCSI Interface(s) Supported • UNIBUS/ Q-bus Supported

## - SSSO-K

1 Supported Drive(s) • Cartridge Tape $\bullet 8 \mathrm{~mm}$ Drive - SCSI Interface(s) Supported • UNIBUS/ Q-bus Supported •\$4,950

## - T3834

1 Supported Drive(s) • Cartridge Tape • .5"
Drive • Pertec Interface(s) Supported • UNIBUS/Q-bus Supported • \$11,610

## - 99610

1 Supported Drive(s) • 9T • 10.5" Drive • Pertec Interface(s) Supported • UNIBUS/Q-bus Supported •\$10,775

- 1990

1 Supported Drive (s) • 9T • 14" Drive • Pertec Interface(s) Supported • UNIBUS/Q-bus Supported •\$9,945

## Emulex Corporation - EH23

Cartridge Tape • 8 mm Drive • SCSI
Interlace(s) Supported • $\mathbf{Q}$-bus Supported
The EH23 features helical scan recording technology and is equipped with a host adapter and cables. It provides unattended backup for MicroVAX II and MicroVAX 3xxx systems.

## - $\mathbf{S 1 3 C 0 4 / J}$

2 Supported Drive(s) • \$8,920+

- S13C04/0

1 Supported Drive(s) • \$8,800

## - S13C07/J

2 Supported Drive(s) • \$13,655+

## - $\mathrm{S} 13 \mathrm{CO} / \mathrm{C}$

2 Supported Drive(s) - \$13,545
The S13Cxx Series features magnetic tape subsystems that include Emulex tape controllers or couplers, cable sets, pretested tape drives, and subsystem diagnostics on appropriate media if required.

## Exabyte Corporation - ExB-8200

1 Supported Drive(s) - Cartridge Tape $\bullet 8 \mathrm{~mm}$ Drive • SCSI Interiace(s) Supported • UNIBUS/ Q-bus Supported •\$3,850
Standard features include advanced helical scan recording technology, integrated SCSI controller and formatter, industry standard $5.25^{\prime \prime}$ form factor, and an onboard error correction capability.

## Gigatrend, Inc.

## - GIGA-1230

8 Supported Drive(s) - Cassette Tape $\bullet 4 \mathrm{~mm}$ Drive - SCSI/Pertec Interface(s) Supported • UNIBUS/Q-bus Supported
The Series 1230 uses Digital audio tape with an embedded SCSI interface. Capacity of 1.2 GB is achieved with fast, average random-search speed of 20 seconds.

## Group Three Electronics

## - 4489

9T • .5" Drive • Pertec Interface(s) Supported • Q-bus Supported

## - 4490

R-R •.5" Drive • Pertec Interface(s) Supported - Q-bus Supported

The 4489 and 4490 models feature horizontal mount designs, IBM/ANSI compatibility, autoload operation with front panels, and cache streaming modes with tunable transfer rates to optimize system bus utilization.

## Honeywell

- VLDS


## Innovative Data Technology <br> - MTS1012-1/130

1 Supported Drive(s) • 9T • 7/10.5" Drive • Pertec Interface(s) Supported • UNIBUS Supported •\$5,995

- MTS1012-2/130

1 Supported Drive(s) • 9T• 7/10.5" Drive • Pertec Interface(s) Supported • UNIBUS Supported •\$5,995

## - MTS1012-3/130

1 Supported Drive(s) • 9T • 7/10.5" Drive Pertec Interface(s) Supported • UNIBUS Supported •\$5,995

## - MTS1053/130

4 Supported Drive(s) • 7/9T • .5" Drive • Pertec Interface(s) Supported • UNIBUS Supported •\$7,500

## - MTS $1054 / 130$

4 Supported Drive(s) • 7/9T • .5" Drive • Pertec Interface(s) Supported • UNIBUS Supported •\$7,450

## ■ MTS1753/130

4 Supported Drive(s) • 7/9T • .5" Drive • Pertec Interface(s) Supported • UNIBUS Supported •\$8,800

## - MTS1754/130

4 Supported Drive(s) • 7/9T • .5" Drive • Pertec Interface(s) Supported • UNIBUS Supported - \$8,750
The MTS Series emulates DEC's TM11/ TU10 or TS11/TU80 models under VMS, RT-11, RSX, and RSTS operating systems. Cables, software, and documentation are included. The tape subsystem to be emulated must be specified with the order.

## IPS Technology

18715
UNIBUS/BIbus Supported • \$14,000+


- $\mathbf{~ 6 T - 8 8 / 6}$

7 Supported Drive(s) • Cartridge Tape • 8 mm Drive - Blbus Supported
Backup subsystem providing 2GB in 8 mm cartridges for direct connection to the VAX BIbus. It is compatible with TMSCP and VMS or ULTRIX and no changes to the operating system are required.


## - GT-88/3

4 Supported Drive(s) • Cartridge Tape •8mm Drive - Q-bus Supported
The GT-88/3 provides 2 GB of back up storage in 8 mm cartridges for connection to the Q-bus in MicroVAX II systems. It is compatible with TMSCP, and VMS or ULTRIX and no changes to the operating system are required.

## ■ GT-88/4

4 Supported Drive(s) •Cartridge Tape $\bullet 8 \mathrm{~mm}$ Drive - UNIBUS Supported
The GT-88/4 provides 2GB of back up storage in 8 mm cartridges for connection to the UNIBUS on VAX and PDP-11 systems. It is compatible with TMSCP and VMS, ULTRIX, UNIX, RSX-11M, RSX-11M+, RSTS, and DMS/MUMPS with no change requirements to the operating system.

## - GT-88/5

4 Supported Drive(s) •Cartridge Tape • 8 mm Drive - Q-bus Supported
The GT-88/5 provides 2 GB of back up storage in 8 mm cartridges for connecting to $Q$ bus or MicroVAX 3xxx systems. It is compatible with TMSCP and VMS or ULTRIX and requires no changes to the operating system.

## - MT-750

1 Supported Drive(s) • Cartridge Tape • . $\mathbf{5 "}^{\prime \prime}$ Drive • Blbus Supported
The MT-750 provides 630 KB of backup storage in $.5^{"}$ cartridges for direct connection to the VAX BIbus. It is compatible with TMSCP and VMS or ULTRIX and requires no changes to the operating system.

## Micro Technology, Inc. <br> - MA-100

4 Supported Drive(s) • 9T • SCSI Interface(s) Supported •\$35,000
The MA-100 is an HSC50, HSC70, HSC40, 9 track compatible tape subsystem. Designed to replace the TA79 for half the sale price.

## - MA-200

4 Supported Drive(s) • 9T • UNIBUS/Q-bus Supported - \$58,000
The MA-200's DSA architecture incorporates a migration path designed to incorporate other high performance backup devices such as the IBM 3480 and 8 mm tape cartridge systems.


## - MA-24

16 Supported Drive(s) • Cartridge Tape * 5.25 " Drive • UNIBUS/Q-bus Supported -

## $\$ 28,500$

The MA-24 8 mm cartridge tape makes unattended HSC cluster back up a reality. The Micro Technology MA-24 is a 2GB cartridge tape subsystem that is compatible with the DEC HSC40, HSC50, and HSC70 servers. Attaching to the HSC5XCA/DA card, the MA-24 supports a master with three slaves. A fully configured HSC5X-CA/DA card is able to back up 32GB of data, unattended. With its own 512KB cache buffer, the MA-24 is able to stream at 246 Kbps . That means backing up 2GB takes less than three hours. The MA-24 is $100 \%$ HSC compatible with pure TA emulation and is the solution for unattended cluster back up.

## - MTQ-223

2 Supported Drive(s) • $8 \mathrm{~mm} \bullet 5.25$ " Drive • Qbus Supported • \$14,000

## - MTQ-23

1 Supported Drive(s) •Cartridge Tape • 5.25" Drive • Q-bus Supported • $\$ 7,500$
The MTQ 223 and 23 models are 8 mm cartridge tape systems that are compatible with all DEC Q-bus CPUs. Available in table top, rackmount, or kit configurations. Upgradeable to the MA-24 HSC compatible via MTI-MA90

## ■ MTU-223

2 Supported Drive(s) • $8 \mathrm{~mm} \bullet 5.25$ " Drive • UNIBUS Supported • $\$ 14,500$

## - MTU-23

1 Supported Drive(s) • $8 \mathrm{~mm} \bullet 5.25$ " Drive • UNIBUS Supported •\$8,500
The MTU 223 and 23 models are 8 mm cartridge tape systems that are compatible with all DEC UNIBUS CPUs. Available in tabletop, rackmount, or kit configurations. Upgradeable to the MA-24. HSC compat ible via MTI-MA90.

## Scientific Micro <br> Systems, Inc.

## - SMS 1000-10

1 Supported Drive(s) •Cartridge Tape • . $25^{\prime \prime}$

Drive • Q-bus Supported
Equipped with a streaming tape controller and interface board that plugs into the host backplane.

## SLR Associates

SRS-8
7 Supported Drive(s) • Cassette Tape $\bullet 8 \mathrm{~mm}$ Drive • UNIBUS/Q-bus/Blbus Supported The SRS-8 features a console monitor that supports remaining tape and error rate information.

## Summus <br> Computer Systems

## 448Tape

18T • UNIBUS/Q-bus Supported
Interchanges data beween the IBM 3480 and DEC MicroVAX II/III and VAX sys tems.

## A

## - DataTape

UNIBUS Supported • \$4,900+

- GigaTape-1.2

Cassette Tape - 4mm Drive - \$6,995

## - GigaTape-1000

8 Supported Drive(s) •Cassette Tape •4mm Drive - UNIBUS Supported

## - GigaTape-442

8 Supported Drive(s) •Cassette Tape •4mm Drive • UNIBUS Supported •\$4,200+

## - GigaTape-452

8 Supported Drive(s) • Cassette Tape $\bullet 4 \mathrm{~mm}$ Drive • UNIBUS Supported

## © GigaTape-JBL 125

8 Supported Drive(s) • Cassette Tape •4mm Drive • UNIBUS Supported

## - MassTape

8 Supported Drive(s) • 9T • . $5^{\text {" Drive • UNIBUS }}$ Supported •\$1,900+
The DataTape, MassTape, and GigaTape Series all emulate the DEC TS11.

## TECEX

- TX-2200
\$17,950
- TX-8200M
\$6,995
Total Tec Systems, Inc. - TT75013

Cartridge Tape • .5" Drive
The TT75013 emulates the DEC TS11

## - $\quad$ TT96013

R-R
The TT96013 emulates the DEC TS11 and TSV05 models.

## Transitional Technology, Inc.

## - CTS-8

4+ Supported Drive(s) •Cassette Tape • 8 mm Drive • UNIBUS/Q-bus Supported • $\$ 5,395+$ The CTS-8 features helical scan technology. Its large capacity allows unattended back up of large systems.

## - CTS-8000

4+ Supported Drive(s) • Cassette Tape $\bullet 8 \mathrm{~mm}$ Drive • UNIBUS/Q-bus Supported • $\$ 6,595+$ The CTS-8000 offers the same features as the CTS-8 as well as a light panel to provide feedback regarding drive performance, multihost capabilities, and long line options.

## TRIMARCHI, INC.

- CTA-EXB8200

1 Supported Drive(s) • Cartridge Tape • SCSI Interface(s) Supported • UNIBUS/Q-bus Supported •\$4,395

## Do You Have IBM Midrange Equipment?

> Call Lori Ulbrich at (215) 957-1500 for a FREE SUBSCRIPTION to MIDRANGE Systems

The Independent Newspaper for IBM Multiuser Computing

## MEMORY

## MEMORY BOARDS




## THE CI-MIV32 FEATURES

## MICROVAX II



## THE CI-MIV16 FEATURES

- 16 megabytes on one board.
- On board parity.
- Hardware and software compatible with the Microvax II.
- Backplane space savings.
- Power requirement savings.
- Allows 64 MB , the maximum memory capacity of the Microvax III, using only 2 expansion slots in all system configurations, including the BA23 box.
- $8 \mathrm{MB}, 16 \mathrm{MB}$ or 32 MB on one board.
- Hardware and software compatible with any Microvax III series.
- On board 32 bit ECC for single bit error correction, double bit error detection.


## IBM PS/2



THE CI-SYS2-56 FEATURES

QBUS PDP 11/23, 11/73


## THE CI-QBUS-EDC FEATURES

- 2 or 4 megabytes on one board.
- Dual width.
- Single bit error correction, double bit error detection.
- Runs DEC diagnostics.
- Block Mode DMA.
- Available in $2 \mathrm{MB}, 4 \mathrm{MB}$, and 6 MB upgradeable options, and full 8 MB .
- Up to 8 megabytes of parity memory in one Micro Channel slot.
- Addressable in combinations of standard and EMS memory.
- EMS support for DOS applications includes device drivers and utilities.
- Full Micro Channel compatibility.
- Compatible with the Programmable Option Select (POS) of Micro Channel.
- 3 serial I/O, 1 parallel, and 1 game port.
"Also available are memories for VME bus, Multibus, PMI and a Game Port for IBM's Personal System/2." Call for details . . .


## Chrislin Industries, Inc. Call Toll Free: 800-468-0736 (pst.)

31332 VIA COLINAS \#106<br>WESTLAKE VILLAGE, CA 91362<br>TEL: (818) 991-2254 FAX: (818) 991-3490

[^9]
## MEMORY BOARDS



## MEMORY BOARDS

| $\begin{aligned} & \text { む్ } \\ & \text { ® } \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  | む̃ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Dataram Corporation 609 799-0071 (continued) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DR-278/1 | 1M | 16M | DRAM | 500 | 500 | UNIBUS | 200 | 100 | 64KB NMOS | Y/- | XH | L | \$675 |
| DR-278/4 | 4M | 64M | DRAM | 500 | 500 | UNIBUS | 200 | 100 | 64KB NMOS | Y/- | XH | L | \$1,395 |
| DR-278/4 | 4M | 64M | DRAM | 500 | 500 | UNIBUS | 200 | 100 | 256KB NMOS | Y/- | XH | L | \$1,395 |
| DR-283 | 2-4M |  | ZIP DRAM | 500 | 500 | U/Q | 250 | 125 | 256KB NMOS | Y/- | 0 | L | \$1,275+ |
| DR-286/16 | 16M | 128M | DRAM | 560 | 640 | Blbus | 360 |  | 1MB CMOS | Y/- | XH | L | \$6,500 |
| DR-286/4 | 4M | 128M | DRAM | 560 | 640 | Blbus | 360 |  | 256KB MOS | Y/- | XH | L | \$2,295 |
| DR-300/16 | 16M | 64M | DIP DRAM |  |  | Q-bus | 230 |  | 1MB | Y/Y |  | L | \$5,595 |
| DR-300/32 | 32M | 64M | ZIP DRAM |  |  | Q-bus | 230 |  | 1MB | Y/Y |  | L | \$13,995 |
| DR-300/8 | 8M | 64M | DIP DRAM |  |  | Q-bus | 230 |  | 1MB | Y/Y |  | L | \$2,895 |
| DR-3100DS | 2M | 24M | CMOS DRAM |  |  | DS 3100 |  |  | 1MB |  |  | L | \$1,200 |
| DR-3100VS | 8M | 32M | CMOS DRAM |  |  | VS 3100 |  |  | 1MB |  |  | L | \$4,800 |
| DR-3100VS | 16M | 32M | CMOS DRAM |  |  | VS 3100 |  |  | 1MB |  |  | L | \$9,600 |
| DR-3100VS | 24M | 32M | CMOS DRAM |  |  | VS 3100 |  |  | 1MB |  |  | L | \$14,400 |
| DR-3100VS | 12M | 32M | CMOS DRAM |  |  | VS 3100 |  |  | 1MB |  |  | L | \$7,200 |
| Digital Data Systems, Inc. 305 792-3290 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DDS 750 | 1 M |  | DRAM | 500 | 850 | UNIBUS | 270 | 270 |  | Y/- | H | L | \$575 |
| DDS 780-1 | 1M | 64M | DRAM | 500 | 500 | UNIBUS | 200 | 100 |  | Y/- | H | L | \$600 |
| DDS 780-4 | 4M | 64M | DRAM | 500 | 500 | UNIBUS | 200 | 100 |  | Y/- | H | L | \$1,275 |
| DDS MV2-2 | 2 M |  |  | 300 |  | Q-bus | 165 |  |  |  |  | L |  |
| DDS MV2-4 | 4M |  |  | 300 |  | Q-bus | 165 |  |  |  |  | L |  |
| DDS MV2-8 | 8M | 16M |  | 300 |  | Q-bus | 150 |  |  |  |  | L |  |
| Digital Instruments Corporation 800 222-IMAX |  |  |  |  |  |  |  |  |  |  |  |  |  |
| QM256 | 4M | 32M | DRAM | 250 | 500 | Q-bus |  |  |  | N/N | 0 | 1 yr | \$2,650 |
| EMC Corporation 508 435-1000 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EMCVT-780-16 | 16M |  |  |  |  | UNIBUS |  |  |  |  |  | L | 17,900+ |
| MVX 3000 | 8M |  |  |  |  | Q-bus |  |  |  |  |  | L |  |
| MVX 3000 | 16M |  |  |  |  | a-bus |  |  |  |  |  | L |  |
| MVXII-8Mb | 8M |  | RAM |  |  | Q-bus |  |  |  | Y/- |  | L | \$16,000 |
| Stretch-15 | 15M |  |  |  |  | UNIBUS |  |  |  |  | H | L | \$7,900 |
| VX1Mb-750 | 1 M |  | DRAM |  |  | UNIBUS |  |  |  | Y/- |  | L | \$1,800 |
| vx1Mb-780 | 1M | 64M | RAM |  |  | UNIBUS |  |  |  |  |  | L | \$1,800 |
| VX4Mb-750 | 4M | 15M | DRAM |  |  | UNIBUS |  |  |  | Y/- |  | L |  |
| VX4Mb-780 | 4M | 64M | RAM |  |  | UNIBUS |  |  |  | Y/- |  | L | \$5,100 |
| vx86-16Mb | 16M | 128M | RAM |  |  | Blbus |  |  |  |  |  | L | \$58,000 |
| vXMI-16Mb | 16M | 128M | RAM |  |  | Blbus |  |  |  |  |  | L |  |
| vXMI-64 | 64M | 128M |  |  |  | Blbus |  |  |  |  |  | L | \$23,900 |
| International Data Technology 305 587-6823 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| IDT-386 | 1M |  |  |  |  | UNIBUS |  |  |  |  |  |  | \$750 |
| IDT-389 | 4M |  |  |  |  | UNIBUS |  |  |  |  |  |  | \$2,200 |
| IDT-397 | 4M |  |  |  |  | UNIBUS |  |  |  |  |  |  | \$6,000 |
| MCS Computer Products, Inc. 612 770-5232 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| NX750-SPU |  | 15M |  |  |  | UNIBUS |  |  |  |  |  | L | \$3,845+ |
| Monolithic Systems Corporation 303 790-7400 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MSC 3205 | 24M | 192M |  | 280 |  | UNIBUS | 240 |  |  | Y/- | H | 1 yr |  |
| MSC 3210 | 24M | 384M |  | 280 |  | UNIBUS | 240 |  |  | Y/- | H | 1 yr |  |
| MSC 4931 | 16M | 16M | RAM | 280 |  | a-bus | 240 |  | 1MB | Y/- | 0 | 5 yrs |  |
| MSC 4937 | 8M | 16M | RAM |  |  | a-bus |  |  | 1MB | Y/- | 0 | 5 yrs |  |

## MEMORY BOARDS




If you're a Hewlett-Packard computer user, and buyer of HP-related hardware, software, or peripherals, HP Professional, the monthly magazine for Hewlett-Packard commercial and technical computing, is for you. It's really something. It costs you nothing!

It's Informative. It's Monthly. It's Read by 35,000 Professionals Like You. It's FREE:

Read HP Professional for information and insights on the latest hardware, software, trends and developments.
Start your free subscription today . . .
Send us the coupon below. You'll receive a subscription application in the mail. Fill out and mail the application to qualify for your free subscription.

## HPProfessional lussesamponon ancuarononeaues

YES, I'd like a FREE subscription to HP Professional. Send a subscription application to:
Name $\qquad$ Title $\qquad$
Company $\qquad$
Address $\qquad$
City $\qquad$ State $\qquad$ Zip

Mail to: HP Professional, P.O. Box 446 Horsham, PA 19044.

## Memory Boards

## Camintonn Corporation

- Cmv-1000

1MByte - MOS • Q-bus Supported
© CMV-2000
1MByte • MOS • Q-bus Supported
The CMV-1000 and -2000 utilize blockmode DMA, feature byte-parity to help ensure data integrity and an on-board Control and Status Register (CSR) that locates errors for easy software correction.

## ■ CMV-250

256KBytes • DRAM • 440ns Read Cycle • 50ns Read Access • $Q$-bus Supported

## © CMV-254

1MByte • DRAM • 440ns Read Cycle • 50ns Read Access - Q -bus Supported

## © CMV-4000

4 MBytes - DRAM • 440ns Read Cycle • 50ns Read Access - Q -bus Supported
The CMV-250, -254 , and -4000 feature block mode DMA, and the on-board CSR is compatible to CSR on DEC memory boards; controls parity check, flags parity error and stores location of error.

## © CMV-4000

4MBytes - MOS • Q-bus Supported
Utilizes block-mode DMA, features byteparity to help ensure data integrity and an on-board Control and Status Register(CSR) that locates errors for easy software correction.

## ■ CMV-500

512 KBytes • DRAM • 440ns Read Cycle • 50ns Read Access • Q-bus Supported

## - Cmv-504

2MBytes • DRAM • 440ns Read Cycle • 50ns Read Access - Q -bus Supported
The CMV-500 and - 504 support block mode DMA. The on-board CSR is compatible to CSR on DEC memory boards; controls parity check, flags parity error and stores location of error.

## ■ CMX-1631

16MBytes - DRAM • 150ns Read Access -
a-bus Supported
Fully compatible with MicroVAX II systems, including diagnostics. On-board parity generated/checked and error reported for each byte.

## - CMX-1651

16MBytes • DRAM • 150ns Read Access • Q-bus Supported
Fully compatible with MicroVAX 3000 Series systems, including diagnostics. Board supports ECC capable of one-bit error correcting and two-bit error detecting.

## ■ CMX-1651

16MBytes • DRAM • Q-bus Supported
Fully hardware, software, and diagnostically compatible with the DEC KA 650 CPU.

## © CMX-2451

24MBytes • DRAM • 150ns Read Access •
Q-bus Supported

## - CMX-3251

32MBytes - DRAM • 150ns Read Access ${ }^{\circ}$ a-bus Supported
The CMX-2451 and -3251 are fully compatible with MicroVAX 3000 Series systems, including diagnostics. Board supports ECC capable of one-bit error correcting and two-bit error detecting.

- CmX-750/730

1MByte • RAM • 50 ns Read Cycle • 225ns
Read Access • UNIBUS Supported

## - CmX-780/785

4MBytes • UNIBUS Supported
This module may be interleaved in systems with two controllers for faster potential memory access; 1MB modules are available for quantity orders.

## CMX-780/785-1

1-4MBytes - MOS RAM • <200ns Read Access - UNIBUS Supported

## - CMX-830-E

8MBytes•DRAM • 150ns Read Access • Q-bus Supported
Fully compatible with MicroVAX II systems. Features on-board ECC capable of one-bit error correcting and two-bit error detecting; two-bit errors reported as parity error.

## - CmX-831

8MBytes • RAM • 150 ns Read Access • $Q$-bus Supported
Fully compatible with MicroVAX II systems, including diagnostics. On-board parity generated/checked and error reported for each byte.

## ■ CMX-851

8MBytes•DRAM•150ns Read Access • Q-bus Supported
Fully compatible with MicroVAX 3000 Series systems, including diagnostics. Board supports ECC capable of one-bit error correcting and two-bit error detecting.

## E CMX-851

8MBytes • DRAM • Q-bus Supported
Fully hardware, software, and diagnostically compatible with the DEC KA 650 CPU.

## Chrisum Industries, Imc.

## - Cl-1123

256KBytes•DRAM • 400ns Read Cycle • Qbus Supported
Features on-board distributed refresh, battery back-up mode, and an on-board parity generator checker.

## - Cl- $1123+$

1MByte • DRAM • 400ns Read Cycle • Q-bus Supported
Features on-board distributed refresh battery back-up mode, and an on-board parity generator checker with CSR.

## - Cl-1173

128KBytes - DRAM • 350ns Read Cycle -
190ns Read Access • Q-bus Supported
Features block mode DMA with extended addressing to 36 MB .

## ■ Cl-1173-EDC

128KBytes • RAM • 395ns Read Cycle • 190ns Read Access - $\mathbf{Q}$-bus Supported
Features block mode DMA with extended addressing to 36 MB , support software for DEC operating systems, and an extended control status register to diagnose soft RAM errors.

- CI-MIV16

16MBytes • DRAM • 400ns Read Cycle • Q-bus Supported
Features on-board parity and is fully compatible with the MicroVAX II.

## - CI-MIV3-EDC

32MBytes • DRAM • Q-bus Supported
Fully compatible with the DEC MicroVAX 3000 Series. Maximum 32MB in one slot in a BA23 box.

## - CI-MIV4

4MBytes • DRAM • 400ns Read Cycle • Q-bus Supported
Features on-board parity and is fully compatible with the MicroVAX II.

## - CI-MIV8

8MBytes • DRAM • 400ns Read Cycle • Q-bus Supported
Features on-board parity and is fully compatible with the MicroVAX II.

## © CI-MIV8-EDC

8MBytes • DRAM • 400ns Read Cycle • $Q$-bus Supported
Features on-board control status register for error logging and MicroVMS II error logger support.

## © CI-PMI-EDC

4MBytes • RAM • 395ns Read Cycle • 160 ns Read Access - Q-bus Supported
Features block mode DMA, runs DEC software and diagnostics, and supports the PMI interface on PDP 11/83 and 11/84 systems.

## - CI-qBus-EDC

4MBytes • RAM • 395ns Read Cycle • 160ns
Read Access - Q-bus Supported
Features block mode DMA and runs DEC diagnostics for LSI-11, J-11, and MicroVAX I computers.

## - Cl-v53

1MByte • RAM • UNIBUS Supported

- CI-vax 4

1MByte • RAM • UNIBUS Supported

- Cl-vax4

4MBytes • RAM • UNIBUS Supported

## Clearpoint

Research Corporation

- DCME-M2/16MB

16MBytes • DIP • Q-bus Supported

- DCME-M2/4MB

4MBytes • DIP • Q-bus Supported

- DCME-M2/8

8MBytes • ZIP • Q-bus Supported

## - DCME-M2/8MB

4MBytes • ZIP • Q-bus Supported
The DCME-M2 Series provides memory for the MicroVAX II with parity.

- DCME-M20/16MB

16MBytes - SOJ • Q-bus Supported

## - DCME-M20/8MB

8MBytes • SOJ• Q-bus Supported
The DCME-20 Series provides memory for the MicroVAX 2000 with parity.

## - DCME-M30/16

16MBytes • DIP DRAM • 400ns Read Cycle * 150ns Read Access • Q-bus Supported

- DCME-M30/16MB

16MBytes • DIP DRAM • MV 3000 Supported • \$11,500

## ■ DCME-M30/32MB

32MBytes • SOJ • MV 3000 Supported

## - DCME-M30/8

16MBytes • ZIP DRAM • $Q$-bus Supported

## - DCME-M30/8MB

8MBytes • DIP DRAM • MV 3000 Supported
The DCME-M30 Series provides memory for the MicroVAX 3000 family.

## ■ DCME-M31/12MB

12MBytes - 1MB DRAM • 3100 Supported • \$7,200

## - DCME-M31/16MB

16MBytes - 1MB DRAM - 3100 Supported • \$9,600

## - DCME-M31/BMB

8MBytes • 1MB DRAM • 3100 Supported • $\$ 5,400$
The DCME-M31 Series is designed for the VAXstation 3100 Series; allows users maximum flexibility to configure both Model 30 and Model 40 systems to a total of $16 \mathrm{MB}, 20 \mathrm{MB}, 24 \mathrm{MB}$, or 32 MB .

## - DCME-Q2A

256KBytes - DIP DRAM • 450ns Read Cycle -
225ns Read Access • Q-bus Supported
Features CSR and battery back-up.

- DCME-Q2B

1MByte - DIP DRAM • 300ns Read Cycle 85ns Read Access • Q-bus Supported

## - DCME-04B

1MByte - DIP DRAM • 200ns Read Cycle 200ns Read Access • $Q$-bus Supported The DCME-Q2B and Q4B models feature block mode DMA, CSR, and battery backup.

## - DCME-Q4E

2MBytes • DIP DRAM • 580ns Read Cycle • 60ns Read Access • UNIBUS Supported Features DEC parity and memory diagnostic compatibility, and a bank select option to extend addressing up to 60 MB . Provides Q-bus memory that is PDP 11/83 PMI-bus compatible.

## ■ DCME-V75

1MByte • DIP DRAM - 220ns Read Access UNIBUS Supported • $\$ 690$

■ DCME-V78
2MBytes • DIP DRAM • 225ns Read Access UNIBUS Supported • \$1,745

## ■ DCME-V78

4MBytes - DIP DRAM • 225ns Read Access UNIBUS Supported • \$1,745
The DCME-V75 and V78 models feature identical functionality to the DEC MS750. Battery back-up is included. The maximum system capacity for the $11 / 750$ is 8MB.

## ■ DCME-V78

8MBytes - DIP DRAM • 225ns Read Access -
UNIBUS Supported • \$1,745
Equipped with 8MB of board capacity which allows system expansion up to 64 MB in the standard 780 E backplane. A filler card is provided.

## - MV2000

8MBytes • SOJ DRAM • Q-bus Supported

■ MV2000
16MBytes • SOJ DRAM • Q-bus Supported The MV2000 Series features on-board parity and supports the MicroVAX and VAXstation 2000.

## - MV20/8

8 MBytes - DIP DRAM • 400ns Read Cycle • 150ns Read Access • $Q$-bus Supported
Features on-board parity, jumperless addressing and is fully MicroVAX II compatible. Dual height card saves an A/B slot for other peripherals.

## - MV2RAM/16

16MBytes • DIP DRAM • 400 ns Read Cycle 150ns Read Access - $Q$-bus Supported Features on-board parity, jumperless addressing and is fully MicroVAX II compatible.

## - MV2RAM/4

2MBytes • DIP DRAM • 400ns Read Cycle 150ns Read Access - $Q$-bus Supported

## - mV2RAM/4

4 MBytes - DIP DRAM • 400ns Read Cycle 150ns Read Access • $Q$-bus Supported

## - MV2RAM/4

8MBytes • DIP DRAM • 400ns Read Cycle • 150ns Read Access - 0 -bus Supported

## - MV2RAM/8

2MBytes • ZIP DRAM • 400ns Read Cycle • 150ns Read Access - Q-bus Supported

■ MV2RAM/8
4MBytes • ZIP DRAM • 400ns Read Cycle 150ns Read Access • Q-bus Supported

## ■ MV2RAM/8

8MBytes • ZIP DRAM • 400ns Read Cycle • 150ns Read Access • Q-bus Supported The MV2RAM Series features jumperless addressing and is fully MicroVAX II compatible.

## - MV3000

8MBytes • ZIP DRAM • Q-bus Supported • $\$ 4,950$

- MV3000

16MBytes • ZIP DRAM • Q-bus Supported • \$9,200

## - MV3000

32MBytes • ZIP DRAM • Q-bus Supported • \$21,000
The MV3000 Series features on-board remote diagnostics

## timiram

256KBytes • DIP DRAM • 450ns Read Cycle • 250ns Read Access • UNIBUS Supported

- UMIRAM
$512 \mathrm{KBytes} \cdot$ DIP DRAM • 450 ns Read Cycle • 250ns Read Access • UNIBUS Supported


## - UMIRAM

1MByte • DIP DRAM • 450ns Read Cycle • 250ns Read Access • UNIBUS Supported

The UNIRAM Series features full parity support, CSR, and battery back-up support.

## © VXR781

1MByte • DIP DRAM • 225ns Read Access * UNIBUS Supported
The VXR781 Series features battery backup and fewer components, yielding higher reliability

## ■ VXR8600/16

16MBytes • DIP DRAM • 400ns Read Access Blbus Supported

## ■ VXR8600/16

16MBytes • DIP DRAM • 300ns Read Access * Blbus Supporte
The VXR 8600/16 Series requires only one slot.

## EVXR8600/4

4MBytes • DIP DRAM • 400ns Read Access • Blbus Supported

## EXR8600/4

4MBytes • DIP DRAM • 300ns Read Access • Blbus Supported
The VXR8600/4 Series features battery back-up, no switches, and jumperless addressing.

## ■ VXR8800/16

16MBytes • SMD DRAM • BIbus Supported

## VXR8800/32

32 MBytes • SMD DRAM • BIbus Supported

## - VXR8800/64

64 MBytes - SMD DRAM • Blbus Supported The VXR8800 Series features battery backup, no switches, and jumperless addressing. Access times are processor dependent.

## Dataram Corporation

## - DR-1420

4-8MBytes • DIP DRAM
The DR-1420 features Dataram's lifetime warranty and is supported by the Express Spares program. Dataram's products feature a lifetime warranty and are supported by the Express Spares Program

## ■ DR-2000

1-12MBytes • ZIP DRAM • $\mathbf{Q}$-bus Supported • \$2,995+
The Dataram DR-2000 is $100 \%$ hardware and software compatible with DEC MicroVAX 2000 and VAXstation 2000 computers, and with DEC MS400-CA memory

## - DR-216

1-2MBytes • DIP DRAM • 300ns Read Cycle 80ns Read Access • UNIBUS/Q-bus Supported - $\$ 495+$

The DR-216 is compatible with the DEC MSV11 memory for Q-bus based minicomputers.

## REPRINTS?

Spread the news about your products or services with reprints. It's a great and inexpensive way to build exposure.

Order reprints of any article, product review or ad in this or any other issue. For.

- Handouts at trade shows - Mail to customers
- Take on sales calls - Give to the sales staff


## To order contact:

Reprint Resources 155 Commerce Drive
Ft. Washington, PA 19034
Call: (215) 643-9143
FAX: (215) 643-9164

## - DR-222

4MBytes • DIP DRAM • Q-bus Supported \$1,175
The Dataram DR-222 is $100 \%$ hardware and software compatible with DEC MicroVAX II computers and MS630-BB memory.

## © DR-224

8MBytes • DRAM • 320ns Read Cycle • 180ns Read Access • Q-bus Supported • \$1,995
The DR-224 is $100 \%$ hardware and software compatible with DEC MicroVAX II computers and MS650-CA memory.

## - DR-244

1MByte • DIP DRAM • UNIBUS Supported • \$1,150
The DR-244 features ECC providing singlebit error correction and double-bit error detection.

## - DR-275/3

1MByte • DRAM • 500ns Read Cycle • 270ns Read Access • UNIBUS Supported • $\$ 695$
The DR-275 Series operates with, or in place of, the DEC MS730 memory board.

## - DR-275/5

1MByte - DRAM • 500ns Read Cycle - 270ns Read Access • UNIBUS Supported • $\$ 850$ The DR-275 Series operates with, or in place of, the DEC MS730 memory board.

## - DR-275/8

1MByte - DRAM - 500ns Read Cycle - 270ns Read Access • UNIBUS Supported • $\$ 850$
The DR-275 Series operates with, or in place of, the DEC MS730 memory board.

## - DR-278/1

1MByte - DRAM • 500 ns Read Cycle - 200ns Read Access • UNIBUS Supported • $\$ 675$
The DR-278/1 operates with the DEC M8375 memory controller board. Please note that 1 MB and 4 MB boards may not be mixed within the same CPU. The 1MB board is compatible with the DEC MS780FD.

## ■ DR-278/4

4MBytes - DRAM • 500ns Read Cycle - 200ns Read Access • UNIBUS Supported • \$1,395
Memory is installed in 8MB increments using two DR-278/4 modules.

## - DR-278/4

4MBytes • DRAM • 500ns Read Cycle - 200ns Read Access • UNIBUS Supported - $\$ 1,395$
Memory is installed in 8 MB increments using two DR-278/4 modules.

## - DR-283

2-4MBytes • ZIP DRAM • 500ns Read Cycle • 250ns Read Access • U/Q Supported • \$1,275+ The Dataram DR-283 is $100 \%$ hardware and software compatible with DEC PDP$11 / 83,11 / 84$, Q-bus MicroPDP, and MicroVAX I. The DR-283 is compatible with the DEC MSV11.

## DR-286/16

16MBytes - DRAM • 560ns Read Cycle • 360ns Read Access - Blbus Supported • $\$ \mathbf{6 , 5 0 0}$ The DR-286/16 is $100 \%$ hardware and software compatible with DEC VAX 8600/ 8650 computers and the MS86-CA, but requires on one slot.

## - DR-286/4

4MBytes - DRAM • 560 ns Read Cycle • 360 ns Read Access • Blbus Supported • $\$ 2,295$ The DR-286/4 is $100 \%$ hardware and soft-
ware compatible with DECVAX 8600/8650 computers and the DEC MS86-AA memory module.

## © DR-300/16

16MBytes - DIP DRAM - 230ns Read Access -Q-bus Supported • $\$ 5,595$
The DR-300/16 is $100 \%$ hardware and software compatible with the DEC MicroVAX/VAXstation 3X00 Series and the MS650-BA/BF memory. Available from stock.

## © DR-300/32

32MBytes • ZIP DRAM • 230ns Read Access • Q-bus Supported • \$13,995
The DR-300/32 is the first single board design to reach 32MB in the MicroVAX III world. It is $100 \%$ hardware and software compatible.

## - DR-300/8

8MBytes • DIP DRAM • 230ns Read Access • Q-bus Supported • \$2,895
The DR-300/8 is $100 \%$ hardware and software compatible with the DEC MicroVAX/ VAXstation 3X00 Series and the MS650AA/AF memory module. Available from stock.

## - DR-31000S

2MBytes - CMOS DRAM • 3100 Supported • \$1,200
The DR-3100DS is $100 \%$ hardware and software compatible with the DEC RISC based DECstation 3100 workstation, and with the DEC MS01-AA memory. Sold in sets of two 2MB boards.

## - DR-3100VS

8MBytes - CMOS DRAM • 3100 Supported • $\$ 4,800$
The DR-3100VS memory board is $100 \%$ hardware and software compatible with the DECVAXstation 3100 workstation and gives Model 30 and Model 40 users 16MB and 24 MB of total memory.

## - DR-3100vs

16MBytes • CMOS DRAM • 3100 Supported • \$9,600
The 16 MB version of the $\mathrm{DR}-3100 \mathrm{VS}$ gives DEC VAXstation 3100 Model 30 users a total of 24 MB of memory and takes Model 40 users to the maximum 32MB

## - DR-3100VS

24MBytes • CMOS DRAM • 3100 Supported • $\$ 14,400$
The 24 MB version is the first innovative solution that allows DECVAXstation 3100 Model 30 users to expand to the 32 MB maximum and preserve all 8MB of DEC memory originally purchased.

## - DR-3100vs

12MBytes • CMOS DRAM • 3100 Supported • \$7,200
The 12 MB version of the DR-3100VS takes Model 30 users to a system total 20MB and Model 40 users to 28 MB of system memory. All DR-3100VS memories are $100 \%$ DEC hardware and software compatible.

## Digital Data Systems, Inc.

## - DES 750

1MByte • DRAM • 500ns Read Cycle • 270 ns Read Access • UNIBUS Supported • $\$ 575$ The DDS 750 utilizes 256 Kx 1 DRAM technology, providing lower power consumption, lower component count, and higher
reliability. This model is also available with socketed memory, and when ordered two spare memory chips are also ? included.

## 1MByte • DRAM • UNIBUS Supported •\$1,800

## © VXIMB-780

1MByte • RAM • UNIBUS Supported • $\$ 1,800$

## - VX4MB-750

4MBytes • DRAM • UNIBUS Supported

## 固 VXAMB-780

4MBytes • RAM • UNIBUS Supported • $\mathbf{\$ 5 , 1 0 0}$

- VX86-16MB

16MBytes • RAM • Blbus Supported • $\mathbf{\$ 5 8 , 0 0 0}$

## © VXMI-16mB

16MBytes - RAM - Bibus Supported

## © vxmi-64

64MBytes • Blbus Supported • $\mathbf{\$ 2 3 , 9 0 0}$
Each EMC memory board requires only one slot.

## Intermational <br> Data Technology

- IDT-386

1MByte • UNIBUS Supported • $\$ 750$

## -10T-389

4MBytes • UNIBUS Supported •\$2,200

- IDT-397

4MBytes • UNIBUS Supported • \$6,000

## MCS Computer

## Products, Inc.

## - MX750-SPU

UNIBUS Supported • \$3,875+
The NX750-SPU is a memory upgrade and CPU enhancement kit that increases CPU throughput up to $30 \%$; also available separately.

## Monolthic Systems Corporation

## - msc 3205

24MBytes•280ns Read Cycle • 240ns Read Access • UNIBUS Supported
This MSC 3205 model GigaRAM subsystem uses up to eight MSC 3924 24MB memory boards. These subsystems may be chained together to provide up to 4 GB of storage.

## - MSC 3210

24MBytes• 280ns Read Cycle • 240ns Read Access • UNIBUS Supported
This MSC 3210 model GigaRAM subsystem uses up to 16 MSC 392424 MB memory boards. These subsystems may be chained together to provide up to 4GB of storage.

## - MSC 4931

16MBytes•RAM • 280ns Read Cycle • 240ns Read Access - $\mathbf{Q}$-bus Supported
This MSC 4931 is fully DEC MicroVAX II compatible, DEC MS630 equivalent, supports parity generation and checking and features socketed memory.

## - MSC 4937

8MBytes • RAM • Q-bus Supported The MSC 4937 is fully DEC MS630 equivalent, supports parity generation and checking, error LEDs, and soldered memory.

## Co ahead. Find the best memory value you can.



## A Complete Line of 100\% DEC-Compatible Memory Products.

Since 1967, Dataram has developed the highest quality memory products in the industry. Today, we manufacture a full line of memory for DEC's VAX, MicroVAX II, 2000 and 3x00, DECstation and VAXstation 3100, UNIBUS, and Q-BUS. We are constantly expanding our product line.

And to insure your investment in a Dataram memory product, we provide a Lifetime Guarantee. If our memory doesn't run flawlessly with your system, we'll replace it overnight with a product that will.

## DATAPAM

P.O. Box 7528, Princeton, NJ 08543-7528

For today's best memory values, call toll-free.
1-800-822-0071
(In NJ, call 1-609-799-0071)

## National Semiconouctor Corporation

## a MS753

1MByte - RAM - 500ns Read Cycle - 225ns
Read Access • UNIBUS Supported

## - WS789

1MByte • RAM • 350ns Read Cycle - 180ns Read Access • UNIBUS Supported

## - MS789

4MBytes • RAM • 350ns Read Cycle •180ns Read Access • UNIBUS Supported

## HS865

16MBytes • 420ns Read Cycle • 300ns Read
Access • Blbus Supported
The NSSeries is equipped with spare RAMs on-board.

## Nemonix, Inc.

## 固 NX2000-12

12MBytes - Q-bus Supported
A cost effective alternative, the NX2000 12 upgrades systems to 14 MB using 2 MB resident memory. It is designed for the VAXstation 2000 and the MicroVAX 2000.

## ■ MX2000-16

16MBytes•DRAM • Q-bus Supported

## - WX2000-8

8MBytes • DRAM • Q-bus Supported
The NX2000-8 and -16 are designed for the VAXsystem 2000 and the VAXstation 2000

## n MX75-1

1MByte • DRAM • 500ns Read Cycle - 270ns Read Access • UNIBUS Supported

## - NX75-1

1MByte - DRAM • 500 ns Read Cycle - 270ns Read Access • UNIBUS Supported

## anx75-1

1MByte - DRAM - 500ns Read Cycle - 270ns
Read Access • UNIBUS Supported
This model incorporates 256KB DRAM technology for greater reliability and also may be upgraded with memory (NX750-
MU) or special performance (NX750-SPU) kits.

## - NX75-4

4MBytes • DRAM - 500ns Read Cycle - 270ns Read Access • UNIBUS Supported

This board is designed for use in conjunction with the NX0075 or the DEC L0022 controller to provide 4 MB of storage capacity.

## - MX750-MV

4MBytes • DRAM • UNIBUS Supported
This product is a memory upgrade kit for the VAX11/750Series. It includes a standa-
lone memory diagnostic to verify memory integrity and to promote self-maintenance.

## - WX750-SPU

4MBytes • DRAM • UNIBUS Supported
This model is a special performance upgrade kit for the VAX 11/750 Series. It extends the life of the CPU by increasing its information processing up to $25 \%$.

## . WX78-4

4MBytes • RAM • 500ns Read Cycle - 225ns Read Access • UNIBUS Supported

## . NX78-8

8MBytes - DRAM - 500ns Read Cycle - 225ns Read Access • UNIBUS Supported
Cost effective 1MB DRAM technology. Adding memory increases system performance up to $20 \%$.

## [ NX86-16

16MBytes - DRAM - 280ns Read Cycle - Blbus Supported
Features cost effective 1MB DRAM technology.

## 国 NXII-16

16MBytes • DRAM • 320ns Read Cycle • Q-bus Supported

## EMXII-8

8MBytes • DRAM • 320ns Read Cycle • Q-bus Supported
The NXII-16 an -8 are compatible with the MicroVAX II. Memory diagnostics are included for self-maintenance.

## © MXII-E16

16MBytes • DRAM • 320ns Read Cycle • Q-bus Supported
The NXII-E16 memory board prevents MicroVAX II process/VMS halts due to single bit errors. The EDC scheme corrects all single bit errors allowing the system to continue without halting.

## See First <br> Technology, Inc.

## - Simm Module Upgrade

## 4 mbytes

The DEC 3100 RISC Workstation Simm Module Upgrade may be upgraded to 24 MB in 4 MB increments. It provides high performance at substantially low prices.

## Standard Memories

## - Buscomm 705

1536KBytes • MOS RAM • 700ns Read Cycle • 550ns Read Access • UNIBUS Supported The BUSCOMM 70S features socketed RAMs as well as two spare RAMs onboard.

## - PINCOMM 235X

2MBytes • 450ns Read Cycle • 200ns Read Access • UNIBUS Supported
This model includes socketed RAMs, block mode and standard selection 22 -bit addressing.

## - PIMCOMM 24S

1MByte • MOS • 450ns Read Cycle • 425ns
Read Access • UNIBUS Supported
This model features socketed RAMs and is equipped with spare RAMs on-board.

## - PIWCOMM 30005

16MBytes • MOS • 450ns Read Cycle •150ns Read Access • Q-bus Supported
This model features socketed RAMs and is equipped with spare RAMs on-board, and is designed for MicroVAX/3000 Series and workstations.

## PIWCOMM 445

1MByte - MOS • 550 ns Read Cycle • 440ns
Read Access • UNIBUS Supported

## - PIWCOMM 616S

8-16MBytes • MOS • 400ns Read Cycle • 180ns Read Access • Q-bus Supported

## - PINCOMM 6305

4MBytes • MOS • 400ns Read Cycle - 180ns Read Access • Q-bus Supported The PINCOMM 44S, 616S, and 630S feature socketed RAMs and are equipped with spare RAMs on-board.

## - PINCOMM 7305

1MByte - MOS RAM - 650ns Read Cycle 320ns Read Access • 11/730 Supported

This model includes socketed RAMs as well as two spare RAMs.

## - PIWCOMM 73S

4MBytes • MOS • 450ns Read Cycle •150ns Read Access • Q-bus Supported
Features socketed RAMs and is equipped with spare RAMs on-board.

## PIWCOMM 750S+

1MByte • MOS RAM • 650ns Read Cycie 320ns Read Access • 11/750 Supported This board is compatible with DEC VAX 11/750-CA CPUs or other 11/750 CPUs that have been upgraded with the DEC MS750-Dx upgrade kit. It includes sock eted RAMs as well as two spare RAMs.

## - PIWCOMM 750SD

1MByte - MOS RAM • 650ns Read Cycle 320ns Read Access • UNIBUS Supported This board is compatible with the DEC MS750Dx memory upgrade kit. It includes socketed RAMs as well as two spare RAMs.

## - PINCOMM 750SX

4MBytes • MOS RAM • 650ns Read Cycle 320ns Read Access • UNIBUS Supported This board is compatible with the DEC MS750Hx memory and L0022 controller boards as well as the Standard Memories upgrade kit PINCOMM 750SX-UPGx with the MC750 controller.

## - PINCOMM 750SX-UPG2

4MBytes - MOS RAM - 650ns Read Cycle 320ns Read Access•UNIBUS Supported

## - PIMCOMM 750SX-UPG3

4MBytes • 650 ns Read Cycle • 320ns Read Access • UNIBUS Supported

## - PIWCOMM 7805X

1MByte - MOS RAM • 500ns Read Cycle * 200 ns Read Access • UNIBUS Supported This board may be used only with CPUs that have MS780E or MS780H memory Boards with differing storage capabilities ( 1 MB or 4 MB ) may not be mixed in one configuration. It includes socketed RAMs as well as two spare RAMs.

## P PIMCOMM 860SX

16MBytes • MOS • 560 ns Read Cycle • 640ns Read Access • Blbus Supported
This model features socketed RAMs and is equipped with two spare RAMs on-board.

## TERMINALS \& WORKSTATIONS

## DISPLAY TERMINALS



## DISPLAY TERMINALS



## DISPLAY TERMINALS

|  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lee Data Corporation 612 828-0523 |  |  |  |  |  |  |  |  |  |  |  |
| 1222 | 15" | Y | A/G | 24 | VT52/100/220 | 24/43 | 80/132 | 19.2K | Y/Y |  | \$1,995+ |
| Liberty Electronics 415 742-7000 |  |  |  |  |  |  |  |  |  |  |  |
| Freedom 220 |  |  |  |  | VT52/100/220 |  |  |  | Y/Y |  | \$745 |
| Freedom 222 |  |  |  |  | VT52/100/220 |  |  |  | Y/- |  | \$945 |
| Freedom ONE ANSI | 14" |  | A | 15 | VT52/100/220 | 24 | 80/132 | 38.4K | Y/- |  | \$499 |
| Freedom ONE Plus | $14{ }^{\prime \prime}$ |  | A/G | 15 | VT52/100/220 | 24 | 80/132 | 38.4K | Y/- |  | \$499 |
| Freedom ONE Turbo | 14" |  | A/G | 15 | VT52/100/220 | 24 | 80/132 | 38.4K | Y/- |  | \$599 |
| Link Technologies, Inc. 415 651-8000 |  |  |  |  |  |  |  |  |  |  |  |
| 125 | 14" |  | A/G/W | 32 |  |  | 80/132 | 38.4K | Y/- |  |  |
| 220 | $14^{\prime \prime}$ | Y | A/G/W | 38 | VT100/132/220 | 26 | 80/132 | 38.4K | Y/- | 1 yr | \$595 |
| 220WP | 14" |  | A/G/W |  | VT100/220 | 26 | 80/132 | 38.4K | Y/- |  | \$649 |
| MC10 | 14" |  | A/G/W | 40 | VT100/220/320 | 24/44 | 80/132 | 38.4K | Y/- |  | \$595 |
| MC2 | 14" |  | A/G |  |  | 25 | 80 | 19.2K | Y/Y |  | \$409 |
| MC3 | 14" | Y | A/G/W | 32 | VT100 | 25/44 | 80/132 | 38.4K | Y/Y | 3 yrs | \$565 |
| MC5 | 14" |  | A/G/W |  |  |  | 80/132 | 38.4K | Y/- |  |  |
| LXE 404 447-4224 |  |  |  |  |  |  |  |  |  |  |  |
| 2020 |  |  |  |  |  |  |  |  |  |  |  |
| 2020-15 |  |  |  |  |  |  |  |  |  |  |  |
| 2020-LT |  |  |  |  |  |  |  |  |  |  |  |
| 2020-T |  |  |  |  |  |  |  |  |  |  |  |
| Micro-Term Inc. 314 822-4111 |  |  |  |  |  |  |  |  |  |  |  |
| 4520 | $14^{\prime \prime}$ | Y | W | 15 | VT52/100/220 | 24 | 80/132 | 38.4K | Y/- | 2 yrs | \$695 |
| 4525 | 14" | $Y$ | W | 15 | VT52/100/220 | 24 | 80/132 | 38.4K | Y/- | 2 yrs | \$695 |
| 5510 | $14^{\prime \prime}$ | Y | $A^{*} / \mathrm{G}$ |  | VT100/220/320 | 24 | 80/132 | 19.2K | Y/- | 2 yrs | \$499 |
| Nematron Corporation 313 994-0501 |  |  |  |  |  |  |  |  |  |  |  |
| IWS-1000 | $12^{\prime \prime}$ | $Y$ | A | 65 | VT52/100 | 25 | 80 | 19.2K | Y/- | 1 yr | \$2,190 |
| IWS-1000T | 12" | $Y$ | A | 65 | VT52/100 | 25 | 80 | 19.2K | Y/- | 1 yr | \$2,300 |
| IWS-1510 | 12" | $Y$ | RGB | 65 | VT52/100 | 25 | 80 | 19.2K | Y/- | 1 yr | \$3,390 |
| IWS-1511T | 12" | $Y$ | RGB |  | VT52/100 | 25 | 80 | 19.2K | Y/- | 1 yr | \$3,500 |
| IWS-2000 | 12" | $Y$ | A | 65 | VT52/100 | 25 | 80 | 19.4K | Y/- |  | \$3,340 |
| IWS-2000T | 12" | $Y$ | A | 65 | VT52/100 | 25 | 80 | 19.4K | Y/- | 1 yr | \$3,450 |
| IWS-2510 | 12' | $\mathbf{Y}$ | RGB | 65 | VT52/100 | 25 | 80 |  | Y/- | 1 yr | \$4,390 |
| IWS-2511T | 12" | $Y$ | RGB | 40 | VT52/100 | 25 | 80 | 19.4K | Y/- | 1 yr | \$4,500 |
| IWS-3005 | $8{ }^{\text {n }}$ | $Y$ | A |  | VT100 | 16 | 80 | 19.2K | Y/- | 1 yr | \$1,090 |
| IWS-3005T | 8" | $Y$ | A | 40 | VT100 | 16 | 80 | 19.2K | Y/- | 1 yr | \$1,440 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Ditto 221XL | $14{ }^{\prime \prime}$ |  | A/G | 15 | VT100/102/220 | 24 | 80/132 | 19.2K | Y/- | 4 yrs | \$499 |
| Ditto 320xL. | $14^{-}$ |  | A/G | 15 | VT100/220/320 | 24 | 80/132 | 19.2K | Y/- | 3 yrs |  |
| Northern Telecom, Inc. 800 558-9936 |  |  |  |  |  |  |  |  |  |  |  |
| Displayphone220 | 9'1 | N | A | 32 | VT52/100/220 | 24 | 80/132 | 19.2K | Y/ | 1 yr | \$895 |
| Perfect Terminals, Inc. 800 624-6422 |  |  |  |  |  |  |  |  |  |  |  |
| P411 | 14" |  |  |  | VT100 | 26 | 80/132 |  | Y/- |  | \$795 |
| Plexus Computers, Inc. 408 943-9433 |  |  |  |  |  |  |  |  |  |  |  |
| 6110A | $14^{\prime \prime}$ |  |  |  | VT100 | 24 | 80/132 |  | Y/- |  |  |
| Qume Corporation 408 942-4000 |  |  |  |  |  |  |  |  |  |  |  |
| QVT 201 | 14" |  | A*/G | 17 | VT100 | 24 | 80/132 | 38.4K | Y/Y | 1 yr | \$695 |
| QVT 203+ | 14" |  | $A^{*} / \mathbf{G} / \mathbf{W}^{*}$ | 15 | VT52/100/220 | 24 | 80/132 | 38.4K | Y/- | 1 yr | \$645 |
| aVT103 | $14^{\prime \prime}$ |  | $A^{*} / \mathbf{G}$ | 12 | VT52/100/131 | 24 | 80/132 | 19.2K | Y/Y | 1 yr | \$895 |

## DISPLAY TERMINALS

|  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Qume Corporation 408 942-4000 (continued) |  |  |  |  |  |  |  |  |  |  |  |
| QVT202 | 14" |  | A*/G | 17 | VT220 | 24 | 80/132 | 19.2K | Y/- | 1 yr | \$595 |
| Random Corporation 513 825-0880 |  |  |  |  |  |  |  |  |  |  |  |
| Colleague | 10" | $Y$ | A/B | 20 | VT52/100/220 | 25 | 80 | 19.2K | Y/Y | 90 d | \$995 |
| Colleague Plus | $10^{\prime \prime}$ | $Y$ | A/B | 20 | VT52/100/220 | 25 | 80 | 19.2K | Y/Y | 90 d | \$1,295 |
| RCA Business Services 609 486-5526 |  |  |  |  |  |  |  |  |  |  |  |
| Interactive Display | $14^{\prime \prime}$ | Y |  |  | VT100 |  |  |  | Y/- |  |  |
| Samsung Electron Devices America, Inc. 213 802-8425 |  |  |  |  |  |  |  |  |  |  |  |
| SAMTRON SD-220 | 14" |  | AG/W | 20 | VT100/220 | 24 | 80/132 | 19.2K | Y/- | 1 yr | \$499 |
| SAMTRON SD-50 | 14" |  | A/G/W | 14 |  | 24 | 80 | 19.2K | Y/- | 1 yr | \$399 |
| Summus Computer Systems 713 492-6611 |  |  |  |  |  |  |  |  |  |  |  |
| SUM 326 | 14" | Y | A/G/W | 45 | VT 320 | 24 | 80/132 | 38.4K | Y/Y | 1 yr | \$695 |
| Tatung Company of America 213 637-2105 |  |  |  |  |  |  |  |  |  |  |  |
| TVT7220 |  |  |  |  | VT220 |  |  |  |  |  | \$549 |
| Teco American 714 670-2722 |  |  |  |  |  |  |  |  |  |  |  |
| VA120 | $12^{\prime \prime}$ | $Y$ |  |  | VT100 | 24 | 80/132 |  | Y/- |  |  |
| VA220 | $14^{\text {" }}$ | $Y$ |  |  | VT100/220 | 24 | 80/132 |  | Y/- |  |  |
| Telefile Computer Products 714 250-1830 |  |  |  |  |  |  |  |  |  |  |  |
| T3510 | 14" |  |  |  | VT100 | 24 | 80/132 |  | Y/- |  |  |
| Teleray 612 941-3300 |  |  |  |  |  |  |  |  |  |  |  |
| 20-DDG | $14^{\prime \prime}$ | $Y$ | A/G/W | 20 | VT220 | 24 | 80/132 | 19.2K | Y/N | 90 d | \$895 |
| 20-DHP | 14" | $Y$ | A/G/W | 32 | VT100/220 | 24 | 80/132 | 19.2K | Y/N | 90 d | \$895 |
| TEL. 2 | $14{ }^{\prime \prime}$ | $Y$ | A/G/W | 32 | VT102 | 24 | 80/132 | 19.2K | Y/N | 90 d | \$800 |
| TEL 5 | 14" | $Y$ | A/G/W | 32 | VT100 | 24 | 80/132 | 19.2K | Y/N | 90 d | \$900 |
| TEL. 7 | $14^{\prime \prime}$ | Y | A/G/W | 32 | VT52/102 | 24 | 80/132 | 19.2K | $Y / N$ | 90 d | \$1,100 |
| TeleVideo Systems, Inc. 408 745-7760 |  |  |  |  |  |  |  |  |  |  |  |
| 9220 | 14" | N | A/G | 30 | VT52/100/220 | 24 | 80/132 | 19.2K | Y/N | 1 yr | \$619 |
| 965 | 14" | N | G/W | 32 | VT100 | 49 | 80/132 | 38.4K | Y/N | 1 yr | \$599 |
| Texas Instruments, Inc. 800 527-3500 |  |  |  |  |  |  |  |  |  |  |  |
| TravelMate 1200 | 11" |  |  | 4 | VT100 | 16 | 80 | 1200 | Y/- | 90 d | \$1,295 |
| TravelMate LT220 | 11" |  |  | 10 | VT220 | 25 | 80 | 9600 | Y/- | 90 d | \$899 |
| Thomas Engineering Company 415 680-8640 |  |  |  |  |  |  |  |  |  |  |  |
| TE 780X | 14" |  |  |  | VT100 | 25 | 80 |  | Y/- |  | \$1,350 |
| Trendcom, Inc. 415 490-1291 |  |  |  |  |  |  |  |  |  |  |  |
| 1923 | $9^{\prime \prime}$ |  |  |  | VT52/100 | 24 | 80 |  | Y/- |  | \$1,795 |
| 1924 | 9" |  |  |  | VT52/100 | 24 | 80 |  | Y/- |  |  |
| 1925 | $9^{\mathbf{\prime \prime}}$ |  |  |  | VT52/100 |  |  |  | Y/- |  |  |
| Tristar Technology 201 784-1557 |  |  |  |  |  |  |  |  |  |  |  |
| VEGA VDT-300 | 14" | N | $A^{*} / G / W^{*}$ |  | VT100/220 | 24-27 | 80/132 | 38.4K | Y/- | 1 yr | \$385 |
| Unisys Corporation 215 542-2240 |  |  |  |  |  |  |  |  |  |  |  |
| SVT1210 |  |  |  |  | VT52/100 | 24 | 80/132 |  | Y/- |  | \$695 |
| SVT1220 |  |  |  |  | VT52/100/200 | 24 | 80/132 |  | Y/- |  | \$995 |
| UVT1224 | $14^{*}$ |  |  |  | VT52/100/220 | 24 | 80/132 |  | Y/- |  | \$695 |
| Visentech Systems, Inc. 800 248-5931 |  |  |  |  |  |  |  |  |  |  |  |
| VS-230PC | 14" | Y | A/G/W | 45 | VT220 | 24/24 | 80/132 | 38.4K | Y/Y | 1 yr | \$565 |
| VS220 | 12" | $Y$ | A/G | 36 | VT52/100/220 | 24 | 80/132 | 19.2K | Y/- | 1 yr | \$399 |
| VS230 | $14^{\prime \prime}$ | $Y$ | A/G/W | 45 | VT100/131/220 | 24/34 | 80/132 | 38.4K | Y/Y | 1 yr | \$495 |
| VS230E | 14" | $Y$ | A/G/W | 45 | VT220/330/320 | 24/34 | 80/132 | 38.4K | Y/Y | 1 yr | \$549 |

## DISPLAY TERMINALS



## GRAPHICS TERMINALS

## GRAPHICS TERMINALS



# WHY ARE SO MANY CUSTOMERS CALLING <br> SCHERERS AGAIN AND AGAIN? 

## PRODUCT SET

## TERMINALS

| VT320 | alpha numeric terminal |
| :--- | :--- |
| VT330 | tex |
|  | tex/graphics terminal with <br> dual session |
| VT340 |  |

## PRINTERS

LA75 ${ }^{\text {Tw }}$
LA210 ${ }^{\text {Tu }}$
LA120 ${ }^{\text {™ }}$ DECwriter III
LNO3 ${ }^{\text {Tw }}+$ upgraded-laser printer family LJ250 ${ }^{\text {TM }}$ companion color printers LA100-CA ${ }^{\text {Tw }}$ Letterwriter

## DECSERVERS

DSRVB-AA-200 ${ }^{\text {Tu }}$ terminal server-EIA DSRVB-BA-200Tw terminal server-MMJ DSRVS-AA ${ }^{\text {Tu }}$
DSRVS-BA ${ }^{\text {Tw }}$
(16-128 port)

## COMMUNICATIONS

| DHQ11 ${ }^{\text {TM }}$ | DMA Async, 8 line Q-bus adapter |
| :---: | :---: |
| DZQ11 ${ }^{\text {TM }}$ | Async, 4 line Q-bus adapter |
| DHU11 ${ }^{\text {TM }}$ | 16 line Unibus Async adapter |
| DELQA ${ }^{\text {TM }}$ | Q bus ethernet adapter |
| DEQNA ${ }^{\text {™ }}$ | Q bus ethernet adapter |
| DELUA ${ }^{\text {TM }}$ | Unibus ethernet adapter |
| DMV11-N ${ }^{\text {m }}$ | Multipoint CCITTV. 35 |

ETHERNET ${ }^{\text {TM }}$
DELNITw thickwire ethernet interface DEMPR ${ }^{\text {™ }}$ thinwire multiport repeater DESPR ${ }^{\text {Tw }}$ thinwire singleport repeater DEREPTw ethernet repeater
DEBET ${ }^{\text {w* }}$ extended LAN interface DESTA ${ }^{\text {Tu }}$ thinwire station adapter H4005 ${ }^{\text {Tw }}$ thickwire transceiver

## MODEMS

DF242 ${ }^{\text {TM }} \quad$ 2400/1200/300 bps modem DF224 ${ }^{\text {T" }} \quad$ 2400/1200/6 ps modem DF127/DF129 ${ }^{\text {TM }}$ modems
"Low prices."
"An extensive inventory of Digital Equipment products that can be shipped immediately."
"Technical support. All Digital licenses and warranties valid. They file the paperwork."

Our customers confirm it! When you call Scherers, you get aggressive pricing at every quantity level on every product. We ship same day on stock orders received by 4 p.m.

We're grateful that our customers appreciate the way we do business. And we plan to bring you the same quality products at competitive prices for years to come.

We're in our 16th year of service to customers, and business bas never been better. Serving you well is bow we got bere and we never forget it.

Scherers is an Authorized Distributor. All new Digital
Equipment products have a full one year Digital Warranty.

## Call Scherers to order. (614) 847-2200



We bring Digital to you.

## GRAPHICS TERMINALS



GRAPHICS TERMINALS


## GRAPHICS TERMINALS



## OutperformVT240/241 Graphics Terminals By Frading4OId Colors For 16New Ones.

Presenting a fresh set of enhancements to the leading DEC ${ }^{\circ}$ VT240/241 terminal emulation software. New SmarTerm 240 version 3.0 has a range of VT340 ReGIS ${ }^{\circ}$ graphics features. So when running on a PC with an EGA or VGA, it actually outperforms a dedicated VT240/241 terminal.

Sixteen different colors can be specified from available palettes. Which makes working with 3-D images and complex filled regions in powerful ReGIS color graphics
 programs as easy as pie charts. Rubber band cursor actions, curves through data points, and text drawn to virtually any size, shape, or angle are also available.

The vivid display of advanced software engineering in version 3.0 goes beyond colorful VT340 features. We've also made version 3.0 faster, easier, and more comfortable to use.
Automatic keyboard remapping has been added. The PC num lock, for example, becomes the DEC PF1 key. Now, no matter which style PC keyboard you use, the best physical representation of the DEC keypad will be at your fingertips.

On-line help has been expanded. Softkey enhancements include conditional branching and faster action. We've even managed to improve the performance of our state-of-the-industry communications and file transfer features.

Some things haven't changed. Installation is still automatic. Our technical support group still provides free solutions to problems and answers to your questions. And our 30-day return policy continues to make a complete on-site evaluation risk-free.

So if you're already a SmarTerm software user, call us today at 608-273-6000 to trade up. And if you're not a SmarTerm user, now's the time to become one.

Because going to the top of our line puts you at the top of the spectrum.

## EmulateTheBestWithTheBrightest.

## GRAPHICS TERMINALS

| む్ర |  |  |  |  |  |  |  |  |  |  | 馬 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Seiko Instruments 408 922-5950 |  |  |  |  |  |  |  |  |  |  |  |  |
| GR-4406 | 19" | C | 1280x1024 | N | N | VT100 | 1024 | 16.8m |  | \%- | 32 | \$20,950 |
| GR-4416 | 19" | C | $1280 \times 1024$ | $N$ | $N$ | VT100 | 16.8m | 16.8m |  | \%- | 32 | \$20,950 |
| Spectragraphics Corporation 619 450-0611 |  |  |  |  |  |  |  |  |  |  |  |  |
| DS1081 | 19" | C | 1024x1024 | Y |  | VT100 | 16 | 4096 |  |  | 32 | \$12,900 |
| DS1082 | 19" | C | 1024x1024 | $Y$ |  | VT100 | 256 | 16.8m |  | \%- | 32 | \$14,900 |
| DS1082GX | 19" | C | 1024x1024 | $Y$ | Y | VT100 | 256 | 16.8m | 1.544M | Y | 32 | \$15,500 |
| DS1500 | 19" | C | 1024x1024 | Y |  | VT100 | 16 | 4096 |  |  | 32 | \$22,900 |
| Systerm, Inc. 514 332-5581 |  |  |  |  |  |  |  |  |  |  |  |  |
| KD1220G |  | C | $512 \times 240$ |  |  | VT100/220 | 16 | 64 | 19.2K | Y- |  |  |
| KD220G | $14^{\prime \prime}$ | M | $512 \times 240$ |  |  | VT52/100/220 |  |  | 19.2K | \%- |  | \$795 |
| KD500G | 14" |  | $512 \times 240$ |  |  | VT100 |  |  | 19.2K | \%- |  |  |
| Tab Products Company 415 852-2400 |  |  |  |  |  |  |  |  |  |  |  |  |
| 132/15G | 15" | M | 1024x779 |  |  | VT52/100 |  |  |  |  |  | \$1,195 |
| Talaris Systems Inc. 619 587-0787 |  |  |  |  |  |  |  |  |  |  |  |  |
| 77600 | 14" | M | 1024x780 | $N$ | Y | VT52/200 |  |  | 57.6K | \%- | 45 | \$1,995 |
| Tektronix, Inc. 503 627-7111 |  |  |  |  |  |  |  |  |  |  |  |  |
| 4111 | 19" | C | 1024x768 | N | Y | VT52/100 | 16 | 4096 |  | / | 8 | \$8,995 |
| 4205 | $13^{\prime \prime}$ | C | 480x360 | $N$ | $Y$ | VT52/100/200 | 16 | 64 |  | Y | 8 | \$2,495 |
| 4207 | 13" | C | $640 \times 480$ | N | $Y$ | VT52/100/200 | 16 | 64 |  | $\boldsymbol{Y}$ | 8 | \$3,995 |
| 4208 | 13" | C | $640 \times 480$ | $N$ | Y | VT52/100/200 | 16 | 64 |  | $\boldsymbol{Y}$ | 8 | \$4,995 |
| 4209 | 19" | C | $640 \times 480$ | $N$ |  | VT52/100/200 | 16 | 4096 | 38.4K | \%- |  | \$6,995 |
| 4224 | $16^{\prime \prime}$ | C | 1024x768 | N | Y |  | 256 | 16.7m | 38.4K | Y |  | \$12,950 |
| 4225 | 16" | C | 1280x1024 | N |  |  | 256 | 16.7m | 38.4K | $Y$ |  | \$15,950 |
| 4235 | $16^{\prime \prime}$ | C | 1280x1024 | $Y$ |  |  | 16 | 16.7m | 38.4K | $\boldsymbol{Y}$ |  | \$23,500 |
| 4236 | 16" | C | 1280x1024 | $Y$ |  |  | 256 | 16.7m | 38.4K | Y |  | \$33,500 |
| 4237 | $16^{\prime \prime}$ | C | 1280x1024 | Y |  |  | 4096 | 16.7m | 38.4K | $Y$ |  | \$37,500 |
| SF4208 | 13" | C | $640 \times 480$ | N | Y | VT52/100/200 | 16 | 4096 |  | /Y | 8 | \$5,495 |
| Teleray 612 941-3300 |  |  |  |  |  |  |  |  |  |  |  |  |
| 30 | 13"* | C | $640 \times 480$ | N | Y | VT 340 | 16 | 262K+ | 38.4K | /Y |  | \$2,690 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| TR1024 | $15{ }^{\prime \prime}$ | M | 1024x480 |  |  | VT100 |  |  |  |  |  | \$3,750 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sinoterm | 12" |  |  |  |  | VT100 |  |  |  |  |  | \$5,600 |
| Trillium Corporation 201 445-9660 |  |  |  |  |  |  |  |  |  |  |  |  |
| 1100 |  | C | $640 \times 480$ |  |  |  |  |  |  |  |  | \$300K+ |
| Verticom, Inc. 800 433-5760 |  |  |  |  |  |  |  |  |  |  |  |  |
| CD-1 | 13 " | C | 640x480 |  |  | VT100 |  |  |  |  |  | \$795 |
| VG-07 | $13^{\prime \prime}$ | c | $640 \times 480$ |  |  | VT100 |  |  |  |  |  | \$3,495 |
| VG-09 | 19" | C | $640 \times 480$ |  |  | VT100 |  |  |  |  |  | \$5,995 |
| VG Systems, Inc. 818 346-3410 |  |  |  |  |  |  |  |  |  |  |  |  |
| VG3300 | 21" | C | 4Kx4Kx4K |  |  |  |  |  |  |  |  | \$40,000 |
| Visual Technology, Inc. 800 847-8252 |  |  |  |  |  |  |  |  |  |  |  |  |
| 603 | 14" | M | 1056x400 |  | $Y$ | VT52/100/220 |  |  | 38.4K | Y/- | 15 | \$695 |
| 630 | 14" | M | 1056x800 |  | $Y$ | VT52/100/220 |  |  | 38.4K | Y/- | 15 | \$995 |
| W. W. Gaertner Research, Inc. 203 866-3200 |  |  |  |  |  |  |  |  |  |  |  |  |
| Inrad II | 6-25 | C | 1024x1280 |  |  |  |  |  |  |  |  | 443,500+ |
| Wyse Technology 408 433-1000 |  |  |  |  |  |  |  |  |  |  |  |  |
| WY-99GT | 14" | M | $800 \times 338$ |  | Y | VT52/100/220 |  |  | 38.4K | Y/- | 16 | \$649 |

## WORKSTATIONS



## WORKSTATIONS



## X WINDOW TERMINALS



## DEC Professional Answers Your Computing Questions

DEC Professional provides the information and insight you need to get the most out of your DEC computer. And it's absolutely FREE!

- Multivendor Environments
- UNIX
- Storage Technology
- Productivity Tools
- Hardcopy Devices
- Graphics
- Site Management
- Communications


## Request Your FREE Subscription Today!

To request a free subscription application to DEC Professional, contact:

## DEC Professional

Lori Ulbrich
101 Witmer Road, Horsham, PA 19044 (215) 957-1500


Production Automation

## Display Terminals

## Appled Digital Data Systems

## - ADDS 3220

14" Monitor • 22 Function Keys • VI52/100/ 220 Emulation • $19.2 \mathrm{Kbps} \bullet \$ 595$
The ADDS 3220 features a 70 Hz refresh rate for reduced eye strain, host and keyboard function keys and a full page set-up mode.

## ■ ADDS 3320

14" Monitor • VT320 Emulation • 19.2Kbps • $\$ 595$
The ADDS 3320 features a 70 Hz refresh rate for reduced eye strain, host and keyboard function keys and a full page set-up mode. Handles 16 international languages.

## - ADDS 3320 TOUCH

14" Monitor • VT 320 Emulation • 19.2 Kbps • \$1,595
The ADDS 3320 TOUCH features the same capabilities as the 3320 . However, this terminal also features a touch screen which provides on-screen options rather than type-in data, eliminating errors and improving accuracy of data entry

## AT\&T

Information Systems

- 4424

13" Monitor • VT100 Emulation

## $\square 4425$

12" Monitor • VT100 Emulation
$\square 510$
9" Monitor • VT100 Emulation •\$1,795

- 510A

9™onitor • VT100 Emulation •\$1,645
■ VideoComm
VT100 Emulation

## Burr-Brown <br> ■ TM8500 <br> \$1,095

## - TM8550

Function Keys • \$1,095
The TM8500 and 8550 accept data manually as well as through automatic identification interfaces.

## C. Ітoh Electronics, Imc. $\square$.

14" Monitor • 45 Function Keys • VT100/102/ 220 Emulation • 19.2Khps • $\$ 749$
Features two separate set-up menus, two sets of programmable function keys, and two local memories, providing the capability to connect to two different host computers and run simultaneous sessions. There is a modes/session key which acts as a toggle between the two sessions.

## $\square 7100$

14" Monitor • VT100 Emulation • \$645

## 7800

14" Monitor • VT100 Emulation • \$1,695

- 7900

13*Monitor • VT100 Emulation • \$1,695

## CIT-101XL

14" Monitor • 16 Function Keys • VT100
Emulation • 38.4Kbps • $\$ 699$
Row 25 on the display is a user selectable data or terminal status line while the 26th row serves as a function key label line with an editor.


## - CII-326

14" Monitor • 45 Function Keys • VT100/ 102/220 Emulation • 19.2Kbps • $\$ 649$ The CIT-326 is a DEC compatible dual host/dual session video display terminal. The CIT-326 is really two terminals in one. It has two separate set up menus, two sets of programmable function keys, and two separate local memories. Connections to two different host computers is made possible from the same terminal. This creates a workstation-like environment by providing control over display parameters and access to both hosts and both sessions. Switching between hosts is as simple as pressing the Mode/Session key. In set up, the CIT-326 may be configured to divide the screen horizontally, with dual sessions separated by an informative fact line, or display a full screen of data ? from either session.

## CIT-50+

14" Monitor • 16 Function Keys • VI52/100/ 102 Emulation • 38.4Kbps •\$649
Features both ANSI and ASCII capabilities. Emulates Wyse WY-50, Lear Siegler ADM $31 / 3 A / 5$, Hazeltine 1500, and the Televideo 910/920/925 terminals.

## Chi Corporation

- MP-Series 2

14" Monitor • 22 Function Keys • VT100/102/ 220 Emulation • 19.2Kbps • $\$ 875$
The MP Series 2 is a multiple protocol terminal capable of supporting up to three emulations: DECVT, UNISYSSperry, and IBM 3270. Multiple communication ports allow simultaneous connection to two different hosts.

## Control Module, Inc.

 - 1409T52/100 Emulation
The 1409 is designed for use in industrial environments. It features multiple input capabilities; it accepts input from bar code scanners and has an auxilliary port for input from scales and portable bar code entry terminals. Optional magnetic, hollerith, and voice inputs are also available.

## Cybernex Lto.

## RG-220 Turbo

$14^{\text {" }}$ Monitor $\bullet 43$ Function Keys • VT100/220 Emulation • $\mathbf{3 8 . 4 K b p s} \bullet \mathbf{\$ 7 9 5}$
Features a Cybernex menu that (1) changes the Cybernex key to the NUMERIC LOCK key, (2) removes the HOLD SCREEN, LOCK, COMPOSE, WAIT and NUMERIC LOCK indicators from the status line, (3) appends a carriage return to the function keys, and (4) changes the DELETE key into a BACKSPACE key.

## Datastream Networking 8878

14* Monitor • VT100/220 Emulation • \$750

- 8180

14" Monitor • VT100/220 Emulation • \$1,095

## Datawatch Corporation

## 2

14" Monitor • VT220 Emulation
Davox Corporation

- MultiFunction Workstation

12" Monitor • VT100 Emulation • $\mathbf{\$ 1 , 2 9 5}$

## Delta Data Systems Corp.

DD 100T Tempest
14" Monitor $\bullet 4$ Function Keys • VT100
Emulation • 19.2Kbps • $\$ 3,700$
The DD 100T is Tempest modified.

- DD 125T Tempest

14" Monitor • 4 Function Keys • VT100/125 Emulation • 19.2Khps • \$4,910
The DD 125T is Tempest modified.

## DD 220 Tempest

14" Monitor • 16 Function Keys • VT52/100 Emulation • 38.4Kbps • $\$ 2,769$
The DD 220 T is Tempest compliant.

## Direct Service and Repalr

$-831$
12" Monitor • VT52/100 Emulation • \$895

## VP828

12" Monitor • VT52 Emulation • $\$ 1,395$

## Electro <br> Mechanical Systems

$\square{ }^{10}$
12" Monitor • VT100 Emulation • 19.2Kbps • $\$ 980$
This terminal has been classified as the Touch Information Display (TID) terminal and also emulates the Lear Siegler ADM 3A.

## Ееествономе, Lto.

- EDM 926


## $9^{9}$ Monitor

Offers a cost effective solution to display computer information.

## - EVM Series

## $\mathbf{g}^{\mathbf{m}}$ Monitor - \$635+

The wide range of features makes the EVM line adaptable to a number of applications. All models available in 120 V and $220 / 240 \mathrm{~V}$ versions, standard and Vari-scan, and a choice of phosphors.

## Esprit Systems, Inc.



- Opus 3n1+

14" Monitor • 16 Function Keys • VT220 Emulation • 38.4 Kbps • $\$ 599$
The OPUS 3n1+ provides the DEC user with the solution to connectivity problems without the need to change terminals. The popular OPUS 3 n1+ provides a quality VT220 emulation in a dual port terminal that allows connection to two hosts or ports from a single terminal simultaneously, and "hot keys" between the environments. In addition to the VT220 emulation, the OPUS 3n1+ offers PCterm emulation to support DOS applications and a full set of ASCII protocols. A DEC style keyboard automatically configures the user interface for any of the emulations providing the perfect connectivity solution. In addition, the OPUS $3 n 1+$ provides a full set of terminal resident pop-up functions which includes a memory calculator, a calendar, a clock alarm, an ASCII chart, and a Hayes modem autodial utililty. Esprit Express, the free 24 -hour next day replacement service, completes the Esprit solution.

## Opus 220

14" Monitor • 18 Function Keys • VT52/ 100/220 Emulation • 38.4Kbps • $\$ 569$ The OPUS 220 provides quality VT220 emulation covered by the unique Esprit Express warranty which guarantees a replacement unit by the next day.

## Falco Data Prooucts

- 542

14" Monitor • 16 Function Keys • VT52/100/ 220 Emulation • $\mathbf{3 8 . 4 \mathrm { Kbps }}$ • $\$ 1,125$
The FALCO 542 is designed for the Polling/Addressing terminal market and it features multihost windowing, downloadable character sets, multiple screen sizes, and reconfigurable keyboards.

## Fargo Electronics, Inc. <br> - WD-50

14" Monitor • 16 Function Keys • 38.4Kbps \$1,895
Washdown-rated device engineered for use in harsh industrial environments. Suitable in wet, damp, dusty, or even mildly corrosive environments. Meets NEMA specifications.

## Gen Term Corporation <br> SW10

T52/100 Emulation • \$649

- Sw80

VT52/100 Emulation • \$949

## GPC Technology <br> Corporation

## ■ EPC 1100

14" Monitor • 16 Function Keys • VT100 Emulation • 19.2Kbps •\$2,895
The GPC 1100 was designed for a wide range of severe environments and features a fully sealed terminal enclosure, meeting NEMA 4\&4X specifications.

## Graphics Development Corporation

## - ID-200A

13" Monitor • VI52/100/220 Emulation • 38.4Kbps • \$3,295

The ID-200A (Alpha) is a color terminal with an eight color palette and eight displayable colors. It is also available with a 19 " screen size

## Harris Corporation

## VA 8691

VT220 Emulation - \$995
VG 8691
VT220 Emulation • \$1,585

## Hewletr-Packard Company

## - 700/22

14" Monitor • 30 Function Keys • VT52/100/
220 Emulation • 38.4Kbps • $\$ 575$
The $700 / 22$ also features a 72 Hz refresh rate.

## 700/92

14" Monitor • 8 Function Keys • VT52/00/220 Emulation • 38.4Kbps • \$895

## - 700/94

14" Monitor • 8 Function Keys • VT52/100/220 Emulation • 38.4Kbps •\$1,095
The 700/94 terminal also features up to 130 blocks of 256 bytes each, forms cache memory, 11 local edit checks, and modified data tag capabilities.

## Honerwell <br> Imformation Systems

- HDS 7403

14" Monitor - VT52/100/220 Emulation

- HDS 7404

14" Monitor • VT52/100/220 Emulation

## Human Designed Systems

## HDS 2000

15" Monitor • 42 Function Keys • VT52/100
Emulation • 19.2Kbps - \$995
The HDS 2000 is equipped with flexible networking, providing simultaneous communication with up to three computers. This terminal may be upgraded to the HDS 2000 G and GX for graphics capability.

## HDS 2010

15" Monitor • 55 Function Keys • VT220
Emulation • 19.2Kbps • $\mathbf{\$ 1 , 2 9 5}$
The HDS 2010 is an APL terminal with full over-strike and the ability to define APL symbols, and APL legends on keytops.

## IBM Corporation

- 3163

12" Monitor • VT52/100 Emulation • \$1,095

## IMFORMER Computer Terminals

## - 203-100

9" Monitor • 11 Function Keys • VT52/100 Emulation
The 203-100 features 32 special characters.

## - 205-100

12" Monitor • 11 Function Keys • VT52/100 Emulation
The 203-100 features 32 special characters.

## - 207-100

9- Monitor • 11 Function Keys • VT52/100 Emulation
This model is a 14 pound portableterminal with a flip down keyboard that features 32 special characters.

## - 207-102

9- Monitor • 11 Function Keys • VT102 Emulation
Same as the 207-100. In addition, the optional internal modem features MNP Class 5 error correction.

## - 207/220

9- Monitor • 15 Function Keys • VT/220 Emulation
A portable workstation that provides access to a DEC mainframe.

## Kimtron Corporation

- KT-220

14" Monitor • 15 Function Keys • VT52/100/ 220 Emulation • 38.4Kbps • $\$ 599$

KT-220 Advanced
14" Monitor • 15 Function Keys • VT52/100/ 220 Emulation • $38.4 \mathrm{Kbps} \bullet \$ 599$
This KT-220 Advanced model also supports dual hosts as well as multiple windowing.

## - KT-220/PC

14" Monitor • VT52/100/220 Emulation • 38.4Kbps • $\$ 599$

Same as the KT- 220 Advanced. The KT220/PC also features an 84 -key keyboard.

## © KT-50

14" Monitor • 40 Function Keys • VT52 Emulation • 19.2Kbps •\$349
The KT-50 is equipped with a height adjustment feature that lowers or raises the vertical position of the screen. This model also features a keyboard with an AT style layout.

## KT-70

14" Monitor • Function Keys • VT52/100 Emulation • 19.2Kbps •\$599
The KT-70 is available with an optional display memory of four pages.

## LaNPAR <br> Technologies, Imc. <br> - 3220 <br> \$1,025 <br> - Vision II-4200

14" Monitor • 15 Function Keys • VT220 Emulation • 19.2Kbps • $\$ 699$
The Vision 4200-II features multipage display, mouse support, 96 user programmable functions, and message window capabilities.

## ■ Vision 11-4200-I

14" Monitor • 15 Function Keys • VT220 Emulation • 19.2Kbps •\$1,995
Same as the Vision II-4200. In addition, this terminal is housed in a steel cabinet for protection in hazardous environments A 68000-based graphics option is available that emulates either the Tek 4010 or 4014 (800x375) and ReGIS (800x360).

## - Vision 11-4210

14" Monitor • 15 Function Keys • VT100
Emulation • 19.2Kbps • \$799
Same as the Vision II-4200-I. The Vision II-4210 also features Blockmode Data Entry which optimizes communications efficiency and supports data validation.

## Lee Data Corporation

15" Monitor • 24 Function Keys • VT52/100/
220 Emulation • 19.2Kbps • $\$ 1,995+$
The 1222 features a record/playback function, windowing, multiple sessions, 3270 connectivity, and the ability to copy data from session to session.

## Liberty Electronics

- Freedom 220

VT52/100/220 Emulation • $\$ 745$

## - Freedom 222

VT52/100/220 Emulation •\$945

## - Freedom OME AUSI

14" Monitor • 15 Function Keys • VT52/100/ 220 Emulation • 38.4Kbps •\$499
The Freedom One ANSI terminal emulates the DEC VT220 environment with the exception of downline loadable character sets.

## $\square$ Freedom OME Plus

14" Monitor • 15 Function Keys • VT52/100/ 220 Emulation • 38.4Kbps •\$499
The Freedom ONE Plus terminal also emulates the Televideo 950, Viewpoint $A Z$, Lear Siegler ADM-31, and the Data General Dasher D210 and 211

## Freedom OME Turbe

14" Monitor • 15 Function Keys • VI52/100/ 220 Emulation • $38.4 \mathrm{Kbps} \bullet \$ 599$
The Freedom ONE Turbo features the same capabilities as the Freedom ONE Plus. However, in addition, it also features a PC emulation mode that allows it to be used with multiuser PC systems.

## Link Technologies, Inc. - 125

14" Monitor • 32 Function Keys • 38.4 Kbps
Features include a bidirectional printing port, a horizontal split screen, and soft setup capabilities including page or line formats.

## - 220

14" Monitor • 38 Function Keys • VT100/132 220 Emulation • $\mathbf{3 8 . 4 K b p s}$ - $\$ 595$
The 220 is also available with an optional
six page memory at $\$ 685$ and an optional Gold Key word processing keyboard at \$645.

## n 220WP

14" Monitor • VT100/220 Emulation *
38.4Kbps • $\$ 649$

## - MC1O

14" Monitor • 40 Function Keys • VT100/220
320 Emulation • $\mathbf{3 8 . 4 \mathrm { Kbps } \bullet \$ 5 9 5}$
Plug-in cartridges are available to support
(1) bit-mapped graphics display, (2) a bar code reader, (3) supplemental serial, and (4) parallel communication ports. Field upgradable options are available.

## - MC2

14" Monitor • 19.2Kbps • $\$ 409$
The MC2 features a 78 Hz screen refresh rate.

## - MC3

14" Monitor • 32 Function Keys • VT100
Emulation • $\mathbf{3 8 . 4 \mathrm { Kbps } \boldsymbol { * } \mathbf { \$ 5 5 }}$
Emulates ASCII, ANSI, and PCTerm and is equipped with three configurable communications ports which allows users to simultaneously display any two emulations on a split screen.

## - MC5

14" Monitor • Function Keys • $\mathbf{3 8 . 4 K b p s}$
Features include the capability to run two hosts simultaneously, interchangeable keyboards, and a flat screen.

## LXE

## - 2020

Function Keys
Handheld ruggedized, radio frequency terminal designed to provide reliable data communications for such inventory control applications as receiving, picking putaway, cycle counting and shipping. Operates with a full range of bar code systems.

## - 2020-1s

## Function Keys

Includes same features as the 2020. The 2020-IS may be used safely for inventory control applications in flammable atmospheres found in chemical and petrochemical industries.

## - 2020-LT

Function Keys
Includes same features as the 2020. The 2020-LT provides reliable operation in low temperature (down to - 22 degrees $F$ ) applications such as refrigerated warehouses or cold outdoor climates. Includes a tactile keypad.

## - 2020-T

Function Keys
Includes same features as the 2020. The 2020-T also features a tactile keypad where one touch in a 360 degree radius on any key will register a keystroke.

## Micro-Term Inc. <br> - 4520

14" Monitor • 15 Function Keys • VT52/100/ 220 Emulation • $\mathbf{3 8 . 4 K \text { Kps }} \boldsymbol{\$} \mathbf{\$ 9 5}$
All Micro-Term's 45xx terminals feature a 90 day warranty period for on-site TRW support. Features a high speed multihost and multisession which allows the terminal to function as two separate terminals, at different baud rates, with separate communication protocols, and independent emulations.

## 4525

14" Monitor • 15 Function Keys • VT52/100/ 220 Emulation • 38.4Kbps • $\$ 695$
Same as the 4520 . The 4525 also features seven pages of scrollable memory and copier support for DEC LA50/100, C.Itoh and Epson printers. Graphics enhancement boards available.

- 5510

14" Monitor - Function Keys • VT100/220/ 320 Emulation - 19.2Kbps • \$499
The 420 features a programmable compose key.

## Nematron Corporation

## - IWS-1000

12" Monitor • 65 Function Keys • VT52/100 Emulation • 19.2Kbps • \$2,190 A NEMA $4 / 12$ sealed industrial device designed for harsh environments that mounts in panels or 19" racks.

## - IWs-1000T

12" Monitor • 65 Function Keys • VT52/100 Emulation - 19.2Kbps • $\mathbf{\$ 2 , 3 0 0}$
A NEMA $4 / 12$ sealed industrial device featuring OptiTOUCH, a touch-screen keyboard that provides 40 user programmable touch-sensitive zones for transmitting ASCII characters or messages.

## - IWS-1510

12" Monitor • 65 Function Keys • VT52/100 Emulation • 19.2Kbps • \$3,390
The IWS-1510 is an IWS-1000 Series industrial device featuring eight foreground and eight background colors.

## a IWS-1511T

12" Monitor • VT52/100 Emulation • 19.2Kbps - \$3,500

Capable of producing eight foreground and background colors. Features an OptiTOUCH keyboard, providing 60 user programmable touch-sensitive zones for transmitting ASCII character and/or messages.

## IWS-2000

12" Monitor - 65 Function Keys • VT52/100 Emulation • 19.4Kbps • $\$ 3,340$
Color device equipped with OptiBASIC which is a high-level BASIC language that makes programming and control easy and flexible.

## - IWS-2000T

12" Monitor • 65 Function Keys • VT52/100 Emulation • 19.4 Kbps • $\$ 3,450$
Same as the IWS-2000. Also features the OptiTOUCH keyboard.

## E IWS-2510

12" Monitor • 65 Function Keys • VT52/100 Emulation • \$4,390
Color device equipped with OptiBASIC which is a high-level BASIC language that makes programming and control easy and flexible.

## 国 IWS-2511T

12" Monitor • 40 Function Keys • VT52/100
Emulation - 19.4Kbps • \$4,500
Same as the IWS-2000. The IWS-2511T is also capable of producing eight foreground and eight background colors.

## - IWS-3005

$8^{\text {en }}$ Monitor - VT100 Emulation - 19.2Kbps -
\$1,090
Mini workstation designed for applications requiring multiline displays that are capable of embedding dynamic data that may be placed on the screen without relying on the host to transmit screen cursor locations.

## [ IWS-3005T

$8^{\text {n }}$ Monitor - 40 Function Keys • VT100 Emulation • 19.2Kbps • $\mathbf{\$ 1 , 4 4 0}$ Same as the IWS-3005T. Also includes the OptiTOUCH touch-screen keyboard.

Networx Data Products Co.

- Ditto 221x.

14" Monitor • 15 Function Keys • VT100/102/ 220 Emulation • $19.2 \mathrm{Khps} \bullet \$ 499$
The Ditto 221XL may be upgraded with a graphics and text expansion board (221GXL) for $\$ 499.00$.

## Ditto 320xL

14" Monitor • 15 Function Keys • VT100/220/ 320 Emulation • 19.2 Kbps
Available with six optional pages of memory and a graphics upgrade to provide graphs, charts, plots and drawing capabilities.

## Northern Telecom, Imc.

- Displayphone220
$9^{9}$ Monitor • 32 Function Keys • VT52/100/220 Emulation • $19.2 \mathrm{Kbps} \bullet \mathbf{\$ 8 9 5}$
The Displayphone 220 features a two-line telephone system, with a simultaneous voice-and-data function, which provides the ability to enter or access information while talking on the phone. This device is also available with an internal Hayes 212A compatible modem, priced at $\$ 1,095$. The maximum baud rate with the internal modem is 1200 bps .


## Perfect Terminals, Inc.

 PP41114" Monitor • VT100 Emulation • $\$ 795$

## Plexus Computers, Inc.

 6110A14" Monitor • VT100 Emulation

## Qume Corporation

- QVT 201

14" Monitor • 17 Function Keys • VT100
Emulation - 38.4Kbps •\$695
The keyboard adjusts to three different height levels.

## ant 203+

14" Monitor • 15 Function Keys • VT52/100/ 220 Emulation • 38.4 Kbps • $\$ 645$
The 203+ features a highly responsive, capacitive keyboard, with an adjustable tilt.

## aVT103

14" Monitor • 12 Function Keys • VT52/100/
131 Emulation • 19.2Kbps • $\$ 895$

## a avt202

14" Monitor • 17 Function Keys • VT220
Emulation • 19.2Kbps •\$595

## Ramoom Corporation Random CORPORATION



- Colleague

10" Monitor • 20 Function Keys • VT52/100/ 220 Emulation • 19.2Kbps • \$995 Laptop, battery powered terminal (weighs
7.5 pounds) is equipped with 20 auto connect channels. Features an internal 300/ 1200 bps auto answer/auto dial modem with CCITT V. $21 / .22$ compatibility and MNP Class 5 error correcting protocol. Other features include left and right windowing as well as data backup and restore capabilities. VT-style numeric/application keypads and other accessories ? are also available.

## Colleague Plus

10" Monitor • 20 Function Keys • VT52/100/ 220 Emulation - 19.2Kbps • $\$ 1,295$
Offers the same features as the Colleague. Also equipped with an internal/offline word processor including (1) data capture and send, (2) session record and playback, (3) screen-snap, and (4) menu driven editor features.

## RCA Busimess Services

© Interactive Display
14" Monitor • VT100 Emulation

## Samsung Electron Devices America, Inc.

 - SAMTROH SD-22014" Monitor • 20 Function Keys • VT100/220 Emulation - 19.2Khps • $\$ 499$

## SAMTRON SD-50

14" Monitor • 14 Function Keys • 19.2Kbps • \$399

## Summus <br> Computer Systems

- SUM 326

14" Monitor • 45 Function Keys • VT320 Emulation • $\mathbf{3 8 . 4 K b p s}$ - $\$ 695$

## Tatumg Company of America

- TVT220

VT220 Emulation • \$549
Teco American
va120
12²" Monitor • VT100 Emulation

## . VA220

14" Monitor • VT100/220 Emulation

## Teleflie <br> Computer Products

## - T 3510

14" Monitor • VT100 Emulation

## Teleray

## 20-DDG

14" Monitor • 20 Function Keys • VT220 Emulation • 19.2Kbps • $\$ 895$
Features two bidirectional communication ports, a recodable keyboard, as well as horizontal scrolling to 256 columns. Also capable of displaying 40 and 66 data col umns.

## 20-DHP

14" Monitor • 32 Function Keys • VT100/220 Emulation • 19.2Kbps • $\$ 895$
Features two bidirectional communication ports, a recodable keyboard, as well as horizontal scrolling to 256 columns. Also capable of displaying 40 and 66 data col umns.

TEL 2
14" Monitor • 32 Function Keys • VT102
Emulation - 19.2Kbps • $\$ 800$
The TEL 2 features two bidirectional communication ports and a recodable keyboard.

## TEL 5

14* Monitor • 32 Function Keys • VT100
Emulation - 19.2 Kbps - $\$ 900$
The TEL 5 features two bidirectional communication ports and a recodable keyboard.

- TEL 7

14" Monitor • 32 Function Keys • VT52/102 Emulation • 19.2Khps • \$1,100
Same as the TEL 5. In addition, the TEL 7 features both synchronous and asynchronous protocol.

## TeleVideo Systems, Inc.

## - 9220

14" Monitor • 30 Function Keys • VT52/100/
220 Emulation - $\mathbf{1 9 . 2 K b p s} \bullet \$ 619$
The 9220 is available with the DEC special graphics character set.

## 965

14" Monitor • 32 Function Keys • VT100
Emulation • $38.4 \mathrm{Khps} \bullet \$ 599$
The 965 features ASCII, ANSI, and PC operating modes, as well as an interactive on-screen calculator. The computations may be transferred directly to a spreadsheet or any other application, without exiting the program.

## Texas Instruments, Inc.

## TravelMate 1200

11" Monitor • 4 Function Keys • VT100 Emulation - 1200 bps • $\$ 1,295$
The TravelMate 1200 features a liquid crystal display, a nonimpact thermal printer, microprocessors, a keyboard, and an internal 300/1200bps modem that is Bell 212A compatible. It was designed for portable applications.

## - TravelMate LT220

11" Monitor • 10 Function Keys • VT220
Emulation • $9600 \mathrm{bps} \bullet \$ 899$
Features a Supertwist liquid crystal display, ink-jet or thermal printers, and an internal 300,1200 , or 2400 bps modem. Weighing less than five pounds, it is ideal for portable applications.

## Thomas

Engimeerimg Company

## © TE 780X

14" Monitor • VT100 Emulation • \$1,350
Trendcom, Ilc.

- 1923
$\mathbf{g}^{\text {m }}$ Monitor - VT52/100 Emulation - \$1,795


## 1924

9n Monitor • VT52/100 Emulation
© 1925
9" Monitor • VT52/100 Emulation

## Tristar Technology

## - VEGA VDT-300

14" Monitor • Function Keys • VT100/220 Emulation • $\mathbf{3 8 . 4 \mathrm { Kbps }}$ • $\$ 385$
The VEGA VDT-300 is available with a Tektronix 4010/4014 hardware graphics controller option at an additional cost of $\$ 220$.

## Unisys Corporation

-SVT1210
VT52/100 Emulation • $\$ 695$

## - SVT1220

VT52/100/200 Emulation • \$995

## © UVT1224

14" Monitor • VT52/100/220 Emulation • $\$ 695$ The UVT 1224 is also available with a data entry keyboard for $\$ 795$

## Visentech Systems, Inc.

## vs-230PC

14" Monitor • 45 Function Keys • VT220 Emulation • 38.4Kbps • $\$ 565$
The VS-230PC multiprotocol terminal incorporates DEC VT220, TeleVideo 925, Xenix and IBM PC mode emulations. Flexibility and low cost make the VS-230PC an excellent choice.

## - V5220

12" Monitor • 36 Function Keys • VT52/100/ 220 Emulation • 19.2Kbps • \$399
The VS220 is a reliable alternative with perfect emulation at a low cost

## VS230

14" Monitor • 45 Function Keys • VT100/131 220 Emulation • $38.4 \mathrm{Kbps} \bullet \$ 495$
Optional word processing keyboard, four pages of memory, and Tek 4010/4014 graphcs board are available. Also provides both serial and parallel printer port

## VS230E

14" Monitor • 45 Function Keys • VT220/330 320 Emulation • $38.4 \mathrm{Kbps} \bullet \$ 549$
Optional word processing keyboard, RS423 and 20 mA interface and Tek 4010/4014 REGIS graphics boards are available. Dual host and concurrent windowing is implemented.

## Volker-Craig Lto.

IVC 6220
14" Monitor • 20 Function Keys • VT220 Emulation • $\mathbf{3 8 . 4 K b p s}$ - $\$ 695$
Features on-screen labels mapped to oversized function keys and built-in VT131 emulation to provide block, page, partial page, or line transmission modes

## Wicat Systems

17100
14" Monitor • VT100/132 Emulation

## Wrse Technology

## - WY-60

14" Monitor • 16 Function Keys • VT52/100 Emulation - 19.2Kbps • $\$ 599$
The WY-60 also emulates the following terminals: ADDS Viewpoint A2/60, Data General D200/210 Lear Siegler ADM 31/ $3 \mathrm{~A} / 5$, Data General D200, Hazeltine 1500, and the Televideo $910+/ 925 / 950 / 955$. .

## WY-85

14" Monitor - 15 Function Keys • VT52/100/ 220 Emulation • 19.2Kbps • $\$ 499$

## Xусом, ІІс.

## 4810E

9" Monitor • 6 Function Keys • VT100/220 Emulation • 19.2Kbps • $\$ 1,550$

The 4810 E is designed for use in harsh industrial environments and features a 19 " rack- or panel-mounted configuration with a sealed membrane keypad. The front panel is sealed to NEMA 4/12 (waterproof/dustproof) specifications.

## 4810ER

9" Monitor • 4 Function Keys • VT100/220 Emulation - 19.2Kbps • \$1,500
The 4810 ER is designed for use in harsh industrial environments and features a 19 " rack-mounted, sealed membrane keypad.

## 4850A

12" Monitor • 16 Function Keys • VT100/220 Emulation • 19,2Kbps • $\mathbf{\$ 2 , 7 0 0}$
Designed for use in harsh industrial environments and features a $19^{\prime \prime}$ rack-mounted, sealed membrane keypad.

## 4860A

12 Monitor • 16 Function Keys • VT100/220 Emulation - 19.2Kbps • \$1,750
Designed for use in harsh industrial environments and features a 19 " rack-mounted, sealed membrane keypad.

## - 4870

9™onitor • 6 Function Keys • VT100/220 Emulation - 19.2Kbps • \$2,950
Designed for use in harsh industrial environments and features a 19 " rack-mounted, sealed membrane keypad. In addition, the 4870 uses an electroluminescent flat-panel display.

## Zenith Data Systems

- 239

12" Monitor • VT52/100 Emulation - \$599

- 249

14" Monitor • VT52/100 Emulation • \$799

- $2 T X-11$

VT52 Emulation • \$399

## Graphics Terminals

## Advanced Electronics Desian, Inc. (AED) <br> - 1024

19" Monitor • Color • 1024x767dpi • VT100* Emulation • 19.2Kbps • \$13,295

## 1280

19" Monitor • Color • 1280x1024dpi • VT100* Emulation - 56Kbps

## 512

19" Monitor • Color • 512x483dpi • VT100* Emulation • 19.2Khps • \$9,045
The 1024,1280 , and 512 feature 8 -bit microprocessors, 26 KB of RAM/ROM, and zoom and pan capabilities. Optional DMA interfaces are also available.

## 167

19" Monitor • Color • $767 \times 575 \mathrm{dpi}$ • VT100* Emulation • 19.2Kbps • \$11,095
The 767 features an 8 -bit microprocessor, 10 KB RAM and 32 KBROM and zoom and pan capabilities. An optional DMA interface is also available.

## Amiant Computer Systems Company

- Model One/85S

19" Monitor • Color • 1280x1024dpi • VT100 Emulation • 19.2Kbps - 12 Function Keys • \$21,500
Used for the manipulation of interactive displays and seismic data. Combination of high level software and embedded firmware. Includes host resident FORTRAN libraries.

## THE ULTIMATE KEYBOARD ENHANCEMENT.

Maximize your software investment with custom key sets displaying any symbol, language, code or legend. Custom keys from Synctronics enable you to:

- Reduce training time

Instantly increase user productivity
Promote on-the-job user satisfaction
Increase hardware utilization
Stock and custom keys available for DEC, IBM, WYSE, COMPAQ, and other systems.
For complete product information and quantity discounts call (800) 444-KEYS

## - One/385

19" Monitor • Color • 1280x1024dpi • VT100 Emulation - $\mathbf{1 9 . 2} \mathbf{K b p s}$
The One/385 is a 3-D graphics system with 40MFLOPS of dedicated processing power for display list transversal, 3-D coordinate transformations and clipping, local light modeling, Gouraud shading, and hidden surface removal.

## One/85S

$19^{\prime \prime}$ Monitor • Color • 1280x1024dpi • VT100 Emulation • 19.2Khps • $\mathbf{\$ 1 8 , 5 0 0}$
Ideal for 2-D imaging and graphics applications. Supports congfiguration options including double buffering, multiple headed independent displays, and 8-bit pre-emptive graphics overlays.

## Aristo Graphic <br> Corporation

## ■ Signus

M • 1024x780dpi • VT100 Emulation • $\$ 50,000+$

## Ayoin Controls

- 4100/EGS
$19^{-}$Monitor • Color • 640x350dpi • 19.2Kbps - 48 Function Keys • \$4,995

The $4100 / \mathrm{EGS}$ is equipped with an EGA compatible circuitry employing a VLSI chip with full IBM compatibility and an AGA (Advanced Graphics Adapter) employing an 8 MHz advanced CRT controller with video memory.

## - 5215

13" Monitor • Color • 560x336dpi • 38.4Kbps

- 90 Function Keys • $\$ 17,000$

Supports a trackball, a lightpen, a joystick and a touch panel. Features a dual cursor mux, and backlighting. Options include a keyboard switch as well as rackmount, metal, or plastic monitor options.

## - 5217

$13^{\text {a }}$ Monitor $\bullet$ Color $\bullet 560 \times 336 \mathrm{dpi} \bullet 38.4 \mathrm{Kbps}$ - 45 Function Keys •\$2,995

The 5217 supports a trackball, and a lightpen and is available in a rackmount version or as a desktop monitor.

## - 5319

$19^{-9}$ Monitor $\bullet$ Color $\bullet 560 x 336 \mathrm{dpi} \cdot \mathbf{3 8 . 4 K b p s}$ - 48 Function Keys • \$2,825

The 5319 supports a trackball, a lightpen and a touch panel and is available in a rackmount version or in a metal case.

## Bel \& Howel Company <br> - 1000

15" Monitor • VT100 Emulation • \$9,000

## -IDT 1100

17 ${ }^{\text {² }}$ Monitor • VT100 Emulation • $\$ 9,000$

## - IDT 2000

$19^{\mathbf{n}}$ Monitor • VT100 Emulation • \$9,000

## C. Ітон Electronics, Imc.

- CIT-344

15" Monitor • Color • 300x500dpi • VT220/340 Emulation • 38.4 Kbps • 45 Function Keys •

## \$2,895

Features high speed performance with 38.4 K baud rate, and standard or optional Ethernet (TCP/IP and LAT) interfaces. A standard Apple Desktop Bus Interface supports ADB peripherals.


- cr - 328

14" Monitor • Monochrome 1024x384dpi • VT320 Emulation • 38.4Kbps • 45 Function Keys • $\$ 699$ The CIT-328 is a DEC compatible monochrome graphics terminal that is capable of merging both text and graphics. Graphically, the CIT-328's Tektronix emulation supports Alpha Incremental Plot, graph mode and graphics input mode (GIM). It has 45 programmable function key combinations which allow the user to personalize keyboards to specific environments. The $14^{\text {" }}$ monitor utilizes new flat screen technology with a vertical refresh which is user selectable at either 60 or 71 Hz . This offers a more flicker-free display. The CIT-328 provides up to four pages of 24 or 25 line text memory. It also supports VT131 block local editing mode which allows data to be edited off line, similar to point-ot-sale computers.


## - CI-334/344

14" Monitor - Monochrome • 800x500dpi • VT330/340 Emulation • 38.4 Kbps • 45 Function Keys • $\$ 1,895$ The CIT-334 monochrome and the CIT-344 color graphics terminals provide full emulation of DEC VT330 and VT340. Text, ReGIS, SIXEL and Tektronix 4010/4014 graphics fromtwo different computers may be displayed simultaneously allowing users to switch between computers with a single keystroke. The CIT-334 uses a high resolution $14^{\circ}$ flat screen, which is available in soft white, amber, or green. It displays up to four shades of gray from a palette of 64 . The CIT- 344 adds the ability to display 16 colors on a $15^{\circ}$ llat screen. Colors may be chosen from a palette of 262,144 . Both terminals store up to six pages of text and two pages of graphics.

## Cermetek Microelectronics

- CT 100

9" Monitor • VT100 Emulation

## Chromatics

- Cx2000 BAJA

19" Monitor • Color • 1280x1024dpi • VT100 Emulation • 19.2Kbps • 20 Function Keys • \$27,283
Ruggedized terminal that utilizes industry standards such as VMEbus with a DR11-W interface and supports C and FORTRAN, VMS and UNIX operating systems and a GKS level 2C library.

## CX2000 Lemais

19" Monitor • Color • 1280x1024dpi • VT100 Emulation • 19.2Kbps • 20 Function Keys • \$21,443
The CX2000 LeMANS offers the same features as the CX2000 BAJA. Performance levels include $1,000,000$ vectors per second and a 150 microsecond full screen erase.

## - CxII 2-D

1536x1152dpi • \$39,995
The CX11 2-D includes 4MB of display list memory, text overlay features, GKS firmware, and microcode.

## - CxII 3-D

1536x1152dpi • \$39,995
The CX11 3-D includes 2MB of display list memory, text overlay features, CX3D microcode and firmware, and a shading processor.

## Codonics Inc. <br> - 1575

14" Monitor • Monochrome • 1024x800dpi VT52/100 Emulation • 38.4Kbps • 32 Function Keys - \$1,895
The 1575 features graphics functions in cluding zoom, pan, and erase display. This terminal also supports digitizer tablets, mice, light pens and hard copy units.

## ■ 4096

19" Monitor • Monochrome • 16Kx12Kdpi • VT100/220/320 Emulation - $\mathbf{\$ 3 , 4 9 5}$
Features graphics functions including zoom, pan, and erase display. Standard features include a mouse and a 256 KB vector display list memory with additional 500 KB or 1 MB upgrades as options.

## Cologegaphic <br> Сомминісатіоиs <br> Corporation

## 480/820

13" Monitor • Color • 160x240dpi • VT52/100 Emulation • 38.4Kbps • 24 Function Keys • \$2,600
This terminal also emulates the Intecolor $8001 \mathrm{G} / 8810$. Standard features include internal graphics primitives and animation and process control character sets. Offers optional support for GIN devices such as a light pen and a joy stick, as well as a customer specified character set.

## 480xL/820×L

13" Monitor • Color • 640x480dpi • VT52/100 Emulation • 38.4 Kbps • 24 Function Keys • $\$ 4,000$
Same as the $480 / 820$. This graphics terminal displays 16 colors and is equipped with superimposed displays. Features dither-
ing, extensive internal graphics primitives, four pages of $1024 \times 512 \times 4$ bit-mapped display memory, and ANSI text compatibility in 24 or 48 lines.

## 489/829

19" Monitor • Color • $240 \times 160 \mathrm{dpi} \cdot$ VT52/100 Emulation • 38.4Kbps • 24 Function Keys • $\$ 3,000$
This terminal also emulates the Intecolor $8001 \mathrm{G} / 8810$. Standard features include internal graphics primitives and animation and process control character sets. Offers optional support for GIN devices such as a light pen and a joy stick, as well as a customer specified character set.

## - 489XL/829xL

$19^{\prime \prime}$ Monitor • Color • $640 \times 480 \mathrm{dpi} \cdot$ VT52/100 Emulation • $38.4 \mathrm{Kbps} \bullet 24$ Function Keys • $\$ 4,400$
Same as the 480/820. This graphics terminal displays 16 colors and is equipped with superimposed displays. Features dithering, extensive internal graphics primitives, four pages of $1024 \times 512 \times 4$ bit-mapped display memory, and ANSI text compatibility in 24 or 48 lines.

## - CEBRA 286

19" Monitor • Color • 640x480dpi • VT52 Emulation • 38.4 Kbps • 24 Function Keys • \$4,000
The CEBRA 286 is an integrated high performance industrialized PC/AT computer that uses industry standard PC hardware and software. It may be used as a standalone terminal or as a remote information display with local processing capabilities. The CEBRA 286 may be customized to meet specific requirements.

## - XL-13K

13" Monitor • Color • $640 \times 480 \mathrm{dpi} \bullet$ VT52 Emulation • $38.4 \mathrm{Kbps} \bullet 24$ Function Keys • \$3,000

## XL-19*

19" Monitor • Color • $640 \times 480 \mathrm{dpi} \bullet$ VT52 Emulation • 38.4Kbps • 24 Function Keys • $\$ 3,400$
The XL-13K and -19 K are bit-mapped graphics terminals that display 16 colors with dithering and are equipped with 2048 ROM based character memory as well as a bit-mapped graphic generator with ANSI text mode.

## Computer Desian \& Applications, Inc. <br> - MaxDelta

13" Monitor • Color • $512 \times 480 \mathrm{dpi} \bullet \mathbf{\$ 1 5 0 , 0 0 0}$

## Cybernex Lto.

## - 6 R1014

14" Monitor • Monochrome • 1024x780dpi • vT52/100 Emulation • \$1,795

## ■ MAX 331

14" Monitor • Monochrome • $800 \times 500 \mathrm{dpi} \bullet$
VT330 Emulation • 19.2Kbps • \$1,395
This is a single session VT330 compatible terminal with full VT330 ReGIS, SIXEL and Tektronix graphics. Setup in English, French or German.

## Daisy Data, Inc.

- 3354

14" Monitor • Color • $640 \times 300 \mathrm{dpI}$ - VT131 Emulation • 19.2Kbps • \$5,350
The 3354 is NEMA 4X rated. It is hermetically sealed against dust, condensing mois-
ture, solvents, and corrosive substances. It also features a tactile feedback membrane keyboard, a color default mode, and compatibility with all VAX computers.

## - 3364

14" Monitor • Color • $640 \times 300 \mathrm{dpi} \bullet$ VT131 Emulation • 19.2Kbps • \$7,995
Factory mutual systems approved for Class I and II, Division 1 and 2 explosive environments. Features an intrinsically safe membrane keyboard, color default mode and compatibility with all VAX computers.

## Davox Corporation

 - 1900$12^{\prime \prime}$ Monitor • VT52/100 Emulation •\$1,895

## 4900

12" Monitor • VT100/220 Emulation • \$2,695

12" Monitor • VT100/220 Emulation • \$2 995

## Digital Electronics

Corporation

## ST 3220

M • $640 \times 640 \mathrm{dpi}$ - VT100 Emulation • 38.4Kbps - \$4,950

Features a sealed infared touch input system that provides 2000 touch point character resolution. Supports RS485 interfaces that use a modified token pass networking protocol.

## Eastmark, Imc.

## $16 T R 01$

14" Monitor • Monochrome • $1024 \times 768 \mathrm{dpi} \bullet$ VT220 Emulation • \$1,795+
The GTR01 also provides fast and exact emulation of Tek 4010/4014 graphics terminals. Dual windows of 75 pages of offscreen memory controls dual tasks.

## Electrohome, Lto. - ECM 1200

12" Monitor • Color •\$2,179
CGA, EGA, PGA, VGA compatible. High resolution RGB monitor compatible with CAD/CAM and other graphics signals generated from different computer signals and add on boards. Equipped with a metal shield.

## - ECM 1300

13" Monitor • Color • \$1,198
CGA, EGA, PGA, VGA compatible. High resolution RGB monitor compatible with CAD/CAM and other graphics signals generated from different computer signals and add on boards.

## - ECM 1500 Series

19* Monitor • Color • $1024 \times 512 \mathrm{dpi}$ • \$2,695 CGA, EGA, PGA, VGA compatible. Ideally suited for larger images generated for CAD/ CAM and othergraphics applications where arger viewing image is desirable.

## ECM 1901

19" Monitor • Color • \$2,160
CGA compatible. Suitable for CAD/CAM graphics applications where a specific frequency range is required.

## - ECP 2000

5-14" Monitor • Color • 1280x1024dpi • VT241 Emulation • $\$ 11,995$
Single lens data/graphics and video color projection system. It connects to computer
terminals, PCs, and video sources (up to 35 KHz ) to project a crisp, bright image on flat, curved, or rear screens.

## - ECP 3000

5-25" Monitor • Color • 1280x1024dpi • VT241 Emulation • \$14,995
Three lens data/graphics and video color projection system. It connects to computer terminals, PCs, and video sources (up to 50 KHz ). A microprocessor controls all the functions of the projector via infared remote control including full zone digital convergence.

## - ECP 4000

C • 1280x1024dpi • \$22,995
Single and three lens data/graphics and video color projection system that connects to computer terminals, PCs, and video sources (up to 50 KHz ). A microprocessor controls all the functions of the projector via infared remote control including full zone digital convergence.

## E ECP Graphics

5-14" Monitor • Color • 1280x1024dpi • VT241 Emulation - $\$ 21,995$
Single lens data/graphics and video color projection system that connects to computer terminals, PCs and video sources including CAD/CAM workstations up to 80 KHz . Projects a crisp image on flat, curved, or rear screens.

## - EDP 58xL

4-10" Monitor • Monochrome • VT100/220 240 Emulation - $\$ \mathbf{3 , 1 9 5}$
The EDP-58XL is a large screen data/graphics projection system. It connects to computer terminals and PCs to project large images on flat, curved, or rear screens.

## Encore Computer Corporation

110
19" Monitor • Monochrome • 1056x864dpi • VT100 Emulation •\$3,995

## Falco Data Prooucts

- 5000

14" Monitor • Monochrome • 1120x400dpi • VT100/220 Emulation • 38.4Kbps • Function Keys - $\$ 795$
The 5000 also emulates the following products: Wyse WY-50, Televideo 955, Data General 200, IBM 3101, ADDS Viewpoint, and Hazeltine 1500. This terminal is especially useful in an environment where the hosts are of different operating systems.

## 500 e

$14^{-}$Monitor • Monochrome • $560 \times 400 \mathrm{dpi}$ -
VT100/220 Emulation • $\mathbf{3 8 . 4 \mathrm { Kbps }}$ - Function Keys - $\$ 645$
The 500 e also emulates the Wyse WY-50 and the Televideo 955. This terminal is available with six virtual terminal windows which provide easy operation of multihost and -tasking applications. It also features seven pages of text memory, 4,000 characters of non-volatile memory, and is available with pop-up desk accessories.

## -5220e

14" Monitor • Monochrome • $560 \times 400 \mathrm{dpi} \bullet$ VT100/220 Emulation • 38.4Kbps • Function Keys • \$595

## 5600 <br> 14" Monitor • Monochrome • $560 \times 400 \mathrm{dpi}$ VT100 Emulation • 38.4Kbps • Function Keys - $\$ 595$ <br> The 5220 e and 5600 feature a unique combination of bidirectional serial ports, virtual terminal windows, and firmware which allows both multihost and multitasking operations. <br> GE Calma Company <br> 国 6100 <br> 19" Monitor • Color • 1280x1024dpi • 19.2Kbps • Function Keys

## 困 6100

19" Monitor $\bullet$ Color $\bullet$ 1280x1024dpi
19.2Kbps • Function Keys

## - Project Review

19" Monitor • Color • 1280x1024dpi • 19.2 Kbps - Function Keys

The G100 models and the Project Review are based on the VME architecture with ten slots that interface to VAX CPUs. Include an 11 "x11" digitizing surface with an electronic pen and a separate graphics monitor. Equipped with 4MB of local memory which may be expanded to an optional 16 MB . It is used primarily for CAE, CAD, and CAM applications and may be upgraded to the G700.

## Genisco <br> Peripheral Systems

- 1200
$19^{\text {m }}$ Monitor • Monochrome - 1024x792dpi •
V100 Emulation •\$10,790


## - 2200

19" Monitor • Color • 1024x792dpi • VT100 Emulation • \$9,950

## Graphics Development

## Corporation

## 1024

14" Monitor • Color • 1024x780dpi • VT52/ 100/220 Emulation • \$4,995+

## camma

14" Monitor • Color • $640 \times 480 \mathrm{dpi} \cdot$ VT52/100 220 Emulation • $\mathbf{3 8 . 4 K b p s} \bullet \$ 1200$
The GAMMA is a graphics controller and options include a VT220 keyboard (KB220 ) at $\$ 300$, a choice of two 14 " monitors (MPA14-1, MPA14-2) at $\$ 850$, or a $19{ }^{\prime \prime}$ monitor (MPA19) at $\$ 2500$.

## ID-1024

13" Monitor • Color • 1024x780dpi • VT52/ 100/220 Emulation • 38.4Kbps • $\$ 4,995$

## - ID-1024

19" Monitor • Color • $1024 \times 780 \mathrm{dpi} \cdot$ VT52/ 100/220 Emulation • $\mathbf{3 8 . 4 K b p s}$ • $\mathbf{\$ 6 , 9 9 5}$
The ID-1024 terminals also emulate the Tek 4207.

## ID-200

13" Monitor • Color • 1280x480dpi • VT52 100/220 Emulation • 38.4Kbps • $\$ 4,295$

## Graphon Corporation

## 100-405

14" Monitor • Color • 800x500dpi • VT220/340
Emulation • 57.6Kbps • 45 Function Keys • \$2,995
The screen resolution is $640 \times 480 \mathrm{dpi}$ and $800 \times 500 \mathrm{dpi}$ when emulating Tektronix or ReGIS, respectively. An additional 1MB of memory is an available option.

60-407
14" Monitor • Color • $\mathbf{6 4 0 x 4 8 0 d p i} \bullet$ VT220/340 Emulation • 57.6Kbps • 45 Function Keys \$3,795
The screen resolution is $640 \times 480 \mathrm{dpi}$ and $800 \times 480 \mathrm{dpi}$ when emulating Tektronix or ReGIS, respectively. An additional 1MB of memory is an available option.

## -60-407 HR

14" Monitor • Color • $1024 \times 768 \mathrm{dpi} \bullet$ VT220/
340 Emulation • 57.6Kbps • 45 Function Keys \$5,995
The screen resolution is $1024 \times 768 \mathrm{dpi}$ and $800 \times 480 \mathrm{dpi}$ when emulating a Tektronix 4207 or VT340, respectively. An additional 1 MB of memory is an available option.

## -60-225

14" Monitor • Monochrome • 1024x390dpi • T52/100/220 Emulation • 19.2Kbps • 45 Function Keys - \$795
The GO-225 is equipped with a 68000 microprocessor. It is also available with upgradable zoom and pan capabilities and ReGIS emulation.

- 60-230

14" Monitor • Monochrome • 1024x390dpi •
VT52/100/220 Emulation • 19.2Khps • 45
Function Keys •\$1,295
Equipped with a 68000 microprocessor. Also available with optional zoom and pan features and ReGIS emulation. Keycaps supporting MASS-11 and WPS Plus software applications are available for all GraphOn graphics terminals to provide editing commands on the front surface of the keys.

- 80-235

14" Monitor • Monochrome • 1024x780dpi • VT52/100/220 Emulation • 57.6Kbps • 45
Function Keys • \$1,695
The GO-235 is 68000 microprocessor based and is available with ReGIS and zoom and pan options.

## 60-240

14" Monitor • Monochrome • 1024x390dpi • VT52/100/220 Emulation • 19.2Kbps • 45 Function Keys •\$1,895
The GO-240 is equipped with a 68000 microprocessor. It is also available with standard zoom and pan features, as well as ReGIS emulation. This device also supports a mouse interface and raster operators.

- 60-250

14" Monitor • Monochrome • $1024 \times 780 \mathrm{dpi} \bullet$ VT220/240 Emulation • 57.6Kbps • 45 Function Keys •\$2,495
Features ReGIS support, pan and zoom capabilities, and raster operations. X Window System support is an available option.

## Hewlett-Packard Company <br> - 2393A

12" Monitor • Monochrome - VT52/100 Emulation • 19.2Kbps • 12 Function Keys * \$2,295

## - 2397A

12" Monitor • Color • VT52/100 Emulation •
19.2Kbps • 12 Function Keys • \$3,595

The 2393A and 2397A termainals support the following HP-HIL GIN devices: a mouse, a touchscreen, a tablet, and a bar code reader.

Human Designed Systems

- HDS 2000

15" Monitor • Monochrome • 1024x390dpi VT52/100/220 Emulation • 19.2Kbps • 55 Function Keys • $\$ \mathbf{1 , 2 9 5}$

## © HDS 20006X

15" Monitor • Monochrome • 1056x800dpi • VT52/100 Emulation • $19.2 \mathrm{Kbps} \bullet 42$ Function Keys - $\$ 1,595$
The HDS 2000 G and GX are capable of generating line types, fill patterns, and primitives, and an optional mouse or digitizer may be added for additional graphics input.

## [ HDS 20106

15" Monitor • Monochrome • 1056x400dpi • VT52/100 Emulation • 19.2Kbps • 55 Function Keys - $\$ 1,595$
The HDS 2010G is an APL text and graphics terminal featuring networking and windowing capabilities.

## - HDS 20106x

15" Monitor • Monochrome • 1056x800dpi VT52/100 Emulation • $19.2 \mathrm{Kbps} \cdot 55$ Function Keys - $\$ 1,895$
The HDS 2010GX is an APL text and graphics terminal with high resolution graphics, featuring networking and windowing capabilities.

## - HDS 3200-10

15" Monitor • Monochrome • $1056 \times 400 \mathrm{dpi}$ VT220/320/330 Emulation • 38.4Khps • 21 Function Keys - $\$ 699$
Features include seven full screen menus in the set-up mode, a calculator, a display ( 24 lines by 80 or 132 columns) mode, and a GIN device mode to support a digitizer or an optional HDS mouse.

## - HDS 3200-35

15" Monitor • Monochrome • 1056x800dpi VT220/320/330 Emulation • $38.4 \mathrm{Kbps} \bullet 21$ Function Keys - $\mathbf{\$ 1 , 2 9 9}$
Same as the HDS3200-25. Also includes true zoom and pan, up to 512 KB of local storage, graphics windows for multiple graph display, and a print buffer.

## - HDS 3220-25

15" Monitor • Monochrome • $1056 \times 800 \mathrm{dpi} \bullet$ VT100/220/330 Emulation • 21 Function Keys • \$1,099
Features HDS's Superrefresh Monitor that provides a 75 Hz refresh rate, integrated text and graphics capabilities, six multisession windows, and multiple computer connections.

## Intecolor Corporation

## - 8100

14" Monitor • Color • 480x360dpi • VT52/100 Emulation • 38.4Kbps • 48 Function Keys • \$1,995
Offers two separately controllable and displayable screens. Graphics commands include roam, paint, and circle.

## - CT210

14" Monitor • Color • 160x96dpi • VT52/100 Emulation • 19.2Kbps • 12 Function Keys \$1,395
DEC VT200/100/52 compatible 14 " teminal with $80 \times 24$ or $80 \times 132$ (true) display. Features attribute colorization and is available with an optional touchscreen.

## - CT220

14" Monitor • Color • 1188x250dpi • VT52
100/220 Emulation - 19.2Kbps • 15 Function Keys - \$1,695
The CT220 features color-key automatic coloration of monochrome screens and simultaneous display of (1) four character sets and (2) 132 columns.

Integrated Automation

- DocuVision

C•1728x2240dpi
Interactive
Machines, Inc.

- 1 IMI 600

19" Monitor • Color •\$100,000

## - IOS

19" Monitor • Monochrome • $\$ 13,500_{+}$

## Lanpar

Technologies, Inc.

## - 4200

14" Monitor • VT220 Emulation • $\$ 725$

## - MAX 331

14" Monitor • Monochrome • 800x500dpi •
VT330 Emulation • 19.2 Kbps
This terminal is $100 \%$ compatible with the DEC VT330 graphics standard. Setup in English, French or German. The Max 331 is designed to fill the gap between the DEC VT320 and VT330.

## - max 3311

14" Monitor • Monochrome • 800x500dpi • vT330 Emulation
This is a single session VT330 compatible terminal with full VT330 ReGIS, SIXEL and Tektronix graphics. Setup in English, French or German.

## - Vision II-4214

14" Monitor • Monochrome • 800x375dpi • VT220 Emulation • 19.2Kbps • 15 Function Keys - \$999
The Vision II-4214 features multipage display, mouse option support, 96 user programmable functions, and message window capabilities. In addition, the Tek mode features true zoom with five levels of magnification.

## - Vision 11-4250

14" Monitor • Monochrome • 800x360dpi • VT220 Emulation • 19.2Kbps • 15 Function Keys - \$1,099
Emulates the ReGIS with four gray scale levels. Additional capabilities include vector, curve, and circle drawing modes, as well as slanted, tilted, and rotated text support.

## Lee Data Corporation

## - 2131

15" Monitor • Color • VT52/100/220 Emulation - 19.2Kbps • 24 Function Keys • \$2,995

The 2131 features a record/playback function, multiple session capabilities, IBM 3270 connectivity and the ability to copy data from session to session.

## Lexidata

- LEX 90

19" Monitor • Color • $640 \times 512 \mathrm{dpi} \cdot \$ 13,925+$
Liberty Electronics

- Freedom 240

VT220 Emulation •\$1,095

## McDonnel Douglas

## - 0135

19" Monitor • Color • 1024x1024dpi • VT100 Emulation • 19.2Kbps • 32 Function Keys • $\$ 39,000$
The D135 is eqipped with 1 MB of local memory and may be expanded to 4 MB . It is also available with optional graphics features such as 3-D rotation, smooth pan, and zoom.

## - 02300

19" Monitor • Color • 3072x2304dpi • VT100
Emulation • 9.6Kbps • \$49,000
The D2300 is equipped with 1 MB of local memory and may be expanded to 12 MB . It also features image control dials that provide 3-D rotation, smooth pan, infinitely variable zoom as well as Z-clipping plane positioning.

## - 02301

19" Monitor • Color • 3072x2304dpi • VT100 Emulation • 9.6Kbps • \$65,000
The D2301 also features opaque and translucent surface display modes, shading modes, depth cueing, hidden-line removal, and the automatic maintenance of shading and hidden-line displays.

## - D4107A

19" Monitor • Color • $1280 \times 1024 \mathrm{dpi}$ • VT100 Emulation

## - 04111

19" Monitor • Color • 1024x768dpi • VT100 Emulation • 19.2Kbps • \$14,000
The D4111 is equipped with 256 KB of local memory and may be expanded up to 1.2 MB . It features local zoom and pan capabilities, and provides full UNIGRAPHICS functionality (on-screen menus eliminate the separate message monitor).

## - 14125

19" Monitor • Color • 1280x1024dpi • VT100 Emulation • 19.2Kbps • $\mathbf{\$ 2 5 , 0 0 0}$

## - 14128

19" Monitor • Color • $1280 \times 1024 \mathrm{dpi} \cdot$ VT100 Emulation - 19.2Kbps
The D4125 and D4128 are equipped with 288 KB of local memory and may be expanded up to 4.5 MB . Also feature selective erase and deskside graphics controllers, and may be upgraded to the D4128 or 4129, respectively.

## - 14129

19" Monitor • Color • 1280x1024dpi • VT100 Emulation - 19.2 Kbps - $\$ 38,000$
The D4129 features local hidden line removal and local shading capabilities.

## MegaData Corporation <br> 8188-7

15" Monitor • VT100 Emulation • 19.2Kbps •
32 Function Keys •\$2,910
Features include an MC-68000 CPU, 256 character set ( 512 optional), VT100/UTS40/ IBM3270 emulations operator selectable, dual host ports, serial and parallel printer ports.

## Megatek Corporation

- 7255T

19" Monitor • Color • 1024x1024dpi • 1Mbps • 15 Function Keys • $\$ 39,000+$

## ■ 7500

19" Monitor • Color • 1024x1024dpi • VT100
Emulation • 32 Function Keys •\$23,200+
The 7255 T and 7500 are equipped with

WAND, Megatek's multilevel graphics software and TEMPLATE, Megatek's device independent graphics software.

## ■ 9100

19" Monitor • Color • 1280x1024dpi • VT100 Emulation • 1Mbps • 64 Function Keys • \$24,500+
Graphics functions include polygon fill, line pattern, depth cueing, $4 \times 4$ matrix transformations, rotate, scale and translate capabilities.

## - 9300

19" Monitor • Color • 1280x1024dpi • VT100 Emulation • 1Mbps • 64 Function Keys $\$ 35,000+$
Same as the 9100 . Also features Phong, Gouraud and flat shading, a movable light source, true hidden surface removal, surface patterns, and advanced geometric primitives, including cubic B-splines.

## Micro-Term Inc.

■ 4540
14" Monitor • Monochrome • 800x500dpi • VT100/220/240 Emulation • 19.2Kbps • Function Keys - \$1,495
All Micro-Term's 45 xx terminals feature a 90 day warranty period for on-site TRW support. They also feature a high speed multihost and multisession which allow the terminal to function as two separate terminals, at different baud rates, with separate communication protocols, and independent emulations.

## - 4560

14" Monitor • Monochrome • $640 \times 480 \mathrm{dpi} \bullet$
VT100/220 Emulation • 38.4Kbps • 15
Function Keys •\$1,295
The 4560 features 4 Kx 4 K addressable memory with dedicated zoom and pan keys, true reverse video graphics capabilities, a drawing speed of two million pixels per second, a snapshot memory feature, and three graphics or seven alpha pages of scrollable memory. It also offers three gray scale levels. Printer support includes the DEC LA50/100, C. Itoh, and Epson.

## - 5520

M • 800x500dpi • VT220/320 Emulation • 38.4Kbps • $\$ 699$

Bridges the gap DEC created between its VT320 and 330/340 terminals. Standard features include programmable compose key, function keys operable in the VT100 mode and a bidirectional printer port.

## - 5530

14" Monitor • Monochrome • 800x500dpi $\bullet$
VT100/240/330 Emulation • 38.4 Kbps - $\$ 1,665$ Features ReGIS and Tektronix support, six pages of memory, and high speed graphics.

## Maltope Corporation

## - TER-100

M • $\mathbf{2 5 6 \times 5 1 2 d p i} \bullet$ VT100 Emulation • $\mathbf{\$ 2 7 , 7 0 0}$
The TER-100 is MIL qualified.

## Mini Computer <br> Technology

## 2019w

19" Monitor • Monochrome • 1024x784dpi •
VT100 Emulation
The 2019 W is a standalone system.

## - 22158

15" Monitor • Monochrome • 1024x784dpi • VT100 Emulation • \$3,495

```
@ }221
15" Monitor • Color • 640x490dpi • VT100
Emulation •$4,995
```


## - 2219

19" Monitor • Monochrome • 1024x784dpi • VT100 Emulation • \$6,950

## -2219W

19" Monitor • Monochrome • 1024x784dpi • VT100 Emulation • \$7,950

## - 2315

15" Monitor • Monochrome • 1024x784dpi • VT100/220 Emulation • \$4,995

## - 2319

19" Monitor • Monochrome • 1024x784dpi VT100 Emulation • \$8,450

## 2319w

19" Monitor • Monochrome • 1024x784dpi • VT100 Emulation • \$9,450

## [3219w

19" Monitor • Monochrome • 2048x1568dpi VT100 Emulation • \$14,95

## - 3220w

19" Monitor • Color • 2048x1568dpi • VT100 Emulation • $\$ 13,950$

## 13220W

19" Monitor • Color • 2048x1568dpi • VT100 Emulation • $\$ 15,450$
The 3219 W and 3220 W models are standalone systems.

## Modgraph, Inc.

-6X-1105
14" Monitor • Color • $1024 \times 768 \mathrm{dpi} \bullet$ VT52/100 Emulation • 38.4Kbps • Function Keys • $\$ 3,850$

## - 6X-1105-19

19" Monitor • Color • 1024x768dpi • VT100 Emulation • 38.4Kbps • Function Keys • $\$ 5,850$
The GX - 1105 Series emulates the VT100 and Tek 4105 in text and graphics modes, respectively. Options include mouse and tablet support as well as multiple (four) graphics screens.

## © 6x-2000

15" Monitor • Monochrome • 1024x780dpi • VT100/220 Emulation • 19.2Kbps * Function

## Keys - \$1,295

The GX 2000 terminals emulate the VT220 and Tek 4014 in text and graphics mode, respectively. The GX-2000 features pan and zoom, scaling and pattern fill capabilities, as well as mouse and tablet support. Three additional graphics memory planes are available as options.

## Northwest Digital Systems

## CP-2207

14" Monitor • Monochrome • 1024x780dpi • T52/100/220 Emulation • 38.4Kbps • 25
Function Keys •\$1,595
Graphics functions include true zoom and pan, area fill, erase, and move, pattern and seed fill, arc draw, and animation. It offers four gray scale levels and has two independent display memory $\sim=$ banks of 200 KB each.

## E GP20L

14" Monitor • Monochrome • 1024x780dpi VT52/100/220 Emulation • 38.4Kbps • 25 Function Keys - \$1,295
Graphics functions include zoom and pan, area fill, erase, and move, pattern, and seed fill, arc draw, and animation. Includes support for HP,DEC, Epson, C.Itoh, QMS, and Apple Imagewriter printers.

## Pamamax

- 674620

13" Monitor • Color • 672x504dpi • VT100 Emulation • $\$ 29,000$

## ■ $6 T 4624$

19" Monitor • Color • $672 \times 504 \mathrm{dpl} \bullet$ VT100 Emulation - \$29,000

## - 6T4635A

19" Monitor • Color • 1280x1024dpi • VT100 Emulation • $\mathbf{\$ 4 9 , 0 0 0}$

## - $6 T 4670$

19" Monitor • Color • 1536x1157dpi • VT100 Emulation - $\$ 59,000$

## Pericom luc.

## - M6100

15" Monitor • Monochrome • 1024x780dpi • VT100/220 Emulation • 19.2Kbps • 23 Function Keys •\$1,895

## - ME200

15" Monitor • Monochrome • 1024x780dpi • VT100/132/220 Emulation • 19.2Kbps • 23 Function Keys • \$2,195

## I Mc600

15" Monitor • Monochrome • 1024x780dpi • T100/132/220 Emulation • 19.2Kbps • 23 Function Keys •\$2,750

## M M6620

$20^{\text {T}}$ Monitor • Monochrome • $1024 \times 780 \mathrm{dpi} \bullet$ VT100/132/220 Emulation • 19.2Kbps • 23 Function Keys • \$3,995

## - MG700

17* Monitor • Monochrome • 1024x780dpi • VT100/132/220 Emulation • 19.2Kbps • 23 Function Keys - \$2,750
The above MG Series features pan and zoom capabilities, support for digitizer and mouse GIN devices as well as hardcopy output.

## - MX7100

14" Monitor • Color • $640 \times 480 \mathrm{dpi} \cdot$ VT100/ 220/240 Emulation • 38.4Kbps • 15 Function Keys •\$3,495
The MX7100 features a drawing speed of 1.5 million pixels per second. Options include increments of $.5,1$, and 1.5 MB of memory as well as digitizer support.

## $1 \times 7200$

15" Monitor • Color • 1024x784dpi • VT100/ 220/240 Emulation • 38.4Kbps • 15 Function Keys - \$4,995

## - MX7250

19" Monitor • Color • 1024x784dpi • VT100/ 220/240 Emulation • 38.4Kbps • 15 Function Keys • $\$ \mathbf{6 , 4 9 5}$
The MX7200 and 7250 feature drawing speeds of 1.5 million pixels per second as well as optional digitizer support.

## - mx7300

15" Monitor • Color • 1024x784dpi • VT100/ 220/240 Emulation • $\mathbf{3 8 . 4 K h p s} \bullet 15$ Function Keys • \$6,995

- MX7350

19" Monitor • Color • 1024x784dpi • VT100/ 220/240 Emulation • 38.4Kbps • 15 Function Keys - \$8,495
The MX7300 and 7350 feature drawing speeds of 1.5 million pixels per second as well as optional digitizer support. An optional eight-planes feature provides 256 displayable colors from a palette of 16.7 million.

## Qume Corporation

## - OVt 212 ax

14" Monitor • Monochrome • $640 \times 480 \mathrm{dpi} \bullet$
VT100 Emulation • 19.2 Kbps • 8 Function Keys

- $\$ 1,295$

The 212GX supports Plot 10 graphics software and displays four gray shades.

## - QVT 3116X

14" Monitor ${ }^{\bullet}$ Monochrome • $640 \times 480 \mathrm{dpi} \bullet$ VT52/125 Emulation • \$1,995

- QVT 5116X

14" Monitor • Color • $480 \times 360 \mathrm{dpi} \bullet$ VT52 Emulation • $19.2 \mathrm{Kbps} \bullet 8$ Function Keys \$2,995
The 511GX supports Plot 10 graphics software and displays four gray shades.

## Radcal-Redac, Inc.

- ColorCadet

19" Monitor • Color • $512 \times 512 \mathrm{dpi} \cdot \mathbf{\$ 0 , 0 0 0 +}$

## PC8600

19" Monitor • Color • $512 \times 512 \mathrm{dpi} \cdot \$ 175,000$
The PCB600 was designed to be compatible with the $11 / 730,750$ and 780 .

## Ramtek Corporation

## 14321

15" Monitor • Color • 1280x1024dpi • VT220 Emulation • 19.2Kbps
The 4300 Series is equipped with 400 KB of user memory and may be expanded to 4.4MB with optional upgrades of 512 KB , or 1MB or 2MB. This Series also supports various optional GIN devices, and is available with a 19 " monitor upgrade, optional host resident parallel interfaces, Ethernet interface options, as well as an optional VAX/VMS device driver.

## 14322

15" Monitor • Color • 1280x1024dpi • VT220 Emulation • 19.2Kbps • $\$ 8,995$

## 4325

15" Monitor • Color • $1280 \times 1024 \mathrm{dpi} \bullet$ VT220 Emulation - 19.2Kbps
The 4322 and 4325 are equipped with 400 KB of user memory and may be expanded to 2.4 MB with optional increments of 512 KB , or 1 MB or 2 MB .

## 4327

15" Monitor • Color • 1280x1024dpi • VT100 220 Emulation • 19.2Kbps • \$15,995

## 4327

15" Monitor • Color • 1280x1024dpi • VT220 Emulation • 19.2 Kbps •\$15,995
The 4327 Series also emulates GKS, and supports the DR11-W and GPIF interfaces.
The maximum baud rate for the parallel port is 1.6 Mbps

## 4660

15" Monitor • Color • 1280x1024dpi • VT100/ 220 Emulation • 19.2Kbps • \$20,000
The 4600 features Image Display Instruction Set (IDIS) firmware that provides a substantial speed improvement to the vector and text instructions.

## 4660

15" Monitor • Color • 1280x1024dpi • VT220 Emulation • 19.2Kbps •\$20,000
Equipped with .5MB of user memory and may be expanded to 4.5 MB with optiona increments of 1 MB or 2 MB . Features zoom and pan capabilities and supports various optional GIN devices. Available with a $19^{\prime \prime}$ monitor upgrade, optional host resident parallel interfaces, an optional VAX/VMS device driver and an optional DR11 parallel interface

## $\square 9460$

15" Monitor • Color • 1280x1024dpi • VT220 Emulation • 9600bps • $\mathbf{\$ 2 8 , 0 0 0}$

- 9461

15" Monitor • Color • 1280x1024dpi • VT220 Emulation • 9600bps • \$28,000

## - 9462

15" Monitor • Color • 1280x1024dpi • VT220 Emulation • 9600bps • \$28,000

## - 9463

15" Monitor • Color • 1280x1024dpi • VT220 Emulation • 9600bps • \$28,000
The $9460,9461,9462$, and 9463 terminals are graphics Display Generator Systems that include a $19^{\prime \prime}$ rackmount with a 17 card capacity, one-to-four MCPs, up to 32 planes of refresh memory, one-to-three video generators, and up to $1,000,000$ bytes of Display List Memory.

## - 9465

- • $640 \times 512 \mathrm{dpi}$ • VT100 Emulation


## 9467

15" Monitor • Color • $1280 \times 1024 \mathrm{dpi}$ • VT220 Emulation • 9600bps • \$28,000
The 9467 model includes a 19 " rackmount with a nine card capacity, up to 16 bits of refresh memory, up to two video generators, and support for up to two independent display generators.

## SAI Technology

- Series 5000

M • 512x512dpi • VT100 Emulation • 38.4Kbps

- Function Keys $\mathbf{~} \mathbf{\$ 2 8 , 0 0 0 +}$


## - Series 7000

M • 256x512dpi •VT100 Emulation $\cdot \mathbf{3 8 . 4 K h p s}$ - Function Keys •\$28,000+

The 5000 and 7000 Series are full MIL spec devices with modular construction that feature an 80186 microprocessor. Options include 40 function bezel switches, a nuclear hardened and tempest nacsim 5100A design.

## - Series 8000

M • $576 \times 640 \mathrm{dpi} \bullet$ VT100 Emulation • 19.2Kbps

- Function Keys • \$65,000+

The 8000 is a full MIL spec device.

## Samsung Electron Devices America, Inc.

- SAMTROM SD-325

14" Monitor • Monochrome • 1024x500dpi •
VT220/320 Emulation - 57.6Kbps • 20
Function Keys - $\$ 699$
The SAMTRON SD-325 also emulates the Tek 4010/4014.


## Seliko Instruments

## 6R-4406

$19^{\prime \prime}$ Monitor • Color • $1280 \times 1024 \mathrm{dpi} \bullet$ VT100
Emulation • 32 Function Keys •\$20,950
Options include a control unit with a LCD
display, digitizing tables, a function keyboard and hardcopy units.

## - ER-4416

19" Monitor • Color • 1280x1024dpi • VT100 Emulation • 32 Function Keys • $\$ 20,950$ Options include a control unit with a LCD display, digitizing tables, a function keyboard and hardcopy units.

## Spectragraphics

## Corporation

## ■ DS 1081

19 ${ }^{-}$Monitor • Color • $1024 \times 1024 \mathrm{dpi} \bullet$ VT100 Emulation - 32 Function Keys • $\$ 12,900$

## ■ DS 082

19" Monitor • Color • $1024 \times 1024 \mathrm{dpi} \bullet$ VT100 Emulation • 32 Function Keys • \$14,90

## - DS10826x

19" Monitor • Color • 1024x1024dpi • VT100 Emulation • 1.544Mbps • 32 Function Keys • \$15,500

## - DS1500

19" Monitor • Color • $1024 \times 1024 \mathrm{dpi} \bullet$ VT100 Emulation • 32 Function Keys • \$22,900 The DS Series features rotation, scaling and translation of 2-D and 3-D objects, three axis clipping with multiple viewports, intensity modulation of colors to show depth in 3-Dimages, and the removal of polygons.

## Systerm, Inc.

- KD12206

C • 512x240dpi • VT100/220 Emulation •
19.2Kbps

This terminal is available with a selectable screen size.

## $\square$ KD2206

14" Monitor • Monochrome • $512 \times 240 \mathrm{dpi} \bullet$ VT52/100/220 Emulation • 19.2Kbps • Function Keys - \$795
The KD220G is capable of vector graphics applications. It also features $256 \times 240 \times 16$ gray levels.

## - KD500G

14" Monitor • 512x240dpi • VT100 Emulation -19.2Kbps

## Tab Prooucts Company

■132/156
15" Monitor • Monochrome • 1024x779dpi • VT52/100 Emulation - $\$ 1,195$

## Talaris Systems Inc.

 $\square 7600$14" Monitor - Monochrome • 1024x780dpi • VT52/200 Emulation • 57.6 Kbps • 45 Function Keys •\$1,995
The T7600 is a preview terminal that is designed to accompany any one of the Talaris laser printers. It allows operators to preview text and graphics documents before printing. It features up to 28 proportionally spaced fonts, as well as 512 KB of RAM. Optional mouse available.

## Tektronix, Inc.

$\square 4111$
19" Monitor • Color • 1024x768dpi • VT52/100 Emulation • 8 Function Keys • $\$ 8,995$
Graphics features include rubberbanding, gridding, inking, and polygon-fill. Supports RGB video out and coax cables.

13" Monitor • Color • 480x360dpi • VT52/100/ 200 Emulation • 8 Function Keys • $\$ 2,495$

## - 4207

13" Monitor • Color • $640 \times 480 \mathrm{dpi} \bullet$ VT52/100/ 200 Emulation $\bullet 8$ Function Keys • $\$ 3,995$ Copier support includes the 4691/92/93D/ $95 / 96 / 44,4510 \mathrm{~A}$, as well as HP Laserjet, Thinkjet and the Epson FX-80.

## $\square 4208$

13" Monitor • Color • $640 \times 480 \mathrm{dpi} \bullet$ VT52/100/ 200 Emulation • 8 Function Keys • $\$ 4,995$
The 4205,4207 , and 4208 terminals allow users to draw on independent surfaces, make surfaces invisible, or overlay two or more surfaces for a composite image.

## - 4209

19* Monitor • Color • $640 \times 480 \mathrm{dpi} \bullet$ VT52/100/ 200 Emulation • $38.4 \mathrm{Kbps} \bullet \mathbf{\$ 6 , 9 9 5}$

## $\square 4224$

16" Monitor • Color • 1024x768dpi • 38.4Kbps - $\$ 12,950$

## $\square 4225$

16" Monitor • Color • $1280 \times 1024 \mathrm{dpi} \bullet$
38.4Kbps • \$15,950

The 4224 and 4225 are equipped with 4 MB 8 MB of graphics memory and supports thumbwheels, tablets, a mouse and a cursor pad. A 16MHz 68020 graphics processor is standard. Printer support includes the Tek 4692, 4696, and the 4693D. The Tek 4301, an Applications Processor, is compatible with the 4200 Series terminals. Serves up to eight terminals and increases the flexibility and product lifetime by adding high-powered, cost-effective local computing resources to the Se ries.

## $\square 4235$

16" Monitor • Color • 1280x1024dpi • 38.4Kbps • \$23,500

## - 4236

16" Monitor • Color • 1280x1024dpi •
38.4Kbps •\$33,500

## 4237

16" Monitor • Color • $1280 \times 1024 \mathrm{dpi}$ $\mathbf{3 8 . 4 K b p s}$ • $\$ 37,500$
The 4235,4236 , and 4237 are equipped with 4MB-52MB of graphics memory and support thumbwheels, tablets, a mouse, valuator dials and a cursor pad. A 16 MHz 68020 graphics processor is standard and a DMA interfaces are available options. Printer support includes the Tek 4692, 4696, and the 4693D.

## - SF4208

13" Monitor • Color • 640x480dpi • VT52/100/ 200 Emulation • 8 Function Keys • $\$ 5,495$ Environmentalized for harsh conditions with a sealed keyboard, and a chassis to protect equipment from dirt, liquids and excessive cold or humidity. Features an overheat sensor with automatic shutdown.

## Teleray

$\square 30$
$13^{* *}$ Monitor • Color • $640 \times 480 \mathrm{dpi} \bullet$ VT340 Emulation • 38.4Kbps • $\$ 2,690$
The model 30 allows up to four sessions onscreen at the same time from the same or separate hosts. Each session can be configured with its own display characteristics and set of colors.

Transiac Corporation

- TR1024

15" Monitor • Monochrome • 1024x480dpi • VT100 Emulation • \$3,750

## Transtech International Corporation

- Sinoterm

12" Monitor • VT100 Emulation •\$5,600
Triluum Corporation

- 1100

C • $640 \times 480 \mathrm{dpi} \cdot \$ 300 \mathrm{~K}+$
Verticom, luc.

- CD-1

13" Monitor • Color • 640x480dpi • VT100 Emulation - \$795
© V6-07
13" Monitor • Color • 640x480dpi • VT100 Emulation • $\$ 3,495$

## VG-09

19" Monitor • Color • $640 \times 480 \mathrm{dpi} \cdot$ VT100 Emulation • $\$ 5,995$

## VG Systems, Imc.

■ V63300
21" Monitor • Color • 4Kx4Kx4Kdpi • $\$ 40,000$
Visual Technology, Inc. - 603

14" Monitor • Monochrome • 1056x400dpi • VT52/100/220 Emulation • 38.4Kbps • 15 Function Keys • $\$ 695$
The 603 also features a 70 Hz refresh rate and a bit-mapped display.

## $-630$

14" Monitor • Monochrome • 1056x800dpi • VT52/100/220 Emulation • 38.4Kbps • 15 Function Keys - $\$ 995$
The 630 has 512 KB of memory and also features 256 Kb RAM memory to enable compiled C-code to be downloaded and run at the terminal level. The 630 also features a standard mouse GIN device.

## W. W. Gaerther <br> Research, Imc.

© Inrad II
6-25" Monitor • Color • 1024x1280dpi • $\$ 43,500+$

## Wrse Technology

## wr-g9GT

14" Monitor • Monochrome • $800 \times 338 \mathrm{dpi} \bullet$ VT52/100/220 Emulation • 38.4Kbps • 16 Function Keys - $\$ 649$
The WY-99GT also emulates the following terminals: ADDS Viewpoint A2, Lear Siegler ADM 3A/5/31, Hazeltine 1500, and Televideo 910/912/920/925/950/955.

## CalComp, Inc.

- C6S 4600

15" Monitor • Color • 1280x1024dpi • VT100 Emulation • 256 Displayable Colors • Serial/ Parallel Interface(s) Supported - \$6,995+
Equipped with a powerful graphics engine and a digitizer. This system functions through a single dedicated card in the MicroVAX.

## Colorgraphic <br> Communications <br> Corporation

## - CEBRA 286

19" Monitor - Color • 640x480dpi • VT100/200 Emulation • 38.4 Kbps • 16 Displayable Colors - (2) Serial/Parallel Interface(s) Supported • $\$ 4,000$
Open architecture information display that also emulates TK4010/4014/4015 and is available with an optional 20 MB or 40 MB hard drive, a 1.2 MB floppy drive and a controller.

## Datamedia Corporation - 386/20-00 <br> 14" Monitor • Color/Monochrome •

800x480dpi • VT340/241 Emulation • 38.4Kbps - 256 Displayable Colors • 2 MB of Local Memory • Serial/Parallel Interface(s)
Supported •\$4,895
Diskless LAN workstation that features a 32-bit Intel 80386 CPU with a processing speed of 4.6 MIPS. Options include a SCSI port, an Ethernet adapter, and CARDfiles that provide up to 256 KB RAM or PROM.

## - 386/20-01

14" Monitor • Color/Monochrome • 800x480dpi • VT340/241 Emulation • 38.4Kbps - 256 Displayable Colors • 2 MB of Local Memory - Serial/Parallel Interface(s) Supported •\$5,195
Same as $386 / 20-00$. Also includes a $3.5^{\prime \prime}$ diskette.

## - 386/20-08

14" Monitor • Color/Monochrome •
800x480dpi • VT340/241 Emulation • 38.4Kbps - 256 Displayable Colors - 2 MB of Local Memory • (2) Serial Interface(s) Supported • \$6,995
Same as the 86/20-00. Also includes a $3.5^{\prime \prime}$ 80 MB hard disk

## - COLORSCAM/2

14" Monitor • Color • $640 \times 480 \mathrm{dpi} \bullet$ VT240 Emulation • $38.4 \mathrm{Kbps} \bullet 16$ Displayable Colors -768KB of Local Memory - (2) Serial/Paraliel Interface(s) Supported •\$2,000+
Features CPU, and graphics, communications, and systems controllers all on a single circuit board. Features parallel operation in both VAX and MS-DOS environments. Options include RAMfile, an internal 2MB RAM storage device, CARD file, up to 512 KB removable storage device, and DISKfile, a compact disk housing unit for $3.5^{\prime \prime}$ hard and floppy drives.

## Evans \& Sutherland

## - PS390

19" Monitor • Color • 8192x6912dpi • VT100
Emulation • 16.7m Displayable Colors • 2 MB
of Local Memory - Serial Interface(s)
Supported •\$32,950+
The PS390, a high-performance 3-D system, provides the highest image reslution available with a vector performance of 356,000 per second. It supports stereo viewing, optional interfaces and peripherals.

## - PS390A +

19" Monitor • Color • 8192x6912dpi • VT100 Emulation • 16.7 Million Displayable Colors • 2MB of Local Memory - Serial Interface(s) Supported • \$34,950+
The PS390A+ provides all the features of the PS390 plus raster text, fast flat shading, host-presorted dynamic area fill, and pickable polygons. It is compatible with PS390 applications and software.

## GE Calma Company

## - DIMEWSIOM III

\$27,000+

## - Prism/DDM

$\$ 27,000+$
The DIMENSION III and the Prism/DDM are fully integrated, 3-D solid modeling systems for use in computer aided design, engineering, and manufacturing in the mechanical and A-E-C industries.

## Genisco <br> Peripheral Systems

## - HS-30

19" Monitor • Color • 1280x1024dpi • VT100 Emulation • 19.2Kbps • 256 Displayable Colors • Up To 16MB of Local Memory - (4) Serial/Parallel Interface(s) Supported
This graphics station is equipped with a 20 MHz MC68020, and was designed to work with GBase, Genisco's version of the PHIG standard, featuring imbedded graphics software. It also supports a touchscreen.

## - HS $^{-40}$

19" Monitor • Color • 1280x1024dpi - VT100 Emulation • $19.2 \mathrm{Kbps} \cdot 256$ Displayable Colors • Up To 16MB of Local Memory - (4) Serial/Parallel Interface(s) Supported The HS-30 and -40 graphics stations are equipped with 20 MHz MC68020s, and were designed to work with GBase, Genisco's version of the PHIG standard, featuring imbedded graphics software. Also support touchscreens.

## - hs-50

19" Monitor • Color • 1280x1024dpi • VT100 Emulation • 19.2Kbps 4096 Displayable Colors • Up To 16MB of Local Memory - (4) Serial/Parallel Interface(s) Supported Same as the HS-30 and HS-40. HS-50 configurations are available to supportdual channel, and up to 20 planes of pixel memory and the ability to provide hardware double buffering.

## - HS-60

19" Monitor • Color • 1280x1024dpi • VT100 Emulation • $19.2 \mathrm{Kbps} \bullet 4096$ Displayable Colors • Up To 16MB of Local Memory - (4) Serial/Parallel Interface(s) Supported Same as the HS-30, HS-40, and the HS-50. The HS-60 station also features increased addressable pixel memory.

## Geo Based Systems, Imc.

 - ciws 319" Monitor • Color • $1024 \times 1024 \mathrm{dpi} \cdot$ $\$ 30,000+$

## Integrated

Solutions, Inc.

- Advantage 2000

19" Monitor • Color • 1280x1024dpi • 256 Displayable Colors
Standard features include 64bytes of total cache memory- 32 KB for instruction and 32 KB for data. 4 MB main memory expandable to 16 MB . Ethernet, with built-in transceiver for Cheapernet support.

- Optimum 13/16

19" Monitor • Color/Monochrome •

## 1280x1024dpi

Features include 13 or 16 slots, up to 32MB of physical memory, dual operating system environment supporting both UNIX 4.3SD and UNIX System V Release 3.0, X Window System, dual-bus architectures.

- Optimum 20/24
$19^{\prime \prime}$ Monitor • Color/Monochrome • $1280 \times 1024 \mathrm{dpi}$
Features include 20 or 24 slots, up to 32 MB of physical memory, dual operating system environment supporting both UNIX 4.3SD and UNIX System V Release 3.0, X Window System, and dual-bus architectures.


## - Optimum 8

19" Monitor • Color/Monochrome -

## 1280x1024dpi

Features include eight slots, up to 32 MB of physical memory, dual operating system environment supporting UNIX 4.3SD and UNIX System V Release 3.0, X Window System, and dual-bus architectures.

## Intergraph Corporation

- InterPro 125

15" Monitor •Color • $1184 \times 884 \mathrm{dpi} \bullet$ VT220 Emulation • 19.2 Kbps • 32 Displayable Colors -6MB of Local Memory
Features a 4MIPS CPU, 6/16MB of memory, and a standard 156 MB internal disk. A 19" monitor is also available.

## - InterPro 225

19" Monitor • Color • 1184x884dpi • VT220 Emulation • 19.2 Kbps • 32 Displayable Colors -16MB of Local Memory
Features a 5MIPS CPU, 16MB of memory, and a standard 156 MB internal disk.

## - InterPTo 3050

$19^{4}$ Monitor • Color • $1184 \times 884 \mathrm{dpi} \bullet$ VT220 Emulation • 512 Displayable Colors • 16 MB of Local Memory
Features a 10 MIPS CPU, $16 / 80 \mathrm{MB}$ of memory, and a standard $355 \mathrm{MB} / 670 \mathrm{MB}$ internal disk.

## - InterPro 3055

19" Monitor • Color • $1184 \times 884 \mathrm{dpi} \bullet$ VT220 Emulation • 19.2Kbps • 512 Displayable Colors - 16MB of Local Memory
Features a 10MIPS CPU, 16/12MB of memory, and a standard 670 MB internal disk.

## - InterPro 3070

27" Monitor • Color • 1664x1248dpi • VT220 Emulation • 19.2Kbps • 512 Displayable Colors - 16MB of Local Memory
Features a 10 MIPS CPU, $16 / 80 \mathrm{MB}$ memory, and a standard internal $355 \mathrm{MB} / 670 \mathrm{MB}$ disk.

## - InterPro 340

19" Monitor • Color • $1184 \times 884 \mathrm{dpi} \bullet$ VT220
Emulation • 19.2Kbps • 512 Displayable

Colors • 8 MB of Local Memory
Features a 5MIPS CPU, $8 / 16 \mathrm{MB}$ of memory, and a standard 156 MB internal disk.

## Jupiter Systems

## - Satellite RTOS

## $1280 \times 1024 \mathrm{dpi}$

This is a dedicated graphics workstation designed for the systen integrator and OEM. It has extensive graphics capabilities and features a front end processor, versatile interfacing and a real time operating system.

## McDonnel Douglas

## - R 390

19" Monitor • Color • 4096x3456dpi • 256 Displayable Colors
Features the use of Evans \& Sutherland's Shadowfax technology which (1) produces high-quality lines on a raster display, (2) features high speed custom VLSI circuitry, and (3) performs depth-cueing. Graphics capabilities include rotation about any axis, translation in any direction, scaling, mirror images about a plane, perapective and clipping, compound matrix transformations, and viewporting.

## MIPS Computer

Systems, Inc.

## - RS2030

16/19" Monitor • Color • $1280 \times 1024 \mathrm{dpi} \bullet 256$ Displayable Colors • 8MB of Local Memory • \$19,500+

## - RS2030

17" Monitor • Monochrome • 1280x1024dpi • 8MB of Local Memory - $\$ 19,500+$
MIPS Computer Systems is the leading supplier of RISC technology, computer systems, optimizing compilers, and operating systems. MIPS markets a full range of high-performance computer systems based on UNIX and RISC.

## Omnicomp Graphics Corporation

## © OMNII 1500 Transportable

15" Monitor•Color • $1280 \times 1024 \mathrm{dpi} \bullet$ 19.2Khps • 256 Displayable Colors • 1MB of Local Memory • Serial Interface(s) Supported - \$12,950

Transportable system that may be stored with a standard 9-U NATO (EDAC) case, providing protection from impact, temperature change, humidity and other environmental demands. Supports multiple screen applications including process control/ industrial automation and military workstations.

## Pericom Inc.

## - MX7286

15/19" Monitor • Color • $1024 \times 768 \mathrm{dpi} \bullet$ VT100/220/240 Emulation • 19.2Kbps • 16
Displayable Colors • 256 KB of Local Memory • Serial Interface(s) Supported •\$3,995+

## - MX7386

15/19" Monitor • Color • $1024 \times 768 \mathrm{dpi} \bullet$ VT100/200/240 Emulation • 19.2Kbps • 16/ 256K Displayable Colors • 256 KB of Local Memory • Serial Interface(s) Supported • \$6,850+
The MX7286 and 7386 feature up to 40 MB of storage on a hard disk with a choice of 5 " or 3.5 " floppy drives.

## SAEC Microsystems

■ 386-33
16" Monitor • Color • 1024x768dpi • 9600hps

- 256 Displayable Colors • 4MB of Local Memory - \$8,495
The 386-33 features 8 MIP performance, an Intel 80387-33 math coprocessor, a 160 MB ESDI hard disk and a $16^{\prime \prime}$ color monitor.


## SAI Technology <br> - 9000

M • 1024×1024dpi • Serial Interface(s)
Supported • $\$ 65,000+$
The 9000 features an ACGAS Plasma display with modular construction. It is equipped with the SAI/PHIGS graphics library and is available with optional display heads (CRT EL).

## Selio Instruments

## - CR-4400

19" Monitor • Color • $1280 \times 1024 \mathrm{dpi} \bullet 65,526$ Displayable Colors
Workstation features 420,000 3-D vector transformations per second; full Phong, Gouraud and flat shading capabilities.

## Silicon Graphics, Inc.

- Personal IRIS
\$16,000+


## Spectragraphics Corporation

## -cs 1080

C• 256 Displayable Colors
The CS1080 is a graphics and communication system that provides 5080 terminal emulation and IBM mainframe communications for the Digital VAXstation. Allows users access to applications such as CADAM and CATIA directly from their workstation.

## Sun Microsystems, Inc. <br> - SPARCstation

19" Monitor • Color • 1152x900dpi • VT100 Emulation • 52Kbps • 256 Displayable Colors • 8MB of Local Memory - \$39,900+

## - SPARCstation 16X

16" Monitor • Color • 1152x900dpi • VT100 Emulation • $52 \mathrm{Kbps} \bullet 256$ Displayable Colors • 8MB of Local Memory - $\$ 14,495+$

## - SPARCstation 3306X

19" Monitor • Color • $1152 \times 900 \mathrm{dpi}$ - VT100 Emulation • 52 Kbps • 256 Displayable Colors • 8MB of Local Memory - $\$ 27,900+$

## - SPARCstation 370GX

19" Monitor • Color • 1152x900dpi • VT100 Emulation - 52 Kbps - 256 Displayable Colors 8MB of Local Memory - $\$ 48,900+$

## - Sun-3/470GX

$19^{\prime \prime}$ Monitor • Color • 1152x900dpi • VT100 Emulation • 52 Kbps • 256 Displayable Colors • 8MB of Local Memory - \$48,900+

## ■ Sun-3/470GXP

19" Monitor • Color • 1152x900dpi • VT100 Emulation • $52 \mathrm{Kbps} \bullet 256$ Displayable Colors • 8MB of Local Memory - $\$ 54,900+$

## - Sun-3/80tc

16" Monitor • Color • 1152x900dpi • VT100 Emulation • $52 \mathrm{Kbps} \cdot 256$ Displayable Colors • 4MB of Local Memory - $\$ 15,995+$

- Sum-3180ax

16" Monitor • Color • 1152x900dpi • VT100 Emulation • $52 \mathrm{Kbps} \cdot 256$ Displayable Colors • 4MB of Local Memory - $\$ 13,995+$

## Tektronix, Inc.

- 4125

19" Monitor • Color • 1280x1024dpi • VT51/
100 Emulation • 38.4 Kbps - 4-256*
Displayable Colors • 288KB of Local Memory Serial Interface(s) Supported • \$16,950
This graphics workstation has the potential for an easy growth path to 3-D wireframe and 3-D shaded-surface graphics. Copier support includes the 4632, 4634, and the 4690 Series.

## $-4126$

19" Monitor • Color • 1280x1024dpi • VT52/ 100 Emulation • $38.4 \mathrm{Kbps} \bullet 16$ Displayable Colors - 2 MB of Local Memory - Serial Interface(s) Supported • $\$ 29,950$
This graphics workstation includes a pair of lightweight glasses that enables users to view 3-D stereoscopic images without distorting normal vision, thereby enhancing realism and depth perception. Screen resolution in stereoscopic mode is $1280 \times 512$, per eye. Copier support includes the 4632,4634 , and 4690 Series.

## - 4128

19" Monitor • Color • $1280 \times 1024 \mathrm{dpi} \cdot$ VT52/
100 Emulation • $38.4 \mathrm{Kbps} \bullet 16$ Displayable Colors • 288 KB of Local Memory • Serial Interface(s) Supported • \$19,950
The 4128 workstation allows users to combine 2-D and 3-D information on the screen. It also may be upgraded (with the addition of the 4100F59 3-D Shaded Surface Kit) to the hidden-line removal and 3D shaded surface graphics of the 4129. Copier support includes the 4632, 4634, and 4690 Series.

## - 4129

$19^{4}$ Monitor • Color • 1280x1024dpi • VT52/ 100 Emulation • 38.4Kbps • 256 Displayable Colors $\cdot \mathbf{2 8 8 K B}$ of Local Memory • Serial Interface(s) Supported • $\$ 29,950$
The 4129 workstation features local support for shaded surfaces and hidden line removal. Users also may rotate objects around horizontal, vertical, or depth axes and view objects from different vantage points using the 3-D zoom and pan, rotate, roll, radius, aim, focus and depth functions. Copier support includes the 4632, 4634 , and 4690 Series.

## - 4211

19 Monitor • Color • $1280 \times 768 \mathrm{dpi} \bullet$ VT200 Emulation • 256 Displayable Colors $\bullet 2.75 \mathrm{MB}$ of Local Memory - Serial Interface(s)

## Supported

Provides direct connection to both distributed processing and dedicated host environments in design, simulation, manufacturing automation, and data analysis and representation applications.

## - 4315

13" Monitor • Monochrome • $640 \times 480 \mathrm{dpi}$ 5MB of Local Memory - Serial Interface(s) Supported • \$9,995

## - 4316

19" Monitor • Monochrome • 1376x1024dpi • 4MB of Local Memory - Serial Interface(s) Supported • \$18,950
The 4316 has 16 levels of gray scale capabilities.

## ■ 4317

19" Monitor • Color • 1376x1024dpi • 16 Displayable Colors - 4MB of Local Memory Serial Interface(s) Supported • $\$ 18,950$ The 4315,4316 , and 4317 are equipped with an 86 MB hard disk, a 1.2 MB flexible disk, as well as 68020 and 68881 coprocessors. Optional mass storage expands the hard disk storage capacity to either 156 or 300MB. Printer support includes the 4692 the 4693D.

## - 4324

16" Monitor • Color • 1024x768dpi • Tek 4125 Emulation • 256 Displayable Colors $\bullet 4 \mathrm{MB}$ of Local Memory - (2) Serial Interface(s) Supported • \$26,950

## - 4325

16" Monitor • Color • $1280 \times 1024 \mathrm{dpi} \bullet$ Tek 4125 Emulation - 256 Displayable Colors 4MB of Local Memory • (2) Serial Interface(s) Supported • $\$ 29,950$

- 4335

16" Monitor • Color • 1280x1024dpi • Tek 4125/4128 Emulation • 16 Displayable Colors -4MB of Local Memory • (2) Serial Interface(s) Supported • $\$ 37,500$

- 4336

16" Monitor • Color • $1280 \times 1024 \mathrm{dpi} \bullet$ Tek 4125/4128 Emulation - 256 Displayable Colors -4 MB of Local Memory • (2) Serial Interface(s) Supported • $\$ 47,500$

## ■ 4337

16" Monitor • Color • $1280 \times 1024 \mathrm{dpi} \bullet$ Tek 4125/4128 Emulation • 4096 Displayable Colors $\cdot 4 \mathrm{MB}$ of Local Memory • (2) Serial Interface(s) Supported - \$51,500
The $4324,4325,4335,4336$, and the 4337 are equipped with an 86 MB hard disk, a 1.2MB flexible disk, 12 MB of graphics memory, 20 MHz 68020 and 68881 coprocessors, and a 16 MHz 68020 graphics processor. Optional mass storage expands the hard disk storage capacity to either 156 MB or 300 MB .

## Virtual Imagimg <br> .

19" Monitor - Color/Monochrome $2048 \times 2048 \mathrm{dpi} \cdot 19.2 \mathrm{Kbps} \bullet 8 \mathrm{MB}$ of Local Memory - Serial Interface(s) Supported
This model includes the same features as the VIEW2000; however, hard disk storage begins at a 24 MB capacity, with larger capacities available for expansion. Applications include remote MRI/CT viewing, image reception and viewing for teleradiology, and imaging research.

## - VIEW2000

19" Monitor • Color/Monochrome •
$2048 \times 4096 \mathrm{dpi} \cdot 19.2 \mathrm{Kbps} \bullet 8 \mathrm{MB}$ of Local
Memory • Serial Interface(s) Supported Same as the VIEW1000. The VIEW2000 also features an 80286 control microprocessor, a $51 / 4^{\prime \prime}$ flexible disk, and a 40 MB hard disk (with an optional expansion in capacity). Includes one to four image display channels for monochrome or pseudo color, or a single channel for true (RGB) color.

## - VIEWbox

19" Monitor • Color/Monochrome -
2048x2048dpi • 19.2 Kbps • 4MB of Local
Memory - Serial Interface(s) Supported
The VIEWbox is an image display station designed to provide viewing of high quality images primarily obtained from, or processed on a VIEW2000.

## X Window Terminals

## Acer Counterpoint, Inc.

## - Model 100

14" Monitor • Monochrome • VT220 Emulation - \$995

This low end family member affords the ideal platform for delivery of Vertical Applications based on the X Window System at the lowest possible price.

## - Model 200

14" Monitor • Monochrome • VT220 Emulation - $\$ 1,495$

This midrange model offers a more powerful CPU and additional server memory to provide a cost effective, general purpose, $X$ Terminal for complex applications.

## - Model 200C

15" Monitor • Color • VT220 Emulation • \$1,995
The addition of color makes this model ideally suited for X applications using color coded information such as process control consoles and business graphics packages.

## Falco Data Prooucts

## - System 4000X

\$8,750
The System 4000X is an X Window workstation that features 4MB RAM, 80MB hard disk storage, a 1.2 floppy disk drive, and a TCP/IP Ethernet card. An optional color graphics card is available to configure the workstation as an X Window server.

## GraphOn Corporation



- OptimaX 200

14" Monitor • Monochrome • VT100/220 Emulation • 57.6 Kbps • $\$ 1,395$
OptimaX 200 for DECwindows applications, featuring $800 \times 600 \mathrm{dpi}$ resolution, page white 14" non-glare CRT, 75 Hz noninterlaced refresh, built-in VT100/220 mode, three RS232 ports for host, mouse, and printer, till and swivel monitor, enhanced VT100/220 keyboard, and a $\$ 1,395$ US list price. Recently introduced for use with Sun 3 or 4 workstations, the OptimaX 200 now may be used with VAX computers that run version 5.1 of the VMS operating system, with DECwindows. This X terminal may be connected to the computer or workstation directly, through a terminal server, or via modem. An efficient protocol enables the OptimaX 200 to communicate over simple and inexpensive RS232 serial lines. Based on the unique OptimaX architecture, in which the X11 server resides on the computer or workstation, the OptimaX 200 applies its processing power to display-related tasks, yielding good interactive response and minimiz- . ing memory costs.

## Human Designed Systems

## - Viewstation

14" Monitor • Monochrome/Color • 10Mbps • \$1,999+
Supports up to 8 MB of memory and in-
cludes a 10 MHz Intel 80186 for communications and preprocessing as well as a TI 34010 controller for graphics processing and display. Available with a 19 " monitor.


## Northwest <br> Dieital Systems

n GP-220W
14" Monitor • Monochrome • VT100/220
Emulation • 38.4Kbps • \$1,695
Same as the GP-220Z graphics terminal. Also features 512 KB of memory as well as the ability to maintain 16 separate text windows while directly managing these windows through a command application program.

## Peritek Corporation

- vck-a/u

15" Monitor • Color • VT100 Emulation •
$\mathbf{3 8 . 4 K b p s} \cdot \mathbf{\$ 6 , 5 0 0}$

- VCK-Q/U

19" Monitor • Color • VT100 Emulation • 38.4Kbps $\boldsymbol{\$ 6 , 5 0 0 +}$

## Visual Technology, Inc. <br> - 640-XDS

14" Monitor • Monochrome • VT102 Emulation - 38.4Kbps • \$1,995

Full DECwindows support including DECDECISION and DECWRITE on VMS and ULTRIX. Includes keyboard, optical mouse, integrated Ethernet with DECnet or TCP/IP.

## - 790 XDS

19" Monitor • Monochrome • VT102 Emulation - 38.4Kbps • \$2,995

Full DECwindows support including DECDECISION and DECWRITE on VMS and ULTRIX. Includes keyboard, optical mouse, integrated Ethernet with DECnet or TCP/IP.

## OUTPUT DEVICES

## BAND PRINTERS

|  |  | B |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Data Systems Hardware 703 478-0080 |  |  |  |  |  |  |  |  |  |  |
| VX036 | N | N | 1500 | 132 |  | C | Y | $44.5 \times 34.3 \times 29.7$ | S/P | \$24,000+ |
| VX037 | $N$ | $N$ | 2000 | 132 |  | C | Y | $44.5 \times 34.3 \times 29.7$ | S/P | \$24,000+ |
| VX157 | Y | $N$ | 600 | 132 | 250 | C | $Y$ | $22.5 \times 33 \times 38.5$ | S/P | \$7,995 |
| VX159 | $Y$ | $N$ | 900 ipm | 132 | 250 | C | $Y$ | $22.5 \times 33 \times 38.5$ | S/P | \$7,995 |
| DataProducts Corporation 818 887-8000 |  |  |  |  |  |  |  |  |  |  |
| B 1000 | N | $N$ | 1025 | 132 | $N$ | C | $N$ | $34.3 \times 44.5 \times 29.7$ | S/P | \$14,395 |
| B 300 | N | $N$ | 300 | 64 |  | C | $N$ | $30.3 \times 15 \times 25.2$ | S/P | \$7,205 |
| B 600 | $N$ | $N$ | 650 | 64 |  | C | $N$ | $30.3 \times 15 \times 25.2$ | S/P | \$9,815 |
| BP 1500 | $N$ | $N$ | 1500 | 48 | N | C | $N$ | $35.5 \times 49 \times 29.5$ | S/P | \$22,700 |
| BP 2000 | $N$ | $N$ | 2000 | 48 | $N$ | C | $N$ | $35.5 \times 49 \times 29.5$ | S/P | \$30,390 |
| LB 1015 | $N$ | N | 1010 | 64 | $N$ | C | $N$ | $31 \times 44 \times 27$ | S/P | \$10,995 |
| LB 1515 | $N$ | $N$ | 1210 | 64 | $N$ | C | $N$ | $31 \times 44 \times 27$ | S/P | \$14,995 |
| LB 300 | $N$ | $N$ | 325 | 64 | $N$ | C | $N$ | $31 \times 44 \times 27$ | S/P | \$5,695 |
| LB 315 | $N$ | $N$ | 325 | 64 | $N$ | C | $N$ | $31 \times 44 \times 27$ | S/P | \$6,636 |
| LB 615 | N | $N$ | 650 | 64 | N | C | $N$ | $31 \times 44 \times 27$ | S/P | \$7,495 |
| LM 1200 | Y | $N$ | 1200 |  |  | C | $N$ | $43 \times 39 \times 25$ | S/P | \$27,595 |
| LM 300 | $Y$ | $N$ | 300 | 136 |  | C | $N$ | $11 \times 23 \times 18$ | S/P | \$5,795 |
| LM 600 | $Y$ | $N$ | 600 |  | $N$ | C | $N$ | 11×23×18 | S/P | \$7,895 |
| LM 900 | Y | $N$ | 900 |  |  | C | $N$ | $43 \times 39 \times 25$ | S/P | \$21,595 |
| DeRex Inc. 305 753-0840 |  |  |  |  |  |  |  |  |  |  |
| 9000-IV | N | $N$ | 1700 | 48-96 |  | C | $Y$ | $42 \times 47 \times 33$ | P | \$26,950 |
| B1000 | $N$ | $N$ | 1000 | 48-96 |  | C | $Y$ | $34 \times 44.5 \times 30$ | S/P | \$13,250 |
| B1500 | N | $N$ | 1500 | 48-96 |  | C | Y | $35.5 \times 49 \times 29.5$ | S | \$22,000 |
| B2000 | N | $N$ | 2000 | 48-96 |  | C | $Y$ |  | S | \$29,950 |
| B300 | $N$ | $N$ | 300 | 48-96 |  | C | $Y$ | 30×15×25 | S | \$6,375 |
| LW1000 | $N$ | $N$ | 1200 | 48-96 |  | C | $Y$ | 29x43x33 | S/P | \$9,950 |
| LW400 | $N$ | $N$ | 400 | 48-96 |  | C | $Y$ | $29 \times 36 \times 27$ | S/P | \$4,995 |
| LW800 | $N$ | $N$ | 800 | 48-96 |  | C | $Y$ | 29x36x27 | S/P | \$6,995 |
| First Computer Corporation 312 920-1050 |  |  |  |  |  |  |  |  |  |  |
| ULW400 |  |  |  | 64 | 128 |  |  |  |  | \$7,260 |
| Genicom Corporation 800 443-6426 |  |  |  |  |  |  |  |  |  |  |
| 4285 | $N$ | $N$ | 2000 | 132 | N | C |  | 42x47x32 | P | \$26,950 |
| E Series Model III | N | $N$ | 1600 | 48 | 132 | C | $N$ | $34 \times 48 \times 27$ | P | \$18,950 |
| Linewriter 1255 | $N$ | $N$ | 1200 | 64 | 132 | C |  | 29x43x33 | S/P | \$11,595 |
| Linewriter 400 | N | $N$ | 400 | 132 | 198 | C | $N$ | 29x36x27 | S/P | \$6,096 |
| Linewriter 455 | $N$ | $N$ | 400 | 132 | 198 | C | $N$ | 29x43x33 | S/P | \$6,913 |
| Linewriter 800 | N | $N$ | 720 | 132 | N | C |  | 29x36x27 | S/P | \$7,490 |
| Linewriter 855 | $N$ | $N$ | 720 | 132 | $N$ | C |  | 29x43x33 | S/P | \$8,307 |
| Hetra, Inc. 407 589-7331 |  |  |  |  |  |  |  |  |  |  |
| 3115-12 | $N$ | $N$ | 1210 | 136 |  | C | N | $44 \times 31 \times 27$ | S*/P* |  |
| 3115-3 | N | $N$ | 300 | 136 |  | C | $N$ | $44 \times 31 \times 27$ | DP |  |
| 3115-6 | $N$ | $N$ | 650 | 136 |  | C | $N$ | $44 \times 31 \times 27$ | DP |  |
| 3300-H0 |  | $N$ | 1000 | 132 |  | C | $N$ | $37.5 \times 44 \times 29.5$ | S | \$17,500 |
| 3300-H12 |  | $N$ | 1200 | 132 |  | c | $N$ | $37.5 \times 44 \times 29.5$ | S | \$20,500 |

## BAND PRINTERS



## DAISY WHEEL PRINTERS



The important differences in color hardcopy come not from the printer but the interface. If a special driver is needed every time you add another software package, your video printer isn't worth the desk space. With Toyo's intelligent video interface, you don't need special software drivers. The built-in, high-speed ( 125 MHz ) interface automatically adjusts to any CRT display. Simply plug in, and answer a few menu questions. That's it.

And when you want the printer to serve other terminals, will you have to add awkward switches or expensive multiplexers? Not with Toyo. The interface can store up to eight pre-set system conditions with different video timings and specifications. Mix Sun, Apollo, Mac II, and other high resolution (to $1280 \times 1024$ ) workstations, PCs and graphics systems in any combination. Toyo serves them all.

Will your interface give you special printing effects? Without going back to the computer, the Toyo video interface can instruct the printer to print any one color pass, reverse black and
© 1988 Toyo Corporation U.S.A. Sun is a trademark of Sun Microsystems.
Apollo is a trademark of Apollo Computer. MAC II is a trademark of Apple Computer.
white, adjust tones, make extra copies, and enlarge, center or designate print location.

When most people compare, they choose Toyo. Our free comparison kit will show you why. It will also give you some ideas on what to look for in video printers. And interfaces.

For your free comparison kit, circle our readers' service number. For a kit or a product demo, call toll-free 1-(800) 338-1981. In California, call (408) 739-7913.
Toyo Spectrum Corporation, 2934 Corvin Drive, Santa Clara, CA 95051, Fax: (408) 720-9643.

TOYO SPECTRUM
See the difference.

ISN'T THE PRIITER;
IT'S THE NIEREGE:

## DOT MATRIX PRINTERS

## む



| 4 |
| :---: |
|  |
|  |  | ふ （20 른 む

Advanced Matrix Technology，Inc． 805 499－8741



## DOT MATRIX PRINTERS

| $$ |  | a |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Craden Peripherals Corp. 609 488-0700 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DP4 | Y | S |  |  |  |  |  |  | 150 cps |  |  |  |  |
| DataProducts Corporation 818 887-8000 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| LM1200 | Y | L |  | C | 18 | 1200 Ipm |  | 170 | 320 Ipm | 283 | S/P | 90 d | \$27,595 |
| LM300 | $Y$ | L |  | C | 16.75 | 300 lpm |  | 138 |  | 231 | S/P | 90 d | \$5,795 |
| LM315 | $Y$ | L |  | C | 16.75 | 300 lpm |  | 138 |  | 231 | S/P | 90 d | \$6,895 |
| LM600 | $Y$ | 1 |  | C | 16.75 | 600 lpm |  | 138 |  | 231 | S/P | 90 d | \$7,895 |
| LM615 | $Y$ | L |  | C | 16.75 | 600 lpm |  | 138 |  | 231 | S/P | 90 d | \$8,795 |
| LM900 | $Y$ | L |  | C | 18 | 900 lpm | . | 170 | 480 1pm | 283 | S/P | 90 d | \$21,595 |
| Datasouth Computer Corporation 704 523-8500 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| BarCode 300 | $Y$ | S |  | C | 15" | 300 cps |  | 132 |  | 217 | S/P | 1 yr | \$1,995 |
| DS 180+ | $Y$ | S |  | C | 15" | 180 cps | 4K | 132 |  | 217 | S/P | 1 yr | \$1,395 |
| DS 180DD | $Y$ | S |  | C | 15" | 180 cps |  | 132 |  | 217 | S/P | 1 yr | \$1,695 |
| DS 220 | $Y$ | S |  | S/C | 15" | 220 cps | 4K | 132 | 45 cps | 217 | S/P | 1 yr | \$1,695 |
| DS 400 | $Y$ | S |  | C | 15" | 400 cps | 16K | 132 | 120 cps | 217 | S/P | 1 yr | \$1,995 |
| DeRex Inc. 305 753-0840 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1040 | $Y$ | S |  | C/S | 16" | 360 cps |  |  | 90 cps |  | S/P | 90 d | \$1,799 |
| 3410 XDQ | $Y$ | S | 144×144 | C/S | 15.5" | 400 cps |  |  | 100 cps |  | S/P | 90 d | \$2,275 |
| 3800 | $Y$ | S | $400 \times 144$ | c/s | 16" | 500 cps | 4 K |  | 125 cps |  | S/P | 90 d | \$2,100 |
| 4410 | $Y$ | L | 140x144 | C | 16.54" | 400 lpm |  |  | 82 lpm |  | S/P | 90 d | \$5,000 |
| 4440 | $Y$ | L | 140x144 | C | 16.54" | 800 lpm |  |  | 165 lpm |  | S/P | 90 d | \$7,500 |
| 4470 | $Y$ | L |  | C |  | 1200 lpm |  |  | 250 Ipm |  | S/P | 90 d | \$12,250 |
| 4490 | $Y$ | $L$ | $140 \times 280$ | C | 16.54" | 1400 lpm |  |  | 300 lpm |  | S/P | 90 d | \$17,200 |
| Epson America, Inc. 213 539-9140 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| L01000 | $Y$ |  | $360 \times 360$ | S/C | 10" |  | 7K |  | 60 cps |  | S/P | 1 yr |  |
| L01050 | $Y$ |  | 360x180 | S/C | $16^{\prime \prime}$ |  | 6K |  | 73 cps |  | S/P | 1 yr |  |
| L0800 | $Y$ |  | 360x360 | S/C | 16" |  | 7K |  | 60 cps |  | S/P | 1 yr |  |
| L0850 | $Y$ |  | 360x180 | S/C | 10.1" |  | 6 K |  | 73 cps |  | S/P | 1 yr |  |
| LX800 | $Y$ |  | 240x72 | S/C | $10^{\prime \prime}$ |  | 3K |  | 30 cps |  | S*/P | 1 rr |  |
| Facit Inc. 603 647-2700 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4528D | Y | S |  | C | 15" | 200 cps | 6 K | 136 |  |  | S/P | 1 yr | \$1,875 |
| 4528 V | $Y$ | S |  | C | 15" | 200 cps | 6K | 136 |  |  | S/P | 1 yr | \$1,625 |
| 4528V | $Y$ | S |  | C | 11.5" | 200 cps | 6K | 80 |  |  | S/P | 1 yr | \$1,675 |
| B1100 | $Y$ | S | 60x240 | C | 10" | 135 cps | 8K | 80 | 27 cps |  | S/P | 1 yr | \$325 |
| B1150 | $Y$ | S | 60x240 | C | 15.5" | 160 cps | 8K | 136 | 535 cps |  | S/P | 1 yr | \$495 |
| B3100 | $Y$ | S | $60 \times 240$ | C/S | 10" | 250 cps | 12K | 80 | 60 cps |  | S/P | 1 yr | \$745 |
| B3150 | $Y$ | S |  | C | $16^{\prime \prime}$ | 250 cps | 12K | 136 | 60 cps |  | S/P | 1 yr | \$895 |
| B3350 | $Y$ | S | 60x240 | C | 16" | 200 cps | 12K | 136 | 100 cps |  | S/P | 1 yr | \$995 |
| B3350 | $Y$ | S | $60 \times 240$ | C/S | $16^{\prime \prime}$ | 400 cps | 12K | 136 | 100 cps |  | S/P | 1 yr | \$1,495 |
| B3450 | $Y$ | S | 60x360 | C/S | 16" |  | 16K | 136 | 80 cps |  | S/P | 1 yr | \$1,298 |
| C6510 | $Y$ | S | $60 \times 240$ | C/S | $16^{\prime \prime}$ | 300 cps | 6 K | 136 | 75 cps |  | S/P | 1 yr | \$1,972 |
| C6520 | $Y$ | S | $60 \times 240$ | C/S | $16^{\prime \prime}$ | 300 cps | 6 K | 136 | 75 cps |  | S/P | 1 yr | \$1,972 |
| C7500 | $Y$ | S | $60 \times 240$ | C/S | $16^{\prime \prime}$ | 400 cps | 4 K | 136 | 100 cps |  | S/P | 1 yr | \$2,599 |
| DocuMate 3000 | Y | S |  | C | 9.5" | 240 cps | 5 K | 80 | 80 cps |  | S/P | 1 yr | \$1,749 |
| Genicom Corporation 800 443-6426 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 33200 | Y | S | 144×144 | S/C | 15.5" | 360 cps | 512 | 136 | 180 cps | 244 | S/P | 1 yr | \$1,965 |
| $3410 \times 10$ | $r$ | S | 144×144 | S/C | 15.5" | 480 cps | 2K | 136 | 120 cps | 244 | S/P | 1 yr | \$2,175 |
| Series 1020 | $Y$ | S | 240x144 | S/C/T | 16" | 200 cps | 2K | 136 | 100 cps | 231 | S | 1 yr | \$1,065 |
| Series 1025 | Y | S | 240x144 | S/C | 11" | 200 cps | 2 K | 80 | 100 cps | 136 | S | 1 yr | \$899 |

## DOT MATRIX PRINTERS

| $\begin{aligned} & \text { む̀ } \\ & \stackrel{0}{8} \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Genicom Corporation 800 443-6426 (continued) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Series 3000 | Y | S | 288×144 | S/C | 15.5" | 480 cps | 512 | 132 | 180 cps | 244 | (2)S/P | 1 yr | \$1,495+ |
| Series 30000 | Y | S | 288×144 | S/C | 15.5" | 480 cps | 512 | 132 | 180 cps | 244 | (2)S/P | 1 rr | \$1,495+ |
| Series 4410 | $Y$ | L | 140×144 | C | 16.54" | 400 lpm | 2K | 136 | 82 lpm | 204 | (2)S/P | 1 yr | \$6,195 |
| Series 4440 | Y | L | 140×144 | C | 16.54" | 800 lpm | 2K | 136 | 165 lpm | 204 | (2) $\mathrm{S} / \mathrm{P}$ | 1 rr | \$7,795 |
| Series 4470 | $Y$ | L | 280x144 | C | 16.54" | 1200 lpm | 2K | 136 | 250 Ipm | 204 | S/P | 1 yr | \$12,228 |
| Series 4490 | Y | L | 280x144 | C | 16.54" | 1400 lpm | 2K | 136 | 300 lpm | 204 | S/P | 1 rr | \$17,228 |
| Hewlett-Packard Company 415 857-1501 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| HP2563B | Y | L | 140x144 | C | 16.7 ${ }^{\text {² }}$ | 300 pm |  | 132 |  | 220 | S/P | 90 d | \$7,790 |
| HP2564B | Y | L | 140×144 | C | 16.7" | 600 lpm |  | 132 |  | 220 | S/P | 90 d | \$12,950 |
| HP2566B | $Y$ | L | 140×144 | C | 18" | 900 lpm |  | 132 |  | 220 | S/P | 90 d | \$22,640 |
| HP2567B | $Y$ | L | 140×144 | C | 18" | 1200 lpm |  | 132 |  | 220 | S/P | 90 d | \$29,170 |
| HP2567B | Y | L | 140x144 | C | 18" | 1600 lpm |  | 132 |  | 220 | S/P | 90 d | \$30,050 |
| Infoscribe, Inc. 703 689-2805 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1000 | Y | S | $72 \times 72$ | C | 16" | 200 cps | 3410 | 136 | 100 cps | 224 | S/P | 180 d | \$1,390 |
| 1100 | $Y$ | S | 144x144 | C | 16 " | 200 cps | 3410 | 136 | 40 cps | 224 | S/P | 180 d | \$1,590 |
| 1200 | $Y$ | S | 144×144 | C | $16^{\prime \prime}$ | 200 cps | 3410 | 136 | 40 eps | 224 | S/P | 180 d | \$1,995 |
| 1400 | $Y$ | S | 144×144 | C | 16" | 400 cps | 8-32K | 136 | 80 cps | 224 | S/P | 180 d | \$1,895 |
| 800 | Y | S | 144x144 | C | $16^{\prime \prime}$ | 200 cps | 3-4K | 136 | 40 cps | 224 | S/P | 180 d | \$1,845 |
| InterScience Computer Services 818 707-2000 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $8070+$ | $Y$ |  | 168×84 | S/C | 13.2 |  | 4K |  | 100 cps |  | S/P |  |  |
| ICS 9030 | $Y$ |  | 240x72 | S/C | 11" |  |  |  | 53 cps | $Y$ | S*/P |  |  |
| ICS 9034 | Y |  |  | S/C | 11" |  |  |  | 83 cps | $Y$ | S/P |  |  |
| ICS 9040 | $Y$ |  | 240x72 | S/C | 15.5" |  |  |  | 53 cps | $Y$ | S*/P |  |  |
| ICS 9044 | $Y$ |  | 240x72 | S/C | 15.5" |  |  |  | 33 cps | $Y$ | S*/P |  |  |
| ICS MX100 | $Y$ |  |  |  |  | 340 cps |  |  | 140 cps |  |  |  |  |
| ICS MX120 | $Y$ |  |  | C | 15" |  |  | 72 | 180 cps | 132 | S*/P |  |  |
| ICS MX200 | Y |  |  | C | $15 "$ |  |  | 72 | 340 cps | 132 | S*/P |  |  |
| Ithaca Peripherals, Inc. 607 898-9970 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PcOS 250 | Y | S | 144×144 | C | 8.5" | 160 cps | 2K | 80 | 40 cps | 132 | S*/P | 90 d | \$995 |
| Pcos 51 | Y | S | 144×144 | C | 3.25" |  | 2K* | 40 | 160 cps | 56 | S*/P | 90 d | \$420 |
| PCOS 52 | Y | S | 144×144 | C | 3.25" |  | 2K* | 40 | 160 cps | 56 | S*/P | 90 d | \$495 |
| Pcos 53 | Y | S | 144×144 | C | 3.25" |  | 2K* | 40 | 160 cps | 56 | S*/P | 90 d | \$480 |
| JDL, Inc. 805 495-3451 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 850 EWS | Y | S | 180×180 | S/C | $18^{\text {" }}$ |  | 128K |  | 144 cpi |  | S/P |  |  |
| 850 EWS/GL+ | Y | S | 180×180 | S/C | $18{ }^{\prime \prime}$ |  | 128K |  | 144 cpi |  | S/P |  |  |
| North Atlantic Industries 516 582-6060 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Tempest 7020 | Y | S |  |  |  |  |  | 96 | 180 cps | 128 |  |  | \$4,490 |
| Tempest 7035 | Y | S |  |  |  |  |  | 96 | 180 cps | 128 |  |  | \$3,990 |
| Okidata Corporation 800 654-3282 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Microline 172 | Y | S |  |  | 8.5" | 180 cps |  |  | 30 cps |  |  |  | \$289 |
| Microline 182 Turbo |  |  |  |  |  | 186 cps |  |  | 39 cps |  |  |  | \$339 |
| Output Technology Corporation 509 926-3855 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2141 | $Y$ | S |  | C | 16" | 400 lpm |  |  |  |  | S/P | 6 m | \$4,895 |
| 2161 | Y | S |  | C | $16^{\prime \prime}$ | 600 lpm |  |  |  |  | S/P | 6 m | \$6,450 |
| 2180 |  | L |  |  |  | 800 lpm |  |  |  |  |  |  | \$7,895 |
| 560DL |  |  |  |  |  | 560 cps | 20K |  |  |  | S/P | 6 m | \$1,995 |
| 850PrintNet | Y | S | 100x72 | C | 16" | 240 lpm | 256K | 136 | 32 lpm | 247 | 5S/P | 6 m | \$2,995 |
| 850XL | Y | L | 100x72 | C | $16^{\prime \prime}$ | 240 lpm | 256K | 136 | 32 lpm | 247 | S/P | 6 m | \$2,395 |

# VMS Advanced Device Driver Techniques 

By experts Lee Leahy of Digital Equipment Corporation and Jamie Hanrahan of Simpact Associates

Improve your skills using device drivers. VMS Advanced Device Driver Techniques describes how to design, implement and debug device drivers for the VMS Version 5 operating system.

Computing Pros Can Learn More about . . .

1. Simple VMS Device Drivers
2. Full Duplex \& State Machine-Based Drivers
3. VAX BI Drivers
4. User-Written ACPs
5. Debugging Techniques


- advanced strategies and techniques

■ low-level "building blocks" to high-level design issues

- everything to become a proficient user of VMS device drivers

Order VMS Advanced Device Driver Techniques, an important computing handbook. Call Trish at 215 957-1500 and have your charge card information ready.

## VMS Advanced Device Driver Techniques Order Form

To order your copy, send $\$ 59.95$ plus $\$ 3.00$ for shipping ( $\$ 5.00$ to Canada) to:
Professional Press Inc., P.O. Box 446, Horsham, PA 19044-446
 copy(ies)
Charge \$ $\square$ Check/Money order enclosed for \$

Account \# $\qquad$ Exp. Date $\qquad$ Signature Date

Name
Address

| City |
| :--- | :--- |
| Country $\quad$ State |

## DOT MATRIX PRINTERS

| $\begin{aligned} & \text { む } \\ & \text { © } \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Output Technology Corporation 509 926-3855 (continued) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OT-700n | Y | S | 100x72 | C | 16" | 850 cps | 8K | 136 | 66 cps | 247 | S/P | 6 m | \$2,095 |
| Panasonic 201 392-4406 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| KX-P1524 | Y |  |  | S/C | 16.5" |  | 13.5K | 68 | 67 cps |  | S/P |  |  |
| KX-P1595 | $Y$ |  | $240 \times 240$ | S/C | 16.5 ${ }^{\text {" }}$ |  | 15K | 68 | 51 cps | 205 | S/P |  |  |
| Printek, Inc. 616 925-3200 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 910HT | Y | S | 144×144 | C | $16^{\prime \prime}$ | 200 cps | 2K |  | 45 cps |  | S/P | 1 yr | \$1,395 |
| 920HT | $Y$ | S | 144×144 | C | $16{ }^{\prime \prime}$ | 340 cps | 2K |  | 80 cps |  | S/P | 1 yr | \$1,895 |
| 930 | $Y$ | S | 144×144 | S/C | $16^{\prime \prime}$ | 200 cps | 2K |  | 80 cps |  | S/P | 1 yr | \$1,695 |
| FormsPro 2000 | Y | S | 144×144 | C | 15" | 200 cps | 2K |  | 80 cps |  | S/P | 1 yr | \$2,095 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4160 | $Y$ | L | 160x168 | C | 16 | 130 pm |  |  |  |  | S/P | 1 yr | \$5,995 |
| 150 | $Y$ | L | 120x72 | C | $16^{\prime \prime}$ | 150 lpm | 256 |  | 80 lpm |  | S/DP | 1 yr | \$3,745 |
| P3040 | $Y$ | L | 180x96 | C | $16^{\prime \prime}$ |  | 1K |  | 400 lpm |  | S/P | 1 yr | \$4,750 |
| P6000L Series | $Y$ | $L$ | 120x72 | C | $16^{\prime \prime}$ | 800 lpm |  |  | 180 1pm |  | S/P | 1 yr | \$5,400+ |
| P9012 | $Y$ | L | 120x72 | C | $16^{\prime \prime}$ | 1200 lpm |  | 132 | 480 Ipm |  | S/DP | 1 yr | \$12,995 |
| \$7024 | $Y$ | S | 144×144 | C |  | 240 cps | 6K |  | 60 cps |  | S/P |  | \$1,365 |
| Qume Corporation 408 942-4000 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 11/40 PLUS | $Y$ | S |  | C | 15" |  |  | 158 | 40 cps | 198 | S/P |  |  |
| 11/55 PLUS | $Y$ | S |  | C | $15 "$ |  |  | 158 | 55 cps | 198 | S/P |  |  |
| 11/90 PLUS | $Y$ | S |  | C | $15^{\prime \prime}$ |  |  | 158 | 90 cps | 198 | S/P |  |  |
| Seikosha America, Inc. 800 338-2609 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| BP-5420FL | $Y$ | S |  |  |  | 420 cps | 18K |  | 104 cps |  | S |  | \$1,999 |
| SBP 10AI | Y | S |  |  |  | 800 cps |  |  |  |  |  |  | \$4,495 |
| Summus Computer Systems 713 492-6611 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SUM-2400 | Y | S | 200x200 | C | 14.5" |  | 24K | 136 | 60 cps |  | S | 90 d |  |
| Taneum Computer Products 206 228-5956 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| TCP 660 | Y | L | 200x200 | C | 16 | 800 lpm | 8K | 132 | 280 Ipm | 264 | S/P | 90 d | \$8,990 |
| TCP 690 | $Y$ | L | 200x200 | C | 16 | 1200 Imm | 8K | 132 | 450 lpm | 264 | S | 90 d | \$11,990 |
| Tempest Technologies, Inc. 703 471-0157 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $1020 T$ | Y | S | $120 \times 48$ |  | 16" | 200 cps |  |  | 100 cps |  | S/P | 90 d | \$2,995 |
| DWP51550 | $Y$ | S | $120 \times 48$ | S/C | 15" |  | 3K |  | 45 cps |  | S | 90 d | \$2,200 |
| LPF 5600 | $Y$ | L | $120 \times 72$ | C | $16^{\prime \prime}$ |  |  |  | 600 lpm |  | S*/P | 90 d | \$11,500 |
| LPF 5600xQ | $Y$ | L | $120 \times 72$ | C | $16^{\prime \prime}$ |  |  |  | 600 Ipm |  | S*/P | 90 d | \$12,800 |
| LPM 5300 | $Y$ | L | $120 \times 72$ | C | $16^{\prime \prime}$ |  |  |  | 300 lpm |  | S*/P | 90 d | \$9,950 |
| LPM 5300Xa | $Y$ | L | 120x72 | C | $16^{\prime \prime}$ |  |  |  | 300 Ipm |  | S*/P | 90 d | \$11,250 |
| SLP 3184 | $Y$ | S | 144×144 | S/C | 15.5" | 200 cps | 512 |  | 50 cps |  | S/P* | 90 d | \$2,895 |
| SLP 3304 | $Y$ | S | 144×144 | S/C | 15.5" | 200 cps | 512 |  | 100 cps |  | S/P* | 90 d | \$3,595 |
| SLP 3404 | $Y$ | S | 144×144 | S/C | 15.5" | 400 cps | 512 |  | 100 cps |  | S/P* | 90 d | \$3,995 |
| Texas Instruments, Inc. 800 527-3500 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 810 | Y | S |  | C | 15" | 150 cps | 256 |  |  | 132* | S/P | 3 m | \$1,645 |
| 810 La | $Y$ | S |  | C | $15{ }^{\prime \prime}$ |  | 3K |  | 20 cps | 218 | S/P | 3 m | \$2,495 |
| 850 C | $Y$ | S | 144×144 | C | 11" | 150 cps | 256 |  | 35 cps | 134 | S/P | 3 m | \$599 |
| 850XL | $Y$ | S | 144×144 | C | 11" | 150 cps | 256 |  | 35 cps | 134 | S/P | 3 m | \$599 |
| 855 | $Y$ | S | 144×144 | C | 11" | 150 cps | 256 |  | 35 cps | 134 | S/P | 3 m | \$739 |
| 860XL | $Y$ |  | 144×144 | C | 16" | 150 cps | 256 |  | 35 cps | 227 | S/P | 3 m | \$899 |
| 865 | $Y$ | S | 144×144 | C | $16^{\prime \prime}$ | 150 cps | 256 |  | 35 cps | 227 | S/P | 3 m | \$999 |
| 875 | $Y$ |  | 144×144 | C | 10" | 240 cps |  |  | 35 cps | 227 | S/P | 3 m | \$799 |
| 877 | $\boldsymbol{\gamma}$ |  | 144×144 | C | $16^{\prime \prime}$ | 240 cps |  |  | 35 cps |  | S/P | 3 m | \$999 |

## DOT MATRIX PRINTERS



## ELECTROSTATIC PLOTTERS

| O |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C.Itoh Electronics, Inc. 714 757-4485 |  |  |  |  |  |  |  |  |  |  |  |  |
| 2400 |  |  | 400x400 |  |  |  |  | S |  |  |  | \$55,000 |
| 3600 |  |  | 400x400 |  |  |  |  | S |  |  |  | \$65,000 |
| CaIComp, Inc. 714 821-2100 |  |  |  |  |  |  |  |  |  |  |  |  |
| 5723 | M |  | 200x200 | C/F | 24" | $36 \times 44 \times 24$ | 2 ips | S/DP | 12/25M | $Y$ | 90 d | \$22,900 |
| 5723XP | M |  | 200x200 | C/F | 24" | 36x44x24 | 2 ips | S/DP | 12-140M | Y | 90 d | \$26,400 |
| 5725 | M |  | 400x400 | C/F | 24" | 36x44x24 | . 7 ips | S/DP | 12/25M | $Y$ | 90 d | \$22,900 |
| 5725XP | M |  | 400x400 | C/F | 24" | $36 \times 44 \times 24$ | . 7 ips | S/DP | 12-140M | $Y$ | 90 d | \$26,400 |
| 5733 | M |  | 200x200 | C/F | $36 "$ | 54x44x24 | 2 ips | S/DP | 12/25M | $Y$ | 90 d | \$26,500 |
| 5733XP | M |  | 200x200 | C/F | 24" | $54 \times 44 \times 24$ | 2 ips | S/DP | 12-140M | $Y$ | 90 d | \$31,000 |
| 5735 | M |  | 400x400 | C/F | 36 " | $54 \times 44 \times 24$ | . 5 ips | S/DP | 12/25M | $Y$ | 90 d | \$27,500 |
| 5735XP | M |  | 400x400 | C/F | $36^{\prime \prime}$ | 54x44x24 | . 5 ips | S/DP | 12-140M | $Y$ | 90 d | \$31,000 |
| 5745 | M |  | 400x400 | C/F | 44" | $63 \times 44 \times 24$ | . 4 ips | S/DP | 12/25M | $Y$ | 90 d | \$65,000 |
| 5745XP | M |  | $400 \times 400$ | C/F | 44" | $63 \times 44 \times 24$ | . 4 ips | S/DP | 12-140M | Y | 90 d | \$68,500 |
| 5825 | C | 4 | $400 \times 400$ | C/F | 24 " | $56 \times 48 \times 28$ | . 7 ips | S/DP | 12/25M | $Y$ |  | \$49,000 |
| 5825XP | C | 4 | 400x400 | C/F | 24" | $56 \times 48 \times 28$ | . 7 ips | S/DP | 12-280M | $Y$ |  | \$55,000 |
| 5835 | C | 4 | $400 \times 400$ | C/F | $36^{\prime \prime}$ | $56 \times 48 \times 28$ | . 5 ips | S/DP | 12/25M | $Y$ |  | \$59,000 |
| 5835XP | C | 4 | 400x400 | C/F | $36 "$ | $56 \times 48 \times 28$ | . 5 ips | S/DP | 12-280M | $Y$ |  | \$65,000 |
| 5845 | C | 4 | $400 \times 400$ | C/F | 44" | $64 \times 48 \times 28$ | . 4 ips | S/DP | 12/25M | $Y$ |  | \$69,000 |
| 5845XP | C | 4 | 400x400 | C/F | 44" | $64 \times 48 \times 28$ | . 4 ips | S/DP | 12-280M | Y |  | \$75,000 |
| Precision Image Corporation 415 366-8900 |  |  |  |  |  |  |  |  |  |  |  |  |
| C448 | C | 65K | 400x400 | S | 48" | 75x50x29 | 6 min | S/P | 20M | Y | 90 d | \$60,000 |
| M448 | M |  | 400x400 | S | 48" | $75 \times 50 \times 29$ | 1.5 min | S/P | 20M | $Y$ | 90 d | \$45,000 |
| Versatec 800 538-6477 |  |  |  |  |  |  |  |  |  |  |  |  |
| 8524 | M |  | 200x200 |  | $24^{\prime \prime}$ |  | 1 ips | S |  |  |  | \$16,900 |
| 8536 | M |  | 200x200 |  | 36" |  | 1 ips | S |  |  |  | \$19,900 |

## HARD COPY UNITS



## INK JET PRINTERS

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Eastman Kodak 800 255-3434 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Diconix 150 Plus |  | 192x192 |  | S/C/T |  |  | Y |  |  | P |  |  | \$499 |
| Hewlett-Packard Company 415 857-1501 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PaintJet | Y | 180x180 | Y | S/T | A | 330 | Y | 167 cps |  | S/P |  | 1 yr | \$1,395 |
| Hitachi America, Ltd. 408 773-8833 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| HJP-1610 | Y | 400x400 |  |  |  | >262K |  |  |  | S |  |  | \$150,000 |
| Howtek, Inc. 603 882-5200 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pixelmaster | Y | $240 \times 240$ | Y | S | A/A4 | 4 |  | 4 ppm |  | S |  |  | \$7,500 |
| Tektronix, Inc. 503 627-7111 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4510A |  |  | Y | S |  | 130K |  |  |  |  |  | 90 d | \$5,995 |
| 4696 | Y | 120x120 | Y | S/T | A | 8 |  | 35 cps |  | P |  | 90 d | \$1,795 |

## ION DEPOSITION PRINTERS

| む |  |  |  |  |  |  |  |  |  |  | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C.Itoh Electronics, Inc. 714 757-4485 |  |  |  |  |  |  |  |  |  |  |  |
| MegaLine | Y | 30 | 4 | 16 | A/B |  | 500 | $27 \times 24 \times 23$ | 150K | P |  |
| MegaLine | $Y$ | 45 | 4 | 16 | A/B |  | 500 | $27 \times 24 \times 23$ | 150K | P | \$21,995 |
| MegaPro | $Y$ | 30/45 | 8 |  | A/B | 500 | 1000 | $27 \times 24 \times 23$ | 250K | P/DP |  |
| MegaServe | Y | $\gamma$ 30/45 | 43 | Y | A/Lgl/A4 | 500 | 500 | $27 \times 24 \times 23$ | 150K+ | S/P | \$21,995 |
| Data Systems Hardware 703 478-0080 |  |  |  |  |  |  |  |  |  |  |  |
| vX023 | $Y$ | 45 | $Y$ | Y |  |  |  | 27x24x23 |  | S/P/E | \$29,995 |
| VX023 | Y | $Y$ 30 | $Y$ |  |  |  |  | $27 \times 24 \times 23$ |  | S/P/E | \$21,995 |
| Datagraphix 619 291-9960 |  |  |  |  |  |  |  |  |  |  |  |
| 4800 | Y |  75 | 10 |  | A/B |  | 1500 | 52x49x27 |  | DP | \$64,950 |
| Delphax Systems 617 961-2312 |  |  |  |  |  |  |  |  |  |  |  |
| S3000G | Y | $Y$ Y 30 |  |  |  | 1000 | 1000 |  | 250K | DP/P | 20,000+ |
| DeRex Inc. 305 753-0840 |  |  |  |  |  |  |  |  |  |  |  |
| S3000 | Y | 30 | 8 |  | A/Lgl/A4 | 2500 | 500 | 27x24x23 | 250 K | P | \$12,995 |
| S3000-II | $Y$ | 30 | 8 | 24 | A/LgI/A4 | 2500 |  | 27x24x23 | 250K | P/E | \$18,995 |
| S4500 | $Y$ | 45 | 8 |  | A/Lgl/A4 | 2500 | 700 | $27 \times 24 \times 23$ | 250K | P/E | \$21,995 |
| S4500-II | $Y$ | 45 | 8 | 24 | ALgl/A4 | 1000 | 700 | $27 \times 24 \times 23$ | 250K | P/E | \$26,995 |
| S6000-II | $Y$ | Y 75 | 8 | 22 | A/Lgl/A4 | 1500 | 1500 | $52 \times 49 \times 27$ | 1m | P | \$51,150 |
| Miltope Corporation 516 420-0200 |  |  |  |  |  |  |  |  |  |  |  |
| 3802 | $Y$ | 90 | 4 |  | $91 / 2^{\prime \prime}$ | N/A | N/A | $32 \times 50 \times 28$ | 1.5m | DP | \$69,950 |
| Series 30L | $Y$ | 30 | 8 |  | A | 2500 | 1000 | $25 \times 22 \times 20$ | 250K | S | \$14,000 |
| Series 30M | $Y$ | 30 | 8 |  | A | 2500 | 1000 | $25 \times 22 \times 20$ | 250K | DP/P | \$24,950 |
| Series 37 | $Y$ | 37 | 8 |  | 91/2" | N/A | N/A | $48 \times 48 \times 26$ | 250K | DP/P | \$39,950 |
| Series 60 | $Y$ | 60 |  |  | A | N/A | N/A |  | 1.5m | DP/P | \$60,950 |
| Series 75 | $Y$ | 75 | 4 |  | A | 1500 | 1500 | $52 \times 49 \times 27$ | 1m | S | \$69,950 |
| NBS Southern, Inc. 800 327-5602 |  |  |  |  |  |  |  |  |  |  |  |
| 3880 | Y | 80 | 115 | Y | A/Lg\|* | 1900 | 1600 | $50 \times 48.5 \times 25$ | 800K |  | \$64,950 |
| Mercurion 1/80 | $r$ | 80 | 4/8* | $N$ | A/Lg** | 1900 | 1700 | $50.12 \times 46.5 \times 25$ | 500K |  | \$49,950 |

## LASER PRINTERS

| 을 |  |  |  |  |  |  |  |  |  |  | む̃ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Advanced Technologies International 408 942-1780 |  |  |  |  |  |  |  |  |  |  |  |
| 0880/DW-2 | 8 | 300x300 | $Y$ | Y | A | 768K | 1000 | $21 \times 14 \times 17$ | 6K | S/P | \$4,795 |
| 0880/DW-3 | 8 | 300x300 | $Y$ | Y | A | 2M | 1000 | $21 \times 14 \times 17$ | 6K | S/P | \$4,795 |
| 0880/GR-2 | 8 | 300x300 |  |  | A | 2M | 1000 | $21 \times 14 \times 17$ | 6K | P | \$5,695 |
| 1570/DW-2 | 15 | $300 \times 300$ | Y | Y | A/LgI | 768K | 500 | $22 \times 16 \times 19$ | 25K | S/P | \$7,995 |
| 1570/DW-3 | 15 | 300x300 | $Y$ | $Y$ | A/Lgl | 2M | 500 | $22 \times 16 \times 19$ | 25K | S/P | \$7,995 |
| 2670/DW-2 | 26 | $300 \times 300$ | $Y$ | $Y$ | A/Lg1/B | 768K | 1500 | $27 \times 16 \times 24$ | 100k | S/P | \$17,995 |
| 2670/DW-3 | 26 | 300x300 | Y | Y | A/Lgl/B | 2M | 1500 | $27 \times 16 \times 24$ | 100K | S/P | \$17,995 |
| 2670/GR-2 | 26 | 300x300 |  |  | A/LgI/B | 2M | 1500 | $27 \times 16 \times 24$ | 100k | S/P | \$17,995 |
| LC-6026 | 26 | $300 \times 300$ | Y | Y | A/Lg/B | 4-8*M | 1500 | $27 \times 16 \times 24$ | 100K | S/P | \$24,900 |

## LASER PRINTERS

| む̀ |  |  |  |  |  |  |  |  |  |  |  | N |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Agfa-Gaveart 617 658-5600 |  |  |  |  |  |  |  |  |  |  |  |  |
| P400PS | Y | 18 | 406x406 | 66 |  | A/Lgl |  |  |  |  | S/P |  |
| Apollo Computer, Inc. 508 256-6600 |  |  |  |  |  |  |  |  |  |  |  |  |
| Domain/Laser-26 | Y | 26 | 300x300 | 13 |  | A/Lg/B |  |  |  |  | S/P |  |
| Apple Computer, Inc. 408 996-1010 |  |  |  |  |  |  |  |  |  |  |  |  |
| LaserWriter IINT | $Y$ | 8 | 300x300 | 35 |  | A/Lgl | 2M | 200 |  |  |  | \$4,599 |
| LaserWriter IINTX | Y | 8 | 300x300 | 35 | Y | A/Lgl | 2M | 200 |  |  |  | \$4,599 |
| LaserWriter IISC |  | 8 | 300x300 | 4 |  | A/Lgl | 1M | 200 |  |  |  | \$2,799 |
| BGL Technology Corporation 805 987-7305 |  |  |  |  |  |  |  |  |  |  |  |  |
| Mark B | * | 8 | 300x300 | 9 | Y | A/Lgl | 1M | 250 | $17 \times 10.5 \times 18$ | 10K | S/P | \$2,095 |
| Mark I | Y | 12 | 300x300 | 35 | $Y$ | A/Lg1/A4 | 4-8M | 750 | 18.9×12.6x19.4 | 25K | S/P | \$5,495 |
| Mark II |  | 20 | 300x300 | 35 | $Y$ | A/Lgl/B | 4-8M | 1500 | $26.7 \times 16.1 \times 23.4$ | 80K | S/P | \$13,675 |
| Mark III | Y | 26 | 300x300 | 35 | $Y$ | A/LgI/B | 4-8M | 1500 | $26.7 \times 16.1 \times 23.4$ | 80K | S/P | \$15,995 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| LIPS 10+ |  | 10 | 300x300 |  | Y | A/B |  |  |  |  | S/P | \$2,995 |
| LIPS II |  | 10 | 300x300 | 92 |  | A/B |  |  |  | 15K | S/P |  |
| Camintonn Corporation 714 553-0247 |  |  |  |  |  |  |  |  |  |  |  |  |
| TurboLaser/PS | Y | 8 | 300x300 | 35 | N | A/A4 | 3M | 250 |  | 10K | S/P | \$4,795 |
| TurboLaser/PS-Plus3 | $Y$ | 8 | 300x300 | 35 | $N$ | A/A4 | 3M | 250 |  | 10K | S/P | \$5,695 |
| Canon USA, Inc. 516 488-6700 |  |  |  |  |  |  |  |  |  |  |  |  |
| LPB-8 A1 |  | 8 | 300x300 |  | $Y$ | A/LgI |  |  | 18.7×16.3×11.5 |  |  | \$3,000 |
| LPB-8 A2 |  | 8 | 300x300 |  | $Y$ | A/Lgl |  |  | $18.7 \times 16.3 \times 12.5$ |  |  | \$4,300 |
| Data Systems Hardware 703 478-0080 |  |  |  |  |  |  |  |  |  |  |  |  |
| VX 020 | Y | 12 | 300x300 | Y |  | Lgl |  |  | 12.6x18.9x19.4 |  | S/P | \$7,995 |
| Data Terminal Mart 416 677-0184 |  |  |  |  |  |  |  |  |  |  |  |  |
| L10 |  | 10 |  |  |  |  |  |  |  |  | S | \$3,245 |
| DataProducts Corporation 818 887-8000 |  |  |  |  |  |  |  |  |  |  |  |  |
| LZR 1230 |  | 12 | 300x300 | 10 | Y | A/LgI |  | 250 | 18.9×12.6×19.4 | 25K | S/P | \$3,990 |
| LZR 1260 | Y | 12 | 300x300 | 35 | $Y$ | A/Lgl |  | 250 | $19.5 \times 5.5 \times 19.8$ | 25K | S/P | \$7,995 |
| LZR 2620 |  | 26 | 300x300 | 14 | $N$ | A/Lgl/B |  | 750 | $26.7 \times 16.1 \times 23.4$ | 100K | S/P | \$14,550 |
| LZR 2630 |  | 26 | 300x300 | 10 | $N$ | A/Lg/B |  | 750 | 26.7×16.1×23.4 | 100K | S/P | \$15,600 |
| LZR 2655 |  | 26 | 300x300 | 6 | Y | A/Lg1/B |  | 750 | 26.7×16.1×23.4 | 100K | S/P | \$20,800 |
| LZR 2655/J |  | 26 | 300x300 | 34 | Y | A/Lg/B |  | 750 | 26.7×16.1×23.4 | 100K | S/P | \$14,995 |
| LZR 2655/LN |  | 26 | 300x300 | 17 | $Y$ | A/Lg/ ${ }^{\text {B }}$ |  | 750 | 26.7×16.1×23.4 | 100K | S/P | \$14,995 |
| LZR 2665 | Y | 26 | 300x300 | 13 | Y | A/Lg1/B |  | 750 | $26.7 \times 16.1 \times 23.4$ | 100K | S/P | \$18,700 |
| DeRex Inc. 305 753-0840 |  |  |  |  |  |  |  |  |  |  |  |  |
| DRL 10 |  | 10 | 300x300 | 79 | $Y$ | A/LgI | 512K | 250 | $33 \times 11 \times 18$ | 10K | S | \$2,895 |
| DRL 10+ |  | 10 | 300x300 | 79 | $Y$ | A/Lgl | 1.5M | 250 | 18.5 $\times 18.3 \times 14.3$ | 10K | S/P | \$4,695 |
| DRL 20 |  | 18 | 300x300 | 79 | $Y$ | ALgl | 1.5M | 250 | $18.5 \times 18.3 \times 14.3$ | 20K | S/P | \$8,395 |
| Diconix, Inc. 513 259-3100 |  |  |  |  |  |  |  |  |  |  |  |  |
| Dijit 1/PS | Y | 20 | 300x300 | 17 |  | ALgI |  |  |  |  | S/P |  |
| Facit Inc. 603 647-2700 |  |  |  |  |  |  |  |  |  |  |  |  |
| P6060 |  | 6 | $300 \times 300$ | 6 | $Y$ | A/LgI | 1M | 150 | $8.5 \times 16.25 \times 16$ | 3K | S/P | \$1,995 |
| P7080-A |  | 8 | 300x300 | 6 | $Y$ | A |  | 250 | $21 \times 13 \times 16.5$ | 10K | S/P | \$2,995 |
| Genicom Corporation 800 443-6426 |  |  |  |  |  |  |  |  |  |  |  |  |
| 6140 | N | 15 | 400x400 | 15 | 22 | A/Lgl | 1M | 200 | 18x19x9 | 5K | S/P | \$4,295 |
| 6142 | N | 20 | 400x400 | 15 | 22 | ALgI | 1M | 200 | 18x19x9 | 5K | S/P | \$4,995 |
| Hetra, Inc. 407 589-7331 |  |  |  |  |  |  |  |  |  |  |  |  |
| 3024 |  | 24 | $300 \times 300$ |  |  | A/Lg1/B |  | 1500 | $48.5 \times 36 \times 36$ | 70K |  | \$21,500 |

## LASER PRINTERS



## LASER PRINTERS

| $\begin{aligned} & 00 \\ & 80 \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Office Automaton Systems Inc. 619 452-9400 (continued) |  |  |  |  |  |  |  |  |  |  |  |  |
| LaserPro 5215 | N | 15 | 300x300 |  | $Y$ | A | 768K | 250 | 26x21.5×16.5 | 25K | S/P |  |
| LaserPro 5287 | $N$ | 8 | 300x300 |  | $Y$ | ALgI | 1.5M | 250 | $16.2 \times 12.2 \times 15.5$ | 5K | S/P |  |
| LaserPro 810 | N | 8 | $300 \times 300$ | 27 | $Y$ | A | 768K | 250 | $24.25 \times 13 \times 17$ | 10K | S/P | \$3,995 |
| LaserPro Gold Express | $N$ | 8 | 300x300 | 33 | $Y$ | ALgl | 2.5M | 250 | $16.2 \times 12.2 \times 15.5$ | 5K | S/P | \$3,695 |
| LaserPro Series II | N | 8 | $300 \times 300$ | 27 | $Y$ | A/Lgl | 1M | 250 | $16.2 \times 12.2 \times 15.5$ | 5K | S/P | \$2,495 |
| LaserPro Silver Express | N | 8 | 300x300 | 27 | Y | A/Lgl | 1.5M | 250 | $16.2 \times 12.2 \times 15.5$ | 5K | S/P | \$2,995 |
| Panasonic 201 392-4406 |  |  |  |  |  |  |  |  |  |  |  |  |
| KX-P4450 |  | 11 | 300x300 | 4 |  | A | 512K | 500 | $28 \times 14.5 \times 17$ | 5K | S/P |  |
| Printer Systems Corporation 301 258-5060 |  |  |  |  |  |  |  |  |  |  |  |  |
| Intelliprint 218 | Y | 18 | 300x300 | $Y$ | $Y$ | ALgl/A4 | 3M | 250 | 21x17x22 | 50K | S/P | \$14,395 |
| Intelliprint 222 | Y | 22 | $300 \times 300$ | $Y$ | Y | A/Lgl/B | 6M | 250 | 21x17x22 | 50K | S/P |  |
| Printronix, Inc. 714 863-1900 |  |  |  |  |  |  |  |  |  |  |  |  |
| L1012 |  | 12 | 300x300 | Y | Y | A/Lgl/A4 | 512K | 250 | 12.5x18.9x17.3 | 25K | S/P | \$3,495 |
| Report Expeditor |  | 24 | 300x300 | 72 | 48 | ALLgl |  | 1200 | $26 \times 14.5 \times 18.5$ |  | S | \$15,500 |
| QMS, Inc. 205 633-4300 |  |  |  |  |  |  |  |  |  |  |  |  |
| 2308/S Turbo |  | 8 | 300x300 | 254 | $Y$ | A/Lgl/A4 | 6M | 200 | 18.7x16.5x25 | 5K | S/P | 14,450 |
| 2308/S-2 |  | 8 | 300x300 | 8 | $Y$ | A/Lgl/A4 | 2M | 200 | 18.7×16.5x25 | 5K | S/P | \$9,250 |
| 2308/8-3 |  | 8 | 300x300 | 8 | $Y$ | A/LgI/A4 | 3M | 200 | $18.7 \times 16.5 \times 25$ | 5K | S/P | \$9,750 |
| 3308/S | N | 8 | 300x300 | 8 | $Y$ | A/Lgl/A4 | 3M | 400 | 18.7x21.5x25 | 3.3K | S/P | \$10,950 |
| 3308/S Turbo | $N$ | 8 | 300x300 | 254 | $Y$ | A/Lgl/A4 | 6M | 400 | $18.7 \times 21.5 \times 25$ | 10K | S/P | \$15,450 |
| 3320 Turbo | N | 20 | 300x300 | 254 | $Y$ | A/Lgl/A4 | 6M | 500 | $42 \times 54 \times 24$ | 35K | S/P | \$26,450 |
| 3320-3 |  | 20 | 300x300 | 8 | $Y$ | ALgI/B | 3M | 500 | 42x54x24 | 35K | S/P | \$22,950 |
| 5320 Turbo | N | 20 | 300x300 | 254 | $Y$ | A/Lgl/A4 | 6M | 2500 | $55 \times 63 \times 24$ | 3.3K | S/P | \$32,450 |
| 5320-3 | $N$ | 20 | 300x300 | 8 | $Y$ | A/Lgl/B | 3M | 2500 | $63 \times 55 \times 24$ | 35K | S/P | \$28,950 |
| 6320 Turbo | $N$ | 20 | $300 \times 300$ | 254 | $Y$ | A/Lgl/A4 | 6M | 2500 | $63 \times 55 \times 24$ | 35K | S/P | \$36,450 |
| 6320-3 | $N$ | 20 | 300x300 | 8 | $Y$ | A/gi/B | 3M | 2500 | $63 \times 55 \times 24$ | 35K | S/P | \$32,950 |
| 7320 Turbo | N | 20 | 300x300 | 254 | $Y$ | A/Lgl/A4 | 6M | 2500 | $56 \times 45 \times 24$ | 3.3K | S/P | \$39,450 |
| 7320-3 |  | 20 | 300x300 | 8 | $Y$ | A/Lg1/B | 3M | 2500 | $56 \times 45 \times 24$ | 35K | S/P | \$35,950 |
| Big KISS II |  | 8 | 300x300 | 17 | $Y$ | A/Lgl/A4 | 640K | 500 | 18.7×18.1×19.5 | 10K | S/P | \$4,495 |
| Big KISS II M |  | 8 | 300x300 | 17 | $Y$ | A/LgI/A4 | 1.125M | 500 | 18.7×18.1×19.5 | 10K | S/P | \$4,995 |
| KISSPlus |  | 8 | 300x300 | 34 | $Y$ | A/Lgl/A4 | 512K | 200 | 18×9.1×25 | 5K | S/P | \$2,690 |
| KISSPlus |  | 8 | 300x300 | 34 | $Y$ | A/LgI/A4 | 1M | 200 | 18x9.1x25 | 5K | S/P | \$2,990 |
| KISSPlus |  | 8 | $300 \times 300$ | 34 | $Y$ | A/Lgl/A4 | 2.5M | 200 | 18x9.1x25 | 5K | S/P | \$3,790 |
| KISSPlus |  | 8 | $300 \times 300$ | 42 | $Y$ | ALgl/A4 | 2.5M | 200 | 18x9.1x25 | 5K | S/P | \$4,190 |
| QMS LASERGRAFIX 1510 |  | 15 | $300 \times 300$ | 36 | $Y$ | A/Lgl/A4 | 6M | 500 | $21.5 \times 16 \times 24$ | 15K | S/P | \$11,995 |
| OMS LASERGRAFIX 2200 |  | 22 | $300 \times 300$ | 36 | $Y$ | A/Lgl/A4 | 7M | 600 | $20 \times 18 \times 21$ | 20K | S/P | 15,995 |
| QMS LASERGRAFIX 800 |  | 8 | $300 \times 300$ | 36 | $Y$ | A/Lgl/A4 | 2M | 100 | 19x16x21 | 5K | S/P | \$6,495 |
| QMS LASERGRAFIX 800 II |  | 8 | $300 \times 300$ | 36 | $Y$ | ALgl/A4 | 2M | 500 | 19x23x21 | 10K | S/P | \$7,995 |
| QMS-PS 1500 | $Y$ | 15 | 300x300 | 35 | $Y$ | A/Lgl/A4 | 4M | 500 | $21.5 \times 16 \times 24$ | 15K | S/P | \$7,995 |
| QMS-PS 2200 | $Y$ | 22 | $300 \times 300$ | 35 | $Y$ | A/Lgl/A4 | 4M | 600 | $20 \times 18 \times 21$ | 20K | S/P | 12,995 |
| QMS-PS 800 II | $Y$ | 8 | $300 \times 300$ | 35 | $Y$ | A/Lgl/A4 | 2M | 500 | $18.7 \times 18.1 \times 19.5$ | 10K | S/P | \$5,995 |
| QMS-PS 810 | $Y$ | 8 | $300 \times 300$ | 35 | $Y$ | A/Lg1/A4 | 2M | 200 | 18x9.1x25 | 5K | S | \$4,995 |
| QMS-PS 820 | $Y$ | 8 | $300 \times 300$ | 35 | $Y$ | A/Lgl/A4 | 2M | 400 | $19.4 \times 17.9 \times 12.3$ | 10K | S/P | \$6,495 |
| SmartWriter 150 |  | 15 | 300x300 | 22 | $Y$ | ALIgl/A4 | 2.5M | 500 | $18.7 \times 11.4 \times 16.3$ | 15K | S/P | \$6,995 |
| SmartWriter 150 | N | 15 | $300 \times 300$ | 19 | $Y$ | A/Lgl/A4 | 2.5M | 500 | $21.5 \times 16 \times 24$ | 15K | S/P | \$6,995 |
| SmartWriter 150 | N | 15 | 300x300 | 40 | Y | A/gl/A4 | 2.5 M | 500 | $21.5 \times 16 \times 24$ | 15K | S/P | \$6,995 |



## LASER PRINTERS



## MAGNETOGRAPHY PRINTERS



## MISCELLANEOUS PRINTERS



## PEN PLOTTERS

| $$ |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bruning Computer Graphics 415 372-7568 |  |  |  |  |  |  |  |  |  |  |  |
| Zeta 5400 | 4 | 35 | GML/HP-GL | C | $Y$ | up to 52" | 18K | $N$ | $73 \times 47 \times 27$ | S | \$44,900+ |
| Zeta 912 | 8 | 30 | GML/HP-GL | c | $Y$ | A/B | 18K | $Y$ | $24 \times 10 \times 12$ | S | \$3,950 |
| Zeta 924PS | 8 | 30 | GML/HP-GL | c/s | $Y$ | A-D | 18K | $Y$ | $36 \times 44 \times 23$ | S | \$6,700 |
| Zeta 936PS | 8 | 30 | GML/HP-GL | C | $Y$ | A-E | 18K | $Y$ | $48 \times 44 \times 23$ | S | \$8,700 |
| Zeta 987 | 8 | 30 | GML/HP-GL | C | $Y$ | A/B | 18K | Y | $24 \times 10 \times 12$ | S | \$4,950 |
| Zetadraf 900 | 8 | 45 | GML/HP-GL | S | $Y$ | A-E | 40K | $N$ | $60 \times 47 \times 27$ | S | \$7,950 |
| CalComp, Inc. 714 821-2100 |  |  |  |  |  |  |  |  |  |  |  |
| 1043GT | 8 | 24 | PCI/CP-GL. | S/R | $Y$ | A-E/A4-A0 | 2K |  | $54 \times 47 \times 22$ | S | \$7,995 |
| 1044GT | 8 | 24 | PCI | S/R | $Y$ | A-E/A4-A0 | 2K |  | $54 \times 47 \times 22$ | S | \$11,900 |
| $1076 C$ | 4 | 50 | PCI | S | $Y$ |  |  |  | $57.3 \times 60.5 \times 29.5$ | S | \$17,995 |
| 1077 | 4 | 50 | PCI | S/R | $Y$ |  |  |  | $57.3 \times 60.5 \times 29.5$ | S | \$26,995 |
| Artisan 1023 | 8 | 30 | PCI/CP-GL | S | $Y$ | A-D | 100K |  | $37.5 \times 42.5 \times 21$ | S | \$4,895 |
| Artisan 1025 | 8 | 30 | PCI/CP-GL | S | $Y$ | A-D | 100K |  | $48.8 \times 49.5 \times 30$ | S | \$6,395 |
| Hewlett-Packard Company 415 857-1501 |  |  |  |  |  |  |  |  |  |  |  |
| 7440A | 8 | 15.7 | HP-GL | S/T | Y | A | 1024 |  | 18.1×4.9×12.1 | S | \$1,295 |
| 7475A | 6 | 15 | HP-GL | S/T/F | $Y$ | A/B | 1024 |  | $22.4 \times 5 \times 14.5$ | S | \$1,895 |
| 7550A | 8 | 31.5 | HP-GL | S/T/F | $Y$ | A/B | 1024 |  | $26.4 \times 8.5 \times 35.3$ | S | \$3,900 |
| 7570A | 8 | 15.7 | HP-GL | S/F | $Y$ | C/D | 7448 |  | $44.9 \times 40.6 \times 20.5$ | S | \$5,400 |
| 7595A | 8 | 24 | HP-GL | S/F/T | $Y$ | A/B | 25K |  | $134.6 \times 120 \times 40.8$ | S | \$9,900 |
| 7596A | 8 | 24 | HP-GL | S/R/T | $Y$ | A/B | 25K |  | $134.6 \times 120 \times 40.8$ | S | \$11,900 |

## PEN PLOTTERS



## THERMAL TRANSFER PRINTERS

## むั



응

 $\underset{\substack{2 \\ \\ 3}}{\substack{2}}$
 ${ }^{2014} d$
CalComp, Inc. 714 821-2100

| 903 | Y | $Y$ | $1280 \times 1024$ | 7 |  | $24.8 \times 8.4 \times 22.5$ | A/B | S/P | \$8,995 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ColorMaster | $Y$ | $Y$ | $200 \times 203.2$ | 7 | 512K | $17 \times 12 \times 20$ | A | S/P | \$4,795 |
| ColorView 5612 | $Y$ | $Y$ | $200 \times 203.2$ | 7 |  | $24.8 \times 8.4 \times 22.5$ | A/B | S/P | \$8,395 |
| ColorView 5612Vs | $Y$ | $Y$ | $200 \times 203.2$ | 7 |  | $24.8 \times 8.4 \times 22.5$ | $A / B$ | S/P | \$11,995 |
| ColorView 5613 | $Y$ | $Y$ | $300 \times 300$ | 7 |  |  | A/B | S/P | \$9,495 |
| ColorView 5613 VS | $Y$ | $Y$ | $300 \times 300$ | 7 |  |  | $A / B$ | S/P | \$12,995 |
| ColorView 5912 | $Y$ | $Y$ | $200 \times 203.2$ | 7 | 3.5M | $24.8 \times 8.4 \times 22.5$ | A/B | S/P | \$10,495 |
| ColorView 5912Vs | $Y$ | $Y$ | $200 \times 203.2$ | 7 | 3.5M | $24.8 \times 8.4 \times 22.5$ | $A / B$ | S/P | \$15,995 |
| ColorView 5913 | Y | $Y$ | $300 \times 300$ | 7 | 10M |  | A/B | S/P | \$13,995 |

## One

## OfAKind.

## Introducing DrawingMaster"



This one-of-a-kind raster plotter from CalComp breaks all the rules-making it our total output solution for your every design requirement.
In one word, performance. With four modes of operation to choose from, this dynamo will produce A to D size plots in no time at all.
Sharp, clean plots and unattended operation in any environment increases your productivity. Add to that shared resource plotting with a 4 to 1 mux and you've got complete versatility.
Top it off with quick installation, the reliability of virtually no moving parts, and you'll agreeit's the only one-of-a-kind you'll ever need.
With DrawingMaster also comes CalComp's 30 years of expertise, support and service, complete with an 800 helpline, which, because of the solid performance of DrawingMaster, you'll probably never need.
Like more on this no-fuss wonder? Call 1-800-CALCOMP or write us at CalComp, P.O. Box 3250, Anaheim, CA 92803.

In Canada, call (416) 635-9010.

## THERMAL TRANSFER PRINTERS



## Do You Have HP Equipment?

Call Lori Ulbrich at (215) 957-1500 for a FREE SUBSCRIPTION to
HP Professional magazine

## Band Printers

## Data Systems Hardware

## - VX036

15001pm • 132 Standard Characters • $15^{\prime \prime}$ Maximum Paper Width - $\$ \mathbf{2 4 , 0 0 0 +}$

## - $\times \times 037$

$20001 \mathrm{pm} \cdot 132$ Standard Characters ${ }^{-15}$
Maximum Paper Width - $\$ 24,000_{+}$
The VX036 and VX037 line printers offer 15001 pm and 2000 lpm printing capabilities that are compatible with the " 2 P " printer family. May be connected to any DEC system.

## 日 VX157

$6001 p m$ - 132 Standard Characters • 250
Compressed Characters ${ }^{-14}$ - Maximum Paper Width • \$7,995

## - VX159

900ipm • 132 Standard Characters • 250 Compressed Characters ${ }^{14} \mathbf{1 4}^{\text {M Maximum Paper }}$ Width - $\$ 7,995$
The VX157 and VX159 offer "LG" compatibility. Graphics and bar codes are additional capabilities.

## DataProducts <br> Corporation

## - 81000

1025 pm • 132 Standard Characters - • 16
Maximum Paper Width • \$14,395
Equipped with a 60 dBA acoustic cabinet

## - 8300

$3001 \mathrm{pm} \bullet 64$ Standard Characters • 16"
Maximum Paper Width - $\mathbf{\$ 7 , 2 0 5}$

## - 8600

6501pm $\bullet 64$ Standard Characters • $16^{\prime \prime}$
Maximum Paper Width - $\$ 9,815$
The B Series printers are available with over 250 character sets as well as 60 dBA acoustic cabinets.

## [BP 1500

15001 pm • 48 Standard Characters ${ }^{\circ} 18.75^{\prime \prime}$ Maximum Paper Width • \$22,700

## - BP 2000

20001 pm • 48 Standard Characters • 18.75" Maximum Paper Width • $\$ 30,390$
The BP 1500 and 2000 feature a towel ribbon system with swing out band gates for ease of paper handling. Designed for extremely high duty cycle operations for high volume applications.

## 鹵 LB 1015

10101pm $\bullet 64$ Standard Characters $\bullet \mathbf{1 6}^{\prime \prime}$
Maximum Paper Width - $\mathbf{\$ 1 0 , 9 9 5}$
Features a four tractor paper handing system, reel-to-reel ribbon and a 55 dBA fully enclosed acoustic cabinet with paper puller.

## - LB 1515

12101pm • 64 Standard Characters • 16"
Maximum Paper Width • $\$ \mathbf{1 4 , 9 9 5}$
Produces 15001 pm with a 48 character set. Features a heavy duty cycle, four tractor paper handling system, reel-to-reel ribbons, and an acoustic cabinet with paper puller.

## - LB 300

325ipm • 64 Standard Characters ${ }^{\bullet} \mathbf{1 6}^{\prime \prime}$ Maximum Paper Width • \$5,695
[18 315
3251pm • 64 Standard Characters • 16 ${ }^{\text {¹ }}$ Maximum Paper Width •\$6,636
The LB 300 and 315 are equipped with a selectable triple interface. Feature a four tractor paper handling system, reel-to-reel long life ribbons, universal power supply, over 150 character sets, and a printer pedestal. Cabinets available.

## - LB 615

6501pm • 64 Standard Characters $\bullet 16^{\prime \prime}$
Maximum Paper Width • $\$ 7,495$
Offers the same features as the LB 315 with the added advantages of dual print speed modes and twice the print throughput. Acoustic cabinet standard.

## - LM 1200

12001pm • $18^{\text {" }}$ Maximum Paper Width ${ }^{\text {• }}$ \$27,595
Built for heavy duty cycle, high volume applications. Features 1200lpm line matrix printing in a fully enclosed 65 dBA acoustic cabinet.

## 

3001pm • 136 Standard Characters $\bullet$ 16.75" Maximum Paper Width • $\$ \mathbf{5 , 7 9 5}$

## 

$6001 \mathrm{pm} \cdot$ 16.75" Maximum Paper Width • $^{-1}$

## \$7,895

The LM 300 and 600 are available with several different character sets and 55 dBA acoustic cabinets. Ideal for bar code and graphic requirements.

## 

goolpm • $18^{\prime \prime}$ Maximum Paper Width •
\$21,595
Built for heavy duty cycle, high volume applications. Features 9001 pm line matrix printing in a fully enclosed 65 dBA acoustic cabinet.

## DeRex Inc.

## - 9000-IV

17001pm • 48-96 Standard Characters • 18 Maximum Paper Width • \$26,950
Excellent LP29 alternative that features power forms stacker, towel ribbon, swing out gate, built-in vacuum, and rear and front control panels, and prints up to sixpart forms.

## - 81000

10001pm • 48-96 Standard Characters ${ }^{\circ} 16^{\prime \prime}$ Maximum Paper Width • \$13,250
Field proven band printer that features a quietized cabinet, cassette ribbon, and a built-in paper puller.

## - B1500

15001pm • 48-96 Standard Characters • 18.75" Maximum Paper Width • \$22,000
Field proven, high performance band printer that features LP27 compatibility, long life towel ribbon, quietized cabinet, dual tractors, and a paper puller.

## - 82000

20001pm • 48-96 Standard Characters • 18.75" Maximum Paper Width • \$29,950
The B2000 is an LP29 compatible heavy duty band printer.

## - 8300

3001pm • 48-96 Standard Characters • 16"
Maximum Paper Width • $\mathbf{\$ 6 , 3 7 5}$
The B300 is a field proven band printer that features LP25 compatibility.

## - Lw1000

12001pm • 48-96 Standard Characters • $18^{\boldsymbol{\bullet}}$ Maximum Paper Width • $\$ 9,950$
High performance, field proven band printer that features a quietized cabinet, long life ribbon, built-in paper puller, and front and rear control panels.

## - LW400

4001pm • 48-96 Standard Characters • $18^{\text {" }}$

## Maximum Paper Width • \$4,995

Features excellent print quality, field proven band technology, 6/8 LPI, form length select switch, full operator panel, and cassette ribbon.

## ■LW800

8001pm • 48-96 Standard Characters ${ }^{\circ} 18{ }^{\prime \prime}$ Maximum Paper Width • $\mathbf{\$ 6 , 9 9 5}$
Field proven band printer that features 62dBA, $6 / 8$ LPI, 10 cpi, FLSS, a cassette ribbon, and excellent print quality.

## Finst Computer

## Corporation

## - ULW400

64 Standard Characters • 128 Compressed Characters • $\mathbf{\$ 7 , 2 6 0}$

## Genicom Corporation

- 4285

20001pm • 132 Standard Characters • $18{ }^{\text {m }}$ Maximum Paper Width • \$26,950
The 4285 features an integral power stacker, a sound pressure level of $<60 \mathrm{dBA}$, a 2.5 million line ribbon life, a rear control panel, and a universal power supply.

## - E Series Model III

16001pm • 48 Standard Characters • 132 Compressed Characters • 16.25" Maximum Paper Width •\$18,950
The ESeries Model III features an acoustic level of $<65 \mathrm{dBA}$ and a two million line ribbon life, and is available with an optional power stacker.

## - Linewriter 1255

12001pm • 64 Standard Characters • 132
Compressed Characters ${ }^{-18} \mathbf{1 8}^{\text {" }}$ Maximum Paper Width • \$11,595
Features a sound pressure level of $<55 \mathrm{dBA}$, a ribbon cassette life of 600 K lines, and standard casters. No preventive maintenance required.

## - Linewriter 400

4001pm - 132 Standard Characters • 198
Compressed Characters ${ }^{\circ} \mathbf{1 8}^{\prime \prime}$ Maximum Paper Width •\$6,096
Features a ribbon cassette life of 600 K lines and a sound pressure level of $<62 \mathrm{dBA}$. No preventive maintenance required.

## - Linewriter 455

4001pm • 132 Standard Characters • 198
Compressed Characters • 18" Maximum Paper

## Nidth • \$6,913

Features a ribbon cassette life of 600 K lines and a sound pressure level of $<55 \mathrm{dBA}$. No preventive maintenance required.

## - Linewriter 800

7201pm • 132 Standard Characters ${ }^{\circ} \mathbf{1 8}^{\text {n }}$ Maximum Paper Width •\$7,490
Features a ribbon cassette life of 600 K lines and a sound pressure level of < 62 dBA . No prevenitive maintenance required.

## - Linewriter 855

$7201 \mathrm{pm} \cdot 132$ Standard Characters $\cdot 18^{\text {m }}$
Maximum Paper Width • $\$ \mathbf{8 , 3 0 7}$
Features a ribbon cassette life of 600 K

## Hetra, Inc.

3115-12
12101pm • 136 Standard Characters • $\mathbf{1 6}^{\text {" }}$ Maximum Paper Width

3115-3
$3001 \mathrm{pm} \cdot 136$ Standard Characters • 16"
Maximum Paper Width

## 3115-6

6501pm - 136 Standard Characters - 16" Maximum Paper Width

## 3300-H0

$10001 \mathrm{pm} \cdot 132$ Standard Characters • 19"
Maximum Paper Width •\$17,500

3300-H12
12001pm $\cdot 132$ Standard Characters $\cdot \mathbf{1 9}^{m}$ Maximum Paper Width • \$20,500

## 3300-H6

6001pm - 132 Standard Characters • $\mathbf{1 9}^{m}$
Maximum Paper Width • \$14,500

## 533-0

1000Ipm • 132 Standard Characters • 19
Maximum Paper Width • \$21,500

돋 533-12
12001pm • 132 Standard Characters ${ }^{-19}$ Maximum Paper Width • \$24,500
The above models feature a yoke assembly print mechanism and are double hinged for stability, providing constant accurate alignment.

- 533-6

6001pm • 132 Standard Characters • 19 ${ }^{\text {m }}$
Maximum Paper Width • $\mathbf{\$ 1 8 , 5 0 0}$
The 533-6 is available with bisynchronous half duplex and full duplex bit oriented protocols such as SDLC, CCITT, X.25, and ADCCP. In addition, complete job flow control is maintained by the operator via the extensive command switch/indicator panel.

## InterScience <br> Computer Services

- ICS 1000

11001pm • 96 Compressed Characters • 16" Maximum Paper Width

## - ICS 1500

12501pm • 96 Compressed Characters • 18.75" Maximum Paper Width • $\mathbf{\$ 2 0 , 0 3 1}$

## - ICS 2000

16801pm • 96 Compressed Characters • 18.75" Maximum Paper Width • $\mathbf{\$ 2 5 , 4 3 1}$
The 1000,1500 and 2000 printers feature switch-selectable 80 or 132 column output, providing quality print and reliability within high volume applications.

## - ICS 300

1501pm • 16.75" Maximum Paper Width
© ICS 315
150lpm • 16.75" Maximum Paper Width

- ICS 600

3001pm • 16.75" Maximum Paper Width

## - ICS 615

3001pm • 16.75" Maximum Paper Width
The $300,315,600$, and 615 combine the high throughput of line printers and the

SpeedOfA Band, Flexibility OfAMatrix.

## PRINIRONIX



High Speed P9012 Matrix Line Printer


Compact P3040 Matrix Line Printer

- P9012: Up to 1200 LPM at 55 dBA for less than half the cost of a DEC LP27. P3040: Price/Performance leader in 400 LPM class.
- Select standard or optional 55 dBA configuration.
- Multi-mode printing and character-by-character attributing for text, graphics, electronic forms and bar code label printing.
- Excellent print quality on up to six-part forms.
- Three resident interfaces: Centronics ${ }^{\circledR}$ parallel, Dataproducts ${ }^{\circledR}$ parallel and RS-232C serial.
- Intelligent Graphics Processor (IGPTM) option for bar code label and forms generation.
- MESA's Printronix sales area is limited to New England, NJ, PA, DE, MD, VA, DC.

The following are registered trademarks of their respective companies: Centronics of Centronics Data Computer Corporation: Dataproducts of Dataproducts Corporation; DEC of Digital Equipment Corporation.

## MESA

TECHNOLOGY CORPORATION
9720 Patuxent Woods Dr. Columbia, MD 21046 Columbia, MD Lowell, MA Milford, CT 800/950-6372 800/999-6780 800/777-0984 $301 / 290-8150 \quad 508 / 458-4100$ 203/878-6800 Morris Plains, NJ Philadelohia, PA Charlotte, NC
$800 / 444-9238 \quad 800 / 333-8641$
$800 / 777-234$ $\begin{array}{lll}800 / 444-9238 & 800 / 333-8641 & 800 / 777-2340 \\ 201 / 538-8004 & 215 / 644-3100 & 704 / 529-1792\end{array}$ Springfield, MA Burtington, VT $\begin{array}{ll}\text { Springfield, MA } & \text { Burtington, VI } \\ 800 / 999-6780 & 800 / 999-6780\end{array}$ $\begin{array}{ll}\text { Raleigh, NC } & \text { Richmond. VA } \\ 800 / 777-2340 & 800 / 777-2340\end{array}$
flexibility of dot matrix printers, and are able to generate raster graphics, and popular bar codes.

## LM1200

3201pm • 18" Maximum Paper Width
LM900
$4801 \mathrm{pm} \cdot \mathbf{1 8}^{\text {" }}$ Maximum Paper Width
Nissel Sangyo
America, Ltd.

- FP 1500-HA

15001pm • 48 Standard Characters • $17^{"}$
Maximum Paper Width
Features a triple interface board and plug compatibility with most systems. Consistent OCRR scannable print quality. Manufactured by Hitachi Koki and marketed by Nissei Sangyo America, Ltd. .

## - FP 1500A

15001pm • 48 Standard Characters ${ }^{\circ} 17^{*}$
Maximum Paper Width

## - FP 2000A

20001pm • 48 Standard Characters ${ }^{\circ} 17^{\prime \prime}$
Maximum Paper Width
The 1500 A and 2000 A feature a standard universal power supply, automatic band recognition, extensive internal diagnostics, and field upgradability to higher speed models. Manufactured by Hitachi Koki and marketed by Nissei Sangyo America, Ltd.

## - FP 2000A-HA

20001pm • 48 Standard Characters ${ }^{\circ} 17^{\prime \prime}$ Maximum Paper Width

## - UP 1000A

10001pm • 48 Standard Characters • 16 "
Maximum Paper Width

## - UP 400A

4301pm • 48 Standard Characters ${ }^{16}{ }^{\prime \prime}$ Maximum Paper Width

## - UP 700A

$7001 p m \bullet 48$ Standard Characters • 12
Compressed Characters ${ }^{-16} \mathbf{~}^{\text {" Maximum Paper }}$ Width
The FP 2000A-HA, UP 1000A, UP 400A, and UP 700A feature a triple interface board, plug compatible with most systems. Consistent OCRR scannable print quality Manufactured by Hitachi Koki and marketed by Nissei Sangyo America, Ltd.

## Synergy Printer Systems

## - FB1200

12001pm • 64 Standard Characters • 96
Compressed Characters • 17" Maximum Paper Width •\$15,950

## - FB300

3001pm • 64 Standard Characters • 96 Compressed Characters ${ }^{1} 17^{\prime \prime}$ Maximum Paper Width

## - FB600

6001pm - 64 Standard Characters • 96
Compressed Characters $\bullet 17^{\text {" Maximum Paper }}$ Width • \$6,950

## - FB900

9001pm • 64 Standard Characters • 96 Compressed Characters • $17^{" 1}$ Maximum Paper Width • \$10,950
The FB Series features VLSI components with fewer electronic parts and fewer circuit boards, and heavy-duty print hammers, providing uniform print density and quality.

## Daisy Wheel Printers

## Data Terminal Mart

- 130

50cps NLQ Printing Speed • \$1,995

- 40

40cps NLQ Printing Speed • \$1,645

- 55

55cps NLQ Printing Speed • $\$ 1,945$

90
90cps NLQ Printing Speed • \$2,345

## - 90WT

90cps NLQ Printing Speed • \$3,195

## Panasonic

- KX-P3131

17cps NLQ Printing Speed • 13.5" Maximum Paper Width
Features word processing functions, auto paper loading, and bidirectional printing with logic seeking. Also available with an optional friction feeder, tractor, or auto cut sheet feeder.

## © KX-P3151

22cps NLQ Printing Speed • 68 Standard Characters • 15.5" Maximum Paper Width Offers word processing functions, auto paper loading, bidirectional printing with logic seeking, and an optional friction feeder, tractor, or auto cut sheet feeder.

## Primages, Inc.

## -90-6T

90cps NLQ Printing Speed - 135 Standard Characters - 202 Compressed Characters • 16.5" Maximum Paper Width • $\$ 1,295$ Also available with a tractor feed at $\$ 1,590$, a Pagemate I single output bin at $\$ 1,690$, a Pagemate III triple paper output bin at $\$ 2,090$, and a JE-100 envelope only feeder at $\$ 2,090$.

## Dot Matrix Printers

## Advanced Matrix Technology, Inc.

## - AMT

240x240dpi • 45cps NLQ Printing Speed This model features word processing, data processing and graphics capabilities as well as two color ribbons to produce black, cyan, magenta, yellow, blue, red and green. Additional RAM for buffer expansion up to 40 KB is an available option.

## - AMT

$240 \times 120 \mathrm{dpi} \cdot 45 \mathrm{cps}$ NLQ Printing Speed •
\$1,845

## © AMT

240x120dpi • 45cps NLQ Printing Speed
$\$ 1,845$

## AMT

$240 \times 120 \mathrm{dpi} \cdot \mathbf{4 5 c p s}$ NLQ Printing Speed •

## \$1,845

The AMT Office Printer Plus is a versatile printer for applications from business correspondence to spreadsheets and model-
ing. It is also equipped with many built-in fonts. May be LQP02/3 compatible for an additional $\$ 1,645$.

## Alps America

## Allegro 24

180x360dpi • 180cps Draft Printing Speed • 60 cps NLQ Printing Speed • $\$ 499$
The unique flatbed design gives jam-free paper handling. Paper parking feature allows users to switch from fan-fold to single sheet at the touch of a button. Buffer expandable to 32 KB .

## - ALQ224e

360x180dpi - 240cps Draft Printing Speed •
80cps NLQ Printing Speed • \$875
Paper parking allows switching between fan-fold and single sheet paper by touching a button. Features seven color printing and $9 / 18$ pin emulation.

## - ALQ324e

360x180dpi • 240cps Draft Printing Speed • 80cps NLQ Printing Speed • $\mathbf{\$ 1 , 0 9 5}$
Paper parking allows switching between fan-fold and single sheet paper by touching a button. Also features seven color printing.

## - ASP 1000

60x240dpi • 120cps Draft Printing Speed • 24cps NLQ Printing Speed •\$299
The ASP1000's concurrent paper handling mechanism prints single sheets without unloading and reloading fanfold paper.

## - P2000

240x214dpi - 250cps Draft Printing Speed • 50cps NLQ Printing Speed •\$995
Features include high resolution graphics, multiple font cartridges, print buffer expandable to 64 KB or 256 KB .

## - P2100

240x214dpi • 400cps Draft Printing Speed • 80cps NLQ Printing Speed - \$1,595
The P2100 offers a bit-image graphics mode with a resolution of $240 \times 214 \mathrm{dpi}$. It is also available with additional fonts and is upgradable to either 64 KB or 256 KB .

## - P2100/DEC

$240 \times 214 \mathrm{dpi} \cdot 400 \mathrm{cps}$ Draft Printing Speed •
$\mathbf{8 0} \mathrm{cps}$ NLO Printing Speed • \$1,595
This printer is compatible with all DEC equipment. Offers high resolution graphics with 64 KB or 256 KB buffer expansion options.

## - P2400C

360x180dpi • 360cps Draft Printing Speed 120cps NLO Printing Speed • $\mathbf{\$ 1 , 4 9 5}$ Printer made to handle word processing, large spreadsheets, detailed graphics, and long run invoices. Seven color printing.

## Axonix Corporation

## - ThinWrite 100

240x240dpi • 100cps Draft Printing Speed • 25cps NLa Printing Speed •\$499
Six pound portable printer that features a multicopy function, character styles such as Italics and underlining, and sub- and superscript capabilities.

## C. Ітон Electronics, Inc. -9500D

250cps Draft Printing Speed • 50cps NLQ
Printing Speed •\$749
The 9500 DR features a narrow ( $10^{\prime \prime}$ ) carriage.

## - 95150

250cps Draft Printing Speed • 50cps NLO
Printing Speed - $\$ 949$
The 9515DR features a wide ( $15^{\prime \prime}$ ) carriage.

## - C310-P

240x144dpi • 300cps Draft Printing Speed • 50 cps NLO Printing Speed
Features 8-bit parallel interface that enables the printer to plug into IBM-PC, XT, and AT compatibles, Compaq, AT\&T, and Apple II Series.

## - C310-R

240x144dpi • 300cps Draft Printing Speed 50cps NLQ Printing Speed
Features 8-bit serial interface that enables the printer to plug into IBM-PC, XT, and AT compatibles, Compaq, AT\&T, and Apple II Series.

- C315-P

240x144dpi • 300cps Draft Printing Speed • 50 cps NLQ Printing Speed
Features 8-bit parallel interface that enables the printer to plug into IBM-PC, XT, and AT compatibles, Compaq, AT\&T, and Apple II Series.

## - C315-R

240x144dpi • 300cps Draft Printing Speed • 50cps NLQ Printing Speed
Features 8-bit serial interface that enables the printer to plug into IBM-PC, XT, and AT compatibles,Compaq, AT\&T, and Apple II Series.

## - $\mathbf{C 6 1 0}$

180x360dpi • 200cps Draft Printing Speed • 66 cps NLa Printing Speed • $\$ 799$
Standard paper handling methods include friction feed, push tractor, sheet feeeder, rear paper entry, automatic paper loading, automatic paper parking, and tear bar.


## - Cl-2500

180x120dpi • 300cps Draft Printing
Speed • 50cps NLQ Printing Speed • \$1,049
The Cl-2500 is a DEC compatible printer with a wide 15.5 inch, 136 column carriage. It provides full LA75/LA50 and LA210 emulations. It uses high speed, high reliability 9 -pin printing technology and provides three user-selectable print speeds: a 300 cps draft mode, a 50 cps NLO mode and a 33cps LQ mode. It includes top, bottom, and rear paper entries, push/ pull tractors and optional sheet feeders to simplify paper handling for multiple part forms, labels, and specialized cut sheets. The $\mathrm{CI}-2500$ comes standard with a variety of ASCII, DEC, IBM and multinational character sets and fonts. The $\mathrm{Cl}-2500$ has a buffer size of 10KB. It includes a standard RS232/RS423 interface. Ais
C.ITOH

## © Cl-4010

400cps Draft Printing Speed • 87.5cps NLQ Printing Speed
The Model 10 also features 87.5 cps of letter quality output. Options include a tear bar, sheet feeder, an RS422 interface, and as a paper basket. The $1: 1$ aspect ratio is 72x72.


## - Cl-5000

330x216dpi • 450cps Draft Printing Speed • 110cps NLL Printing Speed • \$1,995
The ProWriter Cl-5000 is a rugged high speed 18 -wire printer. It has four high speed, high quality print modes. The Cl5000 is compatible with the IBM ProPrinter XL, Epson FX-286e and DEC LA210/ LA75/LA50 dot matrix printers. Both bottom and rear paper loading are available; paper may travel via top or rear exit, pushtractor, pull-tractor or friction feed. A wide selection of type of forms, paper thickness, pinfeed paper, cut sheets, or even envelopes provides versatility in applications. Also standard are zero-inch tear off, auto paper park, and auto top of form. The $\mathrm{Cl}-5000$ has an easy-to-use control panel with multiple user numbers for quick set-up.

## ■ Cl-4030

400 cps Draft Printing Speed • 87.5cps NLO Printing Speed
The Model 30 also features 87.5 cps of letter quality output. Options include a tear bar, sheet feeder, and paper basket. The $1: 1$ aspect ratio is $144 \times 144$.

## - Cl-800

200x288dpi • 8001pm Draft Printing Speed • 1701pm NLQ Printing Speed • $\$ 7,495$
The CI-800 is available with graphics adapter processor boards that simplify the creation of bar codes, forms, and labels; also features cabinets, quietized covers, paper baskets, and maintenance agreements.

- ProWriter 1550-SP

160x144dpi • 180cps Draft Printing Speed • 45 cps NLQ Printing Speed
Features automatic vertical and horizontal tabbing, right and left justfication, and true super- and subscripts. Also features throughput speeds of 651pm and 45lpm in draft and memo modes, respectively.

## - ProWriter 1550-SR

160x144dpi • 180cps Draft Printing Speed • 45cps NLa Printing Speed
Features automatic vertical and horizontal tabbing, right and left justfication, and true super- and subscripts. Also features throughput speeds of 651 lpm and 451pm in draft and memo modes, respectively.

## - ProWriter 8510-SP

160x144dpi • 180cps Draft Printing Speed • 45cps NLa Printing Speed

- ProWriter 8510-SR

160x144dpi • 180cps Draft Printing Speed 45cps NLQ Printing Speed
The ProWriter Series features automatic vertical and horizontal tabbing, right and left justfication, and true super- and subscripts. Also features throughput speeds of 110 lpm and 74 lpm in draft and memo modes, respectively.

## - ProWriter C715A

300cps Draft Printing Speed •100cps NLQ Printing Speed
Seven color, 24 -pin printer that features a 136 -column wide output capacity and uses identity cards to emulate the Epson LQ1000, Toshiba P351, IBM ProWriter XL and Diablo 630 .

## - ProWriter $\mathbf{C 8 1 5}$

570cps Draft Printing Speed •162cps NLa Printing Speed
Features a 136 -column wide output capacity, a diamond-shaped printhead with four rows of six pins ( 24 -pin printer). Emulates IBM ProPrinter XL, Toshiba P351, and Qume Sprint 11 printers.

## - Tri Printer 10

144x144dpi • 87cps NLO Printing Speed

## - Tri Printer 20P

240x144dpi - 87cps NLQ Printing Speed
The Tri Printer 10 and 20P are also available with additional fonts and an extended receive buffer.

## - Tri Printer 205

240x144dpi - 87cps NLQ Printing Speed

## - Tri Printer 30

206x144dpi - 87cps NLQ Printing Speed
The Tri Printer 20S and30 are also available with additional fonts.

## - TriPrinter

88cps NLQ Printing Speed •\$1,995

## Citizen America Corporation

## - 124

## 360x180dpi • 200cps Draft Printing Speed •

 132cps NLQ Printing Speed • $\$ 749$Features convertible push or pull tractors, top and bottom paper feed paths, automatic paper loading facility, and letter quality output at 66 cps . Available with optional font cards. PC compatible.

## ■ 224

360x180dpi - 200cps Draft Printing Speed •
132cps NLO Printing Speed • $\$ 999$
Features easy access front mounted DIP switches, automatic paper loading, and letter quality output at 66 cps . Available with optional font cards. PC compatible.

## E MSP-40

240x216dpi • 240cps Draft Printing Speed • 48cps NLO Printing Speed • $\$ 499$ Features automatic paper loading, top and bottom paper feed paths, as well as a convertible push or pull tractor. Also available with optional font cards. PC compatible.

- MSP-45

240x216dpi • 240cps Draft Printing Speed • 48cps NLQ Printing Speed • $\$ 729$

- MSP-50

240x216dpi • 240cps Draft Printing Speed • 48cps NLQ Printing Speed - $\$ 629$

## ■ MSP-55

240x216dpi • 300cps Draft Printing Speed
60cps NLQ Printing Speed • \$829
The Citizen printer line may require special considerations for use with DEC equipment.

## Craden <br> Peripherals Corp. <br> - 0 P4 <br> 150cps NLQ Printing Speed

## DataProoucts Corporation

■ LM1200
12001pm Draft Printing Speed • 3201pm NLO Printing Speed - \$27,595

## - LM300

3001pm Draft Printing Speed • $\$ 5,795$

## - LM315

3001pm Draft Printing Speed • $\$ 6,895$
The LM315 features a 55 dBA noise level
while operating and offers pedestal rather than desktop configurations.

## - LM600

6001pm Draft Printing Speed • \$7,895
The LM600 features a 65 dBA noise level while operating and offers pedestal rather than desktop configurations. It also features an 8600 hour MTBF.

## 톨 LM615

6001pm Draft Printing Speed • \$8,795
The LM615 features a 55dBA noise level
while operating and offers pedestal rather than desktop configurations.

- LM900

9001pm Draft Printing Speed • 4801pm NLQ Printing Speed • $\$ 21,595$
The LM900 features a 65dBA noise level while operating, a towel ribbon to support heavy duty cycle printing, and pedestal rather than desktop configurations. It also prints in graphics mode up to 100 ipm . The entire LM Series combines the high throughput of a line printer and the flexibility of a dot matrix and is able to generate raster graphics as well as popular bar codes. It also features QMS Magnum Code V compatibility.

## Datasouth Computer Corporation

## - BarCode 300

300cps Draft Printing Speed - \$1,995
Generates bar codes including Code 39, Codabar, UPC or EAN and Interleaved 2 of 5 and Straight 2 of 5 . Also generates forms for shipping labels, shelf labels, and material control documents.

## 目 DS 180+

180cps Draft Printing Speed • \$1,395
Same as the DS 180DD.

## - DS 18000

180cps Draft Printing Speed • \$1,695
DEC LA120 compatible printers designed to print multipart forms on demand. Feature zero tear-off printing.

## EDS 220

220cps Draft Printing Speed • 45cps NLQ
Printing Speed - \$1,695
The DS 220 is also capable of generating bar codes and features OCR capabilities.

## 불 DS 400

400cps Draft Printing Speed - 120cps NLQ
Printing Speed •\$1,995
Generates bar codes and is available with optional OCR capabilities. Features a straight paper path, and exceptional multipart forms handling capabilities.

## DeRex Imc.

## - 1040

360cps Draft Printing Speed • 90cps NLO
Printing Speed - \$1,799
Features a 24 -wire printhead, zero tear-off and paper parking, IC font cards, and optional sheet feeders.

## - $3410 \times$ XDQ

144x144dpi • 400cps Draft Printing Speed 100cps NLQ Printing Speed • \$2,275
DEC LA210 compatible. Standard features include quietized cabinet, long life ribbon cassette, zero inch tear-off, and rear and bottom feed. Optional bar codes and sheet feeders.

## - 3800

400x144dpi • 500cps Draft Printing Speed • 125cps NLQ Printing Speed •\$2,100 High performance printer with exceptional applications flexibility, including three paper paths, zero inch forms tear-off, auto paper park, and forms set-up memory.

## 

140x144dpi • 4001pm Draft Printing Speed • 821pm NLQ Printing Speed • $\$ 5,000$
Offers data processing and letter quality output including multiple character set styles, and sizes, bar codes, and graphic output.

## - 4440

140x144dpi • 8001pm Draft Printing Speed 1651pm NLO Printing Speed •\$7,500
Offers high performance output with unmatched versatility, including numerous character sets and styles, bar codes, graphics and OCR. Features ANSI 3.64 and Printronix compatibility.

## 4470

12001pm Draft Printing Speed • 2501pm NLQ Printing Speed • \$12,250
Offers complete data processing performance at 12001 pm along with versatile high resolution graphics, line drawing, multiple character sets, block graphics, plot graphics and bar codes.

## [ 4490

140x280dpi • 1400Ipm Draft Printing Speed • 3001pm NLQ Printing Speed • \$17,200 Offers complete data processing performance at 1400 lpm along with versatile high resolution graphics, line drawing, multiple character sets, block graphics, plot graphcis and bar codes.

## Epson America, Inc.

 - La1000360x360dpi • 60cps NLQ Printing Speed

## [

360x180dpi • 73cps NLQ Printing Speed
The LQ1050 is capable of handling spreadsheet applications.

## - 10800

360x360dpi • 60cps NLQ Printing Speed

## 

360x180dpi • 73cps NLQ Printing Speed
The LQ850 is also available with a singlebin sheet feeder with envelope feed capability, a pull tractor, a 32 KB buffer expansion, and font cartridges.

## … LX800

240x72dpi • 30cps NLQ Printing Speed
The LX800 features SelecType front control panel which allows popular font styles to be selected at the touch of a button.

## Facit Inc.

$-4528$
200cps Draft Printing Speed • \$1,875
Demand document printer. Incorporates special tractors to facilitate the immediate tear-off of tickets, forms, or labels . Optional DEC LA120 emulation.

## - 4528V

200eps Draft Printing Speed • \$1,625
Features 13 resident bar codes, variable size characters up to $9.5^{\prime \prime}$ in height, and up to six part forms printing. Optional DEC LA120 emulation.

## . 4528 V

200cps Draft Printing Speed • $\mathbf{\$ 1 , 6 7 5}$
The 4528 V is designed for bar code generation and text and graphics printing. Optional DEC LA120 emulation.

## - 81100

60x240dpi • 135 cps Draft Printing Speed • 27 cps NLQ Printing Speed • $\$ 325$

## $\square 81150$

60x240dpi • 160cps Draft Printing Speed -
535cps NLa Printing Speed •\$495
The B1100 and 1150 feature an IBM command mode, push tractors, and friction feed. Ideal as screen printers for video
terminals. Compact design with less than 50 dBA noise level. Also features 136 columns for printing reports.

## - 1 B3100

60x240dpi • 250cps Draft Printing Speed • 60cps NLa Printing Speed •\$745

## ■ B3150

250cps Draft Printing Speed • 60cps NLO Printing Speed - \$895

- 83350

60x240dpi - 200cps Draft Printing Speed •
100cps NLO Printing Speed •\$995

## - 183350

60x240dpi • 400cps Draft Printing Speed • 100cps NLQ Printing Speed • $\mathbf{\$ 1 , 4 9 5}$

## - ${ }^{\text {B }}$ B450

60x360dpi • 80cps NLa Printing Speed • \$1,298
The B Series features four paper paths, push/pull tractors, and a rotary font selection switch. Options include DEC LA75, LA50, LA210 emulations and single or dual cut sheet feeders.

## - $\mathbf{C 6 5 1 0}$

60x240dpi • 300cps Draft Printing Speed • 75cps NLQ Printing Speed $\mathbf{~} \$ 1,972$

## - $\mathbf{C 6 5 2 0}$

60x240dpi • 300cps Draft Printing Speed •
75eps NLa Printing Speed •\$1,972
The C6510 and 6520 are designed for high volume printouts of lists, forms, labels, letters, and graphics. Feature a soft setup, seven color capability, and a forms park function.

## - $\mathbf{6} 7500$

60x240dpi • 400cps Draft Printing Speed •
100cps NLQ Printing Speed • $\$ 2,599$
Designed for high speed/high volume applications. Features push/pull tractors, soft set-up, 15 color capability and forms park function.

## - DocuMate 3000

240cps Draft Printing Speed • 80cps NLO
Printing Speed • \$1,749
Features a straight paper path, six part forms printing, immediate tear off, 13 resident bar codes. Optional DEC LA120 and IBM Proprinter emulations. Supports Twinax interface.

## Gemicom Corporation

- 33200

144x144dpi • 360cps Draft Printing Speed •
180cps NLL Printing Speed • $\mathbf{\$ 1 , 9 6 5}$
Heavy duty, office quiet printer featuring less than 55 dBA . Features rear paper feed for demand document applications and prints the original plus five copies. OCR and additional fonts as well as a 4 KB buffer expansion are available options.

## - $3410 \times 10$

144×144dpi • 480cps Draft Printing Speed •
120cps NLa Printing Speed - \$2,175
This Series also includes the 3410 XLS (standard model) at $\$ 2010$, the 3410 XCQ (color model) at $\$ 2,600$, the 3410 XDQ (DEC compatible model) at $\$ 2,275$, and the 3410 XBQ (bar code model) at $\$ 2,280$.

## - Series 1020

240x144dpi • 200cps Draft Printing Speed •
100cps NLL Printing Speed - $\$ 1,065$
This Series includes the 1020 C (colormodel) at $\$ 1,175$ and the 1020T (Tempest model) at $\$ 3,125$.

## - Series 1025

240x144dpi • 200cps Draft Printing Speed • 100cps NLO Printing Speed • $\$ 899$
Prints on zero inch tear off paper and features 80 - and 136 -column capabilities and three font cartridges. Options include bar code and label printing capabilities as well as expansion buffer sizes of 8 KB to 64 KB .

## - Series 3000

288x144dpi • 480cps Draft Printing Speed 180cps NLQ Printing Speed - $\mathbf{\$ 1 , 4 9 5 +}$
The Series 3000 is available in six models from $240-400 \mathrm{cps}$ print speed and 60 cps tol 80 cps near letter quality output. Bar code option available.

## - Series 30000

288×144dpi • 480cps Draft Printing Speed •
180cps NLQ Printing Speed •\$1,495+
Same as 3000. However, this is a quietized model.

## - Series 4410

140x144dpi • 4001pm Draft Printing Speed •
821pm NLQ Printing Speed •\$6,195
The 4410 is also available with a bar code option.

## - Series 4440

140x144dpi • 8001pm Draft Printing Speed •
1651pm NLL Printing Speed • \$7,795
Optional OCR-A and OCR-B bar codes are available.

## - Series 4470

280x144dpi • 12001pm Draft Printing Speed • 2501pm NLa Printing Speed - $\mathbf{\$ 1 2 , 2 2 8}$
Features a ribbon life of 80 million characters, a 65 dBA sound pressure level, and Printronix P300/P600 compatibility. Options include a 55 dBA acoustic kit as well as an 8 KB buffer.

## - Series 4490

280x144dpi • 1400ipm Draft Printing Speed • 3001pm NLQ Printing Speed • $\mathbf{\$ 1 7 , 2 2 8}$
Features a standard cabinet and a lifetime warranty on the shuttle mechanism. Available with OCR-A and OCR-B bar code options.

## Hewlett-Packard <br> Company

- HP2563B

140x144dpi • 3001pm Draft Printing Speed • \$7,790
Supports QMS Magnum language and is equipped with a sound acoustic cabinet, a passive stacking aid. A tabletop version is available for $\$ 6290$.

## - HP2564B

140x144dpi • 6001pm Draft Printing Speed • \$12,950
Supports QMS Magnum language and is equipped with a sound acoustic cabinet. It is also available in a cabinet style version for $\$ 11,450$.

## - HP2566B

140x144dpi • 900ipm Draft Printing Speed •
\$22,640
Supports QMS Magnum language.

## - HP2567B

140x144dpi • 1200ipm Draft Printing Speed • \$29,170

## - HP2567B

140x144dpi • 1600ipm Draft Printing Speed • $\$ 30,050$
Both HP2567B models support the QMS

Magnum language and are available with a character set for $\$ 2,120$.

## Imfoscribe, Inc. <br> - 1000

72x72dpi • 200cps Draft Printing Speed •
100cps NLQ Printing Speed • $\$ 1,390$
The 1000 printer features servo head positioning, multiple character sets, and downloadable fonts.

## 11100

144x144dpi • 200cps Draft Printing Speed •
40cps NLQ Printing Speed • \$1,590
Same as the 1000 . The 1100 printer also features high density graphic capabilities.

## - 1200

144x144dpi • 200cps Draft Printing Speed 40cps NLQ Printing Speed • \$1,995 Same as the 1000 . The 1200 printer also prints up to eight colors.

- 1400

144×144dpi • 400cps Draft Printing Speed • 80cps NLQ Printing Speed •\$1,895
The 1400 printer is also available with a bar code option as well as buffer sizes up to 32 KB .

## 800

144x144dpi - 200cps Draft Printing Speed • 40cps NLQ Printing Speed • \$1,845
The 800 printer is a demand document printer with zero inch tear off paper support, capable of printing six-part carbon or NCR forms.

## InterScience Computer Services

-8070+
$168 \times 84 \mathrm{dpi} \cdot 100 \mathrm{cps}$ NLQ Printing Speed
The 8070+ is also available with the following optional features: an automatic cutsheet feeder, character sets, font styles, and bar code fonts.

## - ICS 9030

240x72dpi • 53cps NLQ Printing Speed

## - ICS 9034

83cps NLO Printing Speed
This model is equipped with a 24 -wire configuration

## - ICS 9040

240x72dpi • 53cps NLQ Printing Speed

## - ICS 9044

240x72dpi • 33cps NLQ Printing Speed The 9000 Series features proportional spacing, continuous under- and over score, super- and subscript, and italics, serif, and sans-serif text styles. Single and double bin cut-sheet feeders are available as options. This model is equipped with a ninewire configuration.

## - ICS MX100

340cps Draft Printing Speed • 140cps NLO
Printing Speed

## - ICS MX120

180cps NLQ Printing Speed

## - ICS MX200

340cps NLQ Printing Speed

## Itraca Peripherals, Inc.

## Pcos 250

144×144dpi • 160cps Draft Printing Speed
40cps NLQ Printing Speed • \$995
Point-of-sale printer equipped with both
impact and thermal print technology Designed for retail applications where the database for store operations, customer check-out and invoicing functions warrant integration into a single computer.

## - Pcos 51

$144 \times 144 \mathrm{dpi} \cdot 160 \mathrm{cps}$ NLQ Printing Speed $\bullet$
$\$ 420$
The PcOS 51 generates a basic customer receipt.

## - Pcos 52

$144 \times 144 \mathrm{dpi} \cdot 160 \mathrm{cps}$ NLQ Printing Speed $\$ 495$
The PcOS 52 generates receipts and also provides a record of customer transactions on two-ply paper. The second copy is automatically rewound.

## - Pcos 53

144x144dpi • 160cps NLQ Printing Speed • $\$ 480$
The PcOS 53 is an enhanced journal/receipt/validation printer providing the functions of the 52 model as well as the ability to validate checks and print all standard charge forms.

## JDL, Inc.

850 EWS
180x180dpi • 144 cpi NLQ Printing Speed

## - 850 EWS/GL +

$180 \times 180 \mathrm{dpi} \bullet 144 \mathrm{cpi}$ NLQ Printing Speed
The 850EWS and 850EWS/GL+ are classified as a printers/plotters and feature output with up to 14 colors. Also available with optional dual bin automatic sheet feeders and additional fonts.

## Nовтн <br> Atlantic Inoustries

- Tempest 7020

180 cps NLQ Printing Speed • \$4,490

- Tempest 7035

180cps NLQ Printing Speed • $\$ 3,990$

## Okidata Corporation

## - Microline 172

180 cps Draft Printing Speed • 30cps NLQ
Printing Speed • \$289
Affordability, reliability, and space-sensitivity are some features of this lightweight printer.

## - Microline 182 Turbo

186cps Draft Printing Speed • 39cps NLO
Printing Speed •\$339
Designed for industrial workstation and point-of-sale markets.

## Output Technology Corporation

2141
4001pm Draft Printing Speed • \$4,895

## - 2161

6001pm Draft Printing Speed • $\mathbf{\$ 6 , 4 5 0}$
The 2141 and 2161 printers feature an Output-Open-Architecture design that offers two expansion slots for additional interfaces or application cards.

## - 2180

8001pm Draft Printing Speed • \$7,895
Standard features include built-in bar codes, dot addressable graphics, download able fonts and font cartridge capabilities

## 5600L

560cps Draft Printing Speed • \$1,995
Features front panel menu programing, built-in bar codes, front and bottom paper feed, full international character sets, and Epson, DEC, and IBM Proprinter XL emulations.

## -850PrintWet

100x72dpi • 2401pm Draft Printing Speed • 321pm NLQ Printing Speed • $\$ 2,995$
Emulates the DEC LA120 and features functional capabilities such as data processing, spreadsheets, labels, and bar codes. Used as a networked or shared device in a cluster of serial computer devices. Bidirectional communication is possible at up to 19.2 Kbps baud. Compatible with the 11/750.

## -850XL

100x72dpi • 2401pm Draft Printing Speed • 321pm NLQ Printing Speed • \$2,395
The 850XL emulates the DEC LA120 and the Epson, prints 240lpm in draft quality, and features functional capabilities such as data processing, spreadsheets, labels, bar codes, and graphics (in Epson emulation only). An optional 8 K buffer size is also available. Please note that the 850XL is compatible with the $11 / 750$.

## 0T-700n

100x72dpi • 850cps Draft Printing Speed * 6cps NLQ Printing Speed • \$2,095

## Panasonic

## -KX-P1524

67cps NLQ Printing Speed
The KX-P1524 also features 24 pin letter quality output.

## - KX-P1595

240x240dpi • 51cps NLQ Printing Speed
The KX-P1 595 features proportional space printing as well as a friction feed and adjustable push tractor. It is available with a 32 KB buffer option, an auto cut sheet feeder, and a bottom feed tractor.

## Primtek, Inc.

## 910HT

144x144dpi • 200cps Draft Printing Speed •
45cps NLQ Printing Speed • $\$ 1,395$

## -920HT

144x144dpi - 340cps Draft Printing Speed • 80 cps NLQ Printing Speed • $\$ 1,895$
The $9 x 0 H T$ Series features a new print head control technique, Dynamic Position Adjustment (DPA) that (1) conducts heat away from the printhead, (2) uses ruby bearings to guide the print wires onto the paper, (3) uses tungsten wires, and (4) features clappers that are plated with a nickel compound. Also features downloadable fonts and is available with an optional buffer expansion to 8 KB

## LASERS (12 \& 26 ppm), LINE MATRIX, DOT MATRIX, BAND PRINTERS, SOLID INK PRINTERS

## ...from the world's leading

 independent printer supplier
## - $\boldsymbol{T}$ Dataproducts

2600 SERIES LASERS: 26 ppm ; serial \& parallel interfaces; 250/500 sheet cassettes; $11^{\prime \prime} \times 17^{\prime \prime}$ paper handling; 300 dpi ; 100K monthly duty cycle. Options: Forms overlay, 1500 capacity sheet feeder, cabinet, paper cassettes, stacker/flipper. Emulations: LN03+, Diablo 630, TEK 4010/4014, Postscript (TM), B-Series Line Printer, RIPrint (TM), HP LaserJet Other interfaces: Appletalk or DPC parallel.
LINE MATRIX: 300 to 1200 lpm ; OCR, Bar Codes, High Density Text, Graphics \& Charts 5900 to 8600 MTBF
LINE BAND SERIES 300 to 1500 lpm, 16 Digit LCD, 136 columns, RS-232, Centronics \& DPC Parallel, SSVFU or DAVFU For more information call:

SOFTWARE SYSTEMS TECH.
305 Broadway NY, NY 10007
Tel 212-964-9600 Fax 212-233-4678


ALL Dataproducts printer carry a 90 day on site warranty

## - 930

144x144dpi • 200cps Draft Printing Speed • 80cps NLQ Printing Speed •\$1,695
The 930 is also available with a buffer expansion to 8 KB , single or dual sheet feeders, and additional, as well as downloadable fonts. It also features an offset 18 -pin printhead for character definition.

## - FormsPro 2000

144x144dpi - 200cps Draft Printing Speed •
80cps NLO Printing Speed • $\$ 2,095$
Heavy-duty demand document printer that is capable of printing forms with up to nine parts. Available with optional bar code, OCR fonts, and a buffer expansion to 8 KB .

## Primtronix, Inc.

- 4160

160x168dpi • 1301pm Draft Printing Speed • \$5,995
High resolution printer/plotter that combines superior output performance with reliable, low-cost operation. IGP and PI80 are available options.

## - 1150

120x72dpi • 150lpm Draft Printing Speed •
801pm NLQ Printing Speed •\$3,745
The L Series bar code printers feature the patented Printronix hammerbank technology that prints with small hammertips, resulting in smaller dots for precise resolution. IGP option available.


## - P6000L Series

120x72dpi - 8001pm Draft Printing Speed • 1801pm NLQ Printing Speed •\$5,400+
Features RibbonMinder which offers multifunction capabilities targeted for a wide range of applications including text printing, data processing reports, and bar code
labels.

## - 57024

144x144dpi • 240cps Draft Printing Speed •
60cps NLQ Printing Speed $\bullet \$ 1,365$
Offers multimode printing, 55 dBA quiet operation, and compatibility with most systems. Features include multinational character sets, character font downloading, multiple print pitches, and bar codes.


## Qume Corporation

-11/40 PLUS
40cps NLQ Printing Speed

- 11/55 PLUS

55cps NLQ Printing Speed
Single and dual bin sheetfeeders as well as an envelope feeder are also available.

## - 11/90 PLus

90cps NLQ Printing Speed
The 11/xx PLUS Series is available with options including an automatic bidirectional forms tractor and a single bin sheetfeeder.

## Seikosha America, Inc. <br> - BP-5420FL

420cps Draft Printing Speed • 104eps NLQ

## Printing Speed - $\$ \mathbf{1 , 9 9 9}$

Printer emulates Epson FX/DEC LA-120 printers. Features include bidirectional with logic seeking; paper width up to $15.5^{\prime \prime}$;; rear/bottom paper feed.

- SBP 10AI

800cps Draft Printing Speed • $\$ 4,495$

## Summus

Computer Systems

- SUM-2400

200x200dpi • 60cps NLa Printing Speed

## Taneum <br> Computer Products

- TCP 660

200x200dpi • 8001pm Draft Printing Speed 2801pm NLL Printing Speed • $\$ 8,990$

## - TCP 690

200x200dpi • 1200 Draft Printing Speed • 450 NLQ Printing Speed • \$11,990
The TCP 660 and 690 are fully LG01 compatible with increased speed with bar
code and graphics capabilities. Compatibility with LAxxx allows 13.3 and 16.7 cpi . Prices include a 90 day on-site warranty, installation, and training.

## Tempest <br> Technologies, lic.

## - 10207

120x48dpi • 200cps Draft Printing Speed •
100cps NLQ Printing Speed •\$2,995
The 1020T utilizes plug-in personality and font cartridges for maxium flexibility in selecting fonts, emulations, and interfaces.

## - DWP5155Q

120x48dpi • 45cps NLQ Printing Speed •

## \$2,200

This model is equipped with a quietized cover.

## - LPF 5600

120x72dpi • 6001pm NLa Printing Speed • \$11,500

## - LPF 5600X

120x72dpi • 600Ipm NLQ Printing Speed •
\$12,800
The $X Q$ model is equipped with a quietized cover.

## - LPM 5300

120x72dpi • 3001pm NLQ Printing Speed •

## \$9,950

Features spring leaf hammers and coils mounted on a hammer bank. A magnet holds each hammer in a retracted position until it prints a single dot. It is then released by an electrical impulse through its associated coil.

## - LPM 5300XG

120x72dpi • 300Ipm NLQ Printing Speed •
\$11,250
Same as the LPM 5300. The XQ model is equipped with a quietized cover.

## - SLP 3184

144x144dpi - 200cps Draft Printing Speed • 50cps NLQ Printing Speed • \$2,895
Available with single and double bin sheet feeders, bar codes capabilities, font styles, downloadable fonts, and a 6 KB buffer expansion.

## - SLP 3304

144x144dpi • 200cps Draft Printing Speed •
100cps NLa Printing Speed •\$3,595

## ■ SLP 3404

144x144dpi • 400cps Draft Printing Speed • 100cps NLQ Printing Speed •\$3,995

## Texas Instruments, Inc.

 - 810150cps Draft Printing Speed • $\$ 1,645$
The 810 is capable of handling forms up to nine parts thick and is also available with optional stacking trays. Anenhanced model (letter quality) is also available.

## - 81020

## 20cps NLQ Printing Speed •\$2,495

Same as the 810. This model also features downloadable fonts, sub- and superscript and bar code capabilities.

## - 850 C

144x144dpi • 150cps Draft Printing Speed • 35cps NLQ Printing Speed • $\$ 599$

- 850XL

144×144dpi • 150cps Draft Printing Speed •
35cps NLa Printing Speed •\$599
The 850 C and 850 XL are available with 4 KB or 16 KB buffer option expansions.

## - 855

144x144dpi • 150cps Draft Printing Speed • 35cps NLQ Printing Speed • $\$ 739$
Same as the 850XL. This model is also available with an automatic sheet feeder package.

## - 860xL

144×144dpi • 150cps Draft Printing Speed • 35cps NLa Printing Speed •\$899

- 865

144x144dpi • 150cps Draft Printing Speed • 35 cps NLO Printing Speed • $\$ 999$
The 860 XL and the 865 are available with 4 KB or 16 KB buffer option expansions.

## - 875

144x144dpi • 240cps Draft Printing Speed • 35cps NLO Printing Speed • $\$ 799$

## 1877

144×144dpi - 240cps Draft Printing Speed
35 cps NLO Printing Speed • $\$ 999$
The 875 and 877 are versatile desktop printers for word processing and data processing applications, featuring color printing, multiple, paper paths, paper parking and three print speeds.

## - 880

144x144dpi • 300cps Draft Printing Speed • 75cps NLQ Printing Speed $\bullet \$ 2,195$

## -8800P

144x144dpi • 300cps Draft Printing Speed •
150cps NLQ Printing Speed •\$2,195
Rear or bottom straight paper paths are standard on the 880 and 880 DP printers. Optional printheads are available for various part forms.

## ■ 885

144×144dpi • 300cps Draff Printing Speed •
\$2,295
The 885 is a demand document printer, featuring zerotear-off and a straight paper path. An optional 22 KB buffer expansion is available.

## Wallace <br> Computer Services

## - W4300

3001pm NLQ Printing Speed •\$15,200

## Electrostatic <br> Plotters

## C. Ітoh Electronics, Imc. <br> 1240 <br> $400 \times 400 \mathrm{dji} \cdot \$ 55,000$

- 3600

400x400dpi • $\$ 65,000$

## CalComp, Inc.

- 5723

200x200dpi • 12 or 25 MBy ytes $\cdot 2$ ips Plotting
Speed • \$22,900
Features control panel, line enhancement, self-diagnostics, CalComp's patented Enviroclean toning system, plug-in ROM pack firmware, and exclusive quick ? plotting mode.

- 5723XP

200x200dpi • 12 to 140MBytes • 2 ips Plotting Speed - $\$ 26,400$
Same as 5723. This model also features an extra-performance processor, thereby improving total throughput.

## - 5725

$400 \times 400 \mathrm{dpi} \cdot 12$ or $25 \mathrm{MBytes} \bullet .7$ ips Plotting Speed •\$22,900
The 5725 offers the same features as the 5723.

## 5725×P

$400 \times 400 \mathrm{dpi} \cdot 12$ to $140 \mathrm{MBytes} \cdot$. .7ips Plotting Speed - \$26,400
The 5725XP offers the same features as the $5723 \times \mathrm{P}$.

## 15733

200x200dpi • 12 or 25MBytes $\cdot 2$ ips Plotting
Speed • \$26,500
The 5733 features the same capabilities as the 5723

## . 5733XP

200x200dpi • 12 to $140 \mathrm{MBytes} \bullet 2$ ips Plotting
Speed •\$31,000
The 5733XP offers the same features as the $5723 \times \mathrm{P}$.

## . 5735

$400 x 400 \mathrm{dpi} \cdot 12$ or 25 MBytes • .5ips Plotting
Speed - \$27,500
The 5735 offers the same features as the 5733.

## - 5735XP

$400 x 400 \mathrm{dpi} \bullet 12$ to $140 \mathrm{MBytes} \bullet .5 \mathrm{jps}$ Plotting Speed • $\$ 31,000$
The 5735XP offers the same features as the 5723 XP .

## $\square 5745$

400x400dpi • 12 or 25MBytes •.4ips Plotting
Speed - $\$ 65,000$
The 5745 offers the same features as the 5723.

## - 5745xP

400x400dpi $\bullet 12$ to 140MBytes $\bullet$. 4ips Plotting Speed - $\mathbf{\$ 6 8 , 5 0 0}$
The 5745 XP offers the same features as the $5723 \times P$.

## - 5825

$400 x 400 \mathrm{dpi} \cdot 12$ or 25 mBytes $\bullet .7$ ips Plotting
Speed - \$49,000
Features electronic registration, plug-in ROM pack firmware, self-diagnostics, and Calcomp's patented Enviroclean toning system.

## - 5825XP

400x400dpi • 12 to 280MBytes $\bullet .7$ ips Plotting Speed • $\$ 55,000$
The 5825 XP offers the same features as the 5825 model. In addition, this model features an extra-performance processor, thereby improving total throughput.

## - 5835

$400 \times 400 \mathrm{dpi} \cdot 12$ or $25 \mathrm{MBytes} \bullet \cdot .5 i p s$ Plotting
Speed - \$59,000
The 5835 offers the same features as the 5825.

## - 5835x

$400 \times 400 \mathrm{dpi} \cdot 12$ to 280MBytes $\bullet .5 \mathrm{Sps}$ Plotting Speed • $\$ 65,000$
The 5835 XP offers the same features as the 5825 XP .

## 5845

400x400dpi • 12 or 25MBytes • .4ips Plotting
Speed - \$69,000
The 5845 offers the same features as the 5825.

## 5845XP

400x400dpi • 12 to 280MBytes •.4ips Plotting
Speed - \$75,000
The 5845XP offers the same features as the 5825 XP .

## Precision <br> Image Corporation

## $\square$ C448

400x400dpi • 20MBytes • 6 min Plotting Speed - \$60,000

The C448 is equipped with an internal vector-to-raster controller and is compatible with Calcomp and Versatec software. It is also available with an optional 85MB of expansion memory.

## ■ 10448

400x400dpi - 20MBytes • 1.5 min Plotting

## Speed - \$45,000

The M448 is capable of plotting in 48 gray shades and 80 patterns, is equipped with an internal vector-to-raster controller, and is compatible with Calcomp and Versatec software. It is also available with an optional 85MB of expansion memory.

## Versatec

- 8524

200x200dpi • 1ips Plotting Speed • $\mathbf{\$ 1 6 , 9 0 0}$
Traditional pen plotter users now may afford the speed and high performance of electrostatic. Versatec's 8524 monochrome plotter has been reduced from $\$ 19,900$ to \$16,900.

## . 8536

200x200dpi • 1ips Plotting Speed • $\mathbf{\$ 1 9 , 9 0 0}$
The 8536 is the first wide format electrostatic monochrome plotter for under $\$ 20,000$. It provides E-size drawings on 36 " wide roll media

## Hard Copy Units

## Codonics Inc.

- VP-3500

30sec Copy Time • 152x152dpi • \$6,700
The VP-3500 is capable of generating grayscale images directly from an external video source.

## VP-95 ||

10sec Copy Time • 152x152dpi • \$4,200

## Hecon Corporation

- HardCopy Screen Printer

5-7sec Copy Time - \$995

## Seiko Instruments

## CH-5301

<45sec Copy Time • $152 \times 152 \mathrm{dpi}$ - 4912 Colors Supported • 3-45s Image Download Time
The CH-5301 features optional video or parallel interfaces. The video interface is able to scale, rotate and change color assignments to images independently of the host CPU.

## CH-5301S

$152 \times 152 \mathrm{dpi} \cdot \$ 9,995+$
The CH-5300S Series includes a color hardcopier as well as a color rasterizer. Direct connections to a terminal or spooled
data configurations are supported. In addition, this Series supports an RS-232 serial interface.

## - CH-5312

<120sec Copy Time • 3328x2048dpi • 4912 Colors Supported • 3-45s Image Download Time
The CH-5312 also features optional video or parallel interfaces. The video interface includes on-board image memory, which produces multiple copies of a single image independently of the host CPU. Also supports an $11 \times 17$ paper size.

## - CH-5312S

203x203dpi • $59,995+$
The CH-5312S also features optional video or parallel interfaces. The video interface includes on-board image memory, which produces multiple copies of a single image independently of the host CPU. Also supports an $11 \times 17$ paper size.

## - TAREAPLOT-1

60sec Copy Time • 240x240dpi • 4096 Colors Supported • 2-4m Image Download Time \$4,995
The TARGA Series provides direct output for personal computers equipped with the AT\&TTruevision Advanced Raster Graphics Adapter (TARGA). This product line is able to capture continuous-tone images and manipulate and blend these images for presentation applications. An optional multiplexer is available which serves up to four different terminals

## - TARAAPLOT-2

60sec Copy Time • $240 \times 240 \mathrm{dpi} \bullet 4096$ Colors Supported •\$9,995

## - TARGAPLOT-3

$60+$ sec Copy Time $\bullet 203 \times 203 \mathrm{dpi} \bullet>15 \mathrm{~K}$ Colors Supported • 2-4m Image Download Time \$5,995
The TARGAPLOT-2 and -3 feature the same capabilities as TARGAPLOT-1, including multiple copy functions.

## Teктronix, Inc.

## 4650sC

8 Colors Supported • 2-30s Image Download Time - $\$ 2,995$

## - 4690sc

64 Colors Supported • 2-30s Image Download

## Time - \$9,995

The 4690 SC copiers feature $2-30$ seconds download time, allowing coninued use of the display while the color copy is being printed in the background.

## - 4692

1-3min Copy Time • 1536x1152dpi • 216
Colors Supported • \$7,795
The 4692 features air-assist drop-on-demand technology and provides superior image quality and color saturation. Additional image sizes include $10 \times 7.5,5 \times 3.75$, and $9.4 \times 7.5$. The Tek 4521 and 4522 are color video processors, compatible with the Tek 4692 that capture the screen image and convert it into data while the 4692 is freed for other tasks.

## 46925

## \$13,000+

The 4692 S color output system consists of a Tektronix 4510 A rasterizer and a Tektronix 4692 color printer.

- HCO1

17sec Copy Time • \$980

葍 HCO2
21sec Copy Time •\$1,275

## Ink Jet Printers

## Eastman Kodak

## - Diconix 150 Pius

## 192x192dpi - \$499

An ideal companion to a laptop computer Battery operated, lightweight portable printer that performs at 180 characters per second in draft mode.

## Hewlett-Packard <br> Company

## - Paint et

180x180dpi • $\$ 1,395$
The PaintJet is capable of printing up to 16 colors at a time from a 330 color palette resident in the printer memory at a resolution of 90 dpi . It is also capable of printing thousands of colors with appropriate software.

## Нitachi America, Lto.

E HJP-1610
$\mathbf{4 0 0 x 4 0 0 d p i} \cdot \$ 150,000$
The HJP-1610 is available five months after ordering.

## Howtek, Inc.

a Pixelmaster

## 240x240dpi • \$7,500

The Pixelmaster produces high resolution text and graphics and offers a wide range of applications from graphics arts to desktop publishing with PostScript compatibility.

## Tektronix, Inc. <br> - 4510A <br> $\$ 5,995$

The 4510A is a color graphics rasterizer that facilitates a direct host connection of the 4692 printer and the 4696 copier creating shared system resources.

## - 4696

120×120dpi •\$1,795
When connected to the Tek 4510A Color Graphics Rasterizer, the 4696 produces over 130,000 shades and colors. The Tek 4521 and 4522 are color video processors that are compatible with the 4696 . These processors capture the screen image and convert it into data while the 4696 is freed for other tasks.

## Ion Deposition Printers

## C. Ітон Eleetronics, Inc.

MegaLine
30ppm Printing Speed • 4 Resident Fonts • 150K Pages Per Month

## - Megaline

45ppm Printing Speed • 4 Resident Fonts -
150K Pages Per Month • \$21,995
The MegaLine Series is also available with optional features including a job separator and additional automatic paper feeders with 500 and 2,000 sheet capacities.


## MegaServe

- High speed, high quality text and graphics in 30 and 45 PPM models.
- Monthly duty cycle up to 250,000 pages at approximately 2 cents per page.
- Emulations include DEC LN03 ${ }^{\text {® }}$ Plus, HP LaserJet II, Tektronix $4014^{\circledR}$ and Diablo 630 ECS.
- Standard interfaces include Dataproducts ${ }^{\text {® }}$ parallel, Centronics ${ }^{\circledR}$ parallel, SCSI, RS-232 and RS-422.
■ POSTSCRIPT ${ }^{*}$ language and Ethernet ${ }^{\circledR}$ connectivity are also available.
$\square 43$ resident fonts.
■ $300 \times 300$ DPI resolution.

The following are registered trademarks of their respective companies: Centronics of Centronics Data Computer Corporation; Dataproducts of Dataproducts Corporation; DEC LN03 of Digital Equipment Corporation; HP LaserJet II of HewlettPackard Corporation; Tektronix 4014 of Tektronix, Inc.; POSTSCRIPT of Adobe Systems, Inc.; Diablo 630ECS of Xerox Corporation; Ethernet of Communication Machinery Corporation.

## MESA

9720 Patuxent Woods Dr. Columbia, MD 21046 Columbia, MD Lowell, MA Mifford, CT $\begin{array}{lll}\text { Columbla, MD } & \text { Lowell, MA } & \text { Milford, CT } \\ \text { 800/950-6372 } & 800 / 999-6780 & 800 / 777-0984\end{array}$ $\begin{array}{lll}\text { 800/950-6372 } & 800 / 999-6780 & 800 / 777-0984 \\ 301 / 290-8150 & 508 / 458-4100 & 203 / 878-6800\end{array}$ Morris Plains, NJ Philadelohia, PA Charlotte, NC Moris Plains, NJ Philadelphia, PA Charlotte, NC
$800 / 444-9238$
$800 / 333-8641$
$800 / 777-2340$ $\begin{array}{lll}\text { 800/444-9238 } & 800 / 333-8641 & 800 / 777-2340 \\ 201 / 538-8004 & 215 / 644-3100 & 704 / 529-1792\end{array}$

Springfield, MA Burlington, VT
$800 / 999-6780$
$800 / 999-6780$ Raleinh NC Bichmond VA $\begin{array}{ll}\text { Raleigh, NC } \\ 800 / 777-2340 & \text { Richmond, VA } \\ 800 / 777-2340\end{array}$ $\boldsymbol{-}_{A}$

## - MegaPro

30 or $\mathbf{4 5 p p m}$ Printing Speed - 8 Resident Fonts - 250K Pages Per Month
Capable of generating graphics using vector draw, area fill or host download bitmapped graphics. Sixteen additional fonts may be selected as options.


## - MegaServe

30 or 45 ppm Printing Speed • 43
Resident Fonts - 150K+ Pages Per Month - $\$ 21,995$
The MegaServe ion deposition printer offers $300 \times 300 \mathrm{dpi}$ resolution, 30 ppm or 45 ppm speed ( 45 ppm option is available at $\$ 29,995$ ), and a maximum monthly duty cycle of 250,000 pages. It is designed to provide extensive connectivity not only to host computers but also to local area networks. Standard interfaces include DataProducts parallel or Centronics parallel, Small Computer System Interface (SCSI), RS232, and RS422. With LAP-Ethernet, users have a complete solution for connecting the MegaServe to Ethernet with both intertacing hardware and host software. Forty-three fonts are standard and additional fonts may be accessed from an on-board Winchester disk. All the popular DEC compatible software
programs are supported. programs are supported.

## Data Systems Haroware - Vx023

45ppm Printing Speed • Supports Resident Fonts - \$29,995
The VX023 ion deposition page printer offers inexpensive, high speed output at 45 ppm . Electronic forms processing is accommodated by downloading and storing up to eight forms in internal storage.

## - VX023

30ppm Printing Speed • Supports Resident Fonts - \$21,995
The VX023 ion deposition page printer offers inexpensive, high speed output at 30 ppm . Electronic forms processing is accommodated by downloading and storing up to eight forms in internal storage.

## Datagraphix

- 4800

75ppm Printing Speed • 10 Resident Fonts • \$64,950
The 4800 produces computer generated documents and reports and is equipped with a host resident software package that designs graphics such as logos and special forms.

## Delphax Systems

- $\$ 30006$

30ppm Printing Speed - 250K Pages Per Month - $\$ 20,000+$

## DeRex Inc. <br> - 1 sseos

30ppm Printing Speed • 8 Resident Fonts • 250K Pages Per Month • $\$ \mathbf{1 2 , 9 9 5}$
Features a duty cycle of 250,000 pages per month, a paper capacity of up to 2500 pages, and connects as a parallel printer or off a DeRex Ethernet server. Cost of ownership is less than two cents per page.

## - $\mathbf{5 3 0 0 0}$-II

30ppm Printing Speed • 8 Resident Fonts • 250K Pages Per Month • $\$ 18,995$
The S3000-II supports vector draw and raster graphics through DeRex's raster image processor which features HP LaserJet+, Diablo 630, LinePrinter, and LN03+ emulations.

## - $\mathbf{S 4 5 0 0}$

45ppm Printing Speed - 8 Resident Fonts 250K Pages Per Month • $\$ 21,995$
High performance page printer with an unmatched duty cycle and low cost of ownership. Excellent replacement for high speed line printers.


## - S6000-II

75ppm Printing Speed • 8 Resident Fonts • 1m Pages Per Month - \$51,150
The S6000-II features an unmatched high performance with cost of ownership at less than two cents per page.

## Mitope Corporation

- 3802

90ppm Printing Speed • 4 Resident Fonts •
1.5m Pages Per Month • $\$ 69,950$

Requires the DEC DFM-32 controller.

## - Series 30L

30ppm Printing Speed -8 Resident Fonts * 250K Pages Per Month - $\mathbf{\$ 1 4 , 0 0 0}$
Requires the DEC DFM-32 controller. Features two-up printing for archival storage. Options include a 2000 sheet paper elevator and a base cabinet.

## - Series 30M

30ppm Printing Speed $\bullet 8$ Resident Fonts 250K Pages Per Month • $\$ 24,950$
Requires the DEC DFM-32 controller. Features include bar code printing, two-up printing for archival storage, and logos and signatures for office correspondence. Optional 2000 sheet paper elevator available.

## - Series 37

37ppm Printing Speed • 8 Resident Fonts * 250K Pages Per Month • \$39,950
Requires the DFM- 32 controller. Features include two-up printing for archival storage, bar code printing, and logos and signatures for office correspondence.

## - Series 60

60ppm Printing Speed $\bullet \mathbf{1 . 5 m}$ Pages Per Month - \$60,950

## - Series 75

75ppm Printing Speed 4 Resident Fonts
1m Pages Per Month - \$69,950
The Series 60 and 75 require the DEC DFM-32 controller.

## NBS Southern, Inc.

- 3880

80ppm Printing Speed • 115 Resident Fonts • 800K Pages Per Month • $\mathbf{\$ 6 4 , 9 5 0}$
Features a standard two forms overlay buffer and positive job separation, and is plug compatible with all popular computers and PC networks. Requires the DEC DMF-32 controller.

## - Mercurion 1/80

80ppm Printing Speed * 4 or 8* Resident Fonts - 500K Pages Per Month • $\$ 49,950$ The Mercurion $1 / 80$ is a high volume unit for printing variable data output. Requires the DEC DMF- 32 controller.

## Laser Printers

## Advanced Technologies International

## - 0880/DW-2

8ppm • 300×300dpi • Supports Resident Fonts

- 768KBytes RAM• 6K Pages Per Month -
\$4,795


## - $0880 / D W-3$

8ppm - 300x300dpi • Supports Resident Fonts - 2MBytes RAM- 6K Pages Per Month - \$4,795
-0880/GR-2
8ppm - 300x300dpi - 2MBytes RAM - 6K Pages Per Month • \$5,695

## - 1570/DW-2

15ppm - 300x300dpi - Supports Resident Fonts - 768KBytes RAM- 25K Pages Per Month - \$7,995

## -1570/DW-3

15ppm • 300x300dpi • Supports Resident Fonts - 2MBytes RAM- 25 K Pages Per Month \$7,995

## - 2670/DW-2

26ppm • 300x300dpi • Supports Resident Fonts - 768KBytes RAM- 100K Pages Per Month • $\$ 17,995$

## - 2670/DW-3

26ppm • 300x300dpi • Supports Resident Fonts - 2MBytes RAM• 100K Pages Per Month - \$17,995

The 2670/DW-2 and DW-3 feature a straight-through paper path that makes operation virtually jam-proof. Options include an output collator and a print share unit which enables the 2670 Series to be multiplexed between dissimilar hosts.

## - 2670/ER-2

26ppm • 300x300dpi - 2MBytes RAM• 100K Pages Per Month - \$17,995

## LL-6026

$26 \mathrm{ppm} \bullet 300 \times 300 \mathrm{dpi} \bullet$ Supports Resident Fonts -4 to $8^{*}$ MBytes RAM- 100K Pages Per Month • \$24,900

## Agfa-Gaveart

- P400ps

18ppm • 406x406dpi • 66 Resident Fonts
Apolo Computer, Inc.

- Domain/Laser-26

26ppm • 300x300dpi • 13 Resident Fonts

## Apple Computer, Inc.

- LaserWitter IIITT

8ppm • 300×300dpi • 35 Resident Fonts 2MBytes RAM- $\mathbf{\$ 4 , 5 9 9}$

## - LaserWriter IIITX

8ppm • 300x300dpi • 35 Resident Fonts 2MBytes RAM- $\mathbf{\$ 4 , 5 9 9}$
The LaserWriter IINTX also features a maximum RAM expansion of 12 MB .

## - Laserwitter IISC

$8 \mathrm{ppm} \bullet 300 \times 300 \mathrm{dpi} \bullet 4$ Resident Fonts 1MByte RAM- $\$ 2,799$
The LaserWriter Seris supports the BigBin 1000 motorized paper tray which allows LaserWriter II printers to hold five times more paper.

## BGL Technology Corporation

## - Mark B

8ppm • 300x300dpi • 9 Resident Fonts 1mByte RAM• 10K Pages Per Month • $\$ 2,095$ The Mark B also emulates LaserJet+, Diablo 630, and Epson FX-80, expandable to 4MB. PostScript version is available for \$2,795.

## - Mark I

12ppm $\bullet 300 \times 300 \mathrm{dpi} \bullet 35$ Resident Fonts $\bullet 4$ 8mBytes RAM- 25K Pages Per Month - $\$ 5,495$ The Mark I emulates Versatec, Tektronix 4014, Diablo 630, LaserJet+, RIPrint, and DEC LN03.

## - Mark II

20ppm • 300x300dpi • 35 Resident Fonts • 4 to 8MBytes RAM- 80K Pages Per Month \$13,675
With several accessory options available, the Mark II is configured to meet users needs. It features a PC/AT based controller for ultimate versatility.

E Mark III
26ppm • 300x300dpi • 35 Resident Fonts • 4 to 8MBytes RAM• 80K Pages Per Month \$15,995
The Mark III emulates Versatec, Tektronix 4014, Diablo 630, RIPrint, LaserJet+, and DEC LN03. May be configured to meet users needs, and is equipped with a PC/AT based controller for ultimate versatility.

## C. Ітон Electronics, Imc.

 LUPS $10+$10ppm • 300x300dpi - Resident Fonts \$2,995
Includes six CIEFLEX fonts and also emulates the HP LaserJet+, Diablo 630, and Espon FX-80 devices.

## - UPS II

10ppm • 300x300dpi • 92 Resident Fonts 15K Pages Per Month
Includes six CIEFLEX fonts and also emulates the HP LaserJet+, Diablo 630, and Espon FX-80 devices. Also includes forms and bar code generation features.

## Camintonn Corporation

## - Turbolaser/PS

8ppm • 300x300dpi • 35 Resident Fonts • 3MBytes RAM• 10K Pages Per Month • \$4,795 The TurboLaser/PS also supports AppleTalk.

## - TurboLaser/PS-Plus3

8ppm • 300×300dpi • 35 Resident Fonts • 3MBytes RAM- 10K Pages Per Month - $\$ 5,695$ Users may have three systems connected to the printer simultaneously via Centronics, RS232, or AppleTalk interfaces. Users may also switch from one emulation (DEC LN03, HP LaserJet Series II, Xerox, and Diablo 630 ECS) to another via software commands.

## Canon USA, Inc.

LPB-8 A1
8ppm • 300x300dpi •\$3,000
LPB-8 A2
8ppm • 300x300dpi • \$4,300

## Data Systems Hardware <br> \section*{VX 020}

12ppm • 300x300dpi • Supports Resident Fonts - \$7,995
The DSH VXOO20 is PostScript compatible and prints at a true 12 ppm . The HP LaserJet emulation offers an alternative for non-PostScript applications. Supports AppleTalk.

## Data Terminal Mart

## 110

10ppm • \$3,245

## DataProoucts <br> Corporation

## - IR 1230

12ppm • 300x300dpi • 10 Resident Fonts * 25K Pages Per Month • \$3,990
The LZR 1230 provides multiple emula tions and paper handling options for network support.

## 븡 1260

12ppm • 300x300dpi • 35 Resident Fonts 25K Pages Per Month • $\$ 7,995$
The LZR 1260 also supports AppleTalk.

- IZR 2620

26ppm • 300x300dpi • 14 Resident Fonts • 100K Pages Per Month - $\mathbf{\$ 1 4 , 5 5 0}$
Recommended for hardware and software systems that already use line printers as primary output devices. Features form, overlay, logo and barcode capabilities.

## - IZR 2630

26ppm • 300x300dpi • 10 Resident Fonts • 100K Pages Per Month - \$15,600
May be integrated into many word processing environments that require letter quality printing, and also features shared resource capabilities, supporting up to 40 workstations. Features proportional spaced text.

## - IZR 2655

26ppm • 300x300dpi • 6 Resident Fonts • 100K Pages Per Month - $\$ 20,800$
The 2655 is also available with three dif ferent types of control software.

## - ITR 2655/w

26ppm • 300x300dpi • 34 Resident Fonts 100K Pages Per Month • \$14,995
The LZR 2655/LJ provides HP-LJ printing with a monthly 100 K duty cycle durability.

## $1282655 / 4$

26ppm • 300x300dpi • 17 Resident Fonts 100K Pages Per Month • $\mathbf{\$ 1 4 , 9 9 5}$
The LZR $2655 /$ LN provides heavy duty printing for the LNO3+ market.

## - LIR 2665

$26 \mathrm{ppm} \bullet 300 \times 300 \mathrm{dpi} \bullet 13$ Resident Fonts
100K Pages Per Month • \$18,700
The 2665 also features the capability to integrate text and graphics on one page.

## DeRex Imc.

[ DRL 10
10ppm • 300x300dpi • 79 Resident Fonts 512 KBytes RAM• 10K Pages Per Month \$2,895
Diablo 630, Qume Sprint II, NEC 3500, IBM graphics, HP LaserJet II, Epson FX, and line printer emulations are standard features.

## - DRL $10+$

10ppm • 300x300dpi • 79 Resident Fonts 1.5MBytes RAM• 10K Pages Per Month \$4,695
Features dual input hoppers, a manual envelope feeder and seven printer emulations. Options include a high capacity sheet feeder, raster and vector graphics, and 39 bar codes.

## - DRL 20

18ppm • 300x300dpi • 79 Resident Fonts 1.5MBytes RAM- 20K Pages Per Month \$8,395
Features seven printer emulations, dual input hoppers, raster and vector graphics and 39 bar codes. Options include a high capacity sheet feeder and envelope feeder.

## Diconix, Inc.

$\square$ Dijlit 1/PS
20ppm • 300x300dpi • 17 Resident Fonts

## Facit luc. <br> \section*{- P6060}

$6 \mathrm{ppm} \bullet$ - 300x300dpi • 6 Resident Fonts 1MByte RAM• 3K Pages Per Month - $\$ 1,995$ Features HP-LJ+ emulation, front panel menus, a straight paper path, face-up or down output, and prints labels and envelopes.

- P7080-A

8ppm • 300x300dpi - 6 Resident Fonts • 10K Pages Per Month - \$2,995
The P7080-A is available with optional PostScript emulation, bar code capabilities, and an additional 1.5MB of expansion memory.

## Gemicom Corporation

- 6140

15ppm • 400x400dpi • 15 Resident Fonts • 1MByte RAM- 5K Pages Per Month • $\mathbf{\$ 4 , 2 9 5}$ Supports ACE and GeniScript (PostScript compatible) PDLs. Ideal for word processing and business graphics applications.

## 16142

20ppm • 400×400dpi • 15 Resident Fonts • 1MByte RAM• 5K Pages Per Month - $\$ 4,995$ Same as the 6140 model. Also features 2MB to support desktop publishing, integrated text, and graphics.

## Hetra, Inc.

$\square 3024$
24ppm • 300x300dpi - Resident Fonts • 70K
Pages Per Month - $\$ 21,500$

## $\square 30245$

24ppm • 300x300dpi • Resident Fonts • 70K Pages Per Month • \$19,000

## - 3808

8ppm • 300x300dpi • 6 Resident Fonts •
\$1,900
The 3024, 3024S, and 3808 function as EDP printers, word processing printers, on-demand office printers, and business, industrial, and extended graphics image creators. Options include a 2000 paper output tray, remote communications, and available disk storage.

## Hewlett-Packard Company

## - HP LaserJet 20000

20ppm • 300x300dpi • 34 Resident Fonts ${ }^{\circ}$ 1.5MBytes RAM• 70K Pages Per Month \$19,995
One of the LaserJet 2000 models designed to meet the high perfomance and demanding needs of the multiuser environments. Memory capacity is expandable to 5.5 MB in 1 MB increments. Also features unlimited downloadable fonts.

## - HP LaserJet 20000

20ppm • 300x300dpi • 34 Resident Fonts • 70K Pages Per Month • \$25,695
One of the LaserJet 2000 models that features extensive paper handling, including an automatic paper deck. Memory capacity is expandable to 5.5 MB in 1 MB increments. Also features duplex printing which provides automatic printing on both sides of the paper. Also features unlimited downloadable fonts.

## - HP Laserdet 2000P

20ppm • 300x300dpi • 34 Resident Fonts 70K Pages Per Month - \$21,995
Features extensive paper handling, including a 2,000 sheet input paper deck. Memory is expandable to 5.5 MB in 1 MB increments. Also features unlimited downloadable fonts.

## - HP LaserJet IID

8ppm • 300x300dpi - 24 Resident Fonts 640KBytes RAM• \$4,295
Includes two-sided printing with expand-
able memory and features unlimited down loadable fonts. An envelope feeder is optional.

- LaserJet Series II

8ppm • 300x300dpi - 6 Resident Fonts 512KBytes RAM• 12K Pages Per Month • 6 The LaserJet Series II printer is also available with $1 \mathrm{MB}, 2 \mathrm{MB}$, or 4 MB of optional memory.

## InterScience <br> Computer Services

## - LR 1200

12ppm • 300x300dpi • 10 Resident Fonts The LR1200 has a duty cycle of 10,000 pages per month, and also features proportionally spaced text.

## - LR 2600

26ppm • 300x300dpi • 6 Resident Fonts The LR 2600 has a duty cycle of 80,000 pages per month, and features proportionally spaced text.

## Kentek <br> Imformation Systems

톨 K-2
12ppm • $240 \times 240 \mathrm{dpi} \bullet 30$ Resident Fonts • 1024Bytes RAM- 24 K Pages Per Month $\$ 8,235$

## (K-2+

15ppm • 300x300dpi • 30 Resident Fonts • 1024Bytes RAM ${ }^{40 K}$ Pages Per Month $\cdot$ \$8,970
The K-2 and K-3 are also available with additional optional fonts, a cluster switch, which allows support for up to eight CPUs via a port scanning switch, and a virtual device interface that enables the printer to accept function commands form ANSI or ISO standard VDI commands.

## [ K-3

$24 \mathrm{ppm} \cdot \mathbf{3 0 0 \times 3 0 0 d p i} \bullet 30$ Resident Fonts • 1024Bytes RAM- 80K Pages Per Month

## © $\times-4$

24ppm • 300x300dpi • 30 Resident Fonts 1024Bytes RAM- 80K Pages Per Month

## Kyocera Unison, Imc. - F1000A

18ppm• 300x300dpi • 79 Resident Fonts
Memory may be expanded to 1.5 MB .

## © $\mathbf{F 1 0 1 0}$

10ppm •\$3,695

## - F2010

10ppm •\$4,695
The F1010 and F2010 are equipped with 36 bit-mapped fonts, four scalable fonts, eight foreign language sets, and are capable of generating 39 different bar codes

## E $F 3010$

18ppm • 300x300dpi • 79 Resident Fonts Memory may be expanded to 3.5 MB .

## Linotype Company

- Linotronic 100

1270x1270dpi • 13 Resident Fonts • $\$ 35,000$

- Linotronic 300
$\mathbf{2 5 4 0 \times 2 5 4 0 d p i}$ - Resident Fonts • $\mathbf{\$ 7 5 , 0 0 0}$


## MacDonald Detrwiler \& Assoc.

## - Fire 240

This printer features a printing speed of 2000 lpm.

## - GeoFire

This printer features a printing speed of 2500 lpm .

## Mitek Systems Corporation

- 1201

8ppm • 300x300dpi • 5K Pages Per Month

- 125

8ppm • 300x300dpi - 5K Pages Per Month
The 125 T offers the capacity for three users to share the printer.

## - 150 T

15ppm • 300x300dpi • 25K Pages Per Month

## NBS Southern, Inc.

- MBS 3840

40ppm • 300x300dpi • 57 Resident Fonts •
8MBytes RAM• 200K Pages Per Month $\bullet$ \$39,950

## - MBS 38400

40ppm • 300x300dpi • 57 Resident Fonts 8MBytes RAM• 200K Pages Per Month \$54,950
The NBS 3840 and 3840D feature internal electronics and a direct attach to the entire VAX series. Up to 40 images are printed per minute.

## NEC Imformation <br> Systems, Inc.

- LC860 PLus

8ppm • 300x300dpi • 4 Resident Fonts
1.3MBytes RAM• 5K Pages Per Month e $\$ 3,415$

## SilentWriter LC890

8ppm • 300x300dpi • 35 Resident Fonts • 3MBytes RAM• 5K Pages Per Month - $\$ 4,975$

## NewGen Systems

Corporation

## - Turbo PS/300

$8 \mathrm{ppm} \cdot \mathbf{3 0 0 \times 3 0 0 \mathrm { dpi }}$ • 35 Resident Fonts 2MBytes RAM• 5K Pages Per Month • $\$ 5,495$ Ultra high speed PostScript compatible laser printer that prints up to 15 times faster than competitive laser printers.

## - Turbo PS/400

$8 \mathrm{ppm} \bullet 400 \times 400 \mathrm{dpi} \bullet 35$ Resident Fonts • 3MBytes RAM• 5K Pages Per Month • $\mathbf{\$ 6 , 4 9 5}$ Ultra high speed 400 dpi PostScript compatible laser printer with nearly twice the resolution of a $300 \mathrm{dpi}(160,000 \mathrm{dpi}$ vs $90,000 \mathrm{dpi}$ ) laser printer.

## Nissel Sangyo <br> America, Ltd.

LLB 040
40ppm • 300x300dpi • 130 Resident Fonts 4 MBytes RAM• 200K Pages Per Month

## - LB 040

40ppm • 240x240dpi • 200 Resident Fonts • 4MBytes RAM- 200K Pages Per Month
The LB 040 Series features duplex printing operation, internal error/data reporting and recovery, unlimited fonts per page,
and forms overlay capabilities. No speed degradation when changing forms or fonts, or when using graphics. Also available with optional memory up to 8MB.

## Nissho Electronics Corporation

## ■ 내-2248

22ppm • 480x480dpi • 6MBytes RAM• 60K Pages Per Month • $\$ 24,000$
Suited for electronic publishing and CAD/ CAM, the LN-2248 may be adapted easily to fit general and custom applications as a departmental or demand publishing ? printer.

## Office Automaton Systems Inc.

- LaserPro 1510

15ppm • 300x300dpi • 27 Resident Fonts • 768 KBytes RAM• 25 K Pages Per Month \$6,495
Features bar code capabilities and is also available with an optional 1.152MB RAM.

## - LaserPro 2200

$22 p p m \bullet 300 \times 300 \mathrm{dpi} \bullet 25$ Resident Fonts 1.5MBytes RAM• \$1,550

## - LaserPro 5215

15ppm • 300x300dpi • 768KBytes RAM• 25K Pages Per Month

## - LaserPro 5287

8ppm • 300x300dpi • 1.5MBytes RAM• 5K Pages Per Month

- LaserPro 810

8ppm • 300x300dpi • 27 Resident Fonts • 768KBytes RAM• 10K Pages Per Month \$3,995

## - LaserPro Gold Express

$8 \mathrm{ppm} \bullet 300 \times 300 \mathrm{dpi} \bullet 33$ Resident Fonts 2.5MBytes RAM• 5 K Pages Per Month • $\$ 3,695$

- LaserPro Series II

8ppm • 300x300dpi • 27 Resident Fonts 1MByte RAM• 5K Pages Per Month • $\$ 2,495$

- LaserPro Silver Express

8ppm • 300x300dpi • 27 Resident Fonts • 1.5MBytes RAM• 5K Pages Per Month • \$2,995

## Panasonic

© KX-P4450
11ppm • 300x300dpi • 4 Resident Fonts • 512KBytes RAM• 5K Pages Per Month

## Primter <br> Systems Corporation

- Intelliprint 218

18ppm • 300x300dpi • Supports Resident Fonts • 3MBytes RAM• 50K Pages Per Month • \$14,395
The Intelliprint 218 features HP LaserJet Series II, DEC LN03+, and IBM 3812-2 compatibilities. Also suppports A5 and B5 paper sizes.

## - Intelliprint 222

22ppm • 300x300dpi • Supports Resident Fonts - 6MBytes RAM• 50K Pages Per Month The Intelliprinter 222 also features HP LaserJet Series II, PMP, IBM3812-2, and DEC LN03+ compatibilities and also supports A4, A5, and B5 paper sizes.

## PRintronix, Inc.

## - 1012

12ppm • 300x300dpi • Supports Resident Fonts • 512KBytes RAM• 25K Pages Per Month - $\mathbf{\$ 3 , 4 9 5}$

Combines the high quality of printing and graphics using laser technology with rugged design. Features an unlimited downloadable font selection and user-changeable drums, developer, toner cartridges, and heat fusers.


## QMS, Inc.

## 2308/S Turbo

8ppm • 300x300dpi • 254 Resident Fonts • 6MBytes RAM• 5K Pages Per Month • $\$ \mathbf{1 4 , 4 5 0}$ The ImageServer XP is equipped with an external controller that features 6MB RAM with a 20 MB hard drive, imPRESS, and UltraScript PDLs, and five additional emulations. Supports Ethernet and 35 different typefaces.

## 2308/S-2

8ppm • 300x300dpi • 8 Resident Fonts • 2MBytes RAM - 5K Pages Per Month - \$9,250

## : 2308/S-3

8ppm • 300x300dpi • 8 Resident Fonts 3MBytes RAM - 5K Pages Per Month - $\$ 9,750$

## -3308/5

8ppm • 300x300dpi • 8 Resident Fonts •
3MBytes RAM• 3.3K Pages Per Month • \$10,950
The $2308 / \mathrm{S}-2$, S-3, and $3308 /$ S are equipped with imPRESS, a page description language capable of typesetting and graphics functions. Support Ethernet and five additional resident printer emulations.

## [3308/S Turbo

8ppm • 300x300dpi • 254 Resident Fonts 6MBytes RAM-10K Pages Per Month •

## $\$ 15,450$

The ImageServer XP is equipped with an external controller that features 6MBRAM with a 20MB hard disk, imPRESS and UltraScript PDLs, and five additional printer emulations. Supports Ethernet.

- 3320 Turba

20ppm • 300x300dpi • 254 Resident Fonts 6MBytes RAM• 35K Pages Per Month • \$26,450
The ImageServer XP features an external controller with 6 MB RAM with a 20 MB hard disk, imPRESS and UltraScript PDLs, and five additional printer emulations. Supports Ethernet and B and A3 paper sizes.

## - 3320-3

20ppm • 300x300dpi • 8 Resident Fonts • 3M Bytes RAM• 35K Pages Per Month - \$22,950 The ImageServer XP is equipped with imPRESS, a page description language capable of typesetting and graphics functions. Supports Ethernet and five additional resident printer emulations.

## - 5320 Turbo

$20 \mathrm{ppm} \cdot \mathbf{3 0 0 \times 3 0 0 \mathrm { dpi }} \boldsymbol{\bullet} 254$ Resident Fonts ${ }^{\circ}$ 6 MBytes RAM• 3.3K Pages Per Month $\bullet$ \$32,450
The ImageServer XP is equipped with an external controller with 6MB RAM and a 20MB hard disk, imPRESS and UltraScript PDLs. Supports Ethernet and five additional resident printer emula tions.

## - 5320-3

20ppm • 300x300dpi • 8 Resident Fonts $\cdot 3 \mathrm{M}$ Bytes RAM- 35K Pages Per Month - $\$ \mathbf{2 8 , 9 5 0}$ This ImageServer XP model is equipped with imPRESS, a page description lan guage capable of typesetting and graphics functions. Supports Ethernet and five additional resident printer emulations. Also supports B and A3 paper sizes

## - 6320 Turbo

20ppm • 300x300dpi • 254 Resident Fonts • 6MBytes RAM - 35K Pages Per Month $\$ 36,450$

The ImageServer XP is equipped with an external controller that features 6 MB RAM with a 20MB hard disk, imPRESS and UltraScript PDLs, and five addtional printer emulations. Supports duplex and signature printing.

## 6320-3

20ppm• 300x300dpi • 8 Resident Fonts • 3M Bytes RAM• 35 K Pages Per Month $\boldsymbol{\$} \$ 32,950$ The ImageServer XP is equipped with imPRESS, a page description language capable of typesetting and graphics functions. Supports Ethernet, five additional resident printer emulations, and duplex and signature printing.

## - 7320 Turbo

20ppm • 300x300dpi • 254 Resident Fonts • 6MBytes RAM - 3.3K Pages Per Month •

## 39,450

The ImageServer XP is equipped with an external controller that features 6MBRAM with a 20MB hard disk, imPRESS and UltraScript PDLs, and five additional printer emulations. Supports duplex and signature printing.

## 7320-3

20ppm • 300x300dpi • 8 Resident Fonts • 3 M Bytes RAM- 35K Pages Per Month - \$35,950 The ImageServer XP is equipped with imPRESS, a page description language capable of typesetting and graphics functions. Supports Ethernet, five additional resident printer emulations, and duplex and signature printing.


Tired of plotters that run out of memory and take forever to plot/print PostScript or CAD files?

LaserLeader systems are the fastest, with a $12 \mathrm{MHZ} / 286$ ( $16 \mathrm{MHZ} / 386$ or 20MHZ/386 optional), 4MB of memory and a 20 MB hard disk standard, coupled with a graphics processor.

## Never a busy Signal

Because of the architecture of the controller, no matter how many dissimilar hosts are driving our units, the printer will never show a "PRINTER BUSY". BGL's systems have two $81 / 2^{\prime \prime} \mathrm{X} 11^{\prime \prime}$ full page buffers ( $11^{\prime \prime} \mathrm{X} 17^{\prime \prime}$ double page buffers available) for maximum throughput.

## Expandability

The LaserLeaders were designed for ease of creating and updating emulations, flexibility of interfacing, and the ability to add special features for customers (on site if necessary).

## Versatility

Emulations you can mix and match. LaserLeaders are compatible with LNO3, HP/GL. LaserJet Series II, Versatec, Tektronix 4010/4014, Diablo 630, BGL/PDL (PostScript), and "Z"


BGL Technology Corporation
438 Constitution Avenue Camarillo, CA 93010

FAX: (805) 987-7346
Telex: 467154

- Big Kiss II

8ppm • 300x300dpi • 17 Resident Fonts 640KBytes RAM- 10K Pages Per Month $\$ 4,495$

- Big Kiss II M

8ppm • 300x300dpi • 17 Resident Fonts 1.125MBytes RAM• 10K Pages Per Month $\$ 4,995$
The Big KISS II and Big KISS II M feature Epson FX-80,Diablo 630, and QumeSprint 11 emulations.

## E KISSPlus

8ppm • 300x300dpi • 34 Resident Fonts 512 KBytes RAM- 5K Pages Per Month \$2,690
Model 10 features Diablo 630, Epson FX80, and Qume Sprint 11 emulations.

## KISSPlus

8ppm • 300x300dpi • 34 Resident Fonts ${ }^{\circ}$
1MByte RAM- 5K Pages Per Month - $\$ 2,990$
Model 20 features Epson FX-80, Diablo 630, Qume Sprint 11, IBM Proprinter and HP-PCL emulations.

## - KISSPlus

8ppm • 300x300dpi • 34 Resident Fonts 2.5MBytes RAM-5K Pages Per Month \$3,790
Model 30 features Epson FX-80, Diablo 630, Qume Sprint 11, IBM Proprinter, HPPCL, and HP-GL emulations.

## - Kissplus

8ppm • 300x300dpi • 42 Resident Fonts 2.5MBytes RAM-5K Pages Per Month $\$ 4,190$
Model 40 features Epson FX-80, Diablo 630, Qume Sprint11, IBM ProPrinter, HPPCL, HP-GL, and Tektronix 4010/4014 emulations.

## - QMS LASERGRAFIX 1510

15ppm • 300x300dpi • 36 Resident Fonts • 6 MBytes RAM- 15K Pages Per Month • $\$ 11,995$
The 1510 also emulates the Tektronix 4010/ 4014, the Qume Sprint 11, and the Diablo 630. Supports up to 14 different interface options.

## - OMS LASERERAFIX 2200

22ppm • 300x300dpi • 36 Resident Fonts 7MBytes RAM- 20K Pages Per Month \$15,995
The 2200 also emulates HP-GL, Tektronix 4010/4014, the Qume Sprint 11, and the Diablo 630. Supports up to 14 different interface options and A3 paper sizes.

## - QME LASERERAFIX 800

8ppm • 300x300dpi • 36 Resident Fonts • 2MBytes RAM• 5K Pages Per Month • $\mathbf{\$ 6 , 4 9 5}$

## ams Lasergrafix 800 II

8ppm • 300x300dpi • 36 Resident Fonts • 2MBytes RAM- 10K Pages Per Month • $\$ 7,995$ The QMS LASERGRAPHIX 800 and 800 II feature Tektronix 4010/4014, Qume Sprint 11 and Diablo 630 emulations. Support up to 14 different interface options.

## ■ OMS-PS 1500

15ppm • 300x300dpi • 35 Resident Fonts • 4MBytes RAM• 15K Pages Per Month - \$7,995 The QMS-PS1500 supports AppleTalk and SCSI interfaces.

## - Qums-PS 2200

22ppm • 300x300dpi • 35 Resident Fonts $\bullet 4 \mathrm{M}$ Bytes RAM- 20K Pages Per Month - $\mathbf{\$ 1 2 , 9 9 5}$

## - QMS-PS 8001

8ppm • 300x300dpi • 35 Resident Fonts 2MBytes RAM• 10K Pages Per Month • $\$ 5,995$

## - QMS-PS 810

8ppm • 300x300dpi • 35 Resident Fonts 2MBytes RAM- 5K Pages Per Month - $\$ 4,995$ The QMS-PS 800 II and 810 feature Diablo 630 , HP-PCL and HP-GL emulations. Memory upgrades to 3MB RAM are available options.

## - ams-PS 820

8ppm • 300x300dpi • 35 Resident Fonts ${ }^{\circ}$ 2MBytes RAM- 10K Pages Per Month - $\mathbf{\$ 6 , 4 9 5}$ The QMS-PS 820 features Diablo, HP-GL and LaserJet+ emulations and supports AppleTalk and SCSI interfaces.

## - SmartWriter 150

15ppm • 300x300dpi • 22 Resident Fonts • 2.5MBytes RAM- 15K Pages Per Month \$6,995
The SmartWriter 150 Epson version features Epson FX-80, HP LaserJet+, Diablo 630 and QUME Sprint 11 emulations.

## - SmartWriter 150

15ppm • 300x300dpi • 19 Resident Fonts -
2.5MBytes RAM- 15K Pages Per Month \$6,995
The SmartWriter 150 Proprinter version features IBM Proprinter, HP LaserJet+, Diablo 630, and QUME Sprint 11 emulations.

## - SmartWriter 150

15ppm • 300x300dpi • 40 Resident Fonts • 2.5MBytes RAM- 15K Pages Per Month \$6,995
The SmartWriter 150 LN03 Plus version features DEC LN03, Tektronix 4010/4014, and LaserJet+ emulations.

## Qume Corporation

## - Laser TEMPLUS

10ppm • 300x300dpi • 33 Resident Fonts • 5K Pages Per Month - $\$ 3,395$
The LaserTEN printer also emulates the DEC LQP03 with an interface available from Data Terminal Mart at an additional $\$ 695$.

## - ScripTEM

10ppm • 300x300dpi • 35 Resident Fonts • 3MBytes RAM - 5K Pages Per Month - $\$ \mathbf{5 , 2 9 5}$

## Ricoh Corporation

- LP 4150

15ppm $\bullet$ 300x300dpi $\boldsymbol{\$ 5 , 0 0 0 +}$

- PC Laser 6000

6ppm • 300x300dpi • \$2,395

## Summus <br> Computer Systems

- SUM-8 II

8ppm • 300x300dpi • 512KBytes RAM• 5K
Pages Per Month - \$1,895
The SUM-8 II is also available with a memory expansion capacity up to 4MB.

## Talaris Systems Inc.

- 1590 Printstation

15ppm • 300x300dpi • 43 Resident Fonts • 3MBytes RAM- 25K Pages Per Month - $\$ 8,490$ Features a new laser printer architecture designed for the mulituser computing environment, which employs two processors: (1) the Texas Instruments Graphics System Processor (GSP) for imaging and
the (2) National Semiconductor 32016 for managing I/O and for command interpretation. Also features DEC LNO3+ Tektronix 4014, and Diablo 630 ECS emulations. Options include an Ethernet interface and a two-page buffer.

## ■ 1590-T Prinstation

15ppm • 300x300dpi • 43 Resident Fonts • 5.5MBytes RAM• 25K Pages Per Month • \$11,490
Equipped with a 50 MHz graphics processor within the standard Printstation Control System that prepares the second page in memory while the first is still printing


- 2492-8 Printstation

24 ppm - 300x300dpi • 43 Resident Fonts - 5.5MBytes RAM- 35K Pages Per Month - $\$ 24,990$

Designed for organizations with high volume print needs, the Talaris 2495-8 Printstation features a rated engine speed of 24 ppm and a paper capacity that allows almost 90 minutes of continuous printing. The 2492-B maintains its rated engine speed, even when printing graphics, through the use of twe processors and 5.5MB of RAM for dual-page buffering. With support for B-size paper and the HP-GL plotting language, the 2492-B is ideal for printing engineering drawings. Other standard emulations include HP LaserJet II, LMO3+, Diablo 630 ECS, and Tehtronix 4014. Options include PSI (a PostSeript interpreter), an Ethernet interface, and a 32MB hard disk for font storage.

- T811/2

8ppm • 300x300dpi • 15 Resident Fonts -
1MByte RAM-5K Pages Per Month • $\$ 2,950$
The T811/2 features Diablo 630 ECS, Epson FX-80, and Qume Sprint emulations.

## The Holoscan <br> Corporation

- Holoscan 28

28ppm • 300x300dpi • 50K Pages Per Month Equipped with the DP-100, an intelligent interface controller designed for data processing applications.

## - Holoscan 28

28ppm • 300x300dpi - 50K Pages Per Month Equipped with the WP-300, an intelligent interface controller designed for office automation applications. Features include forms creation and overlay as well as bar code generation. An optional 1152 KB DRAM is available.

## - Holoscan 28

20ppm • 300x300dpi • 50K Pages Per Month
Equipped with the S-500, an intelligent interface controller designed for scientific and engineering applications. Emulates a

Tektronix 4010/4014, supporting vector draw, point plot, and incremental plot graphics capabilities. Also available with optional support for a mulituser environment.

## The Laser Connection

- PS Jet

8ppm • 300x300dpi • 13 Resident Fonts

- PS Jet+

8ppm • 300x300dpi • 35 Resident Fonts • 2MBytes RAM- $\$ \mathbf{5 , 4 9 5}$

## Varityper

## $\square 4300$

10ipm • $2400 \times 2400 \mathrm{dpi} \bullet 25$ Resident Fonts 2MBytes RAM- \$49,995
A laser imagesetter that outputs text and graphics from a variety of front-end systems that is capable of storing up to 400 fonts with an optional 20MB Winchester disk. Composes paginated volume text such as technical publications and manuals. Features a printing speed of 10 ipm . Also supports AppleTalk.

## ■ VT-600Plus

10ppm • 600x600dpi • 13 Resident Fonts • 6 MBytes RAM- 10K Pages Per Month \$16,995
Supports AppleTalk and has the capacity to download up to 150 fonts stored on the 20MB Winchester. Also uses 31 Adobe PostScript type fonts.

## - VT-600w

10ppm • 600x600dpi • 35 Resident Fonts • $6 M$ Bytes RAM- 10K Pages Per Month •

## \$22,995

Generates output up to 7ppm for 11x17 paper size and also features an AppleTalk interface.

## Xerox

- 3700

24ppm • 300x300dpi • 2 Resident Fonts
Software controlled laser printing system that is able to function in local or remote environments. Includes a screen, a keyboard, a 5.25 " flexible diskette drive, and a 10 MB (50MB*) hard disk drive. Supports user defined print file spooling.

## - 4045 Laser CP-150

10ppm • 300x300dpi 2 Resident Fonts 1MByte
Options include an envelope cassette which holds up to 50 envelopes, 1.2 MB to 2 MB extended memory, and a 750 sheet/feeder stacker.

## ■ 4045 Laser CP-50

10ppm • 300x300dpi • 2 Resident Fonts $512 K^{*}$ Bytes
Options include an envelope cassette which holds up to 50 envelopes, 1 MB extended memory, and a 250 sheet output sequencer

## Magnetography Printers

## Bul Peripherals Corporation

## - MP 6060

## 240x240dpi • 601pm • \$81,851

Offers a high end solution to DEC impact line printer users who require speed and flexibility.

## - MP 6090

240x240dpi • 901pm • \$103,314
Offers a high end solution to DEC line printer users who require speed and flexibility.
Image Graphics, Imc. - EBR 2000
$\$ 350,000$

## Miscellaneous Printers

## AMF GeoSpace <br> Corporation


192x192dpi • Drum Printing Technology

## Constantime Emgimeerimg Labs

## -5000A

35mm SlideMaker Printing Technology

## -50008

35 mm SlideMaker Printing Technology

## -8000A

35mm SlideMaker Printing Technology

## - 8000B

35mm SlideMaker Printing Technology

## DataProoucts <br> Corporation

## . 51400

Solid Ink Printing Technology
SI 400 uses solid ink technology which produces high quality and uses a straight paper path.

## Eastman Kodak

## ■ 1392

300x300dpi • Electrophotograph Printing
Technology - $\$ \mathbf{2 0 0}, 000$
Printer supports multiple PDLs including Postscript. Open architecture and software enhancements provide systems flexibility. Utilizes LED imaging which produces extremely clean originals.

## MacDonald

Detrwiler \& Assoc.

## - Colorfire 240

Drum Printing Technology

## Optronics, Inc.

- P1500

Drum Printing Technology

## Tektronix, Inc.

## - 4693 D

300x300dpi • Thermal-wax Printing
Technology - \$7,995
The 4693D features multiuser and multitasking capabilities, 256 gray shades, 4 MB RAM, and has a multiple print capability producing up to 99 copies, automatically.

## $-469305$

## 300x300dpi • Thermal-wax Printing

Technology - $\$ 12,995$
The 4693DS includes the same features as the 4693D. In addition, it is equipped with an image-enhancing color graphics rasterizer to produce laser quality output.

## Pen Plotters

## Brunimg <br> Computer Graphics

## - Zeta 5400

4 Pens Supported • 35ips • GML/HP-GL Graphics Language Support • $\mathbf{\$ 4 4 , 9 0 0}+$ The 5400 is a $54^{\prime \prime}$ wide roll plotter that is equipped with a proprietary servo-motor system as well as a linear actuator pen system. It also supports Tektronix Plot-10 and CCMP 960 graphics languages.

## - Zeta 912

8 Pens Supported • 30ips •GML/HP-GL Graphics Language Support • $\$ 3,950$ The Zeta 912 also supports Tektronix Plot10 and CCMP 960 graphics languages.

## - Zeta 924PS

8 Pens Supported • 30ips • GML/HP-GL
Graphics Language Support •\$6,700
Supports Tektronix Plot-10 and CCMP 960 graphics languages. It is a 24 " high performance, dual mode unit which supports both cut sheet and continuous paper.

## - Zeta 936PS

8 Pens Supported • 30ips • GML/HP-GL
Graphics Language Support • $\$ 8,700$
Supports Tektronix Plot-10 and CCMP960 graphics languages. It is a $36^{\prime \prime}$ high performance plotter that supports both continuous and cut sheet paper.

## - Zeta 987

8 Pens Supported • 30ips • GML/HP-GL
Graphics Language Support • $\$ 4,950$

## - Zetadraf 900

8 Pens Supported • 45ips • GML/HP-GL Graphics Language Support - \$7,950 The Zeta 987 and the Zetadraf 900 are 36 " plotters that utilize 6 g acceleration for high throughput. Support Calcomp 960 and Tektronix Plot 10 graphics languages. Feature standard 512 KB of expansion memory.

## CalComp, Imc.

- 10436t

8 Pens Supported • 24 ips • PCI/CPGL Graphics Language Support • \$7,995

## - 10446T

8 Pens Supported - 24ips - PCI Graphics Language Support •\$11,900
Handles rolled paper sizes up to $36.7^{\prime \prime} \mathrm{x}$ $120^{\prime}$, and the maximum plotting length for using $120^{\prime}$ rolled paper is 100 feet.

## - 1076C

4 Pens Supported - 50ips • PCI Graphics Language Support • \$17,995
Diagonally plots with velocities of up to 70 ips . Handles rolled media of $36.7^{\prime \prime} \times 120^{\prime}$ with a plotting area of 34 " $\times 120^{\prime}$. Cut sheet plotting area is $34 \times 50$ inches.

## - 1077

4 Pens Supported • 50ips • PCI Graphics Language Support - \$26,995
Diagonally plots with velocities of up to 70ips. Handles rolled media of $36.7 \mathrm{in} x$ 120 ft with a plotting area of $34^{\prime \prime} \times 120^{\prime}$. Cut sheet plotting area is $34 \times 50$ inches.

## - Artisan 1023 <br> 8 Pens Supported - 30ips - PCI/CPGL Graphics Language Support •\$4,895

- Artisan 1025

8 Pens Supported • 30ips • PCI/CPGL Graphics Language Support • $\mathbf{\$ 6 , 3 9 5}$
The Artisan 1023 and 1025 feature CalComp's Plot Manager firmware and CalComp's patented pen sensing capability, which senses the type of pen being used and automatically adjusts the pen speed and force, thereby enabling users to mix pen types without operator intervention.

## Hewlett-Packard

## Company

## -7400

8 Pens Supported • 15.7ips • HP-GL Graphics

## Language Support •\$1,295

The 7440A (ColorPro) is also available with an optional extended ROM Graphics Enhancement Cartridge that gives the plotter expanded handshaking capabilities and plotting functions. All HP pen plotters require special configurations and cabling methods to connect to a DEC VAX. The most commonly used cable the DECBC22D.

## - 7475A

6 Pens Supported • 15ips • HP-GL Graphics Language Support • $\$ 1,895$
The 7475A plotter also features 19 International character sets.

## 7550A

8 Pens Supported • 31.5ips • HP-GL Graphics Language Support - $\$ \mathbf{3 , 9 0 0}$
The 7550A plotter also features 20 International character sets, each available in two fonts. The buffer size may be expanded to 12 KB from the program. In addition, this model also features an automatic sheet feeder and a front panel that requests input, and displays operation and error messages.

## - 7570A

8 Pens Supported • 15.7ips • HP-GL Graphics Language Support - \$5,400
The 7570A (DraftPro) is equipped with a "pen sorting" feature that minimizes the number of pen picks by grouping lines of the same color together and drawing them simultaneously. It supports English and Architectural C and D media sizes as well as Metric A2 and A1 sizes.

## -7595A

8 Pens Supported • 24ips • HP-GL Graphics Language Support - $\$ 9,900$
The 7595A (DraftMaster I) features 20 International character sets available in three fonts, an HP 7585B and 7586B software emulation mode, and a "pen sorting" function. It supports English A-E media sizes, Architectural C-E sizes, Metric A4A0 sizes, as well as $17 \times 22$ and $34 \times 44$ paper sizes. It also supports the IEEE-488 interface.

## - 7596A

8 Pens Supported • 24ips • HP-GL Graphics Language Support - \$11,900
Same as the 7595A. The 7596A also supports rolled paper widths of 24 and 36 inches.

## Houston Instrument

## - DMP-61

6 Pens Supported • 45ips • HP-GL Graphics Language Support

## ■ DMP-62

6 Pens Supported • 33ips • HP-GL Graphics
Language Support
The DMP-61 and -62 feature built-in fonts
and are available with an optional 1 MB of memory.

## loline Corporation

## LP3700

1 Pen•10ips • HP-GL/DM/PL Graphics
Language Support • \$4,195
Equipped with a continuously adjustable feature that accepts bond, vellum, and mylar film media, as well as a programmable keypad that stores users plot defaults in nonvolatile memory. Available with a multipen changer option that houses $8-20$ pens and an optional 512 KB buffer function that holds up to 1 MB of compressed data, thereby increasing through put.

## © LP3700-MP

1 Pen • 10ips • HP-GL/DM/PL Graphics Language Support • \$4,695
An optional file server, PlotServr Plus, is available for $\$ 895$ and is designed for Ioline's large pen plotters. It reads any ASCII file that is stored on a single or double sided 360 KB or 1.2 MB IBM PCformat diskette and plugs directly into the RS232 port that reside on the printers.

## - LP4000

1 Pen • 20ips • HP-GL/DM/PL Graphics
Language Support • \$5,495

## LP4000-MP

1 Pen • 20ips • HP-GL/DM/PL Graphics Language Support •\$5,995
Same as the LP3700-MP. In addition, the LP4000 and LP4000-MP are equipped with a passive roll-feed option that automatically advances paper for the next plot.

## Numonics Corporation

■ 5460
1 Pen • 7.7ips • HP-GL Graphics Language Support •\$2,495

- 5860

8 Pens Supported • 7.7ips • HP-GL Graphics Language Support •\$3,195
The 5460 and 5860 are high performance plotters that are compatible with most CAD systems. Equipped with Motorola 68000 and Zilog Super 8 microprocessors. High performance CAD compatible digitizers and mouse products are also available.

■ 7191
8 Pens Supported • 35ips • HP-GL Graphics Language Support •\$5,995
High performance plotter that is compatible with most CAD systems. Equipped with Motorola 68000 and Zilog Super 8 microprocessors and features automatic paper sensing, and soft pen handling.

## Schlumberger Graphics

1824
8 Pens Supported • 33ips • HP-GL Graphics
Language Support • \$4,790

- 1825

8 Pens Supported • 33ips • HP-GL Graphics Language Support •\$6,290

## 1834-SR

8 Pens Supported • 47ips • HP-GL Graphics Language Support • \$6,890

- 1835-SR

8 Pens Supported • 47ips • HP-GL Graphics
Language Support •\$8,890
The 18 xx Series features a plot buffering
system that frees the host computer from other use while plotting. Supports roller ball pens, fiber tip pens and liquid ink technical pens with a variety of media types such as vellum and film.

## Tektronix, Inc. <br> - HC100

4 Pens Supported • 9ips

## Western Graphtec

- FP5301

10 Pens Supported • 18ips • GP-GL Graphics Language Support - $\$ 3,290$
This model is available with an optional set of ROMs which support Hewlett-Packard's software.

## - MP3100

8 Pens Supported • 15.7ips • GP-GL/HP-GL Graphics Language Support • \$1,195

## - MP3200

8 Pens Supported • 15.7ips • GP-GL/HP-GL Graphics Language Support •\$1,575

## - MP3300

8 Pens Supported • 15.7ips • GP-GL/HP-GL Graphics Language Support • $\$ 1,895$ The MP 3200 and 3300 feature electrostatic hold-down

## - PD9011

4 Pens Supported • 18ips • GP-GL/HP-GL Graphics Language Support • $\mathbf{\$ 8 , 9 5 0}$

## - PD9111

4 Pens Supported • 18ips • GP-GL Graphics Language Support - \$5,995

## - PD9311F

4 Pens Supported • 18ips • GP-GL/HP-GL Graphics Language Support • $\$ 3,295$
This model is equipped with a paper feed that holds up to 100 sheets.

## - WX4731

4 Pens Supported • 8ips • \$3,750

## Thermal Transfer

 PrintersCalComp, Inc.

- 903

1280x1024dpi • Serial/Parallel Interface(s)
Supported •\$8,995
Connects the printer to workstations with analog RGB output capability. Captures screen image in less than one second and frees the screen for the next image. Equipped with an internal multiplexer.

- ColorMaster

200x203.2dpi • Serial/Parallel Interface(s)
Supported - \$4,795
Equipped with a built-in rasterizer. Offers fill options, including outlines, solid color areas, and dot cross-hatch patterns. Colors, patterns and textures may be blended to create different effects. Features a multiple copy function.

## - ColorView 5612

200x203.2dpi • Serial/Parallel Interface(s) Supported • \$8,395
Features a tractor-feed mechanism for unattended operation and multiple copy generation.

## - ColorView 5612VS

200x203.2dpi • Serial/Parallel Interface(s) Supported - $\$ 11,995$
Includes a color video controller (903) that connects the printer to workstations with analog RGB output capability. Supports black and white reversal, fractional enlargement and multiple copy generation.

## - ColorView 5613

300x300dpi • Serial/Parallel Interface(s)
Supported •\$9,495

## - ColorView 5613 VS

300x300dpi • Serial/Parallel Interface(s)
Supported • \$12,995

- ColorView 5912

200x203.2dpi • Serial/Parallel Interface(s)
Supported - \$10,495
Stores and prints pre-rasterized images.

## - ColorView 5912Vs

200x203.2dpi • Serial/Parallel Interface(s)
Supported •\$15,995
Stores and prints pre-rasterized images. Includes a color video controller (903) that connects the printer to workstations with analog RGB output capability. Supports black and white reversal, fractional enlargement and multiple copy generation.

## - ColorView 5913

300x300dpi • Serial/Parallel Interlace(s)
Supported • \$13,995

- ColorView 5913 VS

300x300dpi • Serial/Parallel Interface(s) Supported - \$17,495

## - PlotMaster

200×203.2dpi • Serial/Parallel Interface(s) Supported •\$5,295
Features a full three-plane buffer with enough vector capacity to accommodate the high data requirements of dense CAD drawings. PlotMaster emulates the CalComp 1040GT pen plotter via CalComp's PCI graphics language.

Fargo Electronics, Inc. - Prodigy

203x203dpi • Serial Interface(s) Supported • \$2,495
Ideal for retail and industrial label, ticket, or tag printing applications. Prints bar codes, fonts and graphics using direct or thermal transfer printing methods.

## Lasergraphics, Inc.

## - Rascol III/CPS

203x200dpi - 8 Resident Fonts • Serial/ Parallel Interface(s) Supported • $\$ 9,950$ The Rascol III/CPS is an intelligent color and black and white printing system that is equipped with a rasterizing microcomputer and a thermal transfer printer. The printing speed for black and white output is 30 seconds. Packaged with the printer is the Rascol III, a Motorola 68000-based rastering microcomputer ( $24 \times 11 \times 10$ ).

## QMS, Imc.

## - ColorScript 100

300x300dpi - 35 Resident Fonts • Parallel Interface(s) Supported - \$15,995
The Model 20 is a high resolution, thermal transfer PostScript printer. It also prints transparencies.

## - Colorscript 100

$300 \times 300 \mathrm{dpi} \bullet 35$ Resident Fonts • Serial Interface(s) Supported • \$19,995
Model 30 is a high resolution color thermal transfer PostScript printer. It also prints A3 size cut sheet paper and transparencies.

## ■ QMS Colorgraphix 100

$300 \times 300 \mathrm{dpi} \bullet 48$ Resident Fonts • Serial Interface(s) Supported • $\$ 13,995$
The Model 65 is designed for CAD, CAE and presentation graphics environments. A DGIS based controller with windows, CGI, AutoCad, AutoShade, TIPS, TARGA, ANSI CGM, and HP-GL is also included. A two board controller resides on the ATbus or compatible.

## RDK, Inc.

## - RY-T001

200x200dpi • Serial/Parallel Interface(s)
Supported • \$14,995
Widebody thermal plotter that supports a 300 foot roll of $33.5^{\prime \prime}$ wide thermal (FAX) paper. Resolution is better than pen or electrostatic plotters. Produces complex E size drawings in less than two minutes. May be used effectively to produce distribution copies.

## Schlumberger Graphics

- 5232-Color PS

300x300dpi • 35 Resident Fonts • Serial/ Parallel Interface(s) Supported • $\mathbf{\$ 1 9 , 9 0 0}$

Supports AppleTalk, Illustrator, and Adobe. Optional 20 MB or 80 MB hard disks are available.

## Seloo lnstruments

- CH-5504
$300 \times 300 \mathrm{dpi}$


## CH-5514

300x300dpi
The CH-5504 and -5514 feature a range of integrated video and parallel interface controller options that provides up to ten configurations with various color, resolution, and pricing choices.

## TOYO Spectrum Corporation

TOYO SPECTRUM


- TPG-4300

300x300dpi - $\$ 13,750$
Without special software, TOYO's TPG4300 thermal transfer video printer outputs 300dpif full color images on A or B size paper or transparancy film from any CRT monitor with up to $1280 \times 1024 \mathrm{dpi}$ resolution. A built-in 125 MHz interface automatically adjusts to any CRT monitor, accommodating interlaced or noninterlaced scanning, horizontal scan rates from 15 KHz to 75 KHz , and frame rates from 30 Hz to 80 Hz . It accepts video pixel frequencies from 7.5 MHz to 125 MHz , and video levels from 0.5 to 1.5 volts of RGB analog video. Up to eight program presets for different video timings and specifications permit hardcopy sharing among workstations, PCs, and graphic systems in any combination. Multiplexers may be daisy-chained to serve more than four channels. Image capture time of less than a second, quickly releases monitor for other work. Maximum printing time for maximum B -size image in full color
is 180 seconds.

## DATA ACQUISITION DEVICES

## ANALOG-TO-DIGITAL CONVERSION



ANALOG-to-DIGITAL CONVERSION

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Phoenix Data, Inc. 602 278-8528 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6914THS | 64 | 64 | 500 KHz | 80 | Y | 4Kx16 FIFO | 8 | 8 | 100 meg | 80 | 90 d |  |  |
| 6914UH | 256 | 128 | 1000 KHz | 80 | $Y$ | 4Kx16 FIFO | 16 | 8 | -100 meg | 80 | 90 d |  |  |
| 6914UHS | 32 | 32 | 1000 KHz | 80 | $Y$ | 4K×16 FIFO | 8 | 8 | 100 meg | 80 | 90 d |  |  |
| 6914VH | 256 | 128 | 650 KHz | 80 | $Y$ | 4K×16 FIFO | 16 | 8 | 100 meg | 80 | 90 d |  |  |
| 6914VHS | 32 | 32 | 650 KHz | 80 | $Y$ | 4K×16 FIFO | 4 | 4 | 100 meg | 80 | 90 d |  |  |
| 6915 | 256 | 128 | 220 KHz | 80 | $Y$ | 4K×16 FIFO | 16 | 8 | -100 meg | 80 | 90 d |  |  |
| 6915H | 256 | 128 | 325 KHz | 80 | $Y$ | 4Kx16 FIFO | 16 | 8 | -100 meg | 80 | 90 d |  |  |
| 6915HS | 64 | 64 | 325 KHz | 80 | $Y$ | 4K×16 FIFO | 8 | 8 | 100 meg | 80 | 90 d |  |  |
| 6915S | 64 | 64 | 175 KHz | 80 | $Y$ | 4K×16 FIFO | 8 | 8 | 100 meg | 80 | 90 d |  |  |
| 6915THS | 64 | 64 | 500 KHz | 80 | $Y$ | 4Kx16 FIFO | 8 | 8 | 100 meg | 80 | 90 d |  |  |
| 6915UH | 256 | 128 | 1000 KHz | 80 | $Y$ | 4K×16 FIFO | 16 | 8 | -100 meg | 80 | 90 d |  |  |
| 6915UHS | 32 | 32 | 1000 KHz | 80 | $Y$ | 4K×16 FIFO | 8 | 8 | 100 meg | 80 | 90 d |  |  |
| 6915VH | 256 | 128 | 650 KHz | 80 | $Y$ | 4K×16 FIFO | 16 | 8 | -100 meg | 80 | 90 d |  |  |
| 6915VHS | 32 | 32 | 650 KHz | 80 | $Y$ | 4Kx16 FIFO | 4 | 4 | 100 meg | 80 | 90 d |  |  |
| 6916 | 256 | 128 | 110 KHz | 80 | Y | 4Kx16 FIFO | 16 | 8 | -100 meg | 80 | 90 d |  |  |
| 6916S | 64 | 64 | 100 KHz | 80 | $Y$ | 4K×16 FIFO | 8 | 8 | 100 meg | 80 | 90 d |  |  |
| 6916THS | 64 | 64 | 200 KHz | 80 | Y | 4Kx16 FIFO | 8 | 8 | 100 meg | 80 | 90 d |  |  |
| 6916VH | 256 | 128 | 300 KHz | 80 | $Y$ | 4K×16 FIFO | 16 | 8 | -100 meg | 80 | 90 d |  |  |
| 7115 |  | 8-128 | 10 KHz | 80 | $Y$ |  |  |  | 100 meg | 100 | 90 d |  |  |
| 7116 |  | 8-128 | 10 KHz | 80 | $Y$ |  |  |  | 100 meg | 100 | 90 d |  |  |
| 7215 |  | 8-128 | 20 KHz | 80 | $Y$ |  |  |  | 100 meg | 100 | 90 d |  |  |
| 7315 |  | 8-128 | 30 KHz | 80 | $Y$ |  |  |  | 100 meg | 100 | 90 d |  |  |
| 7415 |  | 8-128 | 40 KHz | 80 | $Y$ |  |  |  | 100 meg | 100 | 90 d |  |  |
| 7515 |  | 8-128 | 50 KHz | 80 | $Y$ |  |  |  | 100 meg | 100 | 90 d |  |  |
| 8012 |  | 8-128 | 20 KHz | 100 | $Y$ |  |  |  | 100 meg | 80 | 90 d |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 8200AU |  |  |  |  |  |  |  |  |  |  |  |  | \$19,050 |
| DASMV |  |  |  |  |  |  |  |  |  |  |  |  | \$38,000 |
| EM113 |  |  |  |  | Y |  |  |  |  |  |  |  |  |
| EM213 |  |  |  |  | $Y$ |  |  |  |  |  |  |  |  |
| EM313 |  |  |  |  | $Y$ |  |  |  |  |  |  |  |  |
| GMAD1A |  |  |  |  |  |  |  |  | >10 meg |  |  |  |  |
| GMAD2A |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GMAD3A |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GMAD4A |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SID-ADV11 | 32 | 16 |  | $>80$ | N |  |  |  | 100 meg |  | 1 yr |  | \$1,200 |
| Tektronix, Inc. 503 627-7111 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 50M10 |  |  |  |  |  |  |  |  |  |  |  |  | \$895 |

## DIGITAL-to-ANALOG DEVICES




## Advertise in DEC Professional's Hardware Buyers Guide

The Buyers Guide is ideal for advertising DEC related products and services. The Buyers Guide reaches 34,116 BPA audited DEC sites. Among the buyers who'll see your ads are:

- 86,792 who own or plan to buy a VAX
- 37,194 in Fortune 1000 companies
- 46,025 with MIS titles
- 52,063 with managerial/supervisory titles
- 23,129 OEMs

For more information on how you can advertise in the annual Hardware Buyers Guide, contact: Steve Maher
DEC Professional
101 Witmer Road Horsham, PA 19044
(215) 957-1500 FAX (215) 957-1050

## Analog-to-Digital Conversion

## Adac Corporation

## - 1023AD

16 Single Ended Channels - 8 Differential Ended Channels • 70 Typical Differential CMRR
Plugs into the host backplane to provide very high speed, high level analog to digi-
tal conversion for Q-bus based systems.

## - 1032ADC

32 Single Ended Channels • 16 Differential Ended Channels
Plugs into the host backplane to provide very high speed, high level analog to digital conversion.

## Analogic Corporation

## - Adam-846

The Adam-846 uses a proprietary recircu-lating-flash architecture to achieve a 333 KHz sampling rate, high accuracy and linearity. It also features a built-in sample and hold amplifier.

## Oрто 22

- PAMUX-AC6

512 Single Ended Channels • 512 Differential Ended Channels - -65 Typical Differential CMRR • 128 Buffer Size - $\$ 75$ per channel High speed expandable I/O system for digita//analog applications. Works with the DEC DRV11-J device to provide up to 512 points of industrial I/O.

## Рhoenix Data, Inc.

- 6412

512 Single Ended Channels • 256 Differential Ended Channels • 80 Typical Differential CMRR • 4 KBx 16 FIFO Buffer Size
Compatible with UNIBUS, Q-bus, and BIbus systems.

## r 6413

512 Single Ended Channels • 256 Differential
Ended Channels • 80 Typical Differential
CMRR • 4KBx16 FIFO Buffer Size

## ■ 6414

512 Single Ended Channels • 256 Differential Ended Channels - 80 Typical Differential CMRR • 4KBx16 FIFO Buffer Size

## ■ 6415

512 Single Ended Channels • 256 Differential Ended Channels • 80 Typical Differential CMRR • 4KBx16 FIFO Buffer Size

## - 6416

512 Single Ended Channels • 256 Differential
Ended Channels • 80 Typical Differential CMRR • 4KBx16 FIFO Buffer Size

## ■ 6712

512 Single Ended Channels • 256 Differential Ended Channels • 80 Typical Differential CMRR • 4KBx16 FIFO Buffer Size

## - 6713

512 Single Ended Channels • 256 Differential Ended Channels • 80 Typical Differential CMRR • 4KBx16 FIFO Buffer Size

## ■ 6714

512 Single Ended Channels • 256 Differential
Ended Channels - 80 Typical Differential
CMRR • 4KBx16 FIFO Buffer Size

■ 6715
512 Single Ended Channels • 256 Differential Ended Channels • 80 Typical Differential CMRR • 4KBx16 FIFO Buffer Size

## ■ 6716

512 Single Ended Channels • 256 Differential Ended Channels • 80 Typical Differential CMRR • $4 K B \times 16$ FIFO Buffer Size

## ■ 6812

512 Single Ended Channels • 256 Differential Ended Channels - 80 Typical Differential CMRR • 4KBx16 FIFO Buffer Size

## - 6813

512 Single Ended Channels • 256 Differential Ended Channels • 80 Typical Differential CMRR - 4KBx16 FIFO Buffer Size

## - 6814

512 Single Ended Channels • 256 Differential
Ended Channels • 80 Typical Differential
CMRR • 4KBx16 FIFO Buffer Size

## - 6815

512 Single Ended Channels • 256 Differential Ended Channels • 80 Typical Differential CMRR • 4KBx16 FIFO Buffer Size

## - 6816

512 Single Ended Channels • 256 Differential Ended Channels • 80 Typical Differential CMRR • 4KBx16 FIFO Buffer Size

## - 6912

256 Single Ended Channels • 128 Differential Ended Channels • 80 Typical Differential CMRR • 4KBx16 FIFO Buffer Size

## - 6912 H

256 Single Ended Channels • 128 Difflerential Ended Channels • 80 Typical Differential CMRR • $4 \mathrm{~KB} \times 16$ FIFO Buffer Size

## - 6912 HS

64 Single Ended Channels • 64 Differential Ended Channels • 80 Typical Differential CMRR • 4KBx16 FIFO Buffer Size

## - 69125

64 Single Ended Channels • 64 Differential
Ended Channels • 80 Typical Differential
CMRR - 4KB×16 FIFO Buffer Size

## - 6912THS

64 Single Ended Channels • 64 Differential Ended Channels • 80 Typical Differential CMRR • 4KBx16 FIFO Buffer Size

## - 6912UH

256 Single Ended Channels • 128 Differential Ended Channels • 80 Typical Differential CMRR • 4KBx16 FIFO Buffer Size

## - 6912UHS

32 Single Ended Channels • 32 Differential Ended Channels • 80 Typical Differential CMRR • 4KBx16 FIFO Buffer Size

## - 6912VH

256 Single Ended Channels • 128 Differential Ended Channels • 80 Typical Differential CMRR - 4KBx16 FIFO Buffer Size

## ■ 6912VHS

32 Single Ended Channels • 32 Differential Ended Channels • 80 Typical Differential CMRR • 4KBx16 FIFO Buffer Size

## - 6913

256 Single Ended Channels • 128 Differential Ended Channels - 80 Typical Differential CMRR • 4KBx16 FIFO Buffer Size

## - 6913 H

256 Single Ended Channels • 128 Differential Ended Channels - 80 Typical Differential CMRR • 4KBx16 FIFO Buffer Size

## - 6913 HS

64 Single Ended Channels • 64 Differential Ended Channels • 80 Typical Differential CMRR • 4KBx16 FIFO Buffer Size

## - 6913 S

64 Single Ended Channels • 64 Differential Ended Channels • 80 Typical Differential CMRR • 4KBx16 FIFO Buffer Size

## - 6913 THS

64 Single Ended Channels • 64 Differential Ended Channels • 80 Typical Differential CMRR • 4KBx16 FIFO Buffer Size

## ■ 6913UH

256 Single Ended Channels • 128 Differential
Ended Channels • 80 Typical Differential
CMRR • 4KBx16 FIFO Buffer Size

## - 6913UHS

32 Single Ended Channels • 32 Differential Ended Channels • 80 Typical Differential CMRR • 4KBx16 FIFO Buffer Size

## -6913VH

256 Single Ended Channels • 128 Differential Ended Channels • 80 Typical Differential CMRR • 4KBx16 FIFO Buffer Size

## ■6913VHS

32 Single Ended Channels • 32 Differential Ended Channels • 80 Typical Differential CMRR • 4KBx16 FIFO Buffer Size

## - 6914

256 Single Ended Channels • 128 Differential Ended Channels • 80 Typical Differential CMRR • 4KBx16 FIFO Buffer Size

## - 6914 H

256 Single Ended Channels • 128 Differential Ended Channels • 80 Typical Differential
CMRR • 4KBx16 FIFO Butter Size

## ■6914HS

64 Single Ended Channels • 64 Differential
Ended Channels • 80 Typical Differential
CMRR • 4KBx 16 FIFO Buffer Size

## - 6914 S

64 Single Ended Channels • 64 Differential
Ended Channels • 80 Typical Differential
CMRR • 4KBx16 FIFO Buffer Size

## E6914TMS

64 Single Ended Channels • 64 Differential
Ended Channels • 80 Typical Differential CMRR • 4KB×16 FIFO Buffer Size

## ■6914UH

256 Single Ended Channels • 128 Differential Ended Channels • 80 Typical Differential CMRR • 4KBx16 FIFO Buffer Size

## - 6914 UHS

32 Single Ended Channels • 32 Differential
Ended Channels • 80 Typical Differential
CMRR - 4KBx16 FIFO Buffer Size

## - 6914 VH

256 Single Ended Channels • 128 Differential
Ended Channels • 80 Typical Differential
CMRR • 4KBx16 FIFO Buffer Size

## ■6914VHs

32 Single Ended Channels • 32 Differential Ended Channels • 80 Typical Differential CMRR • 4KBx16 FIFO Buffer Size

## $\square 6915$

256 Single Ended Channels • 128 Differential Ended Channels • 80 Typical Differential
CMRR • 4KBx16 FIFO Buffer Size

## - 6915

256 Single Ended Channels • 128 Differential Ended Channels • 80 Typical Differential CMRR • 4 KBx16 FIFO Buffer Size

## 6915HS

64 Single Ended Channels • 64 Differential
Ended Channels - 80 Typical Differential
CMRR • 4KBx16 FIFO Buffer Size

## - $6915 s$

64 Single Ended Channels • 64 Differential Ended Channels • 80 Typical Differential CMRR - 4KBx16 FIFO Buffer Size

## ■ 6915THS

64 Single Ended Channels • 64 Differential
Ended Channels • 80 Typical Differential
CMRR • 4KBx16 FIFO Buffer Size

## - 6915UH

256 Single Ended Channels • 128 Differential Ended Channels • 80 Typical Differential CMRR • 4KBx16 FIFO Buffer Size

## -6915UHS

32 Single Ended Channels • 32 Differential Ended Channels • 80 Typical Differential CMRR • 4KBx16 FIFO Buffer Size

## © 6915VH

256 Single Ended Channels • 128 Differential Ended Channels $\bullet 80$ Typical Differential CMRR • 4KBx16 FIFO Buffer Size

## ■ 6915VHS

32 Single Ended Channels • 32 Differential
Ended Channels • 80 Typical Differential
CMRR • 4KBx16 FIFO Buffer Size

## - 6916

256 Single Ended Channels • 128 Differential
Ended Channels • 80 Typical Differential
CMRR • 4KBx16 FIFO Buffer Size

## - 6916

64 Single Ended Channels • 64 Differential
Ended Channels • 80 Typical Differential
CMRR • 4KBx16 FIFO Buffer Size

## © 6916THS

64 Single Ended Channels $\bullet 64$ Differential
Ended Channels - 80 Typical Differential
CMRR • 4KBx16 FIFO Buffer Size

## - 6916VH

256 Single Ended Channels • 128 Differential Ended Channels • 80 Typical Differential CMRR • 4KBx16 FIFO Buffer Size
The 6900 Series is equipped with simultaneous sample and hold modules. A singleended analog input is not recommended above 13 -bits of resolution.

## - 7115

8-128 Differential Ended Channels - 100
Typical Differential CMRR

## - 7116

8-128 Differential Ended Channels • 100 Typical Differential CMRR

## - 7215

8-128 Differential Ended Channels • 100 Typical Differential CMRR

## ■ 7315

8-128 Differential Ended Channels - 100 Typical Differential CMRR

## © 7415

8-128 Differential Ended Channels • 100 Typical Differential CMRR

## - 7515

8-128 Differential Ended Channels • 100

## Typical Differential CMRR

The 7000 Series is used when the level of analog input signals is variable and the operator wishes to maintain resolution. This series is able to switch channels, determine the gain range, and perform a 15 -bit A to D conversion in less than 20 ms Finally, this series is capable of auto or programmable gain ranging, where the gain ranges may be preprogrammed by the operator ( 1 to 128), through the host interface.

## - 8012

8-128 Differential Ended Channels - 80 Typical Differential CMRR
The 8000 Series is used when the level of anaolg inpput signals is variable and the operator wishes to maintain resolution. It also features automatic ( 2.5 KHz ) or programmed ( 20 KHz ) gain selection, from one to 1,024 in 11 binary steps. The automatic ranging mode provides the system with a binary floating point capability. Series 6000,7000 , and 8000 were designed to address individual channels, and then convert each channel's analog input to digital form, thereby outputting a digitized word to the host interface.

## Preston Scientific

## - 8200AU

## \$19,050

The 8300 AU is a multichannel instrumentation amplifier system that combines optimum versatility and accuracy wtih digital control of gain, bandwidth and calibration.

## C DASMV

$\$ 38,000$
Designed for MicroVAX systems this "turnkey" high-speed realtime data acquisition system provides multistation control and display capabilities for optimum operator flexibility in test cell applications.
[ EM113
■ EM213

- EM313
- GMAD1A

Supports Differential Ended Channels

## - GMAD2A

- $\operatorname{cmada}$ a
- GMADAA


## - GMAD5A

Supports Differential Ended Channels

## Sigma

Imformation Systems

- SID-ADV11

32 Single Ended Channels • 16 Differential Ended Channels •\$1,200

## Tektronix, Inc.

- 50M10
$\$ 895$


## Analog I/O

## Adac Corporation

- 1021

16 Analog Channels • 12 ADC Bits • 12 DAC Bits
Provides high speed, high level multiplexed analog to digital conversion with program and interrupt interfaces to the LSI-11 system.

## - 1114AD

8-16 Analog Channels • 12 ADC Bits • 12 DAC Bits

## - 600/11 AD

8-64 Analog Channels • 12 ADC Bits • 12 DAC Bits • 100KHz Throughput Rate • $\$ 1,865$
The $600 / 11 \mathrm{AD}$ is also equipped with a program control/program interrupt interface.

## -600/11 DA

8-64 Analog Channels • 12 ADC Bits • 12 DAC Bits • 100KHz Throughput Rate • $\$ 800$ The $600 / 11$ DA contains a scope control and power converter. Requires a W1 cable

## -635/11 AD

8-64 Analog Channels • 12 ADC Bits • 12 DAC Bits • 35 KHz Throughput Rate •\$1,535

## - 635/11 AL

8-64 Analog Channels • 12 ADC Bits • 12 DAC Bits • 20 KHz Throughput Rate •\$1,645
The $635 / 11 \mathrm{AL}$ is also equipped with a program control/program interrupt interface. Filtering is also provided to minimize noise interference.

## Data Translation, Inc. ■ 0 T2751 <br> 2 Analog Channels • 12 ADC Bits • 12 DAC Bits - 100KHz Throughput Rate • \$2,240 <br> Features DMA for high level inputs with 22-bit addressing and continuous performance data acquisition. <br> - DT2752 <br> 8-16 Analog Channels • 12 ADC Bits • 12 DAC Bits • 50KHz Throughput Rate • $\$ \mathbf{2 , 3 6 0}$ Features DMA for high level inputs. Options include programmable gains of 1,2 , 4 , and 8 , and $125-250 \mathrm{KHz}$ throughput.

## - DT2757

4 Analog Channels • 16 ADC Bits • 16 DAC Bits - 100KHz Throughput Rate • $\mathbf{\$ 3 , 9 2 0}$ Features DMA for high level inputs with 22-bit addressing and continuous performance data acquisition.

## - DT2762-PEH

8-16 Analog Channels • 12 ADC Bits • 12 DAC Bits • 40KHz Throughput Rate •\$1,370 Features bit-maskable interrupt on change for low byte and programmable realtime clock. Options include programmable gain (-PGH), gains of $1,2,4$, and $8,4-20 \mathrm{~mA}$ inputs for 8DI channels, as well as 16 -bit resolution with programmable gain, 2.5 KHz throughput, and 8DI analog input channels.

## - 1072766

4 Analog Channels • 12 ADC Bits • 12 DAC Bits - 333KHz Throughput Rate • \$1,260

## Digital I/0

## Data Translation, Inc.

## - DT2781-PGH

16 Input Channels $\bullet 16$ Output Channels $\bullet 2$ Supported Channels ${ }^{40 \mathrm{KHz}}$ Throughput Rate - \$1,765

## Орто 22

## - optomux

16 Input Channels • 16 Output Channels • 4096 Supported Channels • 1600 cps Throughput Rate - $\$ 28$ per channel Distributed industrial I/O system that attaches to the serial port of any DEC computer. Provides up to 4096 points of analog and digital industrial I/O.

## - PB32

32 Input Channels • 32 Output Channeis • 32 Supported Channels $\boldsymbol{\bullet} \mathbf{1 0 0 K H z}$ Throughput Rate - $\$ 457$
Attaches to the 64 point DRV11-J and provides a direct ribbon cable attachment of up to 64 points of optically isolated digital I/O.

## Phoenix Data, Inc.

## - DIS 9000

512 Input Channels • 400KHz/ch Throughput Rate
The DIS 9000 is an expansion input subsystem and has all the functionalities of the IDIS 9000 .

## - DOS 9000

## 512 Output Channels

The DOS 9000 is an expansion output subsystem and features all the functionalities of the IDIS 9000 .

## - IDIS 9000

512 Input Channels • 400KHz/ch Throughput Rate

## - IDIS 9000

512 Input Channels • 400KHz/ch Throughput Rate
The IDIS 9000 is capable of accepting digital input signals over a wide range of voltage levels. These inputs are grouped into 16 -bit words and transferred to the host through a DMA port via a PDI compatible interface. Consult factory for information regarding intelligent MPUs, Universal Computer Interfaces, and combining input/output subsystems.

## - IDOS 9000

512 Output Channels
The IDOS 9000 receives 16 -bit data words from a CPU selected DMA port via a PDI compatible interface and stores the data in registers which control open collector output drivers. These drivers control individual circuits which may be operated over a wide range of voltages and feature high sink current, transient suppression, high breakdown voltage, and output clamp diodes.

## Tektronix, Inc.

- 50M30

16 Supported Channels •\$495

## - 50M50

2 Supported Channels - \$995
The 50 M 50 is a 16 KB digital I/O device that may be configured as a single 16 -bit I/O port or as two 8 -bit I/O ports. It may be programmed to input or output data on two different channels or to input data on one channel and output data on the other.

## Get 6 Years of Expert Answers From . . . VAX Professional A Software Journal for VMS

ssues dating back to December 1983, are now available for $\$ 175$ a set (over 25 issues). This is your chance to replace your worn-out copies and missing issues.

Over the years, VAX Professional has covered the important topics on VAX/VMS systems. Six issues a year, filled with articles by hands-on experts like Bruce Ellis, Al Cini, Dave Mallery, Carl Marbach, Rex Jaeschke, Kevin Barkes and many more.

Complete your computer library, order a set of over 25
 available back issues. Then, you'll always have solutions to VAX/VMS programming problems at you finger tips.

## ORDER YOUR SET OF AVAILABLE BACK ISSUES NOW!

FOR FAST SERVICE CALL (215) 957-1500 with credit card information or complete and mail the form below.

Clip and Send $\nabla$

## VAX Professional Back Issue Order Form

YES, I want $\qquad$ back issue set(s) at $\$ 175$ per set.
Payment enclosed for \$

| Charge to: $\square$ VISA $\square$ MasterCard | $\square$ American Express |
| :--- | :--- |
| (Canadian orders add \$10 shipping for each set.) |  |
| Account\# _ |  |

Name
Company
(PLEASE PRINT)

Address
City _ Selephone ( )__ State ___ Zip ___

ALL ORDERS MUST BE PREPAID
Make checks payable and send to:
VAX Professional, P.O. Box 773, Horsham, PA 19044-0773

## POWER DEVICES

## POWER CONDITIONERS



## POWER CONDITIONERS



## POWER DISTRIBUTION CONTROLLERS

| 을 |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Computer Power Products 213 323-1231 |  |  |  |  |  |  |  |  |  |  |  |  |
| CPP012KVA |  | 12K | 208/380/48 |  | T |  |  |  |  |  |  | \$5,000 |
| CPP1000KVA |  | 1000K | 208/380/48 |  | T |  |  |  |  |  |  | \$150,000 |
| Controlled Power Company 800 521-4792 |  |  |  |  |  |  |  |  |  |  |  |  |
| Series 7000 | 60 | 225K | 208-480 | 126 | T |  | Y | Y |  | $N$ | 1 yr |  |
| Deltron, Inc. 215 699-9261 |  |  |  |  |  |  |  |  |  |  |  |  |
| PowerMedic |  |  |  |  |  |  | Y |  |  |  | 1yr |  |
| Eltec, Inc. 714 241-1331 |  |  |  |  |  |  |  |  |  |  |  |  |
| Topaz VRS |  | 15K | 208/480 |  | T |  |  |  |  |  |  | \$5,137 |
| Topaz VRS |  | 100K | 208/480 |  | T |  |  |  |  |  |  | \$41,090 |
| Everest Electronic Equipment 404 995-8688 |  |  |  |  |  |  |  |  |  |  |  |  |
| MPD861-C | 50-60 | 28.8K | 120 | 12 | S | L5-30P | Y | Y/- | 5-15R | Y | 1 yr | \$535 |
| MPD872-D | 50-60 | 28.8K | 120 | 10 | S | L5-30P | $Y$ | Y/- | 5-15R | $Y$ | 1 yr | \$425 |
| MPD874-D | 50-60 | 28.8K | 120 | 8 | S | L5-30P | Y | Y/- | 5-20R | Y | 1 yr | \$585 |
| International Power Machines Corporation 214 272-8000 |  |  |  |  |  |  |  |  |  |  |  |  |
| PDU | 60 |  | 208/480 | 252 | T |  | Y | *** |  | Y | 1 yr |  |
| Isoreg Corporation 508 486-9483 |  |  |  |  |  |  |  |  |  |  |  |  |
| GuardsMan |  |  |  |  |  |  |  |  |  |  |  |  |
| Marway Products, Inc. 714 973-1800 |  |  |  |  |  |  |  |  |  |  |  |  |
| MPC 871A | 50/60 | 1440 | 120 | 5 | S | 5-15P | Y | Y/- | 5-15R | Y | 1 yr |  |
| MPC 871B | 50/60 | 2880 | 240 | 6 | S | 6-15P | $Y$ | Y/- | 6-15R | $Y$ | 1 yr |  |
| MPC 872C | 50/60 | 3840 | 240 | 10 | S | L6-20P | $Y$ | Y/- | 6-20R | Y | 1 yr |  |
| MPC 872D | 50/60 | 2880 | 120 | 10 | S | L5-30P | $Y$ | Y/- | 5-20R | Y | 1 yr |  |
| MPC 872E | 50/60 | 3840 | 120/240 | 10 | S/T | L14-20P | $Y$ | Y/- | 5-15R | Y | 1 yr |  |
| MPC 874A | 50/60 | 3880 | 120/240 | 8 | S/T | L14-20P | $Y$ | Y/- | 5-15R | Y | 1 yr |  |
| MPC 874B | 50/60 | 3840 | 240 | 8 | S | L6-20P | $Y$ | Y/- | 6-20R | Y | 1 yr |  |
| MPC 874D | 50/60 | 2880 | 120 | 8 | S | L5-30P | $Y$ | Y/- | 5-20R | $Y$ | 1 yr |  |
| MPC 874E | 50/60 | 5760 | 240 | 8 | S | L6-30P | $Y$ | Y/- | 6-20R | Y | 1 yr |  |
| MPC 877B | 50/60 | 2880 | 120/240 | 6 | S | 6-15P | $Y$ | Y/- | 6-15R | Y | 1 yr |  |
| MPC 877D | 50/60 | 2880 | 120 | 6 | S | L5-30P | $Y$ | Y/- | 5-20R | $Y$ | 1 yr |  |
| MPC 877 E | 50/60 | 5760 | 240 | 6 | S | L6-30P | $Y$ | Y/- | 6-20R | $Y$ | 1 yr |  |
| MPD 115 | 50/60 | 2400 | 120 | 12 | S | L5-30P | $Y$ | Y/- | 5-15R | $Y$ | 1 yr |  |
| MPD 208A | 50/60 | 3600 | 120 | 18 | T | L21-30P | $Y$ | Y/- | 5-15R | $Y$ | 1 yr |  |
| MPD 230 | 50/60 | 6900 | 230 | 12 | S | L6-20P | $Y$ | Y/- | 6-15R | Y | 1 yr |  |
| MPD 416A | 50/60 | 4800 | 240 | 18 | T |  | $Y$ | Y/- | 6-15R | $Y$ | 1 yr |  |
| MPD 861A | 50/60 | 3840 | 120/240 | 12 | S/T | L14-30P | $Y$ | Y/- | 5-20R | $Y$ | 1 yr |  |
| MPD 861B | 50/60 | 3840 | 240 | 12 | S | L6-20P | $Y$ | Y/- | 6-20R | $Y$ | 1 yr |  |
| MPD 861C | 50/60 | 3840 | 120 | 12 | S | L5-30P | $Y$ | Y/- | 5-20R | $Y$ | 1 yr |  |
| Power Techniques, Inc. 805 685-0533 |  |  |  |  |  |  |  |  |  |  |  |  |
| PT-1000 | 60 |  | 120 | 10 | S | 5-15P | $Y$ | Y/- | 5-15R | Y | 18 m | \$317+ |
| PT-2000 | 60 |  | 120 | 10 | S | L5-30P | $Y$ | Y/- | 5-30R | Y | 18 m | \$405 |
| PT-2000 | 60 |  | 120 | 10 | S | L5-30P | $Y$ | Y/- | 5-30R | Y | 18 m | \$445 |
| PT-500 | 60 |  | 120 | 8/10 | S | 5-15R | $Y$ | Y/- | 5-15R | Y | 18 m | \$195 |
| PT-8740 | 60 |  | 120 | 10 | S | L5-30P | $Y$ | Y/- | 5-20R | Y | 18 m | \$424 |
| PT-8740 | 60 |  | 120 | 10 | S | L5-30P | $Y$ | Y/- | 6-20R | Y | 18 m | \$424 |
| Pulizzi Engineering, Inc. 714 540-4229 |  |  |  |  |  |  |  |  |  |  |  |  |
| PC 300-C | 50/60 | 8640 | 120/208 | 14 | T | L21-30P | Y | Y/Y | 5-15 | Y | 1 yr | \$1,198 |
| PC 861-E | 47-63 | 5760 | 180/270 | 12 | S |  | $Y$ | Y/Y | 6-20R | $Y$ | 1 yr | \$682 |
| PC115-A | 47-63 | 1440 | 90/135 | 12 | S | 5-15P | $Y$ | Y/- | 5-15R | Y | 1 yr | \$276 |

## POWER DISTRIBUTION CONTROLLERS

| む̃ |  |  |  |  | $1$ |  | $1$ |  |  | $Q^{0}$ |  |  | U |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Pulizzi Engineering, Inc. 714 540-4229 (continued) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PC115-B | 47-63 | 2880 | 180/270 | 12 | S |  | Y | Y/- | 6-15R | Y | 1 yr |  | \$380 |
| PC125-A | 47-63 | 1440 | 90/135 | 10 | S | 5-15P | $Y$ | Y/- | 5-15R | Y | 1 yr |  | \$293 |
| PC125-B | 47-63 | 2880 | 180/270 | 10 | S |  | $Y$ | Y/- | 6-15R | Y | 1 yr |  |  |
| PC125-C | 47-63 | 2880 | 90/135 | 10 | S | L5-30P | $Y$ | Y/- | 5-15R | Y | 1 yr |  | \$385 |
| PC125-D | 47-63 | 2880 | 90/135 | 10 | S | L5-30P | $Y$ | Y/- | 5-20R | Y | 1 yr |  | \$420 |
| PC125-E | 47-63 | 5760 | 180/270 | 10 | S |  | $Y$ | Y/- | 6-20R | Y | 1 yr |  | \$549 |
| PC125-F | 47-63 | 5760 | 180/270 | 10 | S |  | Y | Y/- | 6-15R | $Y$ | 1 yr |  | \$420 |
| PC861-A | 47-63 | 1440 | 90/135 | 12 | S | 5-15P | Y | Y/- | 5-15R | Y | 1 yr |  | \$406 |
| PC861-B | 47-63 | 2880 | 180/270 | 12 | S |  | $Y$ | Y/- | 6-15R | $Y$ | 1 yr |  | \$458 |
| PC861-C | 47-63 | 2880 | 90/135 | 12 | S | L5-30P | Y | Y/Y | 5-15R | $Y$ | 1 yr |  | \$492 |
| PC861-D | 47-63 | 2880 | 90/135 | 12 | S | L5-30P | Y | Y/Y | 5-20R | $Y$ | 1 yr |  | \$492 |
| PC861-F | 47-63 | 5760 | 180/270 | 12 | S |  | Y | Y/Y | 6-15R | $Y$ | 1 yr |  | \$539 |
| PC861-G | 47-63 | 2880 | 125/250 | 12 | S | L14-30P | $Y$ | Y/- | 5-15R | $Y$ | 1 yr |  | \$530 |
| PC874-A | 47-63 | 1440 | 90/135 | 10 | S | 5-15P | $Y$ | Y/- | 5-15R | $Y$ | 1 yr |  | \$418 |
| PC874-B | 47-63 | 2880 | 180/270 | 10 | S |  | $Y$ | Y/- | 6-15R | $Y$ | 1 yr |  | \$469 |
| PC874-C | 47-63 | 2880 | 90/135 | 10 | S | L5-30P | Y | Y/- | 5-15R | $Y$ | 1 yr |  | \$520 |
| PC874-D | 47-63 | 2880 | 90/135 | 10 | S | L5-30P | $Y$ | Y/- | 5-20R | $Y$ | 1 yr |  | \$525 |
| PC874-E | 47-63 | 5760 | 180/270 | 10 | S |  | Y | Y/- | 6-20R | Y | 1 yr |  | \$686 |
| PC874-F | 47-63 | 5760 | 180/270 | 10 | S |  | $Y$ | Y/- | 6-15R | $Y$ | 1 yr |  | \$558 |
| TPC 981-A | 47-63 | 1440 | 90/135 | 12 | S | 5-15P | $Y$ | Y/V | 5-15R | $\gamma$ | 1 yr |  | \$184 |
| TPC 981-B | 47-63 | 2880 | 180/270 | 12 | S |  | $Y$ | Y/Y | 6-15R | $Y$ | 1 yr |  | \$251 |
| TPC 981-C | 47-63 | 2880 | 90/135 | 12 | S | L5-30P | $Y$ | Y/Y | 5-15R | $Y$ | 1 yr |  | \$287 |
| TPC 981-D | 47-63 | 2880 | 90/135 | 12 | S | L5-30P | Y | Y/Y | 5-20R | $Y$ | 1 yr |  | \$289 |
| TPC 981-E | 47-63 | 5760 | 180/270 | 12 | S |  | $Y$ | Y/Y | 6-20R | $Y$ | 1 yr |  | \$406 |
| TPC 981-F | 47-63 | 3840 | 180/270 | 12 | S |  | $Y$ | Y/Y | 6-15R | $Y$ | 1 yr |  | \$307 |
| TPC115-10A/MTD | 47-63 | 1440 | 90/132 | 10 | S | 5-15P | $Y$ | Y/- | 5-15R | $Y$ | 1 yr |  | \$436 |
| TPC115-10B/MTD | 47-63 | 2880 | 189/264 | 10 | S |  | $Y$ | Y/- | 6-15R | $Y$ | 1 yr |  | \$519 |
| TPC115-10C/MTD | 47-63 | 2880 | 90/132 | 10 | S | L5-30P | Y | Y/- | 5-15R | $Y$ | 1 yr |  | \$526 |
| TPC115-10D/MTD | 47-63 | 2880 | 90/132 | 10 | S | L5-30P | $Y$ | Y/- | 5-20R | $Y$ | 1 yr |  | \$558 |
| TPC115-10E/MTD | 47-63 | 5760 | 189/264 | 10 | S |  | $Y$ | Y/- | 5-20R | $Y$ | 1 yr |  | \$676 |
| TPC115-10F/MTD | 47-63 | 5760 | 189/264 | 10 | S |  | $Y$ | Y/- | 6-15R | $Y$ | 1 yr |  | \$562 |
| TPC115-8-A | 47-63 | 1440 | 90/135 | 8 | S | 5-15P | $Y$ | Y/- | 5-15R | $Y$ | 1 yr |  | \$160 |
| TPC115-8-B | 47-63 | 2880 | 180/270 | 8 | S |  | $Y$ | Y/- | 6-15R | $Y$ | 1 yr |  | \$248 |
| TPC115-8-C | 47-63 | 2880 | 90/135 | 8 | S | L5-30P | $Y$ | Y/- | 5-15R | $Y$ | 1 yr |  | \$269 |
| TPC115-8-D | 47-63 | 2880 | 90/135 | 8 | S | L5-30P | Y | Y/- | 5-20R | $Y$ | 1 yr |  | \$296 |
| TPC115-8-E | 47-63 | 5760 | 180/270 | 8 | S |  | $Y$ | Y/- | 6-20R | $Y$ | 1 yr |  | \$390 |
| TPC115-8-F | 47-63 | 3840 | 180/270 | 8 | S |  | $Y$ | Y/- | 6-15R | $Y$ | 1 yr |  | \$286 |
| Sigma Information Systems 714 630-6553 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SA-H156 | 47-63 | 1.9K | 128/256 | 5 | S |  | Y | Y/- |  | Y | 1 yr |  | \$206 |
| Sutton Designs, Inc. 607 277-4301 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ZX-5000 |  |  | 115 |  | S |  |  |  |  |  |  |  | \$69-190 |
| The Superior Electric Company 203 582-9561 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| BCR1205U | 50/60 |  | 120/208/220 |  | S |  | $Y$ |  |  |  |  |  |  |
| BCR1207U | 50/60 |  | 120/208/220 |  | S |  | $Y$ |  |  |  |  |  |  |
| BCR1210U | 50/60 | 10K | 120/208/220 |  | S |  | $Y$ |  |  |  |  |  |  |
| BCR3103U | 50/60 | 3K | 120/208/220 |  | S |  | $Y$ |  |  |  |  |  |  |

## UPS SYSTEMS

| $\begin{aligned} & \text { İ } \\ & \text { İ } \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Abacus Controls, Inc. 201 526-6010 |  |  |  |  |  |  |  |  |  |  |  |  |
| 514-3 | S | 10K | 240 | 85\% | 2\% | 240 | 50 | 50 | 22x51x30 | 150\% | 43.3K | \$11,800 |
| 514-4 | S | 10K | 240 | 85\% | 2\% | 240 | 60 | 60 | 22x51x30 | 150\% | 43.3K | \$11,800 |
| 533-3 | S | 3K | 220 | 85\% | 2\% | 220 | 50 | 50 | 19x8.75x20 | 150\% | 43.3K | \$4350 |
| 533-4 | S | 3K | 120 | 85\% | 2\% | 120 | 60 | 60 | 19x8.75x20 | 150\% | 43.3K | \$4350 |
| 933-3 | S | 3K | 220 | 85\% | 2\% | 220 | 50 | 50 | 15.2x31.25x22.2 | 150\% | 43.3K | \$4700 |
| 933-4 | S | 3 K | 120 | 85\% | 2\% | 120 | 50/60 | 50/60 | $15.2 \times 31.25 \times 22.2$ | 150\% | 43.3K | \$4,700 |
| 953-3 | S | 5 K | 220 | 85\% | 2\% | 220 | 50 | 50 | $18.1 \times 42 \times 25.7$ | 150\% | 43.3K | \$6100 |
| 953-4 | S | 5 K | 240 | 85\% | 2\% | 240 | 60 | 60 | $18.1 \times 42 \times 25.7$ | 150\% | 43.3K | \$6100 |
| Anasco Corporation 508 777-8888 |  |  |  |  |  |  |  |  |  |  |  |  |
| 85-962-330 | S | . 33 K | 115 |  |  |  |  |  | $4.7 \times 6.6 \times 14.2$ |  |  | \$499 |
| 85-962-450 | S | .45K | 115 |  |  |  |  |  | $4.7 \times 6.6 \times 14.2$ |  |  | \$799 |
| 85-962-800 | S | .8K | 115 |  |  |  |  |  | $4.7 \times 6.6 \times 14.2$ |  |  | \$1,099 |
| AT\&T Microelectronics 508 626-3729 |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 KVA | S | 1K | 98-156 |  | <5\% | 108-127 | 59-61 | 59-61 | 12x20x15 |  |  |  |
| 10 KVA | S | 10K | 208/240 | 87\% | <6\% | 120/208 | 60 | 60 | $20 \times 61.25 \times 30$ |  |  |  |
| 10 KVA | T | 10K | 208 | 86\% | <5\% | 208 | 59-61 | 60 | $27 \times 65 \times 30$ |  |  |  |
| 20 KVA | T | 20K | 208 | 86\% | <5\% | 208 | 59-61 | 60 | $37 \times 65 \times 30$ |  |  |  |
| 3 KVA | S | 3K | 120/240 | 87\% | <6\% | 120 | 60 | 60 | 20x32.5×30 |  |  |  |
| 5 KVA | S | 5K | 208/240 | 87\% | <6\% | 120/208 | 60 | 60 | 20x32.5×30 |  |  |  |
| 500VA | S | 500 | 108-136 |  | <6\% | 103-136 | 57-63 | 59-61 | $11 \times 4.4 \times 18$ |  |  |  |
| Atlas Energy Systems 714 863-0900 |  |  |  |  |  |  |  |  |  |  |  |  |
| Ulitrapower Rotary | T | 10K | 208-480 |  |  |  |  |  |  |  |  | \$44,000 |
| Ultrapower Rotary | T | 1000K | 208-480 |  |  |  |  |  |  |  |  | 350,000 |
| Beaver Electronic Laboratory, Inc. 617 585-5666 |  |  |  |  |  |  |  |  |  |  |  |  |
| BBU-912 | S | .1K | 115/230 |  |  |  | 60 |  | 19.5.25x19 |  |  | \$1,395 |
| Behlman Engineering 805 684-8311 |  |  |  |  |  |  |  |  |  |  |  |  |
| H-1000 | S |  | 117 |  |  |  | 60 | 60 |  |  |  |  |
| H-1500 | S | 1.5K | 117 |  |  |  | 60 | 60 |  |  |  | \$4,290 |
| H-2000 | S | 2K | 117 |  |  |  | 60 | 60 |  |  |  | \$5,175 |
| H-3000 | S |  | 117 |  |  |  | 60 | 60 |  |  |  |  |
| H-5000 | S | 5K | 117 |  |  |  | 60 | 60 |  |  |  | \$10,400 |
| H-750 | S | .75K | 117 |  |  |  | 60 | 60 |  |  |  | \$2,975 |
| Best Power Technology, Inc. 800 356-5794 |  |  |  |  |  |  |  |  |  |  |  |  |
| FC10KVA | S | 10K | 208/240 | 91\% | 5\% | 120/240 | 60 | 60 | $23 \times 42 \times 30$ | 125\% | 62K | \$9,525 |
| FC15KVA | S | 15K | 208/240 | 92\% | 5\% | 120/240 | 60 | 60 | $23 \times 42 \times 30$ | 125\% | 62K | \$10,995 |
| FC3KVA | S | 3K | 120/240 | 90\% | 5\% | 120/240 | 60 | 60 | 17x33x30 | 125\% | 62K | \$4,995 |
| FC5KVA | S | 5K | 120/240 | 91\% | 5\% | 120/240 | 60 | 60 | 17x33x30 | 125\% | 62K | \$6,995 |
| FC7.5KVA | S | 7.5K | 208/240 | 90\% | 5\% | 120/240 | 60 | 60 | $23 \times 42 \times 30$ | 125\% | 62K | \$8,575 |
| MD1.5KVA | S | 1.5K | 120 | 88\% | 5\% | 120 | 60 | 60 | $15.25 \times 20.25 \times 23$ | 125\% | 62K | \$2,895 |
| MD1KVA | S | 1K | 120 | 88\% | 5\% | 120 | 60 | 60 | 15×15x20 | 125\% | 62K | \$1,845 |
| MD2KVA | S | 2K | 120 | 90\% | 5\% | 120/240 | 60 | 60 | $15.25 \times 20.25 \times 23$ | 125\% | 62K | \$3,695 |
| MD350VA | S | 350 | 120 | 79\% | 5\% | 120 | 60 | 60 | $10 \times 12 \times 21.25$ | 125\% | >62K | \$895 |
| MD500VA | S | 500 | 120 | 79\% | 5\% | 120 | 60 | 60 | 10x12x21.25 | 125\% | 62K | \$995 |
| MD750VA | S | 750 | 120 | 86\% | 5\% | 120 | 60 | 60 | $15 \times 15 \times 20$ | 125\% | >62K | \$1,595 |
| QFC10KVA | S | 10K | 220/240 | 91\% | 5\% | 220/240 | 50 | 50 | $23 \times 42 \times 30$ | 125\% | 62K | \$10,950 |
| QFC15KVA | S | 15K | 220-240 | 92\% | 5\% | 220-240 | 50 | 50 | $23 \times 42 \times 30$ | 125\% | 62K | \$12,650 |
| afczkVA | S | 3K | 220-240 | 90\% | 5\% | 220-240 | 50 | 50 | $17 \times 33 \times 30$ | 125\% | 62K | \$5,750 |
| OFC5KVA | S | 5K | 220/240 | 88\% | 5\% | 220/240 | 50 | 50 | 17x33x30 | 125\% | 62K | \$8,050 |

## UPS SYSTEMS

| む̀ |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Best Power Technology, Inc. 800 356-5794 (continued) |  |  |  |  |  |  |  |  |  |  |  |  |
| QFC7.5KVA | S | 7.5K | 220-240 | 90\% | 5\% | 220-240 | 50 | 50 | 23x42x30 | 125\% | 62K | \$9,850 |
| OMD1.5KVA | S | 1.5 | 220/240 | 85\% | 5\% | 220/240 | 50 | 50 | $15.25 \times 20.25 \times 23$ | 125\% | 62K | \$3,325 |
| QMD1KVA | S | 1K | 220/240 | 85\% | 5\% | 220/240 | 50 | 50 | 15x15x20 | 125\% | 62K | \$2,150 |
| QmD2KVA | S | 2K | 220/240 | 90\% | 5\% | 220/240 | 50 | 50 | $15.25 \times 20.25 \times 23$ | 125\% | $>62 \mathrm{~K}$ | \$4,250 |
| QMD350VA | S | 350 | 220/240 | 76\% | 5\% | 220/240 | 50 | 50 | 10x12x21.25 | 125\% | >62K | \$1,050 |
| OMD500VA | S | 500 | 220-240 | 78\% | 5\% | 220-240 | 50 | 50 | 10x12x21.25 | 125\% | 62K | \$1,150 |
| QMD750VA | S | 750 | 220/240 | 83\% | 5\% | 220/240 | 50 | 50 | 15x15x20 | 125\% | >62K | \$1,825 |
| ORC3KVA | S | 3K | 220/240 | 90\% | 5\% | 220/240 | 50 | 50 | $16.5 \times 15.1 \times 26$ | 125\% |  | \$6,325 |
| QRC5KVA | S | 5K | 220/240 | 88\% | 5\% | 220/240 | 50 | 50 | $16.5 \times 15.1 \times 26$ | 125\% | >62K | \$8,850 |
| QRM1.5KVA | S | 1.5K | 220-240 | 85\% | 5\% | 220-240 | 50 | 50 | 16x10x26 | 125\% | 62K | \$3,650 |
| QRM1KVA | S | 1K | 220/240 | 84\% | 5\% | 220/240 | 50 | 50 | 16.5x15.1x26 | 125\% | 62K | \$2,750 |
| QRM2KVA | S | 2K | 220/240 | 90\% | 5\% | 220/240 | 50 | 50 | 16x10x26 | 125\% | $>62 \mathrm{~K}$ | \$4,675 |
| RC3KVA | S | 3K | 120/240 | 90\% | 5\% | 120/240 | 60 | 60 | $16.5 \times 15.1 \times 26$ | 125\% | >62K | \$5,495 |
| RC5KVA | S | 5K | 120/240 | 91\% | 5\% | 120/240 | 60 | 60 | $16.2 \times 15.1 \times 26$ | 125\% | $>62 \mathrm{~K}$ | \$7,695 |
| RM1.5KVA | S | 1.5K | 120 | 88\% | 5\% | 120 | 60 | 60 | 16x10x26 | 125\% | >62K | \$3,185 |
| RM1KVA | S | 1K | 120 | 88\% | 5\% | 120 | 60 | 60 | 16x10x26 | 125\% | 62K | \$2,395 |
| RM2KVA | S | 2K | 120 | 90\% | 5\% | 120 | 60 | 60 | 16x10x26 | 125\% |  | \$4,065 |
| Clary Corporation 818 287-6111 |  |  |  |  |  |  |  |  |  |  |  |  |
| ONGUARD PC 2400 | S | 800 | 120 | 85\% |  | 120 | 50/60 | 50/60 | 5.9x9.8×15.7 |  |  | \$1,590 |
| ONGUARD PC 1240 | S | 400 | 120 | 85\% |  | 120 | 50/60 | 50/60 | 15.8x1.9x15 |  |  | \$950 |
| ONGUARD PC 1.2KVA | S | 1250 | 120 | 85\% |  | 120 | 50/60 | 50/60 | 5.9x9.8×19.7 |  |  | \$2,390 |
| ONGUARD SL 400 | S | 400 | 120 | 85\% |  | 120 | 50/60 | 50/60 | $17.7 \times 3.15 \times 15.7$ |  |  | \$1,290 |
| ONGUARD SL 800 | S | 800 | 120 | 85\% |  | 120 | 50/60 | 50/60 | $17.7 \times 3.15 \times 15.7$ |  |  | \$1,690 |
| ONGUARD 1.2kVA | S | 1.2K | 120 |  |  | 120 | 50/60 | 50/60 | $9.5 \times 16.5 \times 28.5$ |  |  | \$3,750 |
| ONGUARD 1.5kVA | S | 1.5K | 120 |  |  | 120 | 50/60 | 50/60 | $9.5 \times 16.5 \times 28.5$ |  |  | \$4,350 |
| ONGUARD 1kVA | S | 1K | 120 |  |  | 120 | 50/60 | 50/60 | $9.5 \times 16.5 \times 28.5$ |  |  | \$3,450 |
| ONGUARD 2.5kVA | S | 2.5K | 120 |  |  | 120 | 50/60 | 50/60 | $9.5 \times 18.5 \times 28.5$ |  |  | \$6,090 |
| ONGUARD 2kVA | S | 2K | 120 |  |  | 120 | 50/60 | 50/60 | $9.5 \times 18.5 \times 28.5$ |  |  | \$5,590 |
| ONGUARD 3.75kVA | S | 3.75K | 115 |  |  | 115 | 50/60 | 50/60 | $9.5 \times 18.5 \times 28.5$ |  |  | \$7,050 |
| ONGUARD 3kVa | S | 3K | 120 |  |  | 120 | 50/60 | 50/60 | $9.5 \times 18.5 \times 28.5$ |  |  | \$6,550 |
| ONGUARD 800VA | S | 800 | 120 |  |  | 120 | 50/60 | 50/60 | $9.5 \times 16.5 \times 28.5$ |  |  | \$2,990 |
| ONGUARD JR G00VA | s | 600 | 120 |  |  | 120 | 50/60 | 50/60 | $9.5 \times 15 \times 18$ |  |  | \$1,790 |
| ONGUARD JR 800VA | S | 800 | 120 |  |  | 120 | 50/60 | 50/60 | $9.5 \times 15 \times 18$ |  |  | \$1,990 |
| 10k-1A-SBS | S | 10K | 115/230 |  |  | 115/230 | 60 | 60 | $55 \times 72 \times 27$ |  |  |  |
| 15K-1A | T | 15K | 120/208 |  |  | 120/208 | 60 | 60 | $55 \times 72 \times 27$ |  |  |  |
| 22.5K-1A | T | 22.5K | 120/208 |  |  | 120/208 | 60 | 60 | $68 \times 72 \times 27$ |  |  |  |
| 30K-1A | T | 30K | 120/208 |  |  | 120/208 | 60 | 60 | $68 \times 72 \times 27$ |  |  |  |
| 37.5K-1A | T | 37.5K | 120/208 |  |  | 120/208 | 60 | 60 | $68 \times 72 \times 27$ |  |  | \$36,500 |
| 5k-1A-SBS | S | 5K | 115 |  |  | 115 | 60 | 60 | $25.5 \times 53.5 \times 26$ |  |  |  |
| 7.5k-1A-SBS | S | 7.5K | 115/230 |  |  | 115/230 | 60 | 60 | $55 \times 72 \times 27$ |  |  |  |
| Computer Accessories Corporation 619 457-5500 |  |  |  |  |  |  |  |  |  |  |  |  |
| PowerSaver Plus U5 |  |  |  |  |  |  |  |  |  |  |  |  |
| Computer Power Products 213 323-1231 |  |  |  |  |  |  |  |  |  |  |  |  |
| MRU025 | T | 25K | 208-480 |  |  |  |  |  | $80 \times 72 \times 25$ |  |  | \$35,000 |
| MRU050 | T | 50K | 208-480 |  |  |  |  |  | $80 \times 72 \times 25$ |  |  | \$55,000 |
| SRU075 | T | 75K | 208-480 |  |  |  |  |  | 128x79x41 |  |  | \$49,000 |
| SRU1000 | T | 1000K | 208-480 |  |  |  |  |  | $128 \times 79 \times 41$ |  |  | \$270,000 |

## UPS SYSTEMS

| $\begin{aligned} & \text { In } \\ & \text { 0 } \end{aligned}$ |  |  |  |  |  |  |  | $\begin{gathered} n \\ \frac{y}{1} \\ \hline \end{gathered}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Computer Power, Inc. 800 526-5088 |  |  |  |  |  |  |  |  |  |  |  |  |
| ComputerSave Mark II | S | 16.6K | 120 | 90\% | 5\% | 120 | 60 | 60 | $12.5 \times 12.5 \times 21$ | 150\% | 80K | \$2,219+ |
| ComputerSave Mark III | T | 50K | 120/208 | 87-90\% | 5\% | 120/208 | 60 | 60 | 42x72x19 | 150\% | 80K | \$18,906+ |
| Defender Long Run Series | S | 1K | 120 | 97\% | 5\% | 120 | 60 | 60 | $6.5 \times 13 \times 13$ | 150\% |  | \$601+ |
| Defender Series | S | 1.2K | 120 | 98\% | 5\% | 120 | 60 | 60 | $8 \times 17 \times 21$ | 150\% |  | \$626+ |
| HI-REL | S | 10K | 120 | 75\% | 5\% | 120 | 60 | 60 | $42 \times 60.5 \times 12$ | 130\% | 80K | \$3,678+ |
| Pulsector | S | 3-10K | 120 | 80\% | 3\% | 120 | 60 | 60 | $42 \times 50 \times 19$ | 130\% | 80K | \$5,406+ |
| Series 36 | S | 1.5K | 120 | 75\% | 5\% | 120 | 60 | 60 | $32 \times 32 \times 12.7$ | 130\% | 80K | \$3,168+ |
| Survivor | S | 10K |  |  |  |  |  |  |  |  |  |  |
| TriMax | T | 400K | 120/208 | 82-89\% | 3\% | 120/208 | 60 | 60 | $58 \times 56 \times 23$ | 150\% | 100K | \$26,065+ |
| Controlled Power Company 800 521-4792 |  |  |  |  |  |  |  |  |  |  |  |  |
| Series 1000 | S | 2-25K | 120-240 | 95\% |  | 120-240 | 60 | 60 | $21.5 \times 30 \times 34$ | 120\% |  | \$3,900+ |
| Series 10000 | S | 24K | 120-240 | 95\% | 5\% | 120-240 | 60 | 60 | $21.5 \times 30 \times 34$ | 125\% |  | \$13,000 |
| Cuesta Systems Corporation 805 541-4160 |  |  |  |  |  |  |  |  |  |  |  |  |
| DataSaver 200 |  | 250 | 120 |  |  | 102-132 | 60 | 60 | $6 \times 4 \times 9$ |  |  | \$495 |
| DataSaver 400 |  | 500 | 120 |  |  | 102-132 | 60 | 60 | $13 \times 2 \times 13$ |  |  | \$695 |
| DataSaver 600 |  | 750 | 120 |  |  | 102-132 | 60 | 60 | $15 \times 2.3 \times 17.75$ |  |  | 985 |
| DataSaver 90 |  | 110 | 120 |  |  | 102-132 | 60 | 60 | $6 \times 4 \times 9$ |  |  | \$350 |
| Cyberex, Inc. 800 631-1236 |  |  |  |  |  |  |  |  |  |  |  |  |
| Mini-UPS | S/T | 7.5K | 208 |  | 3.3\% | 120/240 | 60 | 60 | $38 \times 55 \times 26$ | 125\% |  | 10,000+ |
| Series IV | T | 50K | 208/480 | 90\% | 5\% | 208/480 | 60 | 60 | 42x77×30 | 120\% |  |  |
| SIII/Plus | T | 30K | 208/480 | 85\% | 5\% | 120/208 | 60 | 60 | 38x77x34 | 300\% |  | 22,500+ |
| SIII/Plus | S/T | 30K | 208/480 |  | 5\% | 120 | 60 | 60 | $38 \times 77 \times 34$ | 150\% |  | 40,000+ |
| DataShield 408 438:0946 |  |  |  |  |  |  |  |  |  |  |  |  |
| SS400 | S | .4K | 120 | 80\% | 5\% | 120 | 60 | 60 | 18x3x17 | 300\% | 20K | \$1,025 |
| SS700 | S | .7K | 120 | 80\% | 5\% | 120 | 60 | 60 | 18x3x17 | 300\% | 20K | \$1,250 |
| Deltron, Inc. 215 699-9261 |  |  |  |  |  |  |  |  |  |  |  |  |
| Series FL |  | 1.5K | 120 |  | 5\% | 120 | 60 | 60 |  |  |  |  |
| Series NL |  | 1.5K | 120 |  | 5\% | 120 | 60 | 60 |  |  |  |  |
| Series TP |  | 5K | 120 |  | 5\% | 120 | 60 | 60 |  |  |  |  |
| Elgar Corporation 800 854-2213 |  |  |  |  |  |  |  |  |  |  |  |  |
| 103-3B | T | 10K | 120/208 | 80\% | 5\% | 120/208 | 57-63 | 60 | $78 \times 41 \times 31$ | 125\% | 20K | \$25,465 |
| 502-1T-02 | S | 5K | 120/240 | 78\% | 5\% | 120/240 | 50/60 | 50/60 | $24 \times 40 \times 30$ | 125\% | 25K | \$9,995 |
| IPS 1100 | S | 1.1K | 120-240 | 90\% | 5\% | 120-240 | 50/60 | 50/60 | 17x15x11 |  | 30K | \$1,295 |
| IPS 1600 | S | 1.6K | 120-240 | 90\% | 5\% | 120-240 | 50/60 | 50/60 | $17 \times 15 \times 11$ |  | 30K | \$1,695 |
| IPS 400+600 | S |  | 120 | 90\% | 5\% | 120 | 60 | 60 | $2.3 \times 16 \times 16.5$ |  | 30K | \$745 |
| IPS 560 | S | 560 | 120-240 | 90\% | 5\% | 120-240 | 50/60 | 50/60 | 14x17x9 |  | 30K | \$995 |
| Eltec, Inc. 714 241-1331 |  |  |  |  |  |  |  |  |  |  |  |  |
| Deltec | S/T | 5K | 120-480 |  |  |  |  |  |  |  |  | \$5,690 |
| Deltec | S/T | 25K | 120-480 |  |  |  |  |  |  |  |  | \$25,000 |
| Emerson Computer Power 714 545-5581 |  |  |  |  |  |  |  |  |  |  |  |  |
| AP1000-1500 | S | 1.5K | 120 |  |  | 120 | 60 | 60 | $20.5 \times 8.5 \times 15.5$ |  |  | \$1,798 |
| AP1000-200 | S | 200 | 120 |  |  | 120 | 60 | 60 | $8 \times 6 \times 14.5$ |  |  | \$412 |
| AP1000-300 | S | 300 | 120 |  |  | 120 | 60 | 60 | $20.5 \times 8.5 \times 10$ |  |  | \$550 |
| AP1000-800 | S | 800 | 120 |  |  | 120 | 60 | 60 | $20.5 \times 8.5 \times 15.5$ |  |  | \$998 |
| AP115 | S |  | 120 | 80\% | 5\% | 120 | 60 | 60 | $27.8 \times 15 \times 22.2$ | 120\% | 75K | \$3,800 |
| AP115 | S | 1.5K | 120 |  |  | 120 | 60 | 60 |  |  |  | \$3,800+ |
| AP130 |  |  | 120/240 | 80\% | 5\% | 120/240 | 60 | 60 | $27.8 \times 15 \times 22.2$ | 120\% | 75K | \$6,000 |
| AP161 | S | 3K | 120 | 80\% | 5\% | 120 | 60 | 60 | $53.5 \times 25.6 \times 18.7$ | 150\% | 250K | \$8,000 |

UPS SYSTEMS

| $\begin{aligned} & \text { In } \\ & \text { Di } \end{aligned}$ |  |  |  |  |  |  |  | $\begin{aligned} & 13 \\ & 03 \\ & 03 \\ & \hline \end{aligned}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Emerson Computer Power 714 545-5581 (continued) |  |  |  |  |  |  |  |  |  |  |  |  |
| AP166 |  | 5K | 208/240 | 80\% | 5\% | 120/240 | 60 | 60 | $53.5 \times 41 \times 18.7$ | 150\% | 250K | \$11,000 |
| AP176 |  | 10K | 208/240 | 82\% | 5\% | 120/240 | 60 | 60 | $53.5 \times 41 \times 18.7$ | 150\% | 250K | \$16,000 |
| AP320 | T | 15K | 208/480 | 82\% | 5\% | 208/480 | 60 | 60 | $36 \times 72 \times 26$ | 150\% | 20K | \$20,000+ |
| AP340 | T | 30K | 208/480 | 85\% | 5\% | 208/480 | 60 | 60 | $36 \times 72 \times 26$ | 150\% | 20K | \$24,000+ |
| AP355 | T | 50K | 208/480 | 87\% | 5\% | 208/480 | 60 | 60 | 62x72x28 | 150\% | 20K | \$33,000+ |
| AP365 | T | 75K | 208/480 | 88\% | 5\% | 208/480 | 60 | 60 | $62 \times 72 \times 28$ | 150\% | 20K | \$40,000+ |
| PC-ET | S | 720 | 120 |  |  | 120 | 60 | 60 | 15x2.3×14.8 |  |  | \$995 |
| SW1000 | S | 1 K | 120 |  |  | 120 | 60 | 60 | $2.3 \times 17 \times 18.3$ |  |  | \$698 |
| UPS 1250 | S | 1.25K | 120 |  |  | 120 | 60 | 60 |  |  |  | \$1,398 |
| UPS 600 | S | 600 | 120 |  |  | 120 | 60 | 60 |  |  |  | \$798 |
| Exide Electronics 919 872-3020 |  |  |  |  |  |  |  |  |  |  |  |  |
| 10-10 | S | 10K | 220-240 | 83\% |  | 220-240 | 50 | 50 |  |  |  |  |
| 10-10 | S | 10K | 208/240 | 83\% |  | 120/240 | 60 | 60 |  |  |  |  |
| 10-6 | S | 6K | 220-240 | 83\% |  | 220-240 | 50 | 50 |  |  |  |  |
| 10-6 | S | 6K | 208/240 | 83\% |  | 120/240 | 60 | 60 |  |  |  |  |
| 10-8 | S | 8K | 220-240 | 83\% |  | 220-240. | 50 | 50 |  |  |  |  |
| 10-8 | S | 8K | 208/240 | 83\% |  | 120/240 | 60 | 60 |  |  |  |  |
| 125-100 | T | 100K | 400 | 91\% |  | 400 | 50 | 50 |  |  |  |  |
| 125-100 | T | 100K | 480 | 91\% |  | 208/480 | 60 | 60 |  |  |  |  |
| 125-100 | T | 125K | 480 | 92\% |  | 208/480 | 60 | 60 |  |  |  |  |
| 125-62 | T | 62.5K | 400 | 89\% |  | 400 | 50 | 50 |  |  |  |  |
| 125-75 | T | 75K | 480 | 90\% |  | 208/480 | 60 | 60 |  |  |  |  |
| 125-75 | T | 75K | 400 | 90\% |  | 400 | 50 | 50 |  |  |  |  |
| 20-10 | T | 10K | 120 | 88\% | 4\% | 120 | 60 | 60 | $33 \times 43 \times 35$ | 150\% |  |  |
| 20-10 | T | 10K | 220-240 | 88\% | 4\% | 220-240 | 50 | 50 | $33 \times 43 \times 35$ | 150\% |  |  |
| 20-15 | T | 15K | 220-240 | 88\% | 4\% | 220-240 | 50 | 50 | $33 \times 43 \times 35$ | 150\% |  |  |
| 20-15 | T | 15K | 120 | 88\% | 4\% | 120 | 60 | 60 | $33 \times 43 \times 35$ | 150\% |  |  |
| 20-20 | T | 20K | 120 | 88\% | 4\% | 120 | 60 | 60 | $33 \times 43 \times 35$ | 150\% |  |  |
| 20-20 | T | 20K | 220-240 | 88\% | 4\% | 220-240 | 50 | 50 | $33 \times 43 \times 35$ | 150\% |  |  |
| 6 | S | 6K | 208/240 | 83\% |  | 120-240 | 60 | 60 |  |  |  |  |
| General Power Corporation 714 956-9321 |  |  |  |  |  |  |  |  |  |  |  |  |
| GPS 15K | T | 15K | 208-480 |  |  |  |  |  | $27 \times 66.5 \times 30$ |  |  |  |
| GPS 37.5K | T | 37.5K | 208-480 |  |  |  |  |  | $30 \times 66.5 \times 33$ |  |  |  |
| U1000 | S | 1K | 120-240 | 84\% | 3\% | 120-240 | 60 | 60 | $19 \times 20.5 \times 8.27$ | 150\% | >100K | \$2,400 |
| U10000 | S | 10K | 120-240 | 86\% | 3\% | 120-240 | 60 | 60 | $37 \times 18 \times 32$ | 150\% | >100K | \$11,500 |
| U3000 | S | 3K | 120-240 | 85\% | 3\% | 120-240 | 60 | 60 | $22 \times 25 \times 22$ | 150\% | >100K | \$5,000 |
| U5000 | S | 5K | 120-240 | 86\% | 3\% | 120-240 | 60 | 60 | 30x15x31 | 150\% | >100K | \$7,000 |
| V -12 | T | 12.5 | 208-480 | 85\% | 3\% | 208-480 | 60 | 60 | $22.25 \times 31.5 \times 62$ | 150\% | 100K | \$16,000 |
| V-18 | T | 18.75 | 208-480 | 87\% | 3\% | 208-480 | 60 | 60 | $22.2 \times 31.5 \times 70.5$ | 150\% | >100K | \$23,000 |
| V-30 | T | 30K | 208-480 | 89\% | 3\% | 208-480 | 60 | 60 | $27.2 \times 31.5 \times 70.5$ | 150\% | 100k | \$32,000 |
| V-45 | T | 45K | 208-480 | 89.5\% | 3\% | 208-480 | 60 | 60 | $33.5 \times 31.5 \times 70.5$ | 150\% | 100K | \$38,000 |
| V -62 | T | 62.5K | 208-480 | 90\% | 3\% | 208-480 | 60 | 60 | $33.5 \times 31.5 \times 70.5$ | 150\% | 100k | \$42,000 |
| Gotec, Ltd. 061 446-2171 |  |  |  |  |  |  |  |  |  |  |  |  |
| MaxiPower | T | 150K |  |  |  |  |  |  |  |  |  |  |
| MicroPower | S | 2K |  |  |  |  |  |  |  |  |  |  |
| HDR Power Systems, Inc. 614 771-5500 |  |  |  |  |  |  |  |  |  |  |  |  |
| HDR 1300 | T | 5K | 208 |  |  |  |  |  |  |  |  | \$11,000 |
| HDR 1300 | T | 30K | 208 |  |  |  |  |  |  |  |  | \$24,000 |

## UPS SYSTEMS



UPS SYSTEMS


| Lortec Power Systems, Inc. 216 327-5050 |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ContinuAC |  | 160K |  |  |  |  |  |  |  |  |  | \$5,000+ |
| UPS Single Phase | S | 2-5K | 120-240 |  |  |  |  |  | $4.7 \times 6.6 \times 14.2$ |  |  | \$4,995+ |
| UPS Three Phase | T | 160K | 208/480 |  |  |  |  |  |  |  |  | \$17,500+ |
| Northern Pacific Power Devices 415 866-9415 |  |  |  |  |  |  |  |  |  |  |  |  |
| UPS 650 |  | .65K | 120 |  |  |  |  |  |  |  |  | \$1,595 |
| Nova Electric, Inc. 201 661-3434 |  |  |  |  |  |  |  |  |  |  |  |  |
| GC11-10K60 | S | 10K | 120-480 | 85\% | <3\% | 120-480 | 60 | 60 | $42 \times 61 \times 20$ | 150\% | 30K | \$14,910 |
| GC11-15K60 | S | 15K | 208-480 | 80\% | <5\% | 120-480 | 60 | 60 | 22x45x22 | 150\% | 30K |  |
| GC11-5K60 | S | 5K | 120-480 | 85\% | <3\% | 120-480 | 60 | 60 | 22x37x22 | 150\% | 30K | \$9,495 |
| GC11-7.5K60 | S | 7.5K | 120-480 | 80\% | <3\% | 120-480 | 60 | 60 | 22x37x22 | 150\% | 30K | \$13,230 |
| GR11-3K60 | S | 3K | 120-240 | 85\% | <3\% | 120-240 | 50/60 | 50/60 | 19x8.75x21 | 150\% | 30K | \$4,995 |
| Panamax 800 472-5555 |  |  |  |  |  |  |  |  |  |  |  |  |
| PowerMax |  | 450 |  |  |  |  |  |  | $4.7 \times 14.2 \times 6.6$ |  |  |  |
| PowerMax |  | 800 |  |  |  |  |  |  | 7.7×14.5×11.5 |  |  |  |
| PowerMax |  | 1.2K |  |  |  |  |  |  | $7.7 \times 14.5 \times 11.5$ |  |  |  |
| Precise Power Corporation 813 746-3515 |  |  |  |  |  |  |  |  |  |  |  |  |
| 15-60 | T | 15K | 208-480 | 81\% | 3\% | 208-480 | 59-62 | 60 | 70x34x39 | 125\% | >100K | \$19,950 |
| 35-60 | T | 35K | 208-480 | 84\% | 3\% | 208/480 | 59-62 | 60 | 70x34x39 | 125\% | >100K | \$29,950 |
| PTI Industries 408 438-0946 |  |  |  |  |  |  |  |  |  |  |  |  |
| SS700 | S | .7K | 120 |  |  |  | 60 | 60 | $18 \times 3 \times 17$ |  |  | \$1,199 |
| RTE Deltec Corporation 619 291-4211 |  |  |  |  |  |  |  |  |  |  |  |  |
| 4000 Series | S | 1K | 120 | 85\% | 5\% | 120 | 60 | 60 | 7x17x22 | 150\% |  |  |
| 6000 Series | T | 56K | 208-480 |  |  |  |  |  |  |  |  | \$27,900+ |
| 7000 Series | S | 10K | 120-480 |  |  |  |  |  | 24×45×31 |  |  | \$5,195+ |
| 8000 Series | T | 10-25K | 208/480 | 95\% | 5\% | 208/480 | 60 | 60 | $24.7 \times 45.1 \times 31.9$ |  |  |  |
| 9000 Series | T | 56.25K | 120/208 | 95\% | 5\% | 120/208 | 60 | 60 | $32 \times 55 \times 32$ | 125\% |  |  |
| Safe Power Systems, Inc. 602 894-6864 |  |  |  |  |  |  |  |  |  |  |  |  |
| UPS 1000 | S | 1K | 120 | 73\% | <3\% | 120 | 50/60 | 50/60 | $8.7 \times 20 \times 18.5$ | 150\% | 100K | \$2,995 |
| UPS 2000 | S | 2K | 120 | 73\% | <3\% | 120 | 50/60 | 50/60 | $10.2 \times 25.7 \times 26.5$ | 150\% | 100K | \$4,495 |
| UPS 3000 | S | 3K | 120 | 73\% | <3\% | 120 | 50/60 | 50/60 | $11.8 \times 34.3 \times 27.6$ | 150\% | 100k | \$6,495 |



## UPS SYSTEMS

| $$ |  |  |  |  |  |  |  |  |  |  | む̃ㄴ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sutton Designs, Inc. 607 277-4301 (continued) |  |  |  |  |  |  |  |  |  |  |  |
| MM 2502 | S | 300 | 120-240 | >75\% |  | 120-240 | 50/60 | 50/60 | $10.5 \times 6.8 \times 4.8$ |  | \$399 |
| MM 300SS | S | 360 | 120-240 | >75\% | <5\% | 120-240 | 60 | 60 | 15x9.5×5.5 |  | \$549 |
| MM 5002 | S | 600 | 120-240 | >75\% |  | 120-240 | 50/60 | 50/60 | 19x10.6x6.3 |  | \$699 |
| MM 600ss | S | 360 | 120-240 | >75\% | <5\% | 120-240 | 60 | 60 | 15x9.5 $\times 5.5$ |  | \$899 |
| MM-900SS |  |  | 117 |  | 5\% | 117 | 60 | 60 | $12.4 \times 7.1 \times 18.3$ |  | \$1,299 |
| ZX-5000 Series | S | 1.8K | 120-240 | >99\% |  | 120-240 | 50/60 | 50/60 |  |  |  |
| ZX-5000 Series | S | 7.2K | 120-240 | >99\% |  | 120-240 | 50/60 | 50/60 |  |  | \$190 |
| The Superior Electric Company 203 582-9561 |  |  |  |  |  |  |  |  |  |  |  |
| Stabiline 200VA/500V | S | 200-500 | 95-135 |  |  |  | 60 | 60 | 15x7.92x15.81 |  |  |
| Toshiba/Houston 800 231-1412 |  |  |  |  |  |  |  |  |  |  |  |
| 500VA-50KVA | S/T | .5-50K | 120/240 | 80\% | <3\% | 120/240 | 50/60 | 50/60 |  | 150\% |  |
| Transtector Systems, Inc. 800 635-2537 |  |  |  |  |  |  |  |  |  |  |  |
| UP2S 1000 | S | 1K | 120 |  | 2\% | 120 | 60 | 60 | 10.5x24.25x28 | 150\% |  |
| Viteq Corporation 301 731-0400 |  |  |  |  |  |  |  |  |  |  |  |
| 15A | S | 1.5K | 90-140 | 75\% | 5\% | 120 | 60 | 60 | $9 \times 10 \times 21.5$ |  | \$3,195 |
| 386/LAN | S | 750 | 90-140 | 75\% | 5\% | 120 | 60 | 60 | $8 \times 11.5 \times 19.5$ |  | \$1,895 |
| MINI/GP | S/T | 3K | 120/240 | 75\% | <5\% | 120/240 | 60 | 60 | $13 \times 20 \times 20$ |  | \$7,750 |

- MIDRANGE Systems is the only biweekly news source for Systems/3X and AS/400 users and buyers. It offers product news, industry news and trends that keep you up to date on IBM midrange computing.


## MIDRANGE Systems Covers . . .

- Storage Technology Cooperative Processing Connectivity - Production Automation P Porting Platforms Career Opportunities in DP Site Management Security Business Applications Networking


# MIDRANGE Systems... News \& Information You Can Use 



To request a FREE subscription application to MIDRANGE Systems,contact: MIDRANGE Systems, Lori Ulbrich, 101 Witmer Road, Horsham, PA 19044 (215) 957-1500 FAX (215) 957-1050

## Power Conditioners

## Computer Accessories Corporation

- 05


## Computer Power, Inc.

## - Utiline I

120/480 Input Voltage • 120/408 Output Voltage - 25kVA - \$139+
Features an AC line conditioner/isolator regulator for lightning protection.

## - Utiline II

120 Input Voltage • 120 Output Voltage • 1.2 kVA - $\$ 368+$

Features an AC line conditioner/isolator regulator for lightning protection.

## Controlled <br> Power Company

- Series 500

208/240/480 Input Voltage • 208/240/480

## Output Voltage • 150kVA

The 500 model is utilized where simple regulation, rather than isolation, of the line voltage is required.

## - Series 5000

208/240/480 Input Voltage • 208/240/480
Output Voltage • 50kVA
Same as the Series 500. In addition, the 500D features exchangeable receptacle panels for easy computer room installations.

## - Series 6000

208/240/480 Input Voltage • 208/240/480 Output Voltage • 150kVA
The 600D protects sensitive electronic equipment against transients and noise with the added installation advantage of exchangeable output receptacle panels and distribution cables.

## - Series 700

120/208/240 Input Voltage • 120/208/240 Output Voltage • 500kVA
The 700 Series regulates the line voltage and reduces noise and transients.

## - Series 7000

208/240/480 Input Voltage • 120/240 Output Voltage $\mathbf{4}^{45 \mathrm{kVA}}$
The 700D model conditions the power going to the equipment with the abiliaty to add or change receptacles and distribution cables. There is also a 208/120 output power rating available.

## - Series 8000

208/240/480 Input Voltage • 208/240/480 Output Voltage • 25kVA
The 800D regulates, isolates, and has a single-cycle ride-through capability as well as exchangeable receptacles and cables.

## Emerson <br> Computer Power

## - MicroPower II

120/240 Input Voltage • 120/240 Output Voltage • 10kVA
Designed for minis and word processors; features isolated primary and secondary wiring, a double shielded isolation transformer, fast response to voltage fluctuations via electronically controlled tap switching.

## Everest <br> Electronic Equipment

## - MPD1510

\$195
Features a high performance EMI filter, transient supression, and a magnetic circuit breaker and requires a 115 V electrical rating.

## - MPD1510-R

$\$ 195$
Same as the MPD1510; however, also available with options including a remote control capability that provides eight switched and two unswitched receptacles and a remote connector with a three pin Molex.

## - MP01520

$\$ 195$
Features a high performance EMI filter, transient supression, and a magnetic circuit breaker and requires a 230 V electrical rating.

## Isoreg Corporation

- ISOREG Series

208/240/480 Input Voltage • 208/240/480 Output Voltage • 75kVA

## - ISOREG Series

120/208/240 Input Voltage • 120/208/240 Output Voltage • 125kVA
The ISOREG Series protects against brown-outs, voltage spikes and sags. Alternative choice for power protection when a UPS is not required. Also available in 50 Hz models and other voltages.

## - ISOSHIELD Series

480 Input Voltage • 120/208 Output Voltage • 300kVA
Protects computers against many types of voltage spike, electrical noise, and ensures complete electrical isolation of equipment from raw utility power. Also available in 50 Hz models and other voltages.

## MCG Electronics, Inc.

- 18008-120Y

120/208 Input Voltage • 120/208 Output Voltage - \$3,985
The 1800B-120Y (Surge Master Series) of facility-level surge protectors is available in voltages from 120 to 480 , single phase or three phase, delta or wye configuration. Prices vary.

## 0290

120 Input Voltage • 120 Output Voltage •

## $\$ 84.95$

Four-outlet surge suppressor for computers, faxes, copiers, CAD systems, desktop publishing systems, etc. Absorption capability is 640 joules.

## $-292$

120 Input Voltage • 120 Output Voltage •

## \$124.95

Four-outlet surge suppressor for computers, faxes, copiers, CAD systems, desktop publishing systems, etc. Absorption capability is 720 joules.

## ■ 293

120 Input Voltage • 120 Output Voltage •
$\$ 104.95$
Four-outlet surge suppressor for computers, faxes, copiers, CAD systems, desktop publishing systems, etc. Absorption capability is 640 joules.

## 1294

120 Input Voltage • 120 Output Voltage • $\$ 134.95$
Four-outlet surge suppressor for computers, faxes, copiers, CAD systems, desktop publishing systems, etc. Absorption capability is 720 joules.

## - 296

120 Input Voltage • 120 Output Voltage • $\$ 104.95$
Six-outlet power and surge suppression strip with on/off switch, wiring integrity test, and circuit breaker. Absorption capability is 640 joules.

## . 298

120 Input Voltage • 120 Output Voltage •

## $\$ 134.95$

Six-outlet surge suppressor strip with on/ off switch, wiring integrity test and circuit breaker. Absorption capability is 720 joules.

## © DLP-3. 1

25 Input Voltage • 25 Output Voltage - $\$ 48$
This RS232 data line protector offers 25 pin D-sub connectors to easily plug into any RS232 port. Protects against over voltages, transients, and spikes.

## - DLP-36

6-200 Input Voltage • 6-200 Output Voltage •
$\$ 880$
This PABX protector is a wall mount unit
available in clamp voltages from 6 V to 200 V , for telephone or data lines. Features standard 50 -pin telephone connectors.

## ■ DLP-4.2

6-200 Input Voltage • 6-200 Output Voltage • $\$ 76$
Features RJ-11 jacks for dial-up (tip and ring) and leased line (DLP-4.4) modems and computers for protection against data line over voltages. Clamp voltages from 6 V to 200 V are available.

## ■ DLP-5.1

6 Input Voltage • 6 Output Voltage • \$76
High speed video or data line protector, featuring BNC connectors.

## ■ DLP-5.2

6 Input Voltage • 6 Output Voltage • 476
High speed video or data line protector, featuring trinaxial connectors and 10 V clamping.

## - DLP-50

6-200 Input Voltage - 6-200 Output Voltage • \$780+
Telephone or data line protector that mounts in a 19 " rack. Each protection board (at $\$ 630$ each) is capable of protecting up to 50 wires. Protects RS232, RS423 or 20 mA current loop interfaces. Protection lines may be mixed and matched.

## © DLP1-10/20/30

6-120 Input Voltage • 6-120 Output Voltage • \$58+
The DLP Series consists of the DLP-10, a two-wire protector, the DLP-20, a 4 -wire protector, and the DLP-30, an 8 -wire protector. Protects against transient over voltages, spikes, and lightning. Available in clamping levels from 6 V to 120 V .

## - SPB-120T

## 120/240 Input Voltage • 120/240 Output

## Voltage

Shunt installed, AC line surge suppressor for $120 / 240 \mathrm{VAC}$, single phase circuits. Protects computer room equipment, laboratories and small offices. Many models available.

## - SPB-120Y

120 Input Voltage • 120 Output Voltage
Shunt-insalled, AC line surge suppressor for 120 VAC , three phase, wye circuits. Protects computer room equipment, laboratories, or small offices. Many models available.

## Rapio Power

Technolocies

## PowrDrive

120kVA

- PowrTap
$\leq 600$ Input Voltage • 5kVA


## - PurePowr II

$\leq 600$ Input Voltage • 5kVA
All PowrTap and PurePowr II models feature step-up/step-down capabilities, low output impedance and a total harmonic distortion below $1 \%$.

## RTE Deltec Corporation

- MPC Series
$3 \mathrm{kVA} \cdot \$ 525$


## - SPC Series

$15 \mathrm{kVA} \cdot \$ 2,495$

- TPC Series

208 Input Voltage • 120/208 Output Voltage • 45kVA - \$7,295
The TPC Series features electronic topswitching technology.

## Safe Power <br> Systems, Inc.

- PLC-1000

95-130 Input Voltage • 120 Output Voltage • 1kVA - $\$ 749$

- PLC-2000

95-130 Input Voltage • 120 Output Voltage • 2kVA - \$1,077

## - PLC-250

95-130 Input Voltage • 120 Output Voltage • . 25 kVA - $\$ 319$

## - PLC-500

95-130 Input Voltage • 120 Output Voltage • $.5 \mathrm{KVA} \cdot \$ 495$

## - PLC-750

95-130 Input Voltage • 120 Output Voltage •
.75 kVA - $\$ 649$
Safe's regulating line conditioners are designed to protect against voltage disturbances, noise spikes, transients, and brownouts.

## Shape

## Magnetronics, Inc.

## - LineTamer

120/208/480 Input Voltage • 120/208/480
Output Voltage - 75kVA - $\$ 139+$
This Series features ferroresonant technology.

## Sola Electric

## - EPC

$15 \mathrm{kVA} \cdot \$ 550+$
This system combines state-of-the-art electronic sensing and control with an isolated transformer to achieve dynamic regulation and common- and transverse-mode noise rejection. Also features increased crest factor load handling capability. UPS models with battery backup are also available from $\$ 200$ to $\$ 20,000$.

# Maximum Surge Protection: 

## MCG or Equivalent

The fact is, MCG has no equivalent. That's not hype, it's a fact backed by 20 years experience and the broadest line of $A C$ protection in the industry.

MCG devices offer maximum surge protection; that's why they're specified more often, in more industries than all others.

Count on MCG to easily cross reference to any other brand unit. Count on MCG products for simple installation, redundant protection, and selfdiagnostics on many of our line protectors. And count on MCG for the very best technical applications support.

Why settle for imitations? Design MCG versatility into your application.
Call 1-800-851-1508

|  |  |
| :---: | :---: |
|  |  |

MCG Electronics, Inc.
12 Burt Dr., Deer Park, NY 11729
(516) 586-5125 • Fax (516) 586-5120

DANGER: HIGH VOLTAGE

## EPC Series

120/208/240 Input Voltage • 120/208/240 Output Voltage - 2kVA - $\$ 550$
The EPC Series offers a high AC-to-AC efficiency of $95 \%$, a zero current switching for high performance and reliability, and a large surge current capability.

## - Hardwired EPC

120/240/480 Input Voltage • 120/240/480 Output Voitage • 15kVA - $\$ \mathbf{\$ 3}, 189$
The Hardwired EPC Series features a high AC-to-AC efficiency of $96 \%$, a zero current switching for high performance and reliability, and swivel casters that provide mobility.

## - Hardwired MCR

120/240/480 Input Voltage • 120/208/240
Output Voltage • 15kVA - $\$ 226$

## © MCR

120 Input Voltage • 120 Output Voltage • 3kVA - \$157

The Hardwired MCR and MCR Series provides regulation and isolation, suppresses transients, and protects from overloads.

## Square D Company

## - Line 1

120/208/240 Input Voltage • 120/208 Output Voltage • 3kVA • \$520
Protects microcomputers and other sensitive electronic devices against electrical noise and against consistently high or low voltage.

## - Line 2

220/230/240 Input Voltage • 220/230/240 Output Voltage - 15kVA - $\$ \mathbf{3}, 500+$

- Line 2

208/480 Input Voltage • 120/208 Output
Voltage • 30kVA - $\$ 9,835+$

## - Line 2 (P3)

220/230/240 Input Voltage • 220/230/240 Output Voltage • $3 \mathrm{KVA} \boldsymbol{\$} \mathbf{6 3 5 +}$
The Line 2 Series provides maximum protection against electrical noise and voltage fluctuations. Equipped with an internal ULTRA-ISOLATOR noise suppressor and a PowerLogic microcomputer-controlled voltage regulator.

## - ${ }^{-1} 5$

208 Input Voltage • 208 Output Voltage •
100kVA - \$8,395+
Designed for use when the computer is protected against common-mode noise and when protection against normal-modenoise and voltage fluctuations is typically lacking.

## - P8

120/208/240 Input Voltage • 120/208/240
Output Voltage • 2kVA - $\mathbf{\$ 1 6 0}$
First Topaz power conditioner to employ ferroresonant technology. Features true computer grade which makes it ideal for industrial applications.

## The Superior <br> Electric Company

## - BCR Series

120/208/240 Input Voltage • 120/208/240
Output Voltage - 10kVA
These units are capable of handling current surges to six times rated current without passing the surges on to rated equipment.

## ■ PPC 150

95-132 Input Voltage • 120 Output Voltage •

## . 150kVA - $\$ 145$

Plug-in type conditioner with four NEMA $5-15 \mathrm{R}$ output receptacles.

## - PPC 300

95-132 Input Voltage • 120 Output Voltage •

## .300kVA - \$195

UL and CSA listed 300VA portable power conditioner. Plug-in type with four NEMA
$5-15 \mathrm{R}$ output receptacles.

- PPC 450

95-132 Input Voltage • 120 Output Voltage • . 450 kVA - $\$ 225$
UL and CSA listed 450VA portable power conditioner. Plug-in type with six NEMA
$5-15 \mathrm{R}$ output receptacles.

## - PPC 600

95-132 Input Voltage • 120 Output Voltage • . 600 kVA - $\$ 295$
UL and CSA listed 600VA portable power conditioner. Plug-in type with six NEMA $5-15 \mathrm{R}$ output receptacles.

## - PPC Series

95-132 Input Voltage • 95-132 Output Voltage -.6kVA
UL and CSA list portable power conditioners housed in attractive cabinets and designed for easy electrical installation.

## - WHC Series

208/380/480 Input Voltage • 100kVA
A WHC Series Power is comprised of five basic modules: an input circuit breaker, a control module, a power module, an isolation transformer, and L-C filter network.

## Transtector <br> Systems, Inc.

- ACP 3000-120W

120/208 Input Voltage • 360kVA

## - ACP 3900-120w

120/208 Input Voltage • 360kVA
The ACP Series features continuous monitoring of line voltages and a five nanosecond response to transient voltages. UL listed.

## - ACP 5000-150W

120/208 Input Voltage • 700kVA
Features non-operating detection with alarm and a voltage transient counter. UL listed.

## - SA 3900-120w

120/208 Input Voltage • 36kVA
Features proprietary Spatial Array noise filtration and Lattice Matrix suppression.

## Power Distribution Controllers

## Computer <br> Power Products

- CPP012KVA
\$5,000
- CPP1000KVA
\$150,000


## Controlled

Power Company

- Series 7000
$60 \mathrm{~Hz} \cdot 126$ Outlets

The Series 7000 monitors all power para meters and features power distribution centers with powerline conditioning.

## Deitron, Inc.

- PowerMedic

Eltec, Imc.

- Topaz VRS
\$5,137
- Topaz VRS
\$41,090


## Everest

Electronic Equipment


## - MPD861-C

$50-60 \mathrm{~Hz} \cdot 12$ Outlets • L5-30P Input Connectors • 5-15R Output Connectors • $\$ 535$
Features local and remote switching via a DEC comptible control bus as well as over voltage transient protection.

## - MPD872-D

$50-60 \mathrm{~Hz} \cdot 10$ Outlets • L5-30P Input Connectors • 5-15R Output Connectors • $\$ 425$ Features a remote front and rear contro bus as well as transient protection.

## - MPD874-D

$50-60 \mathrm{~Hz} \bullet 8$ Outlets • L5-30P Input Connectors - 5-20R Output Connectors • $\$ 585$

Features a remote control bus as well as transient protection.

## International Power <br> Machines Corporation

## $\square$ PDO

$60 \mathrm{~Hz} \cdot 252$ Outlets
Facilitates the interconnection of computers and peripherals. ETL listed in sizes from $30-225 \mathrm{KVA}$. Available with a choice of 84,168 , or 252 pole positions for connections.

Isoreg Corporation

- GuardsMan

Monitors and distributes power

## Marway Products, Inc.

## MRRUURT PRODLCTS INC:



Marway power controllers solve system integrator AC power problems in one convenient box. The power controller provides a single point of entry for AC power to the rack. EMI/RFI filtering, transient suppression and overioad protection support the entire rack. Distribution outiets furnish AC to each system component in the rack. The DEC compatible control bus allows both local and remote On/Off control of the system. Additonal options offer sequential turn-on of multiple controllers and racks, special circuit breaker types and mandatory manual reset of the controller AC output on any power outage condition or emergency-off disable command.

- MPC 871A
$50 / 60 \mathrm{~Hz} \bullet 5$ Outlets • 5-15P Input Connectors • 5-15R Output Connectors


## - MPC 871B

$50 / 60 \mathrm{~Hz}$ • 6 Outlets • 6-15P Input Connectors 6-15R Output Connectors
The MPC 871A and 871B are direct replacements for DEC model 871. Also available with power failure on/off reset, and high inrush circuit breakers.

## - MPC 872C

$50 / 60 \mathrm{~Hz}$ • 10 Outlets • L6-20P Input
Connectors - 6-20R Output Connectors

## ■ MPC 872 D

$50 / 60 \mathrm{~Hz} \cdot 10$ Outlets • L5-30P Input
Connectors • 5-20R Output Connectors

## - MPC 872 E

50/60Hz • 10 Outlets • L14-20P Input
Connectors - 5-15R Output Connectors The MPC 872C, 872D, and 872E Series directly replaces the DEC model 872. Also available with on/off delay for controller sequencing, power failure on/off reset, and high inrush circuit breakers.

## - MPC 874A

50/60 Hz • 8 Outlets • L14-20P Input
Connectors • 5 -15R Output Connectors

## - MPC ${ }^{874 B}$

$50 / 60 \mathrm{~Hz}$ • 8 Outlets • L6-2OP Input Connectors - 6-20R Output Connectors

## - MPC 8740

$50 / 60 \mathrm{~Hz} \bullet 8$ Outlets • L5-30P Input Connectors - 5-20R Output Connectors

## - MPC 874E

$50 / 60 \mathrm{~Hz}$ • 8 Outlets • L6-30P Input Connectors - 6-20R Output Connectors

The MPC 874 Series directly replaces the DEC model 874. Also available with on/off delay for controller sequencing, power failure on/off reset, and high inrush circuit breakers.

## - MPC 877B

$50 / 6 \mathrm{OHz} \bullet 6$ Outlets • 6-15P Input Connectors • 6-15R Output Connectors

## a MPC 8770

$50 / 60 \mathrm{~Hz} \bullet 6$ Outiets • L5-30P Input Connectors

- 5-20R Output Connectors


## - MPC $877 E$

$50 / 60 \mathrm{~Hz}$ - 6 Outiets • L6-30P Input Connectors -6-20R Output Connectors
The MPC 877 Series directly replaces the DEC model 877. Also available with on/off delay for controller sequencing, power failure on/off reset, and high inrush circuit breakers.

- MPD 115
$50 / 60 \mathrm{~Hz} \cdot 12$ Outlets • L5-30P Input
Connectors - 5-15R Output Connectors


## - MPD 208A

$50 / 60 \mathrm{~Hz}$ • 18 Outlets • L21-30P Input
Connectors - 5-15R Output Connectors

## MPD 230

$50 / 60 \mathrm{~Hz}$ • 12 Outlets • L6-20P Input
Connectors • 6-15R Output Connectors

## - MPD 416A

$50 / 60 \mathrm{~Hz} \cdot 18$ Outlets • 6-15R Output
Connectors
Optional features of the above MPD Series include special breaker trip curves, delay

$\square$






$\qquad$


[^10]艮
$\qquad$

[^11]control BUS output for power sequencing multiple controllers, and power fail-manual restart.

## - MPD 861A

$50 / 60 \mathrm{~Hz} \cdot 12$ Outlets • L14-30P Input
Connectors - 5-20R Output Connectors

## - MPD 861B

$50 / 60 \mathrm{~Hz}$ • 12 Outlets • L6-20P Input
Connectors - 6-20R Output Connectors

## - MPD 861C

$50 / 60 \mathrm{~Hz} \cdot 12$ Outlets • L5-30P Input Connectors - 5-20R Output Connectors The MPD 861 Series directly replaces the DEC model 861. Also available with on/off delay for controller sequencing, power failure on/off reset, and high inrush circuit breakers.

## Power Techniques, Inc.

## - PT-1000

60 Hz • 10 Outlets • 5-15P Input Connectors • 5-15R Output Connectors • \$317+
Features an optional remote on/off front panel (PT100RP), allowing a system to power up from the front panel within the system enclosure. The recessed mount unit is $8^{\prime \prime}$ in depth rather than $5.5^{\prime \prime}$ as in the flush mount configuration.

## - PT-2000

$\mathbf{6 0 H z} \cdot 10$ Outlets • L5-30P Input Connectors -5-30R Output Connectors • \$405

This model also features a time sequenced start-up and shutdown option. This is a 120 V model.

## - PT-2000

$60 \mathrm{~Hz} \cdot 10$ Outlets • L5-30P Input Connectors • 5-30R Output Connectors • $\$ 445$
This is a 240 V model.

## - PT-500

60 Hz • 8/10 Outlets • 5-15R Input Connectors • 5-15R Output Connectors • \$195

## - PT-8740

$60 \mathrm{~Hz} \cdot 10$ Outlets • L5-30P Input Connectors • 5-20R Output Connectors • $\$ 424$
This is a 120 V model.

## ■ PT-8740

$60 \mathrm{~Hz} \cdot 10$ Outlets • L5-30P Input Connectors -6-20R Output Connectors - $\$ 424$
The Power Techniques line of power controllers are also available in 240 VAC 50 Hz models and feature optional IEC internal or external receptacles. Universal mounting brackets for recessed or flush mount configurations are also available. This line is UL recognized and CSA approved.

## Pulizı Engineering, Inc.

- PC 300-C

50/60Hz • 14 Outlets • L21-30P Input
Connectors - 5-15 Output Connectors • $\mathbf{\$ 1 , 1 9 8}$ UL recognized and is available with multiple time delay power-up. Standard fea-
tures include EMI/RFI filtering, spike/ surge protection, remote on/off control and emergency shut down.


## - PC 861-E

47-63Hz • 12 Outlets • 6-20R Output
Connectors - $\$ 682$
UL recognized and features remote on/off control, emergency shut-down and daisy chain capability. Also features time delay power up to prevent high inrush current, EMI/RFI filtering, and spike/surge protection.

## - PC115-A

$47-63 \mathrm{~Hz} \cdot 12$ Outlets • 5-15P Input Connectors

- 5-15R Output Connectors - $\$ 276$


## - PC115-B

$47-63 \mathrm{~Hz} \cdot 12$ Outlets • 6-15R Output
Connectors •\$380
The PC115 Series is UL recognized and features remote on/off control, EMI/RFI filtering, spike surge suppression, and overload circuit breaker protection. Eight switched and four unswitched outlets.

## - PC125-A

$47-63 \mathrm{~Hz} \cdot 10$ Outlets • 5-15P Input Connectors

- 5-15R Output Connectors - $\$ 293$


## - PC125-B

$47-63 \mathrm{~Hz} \cdot 10$ Outlets $\bullet 6-15 \mathrm{R}$ Output
Connectors

## - PC125-C

$47-63 \mathrm{~Hz}$ • 10 Outlets • L5-30P Input Connectors • 5-15R Output Connectors - $\$ 385$ The PC125-A, -B, and -C are UL recognized and CSA certified and feature remote on/off control, emergency shutdown and daisy chain capabilities. Also feature EMI/RFI filtering, spike surge suppression, and eight switched and two unswitched outlets.

## - PC125-D

$47-63 \mathrm{~Hz}$ • 10 Outlets • L5-30P Input Connectors • 5-20R Output Connectors • $\$ 420$

## - PC125-E

$47-63 \mathrm{~Hz} \cdot 10$ Outlets $\bullet 6-20 \mathrm{R}$ Output Connectors • $\$ 549$
The PC125-D and -E are UL recognized and feature remote on/off control, emergency shutdown and daisy chain capabilities. Also feature EML/RFI filtering, spike surge suppression, and eight switched and two unswitched outlets.

## - PC125-F

$47-63 \mathrm{~Hz}$ • 10 Outlets • 6-15R Output Connectors • $\$ 420$
UL recognized and CSA certified and features remote on/off control, emergency shutdown and daisy chain capability. Also features EMI/RFI filtering, spike surge suppression, and eight switched and two unswitched outlets

## - PC861-A

47-63Hz • 12 Outlets • 5-15P Input Connectors

- 5-15R Output Connectors • \$406


## - PC861-B

$47-63 \mathrm{~Hz} \cdot 12$ Outlets $\bullet 6-15 \mathrm{R}$ Output
Connectors • \$458
The PC861-A and -B are UL recognized and feature remote control, emergency shutdown, and daisy chain capabilities. Also feature EMI/RFI filtering, spike surge protection, and eight switched and four unswitched outlets.

## - PC861-C

$47-63 \mathrm{~Hz} \cdot 12$ Outlets • L5-3OP Input
Connectors • 5-15R Output Connectors • $\$ 492$

- PC861-D
$47-63 \mathrm{~Hz} \cdot 12$ Outlets • L5-30P Input Connectors • 5-20R Output Connectors • \$492


## - PC861-F

$47-63 \mathrm{~Hz} \cdot 12$ Outlets • 6-15R Output Connectors - $\$ 539$

## - PC861-G

47-63Hz • 12 Outlets • L14-30P Input Connectors - 5-15R Output Connectors - $\$ 530$ The PC861-C,-D,-F, and -G are UL recognized and feature remote control, emergency shutdown, and daisy chain capabilities. Also feature time delay power up to prevent high inrush current, EMI/RFI filtering, and spike surge protection.

## - PC874-A

47-63Hz • 10 Outlets • 5-15P Input Connectors

- 5-15R Output Connectors • \$418


## - PC874-B

$47-63 \mathrm{~Hz} \cdot 10$ Outlets $\bullet 6-15 \mathrm{R}$ Output

## Connectors - \$469

The PC874-A and -B are UL recognized and feature remote control, emergency shutdown, and daisy chain capabilities Also feature EMI/RFI filtering, spike surge protection, and eight switched and two unswitched outlets.

## - PC874-C

$47-63 \mathrm{~Hz} \cdot 10$ Outlets • L5-30P input Connectors • 5-15R Output Connectors •\$520 UL recognized and CSA certified and features remote control, emergency shutdown and daisy chain capability. Time delay power up to prevent high inrush.

## ■ PC874-D

47-63Hz • 10 Outlets • L5-30P Input Connectors • 5-20R Output Connectors • $\$ 525$

## - PC874-E

$47-63 \mathrm{~Hz} \cdot 10$ Outlets $\cdot 6-20 \mathrm{R}$ Output Connectors •\$686
The PC874-D and -E are UL recognized and feature remote control, emergency shutdown, and daisy chain capabilities Also feature time delay power up to prevent high inrush, EMI/RFI filtering, and spike surge protection.

## © PC874-F

$47-63 \mathrm{~Hz} \cdot 10$ Outlets • $6-15 \mathrm{R}$ Output Connectors •\$558
UL recognized and CSA certified and features remote control, emergency shutdown, and daisy chain capability. Also features time delay power up to prevent high in rush.

## - TPC 981-A

47-63Hz • 12 Outlets • 5-15P Input Connectors - 5-15R Output Connectors • $\$ 184$

## 풀 TPC 981-B

$47-63 \mathrm{~Hz} \cdot 12$ Outlets • 6-15R Output Connectors •\$251

## - TPC 981-C

$47-63 \mathrm{~Hz} \cdot 12$ Outlets • L5-30P Input Connectors • 5-15R Output Connectors •\$287

## - TPC 981-D

$47-63 \mathrm{~Hz} \cdot 12$ Outlets • L5-30P Input Connectors - 5-20R Output Connectors •\$289

## - TPC 981-E

$47-63 \mathrm{~Hz} \cdot 12$ Outlets $\bullet 6-20 \mathrm{R}$ Output Connectors • $\$ 406$

## - TPC 981-F

47-63Hz • 12 Outlets • 6-15R Output
Connectors • $\$ 307$
TheTPCSeries is ULrecognized and features

EMI／RFI filtering，and spike／surge protec－ tion．Ten switched outlets on the rear panel and two on the front panel．Front panels may be unswitched

## © TPC115－10A／MTD

47－63Hz • 10 Outlets • 5－15P Input Connectors
－5－15R Output Connectors •\＄436

TPC115－108／MTL
$47-63 \mathrm{~Hz}$ • 10 Outlets • 6－15R Output
Connectors •\＄519

## TPC115－10C／MTD

$47-63 \mathrm{~Hz} \cdot 10$ Outlets • L5－30P Input Connectors • 5－15R Output Connectors • \＄526

## ［PC115－100／WTD

$47-63 \mathrm{~Hz}$ • 10 Outlets • L5－30P Input
Connectors • 5－20R Output Connectors •\＄558

## －TPC115－10E／MTD

47－63Hz • 10 Outlets • 5－20R Output
Connectors •\＄676
－TPC115－10F／MTD
$47-63 \mathrm{~Hz} \cdot 10$ Outlets • 6－15R Output Connectors •\＄562
The TPC115－10 Series is UL recognized and features remote on／off control，emer－ gency shutdown and sequenced multiple time delay power up to prevent high in－ rush．Also features EMI／RFI filtering and spike／surge protection．

## －TPC115－8－A

47－63Hz • 8 Outlets • 5－15P Input Connectors • 5－15R Output Connectors •\＄160

高TPC115－8－B
$47-63 \mathrm{~Hz}$ • 8 Outlets • 6－15R Output Connectors －\＄248

图 TPC115－8－C
$47-63 \mathrm{~Hz}$ • 8 Outiets • L5－30P Input Connectors
－5－15R Output Connectors •\＄269

TPC115－8－D
$47-63 \mathrm{~Hz}$ • 8 Outlets • L5－30P Input Connectors －5－20R Output Connectors •\＄296
－TPC115－8－E
$47-63 \mathrm{~Hz}$ • 8 Outlets • 6－20R Output Connectors －\＄390

## －TPC115－8－F

$47-63 \mathrm{~Hz} \bullet 8$ Outlets • 6－15R Output Connectors －\＄286
The TPC115－8 Series is UL recognized， EMI／RFI filtering and spike／surge protec－ tion．Six switched outlets on the rear panel and two on the front panel．

## Sigma

Imformation Systems

## © SA－H156

47－63Hz • 5 Outlets • \＄206
The SA－H156 features a master outlet that senses CPU power and enables slave out－ ets．No remote switching wires are re－ quired with this unit．

## Sutron Deslans，Inc．

EX－5000
\＄69－190

## The Superior

Electric Company
BCR1205U
$50 / 60 \mathrm{~Hz}$
UL listed， 5 kVA power device with se－ ectable input／output terminals．

## －BCR1207U <br> 50／60Hz

## －BCR1210U

50／60 Hz
The BCR1207U and 1210U are UL listed， 10 kVA power devices that regulate volt age．Equipped with selectable input／out put terminals．Provide isolation from common－mode noise and attenuate trans－ verse－mode noise

## －BCR3103U

50／60Hz
UL listed，3kVA power device that regu lates voltage．Provides isolation from common－mode noise．Attenuates trans verse－mode noise．Optional add－on distri bution panels are available．

## UPS Systems

## Abacus Controls，Inc．

## －514－3

10kVA • 85\％Output Efficiency • 50Hz Input Frequency－50Hz Output Frequency－150\％ Output Overioad • $\$ 11,800$
－514－4
10kVA－85\％Output Efficiency • 60Hz Input Frequency • 60Hz Output Frequency • 150\％ Output Overload • $\$ 11,800$
－533－3
3kVA－85\％Output Efficiency • 50Hz Input Frequency • 50Hz Output Frequency－150\％ Output Overload • \＄4350
－533－4
3kVA－85\％Output Efficiency • 60Hz Input Frequency－60Hz Output Frequency • 150\％ Output Overload • \＄4350

## －933－3

3kVA • 85\％Output Efficiency • 50Hz Input
Frequency－50Hz Output Frequency－150\％ Output Overload • \＄4700

## －933－4

3kVA • 85\％Output Efficiency • 50／60Hz Input Frequency • 50／60Hz Output Frequency • 150\％ Output Overload • $\$ 4,700$

## 953－3

5kVA－85\％Output Efficiency • 50 Hz Input Frequency • 50Hz Output Frequency • 150\％ Output Overload • \＄6100

## －953－4

5kVA • 85\％Output Efficiency • 60Hz Input Frequency－60Hz Output Frequency • 150\％ Output Overioad • $\$ 6100$
The above UPS models have no electrome－ chanical contact nor solid state switching devices between the dual mode bridge cir－ cuit and the load；this permits synchro－ nized transfers from the utility to the bridge instantaneously in both directions． Equipped with an internal battery．

## Anasco Corporation

－85－962－330
$33 \mathrm{kVA} \cdot \$ 499$
185－962－450
．45kVA－$\$ 799$
－85－962－800
8kVA－$\$ 1,099$

## AT\＆T Microelectronics

## 1 kva

1KVA • 59－61Hz Input Frequency • $59-61 \mathrm{~Hz}$
Output Frequency

## © 10 zya

10kVA • 87\％Output Efficiency • 60Hz Input Frequency－ 60 Hz Output Frequency

## ． 10 KVA

10kVA • 86\％Output Efficiency • 59－61Hz Input Frequency－60Hz Output Frequency

## I 20 KVA

20kVA • 86\％Output Efficiency • 59－61Hz Input
Frequency－60Hz Output Frequency

## 3 KVA

3kVA • 87\％Output Efficiency－60Hz Input Frequency • 60Hz Output Frequency

## 5 KVA

5kVA • 87\％Output Efficiency • 60Hz Input Frequency－ 60 Hz Output Frequency

## 500VA

500VA • 57－63Hz Input Frequency • $59-61 \mathrm{~Hz}$ Output Frequency
Should the AC power completely fail，the above UPS devices maintain regulated sinewave AC load power from DC－to－AC inverters fed from internal sealed lead acid batteries．

## Atlas Energy Systems

－Ulitrapower Rotary
10kVA • \＄44，000
－Ultrapower Rotary
$1000 \mathrm{KVA} \cdot \$ 350,000$

## Beaver Electronic <br> Laboratory，Inc．

．BBU－912
1kVA－60Hz Input Frequency－ $\mathbf{\$ 1 , 3 9 5}$
The BBU－912 is rack－mountable．

## Behlman Engineering

－H－1000
$\mathbf{6 0 H z}$ Input Frequency • 60Hz Output Frequency

图 H－1500
1．5kVA $\cdot 60 \mathrm{~Hz}$ Input Frequency $\cdot 60 \mathrm{~Hz}$ Output
Frequency－\＄4，290

H－2000
2kVA－60Hz Input Frequency－60Hz Output
Frequency－\＄5，175
－H－3000
$\mathbf{6 0 H z}$ Input Frequency • 60Hz Output Frequency
H－5000
$\mathbf{5 k V A} \cdot \mathbf{6 0 H z}$ Input Frequency • $\mathbf{6 0 H z}$ Output
Frequency • \＄10，400

## H－750

75kVA • 60Hz Input Frequency •60Hz Output Frequency • \＄2，975

## Best Power

Technology，Inc．
－FC10KVA
10kVA • 91\％Output Efficiency • 60 Hz Input Frequency • 60Hz Output Frequency • 125\％ Output Overload • \＄9，525

## －FC15KVA

15kVA • 92\％Output Efficiency • 60Hz Input Frequency • 60Hz Output Frequency • 125\％ Output Overload • \＄10，995

## －FC3KVA

3kVA • 90\％Output Efficiency • 60Hz Input Frequency • 60Hz Output Frequency • 125\％ Output Overload • \＄4，995

## －FC5KVA

5kVA • $91 \%$ Output Efficiency • 60 Hz Input Frequency－60Hz Output Frequency • 125\％ Output Overioad • $\mathbf{\$ 6 , 9 9 5}$

## © $\mathbf{F C 7}$ ．5KVA

7．5kVA • 90\％Output Efficiency • $\mathbf{6 0 H z}$ Input Frequency－60Hz Output Frequency－125\％ Output Overioad • \＄8，575
The FC Series features outstanding isola－ tion including isolation of output neutral． RS232 computer interface port allows control and display or 19 power parame－ ters and 22 alarm conditions．

## －MD1．5KVA

1．5kVA • 88\％Output Efficiency • 60 Hz Input Frequency • 60Hz Output Frequency • 125\％ Output Overload • \＄2，895

## －MD1KVA

1kVA • 88\％Output Efficiency • 60Hz Input Frequency • 60 Hz Output Frequency • 125\％ Output Overioad • $\mathbf{\$ 1 , 8 4 5}$

## －MD2KVA

2KVA • 90\％Output Efficiency • 60Hz Input Frequency－60Hz Output Frequency • 125\％ Output Overload • \＄3，695

## －MD350VA

350VA • 79\％Output Efficiency • 60Hz Input Frequency－ 60 Hz Output Frequency－125\％ Output Overload • \＄895

## －MD500VA

500VA • 79\％Output Efficiency • 60Hz Input Frequency－60Hz Output Frequency • 125\％ Output Overioad－$\$ 995$

## －MD750VA

750VA • 86\％Output Efficiency • 60Hz Input Frequency • 60Hz Output Frequency • 125\％ Output Overload • \＄1，595
The MD Series features outstanding isola tion including isolation of output neutral． RS232 computer interface port allows control and display or 18 power parame－ ters and 12 alarm conditions．

## OFC10KVA

10kVA • 91\％Output Efficiency • 50Hz Input Frequency • 50Hz Output Frequency－125\％ Output Overload • \＄10，950

## －QFC15KVA

15kVA • 92\％Output Efficiency • 50Hz Input Frequency • 50 Hz Output Frequency • 125\％ Output Overload • \＄12，650

## QFC3KVA

3kVA • 90\％Output Efficiency • 50Hz Input Frequency • 50Hz Output Frequency • 125\％ Output Overload • \＄5，750

## －OFC5KYA

5KVA • 88\％Output Efficiency • 50Hz Input Frequency • 50 Hz Output Frequency • 125\％ Output Overload • $\mathbf{\$ 8}, 050$

## OFC7．5KVA

7．5kVA • 90\％Output Efficiency • 50Hz Input Frequency • 50 Hz Output Frequency $\boldsymbol{\bullet} \mathbf{1 2 5 \%}$ Output Overload • $\$ 9,850$
The QFC Series features outstanding iso－ lation including isolation of output neu－ tral．RS232 computer interface port al－ lows control and display or 19 power para－ meters and 22 alarm conditions．

I MMDI. 5 KKV
1.5VA • 85\% Output Efficiency • 50Hz Input Frequency • 50Hz Output Frequency • 125\% Output Overload • $\$ 3,325$

## - QMDIKVA

1kVA • 85\% Output Efficiency • 50 Hz Input
Frequency • 50Hz Output Frequency • 125\%
Output Overload • \$2,150

## - QMmazva

2kVA • 90\% Output Efficiency • 50Hz Input Frequency - 50Hz Output Frequency • 125\% Output Overioad • $\mathbf{\$ 4 , 2 5 0}$

## - QM0350VA

350VA • 76\% Output Efficiency • 50Hz Input Frequency • 50Hz Output Frequency • 125\% Output Overioad • \$1,050

## ambsoova

500VA • 78\% Output Efficiency • 50Hz Input Frequency • 50Hz Output Frequency • 125\% Output Overload • \$1,150

## ■ QMD750VA

750VA • 83\% Output Efficiency • 50Hz Input Frequency • 50Hz Output Frequency • 125\% Output Overioad • $\$ \mathbf{1 , 8 2 5}$
The QMD Series features outstanding isolation including isolation of output neutral. RS232 computer interface port allows control and display or 18 power parameters and 12 alarm conditions.

## - LRC3KYA

3kVA • 90\% Output Efficiency • 50Hz Input Frequency • 50Hz Output Frequency • 125\% Output Overload • $\$ \mathbf{6}, \mathbf{3 2 5}$

## arcskya

$\mathbf{5 k V A} \cdot 88 \%$ Output Efficiency • 50 Hz Input Frequency • 50Hz Output Frequency • 125\% Output Overioad • \$8,850
The QRC Series features outstanding isolation including isolation of output neutral. RS232 computer interface port allows control and display or 19 power parameters and 22 alarm conditions

## QRM1.5KVA

1.5kVA - 85\% Output Efficiency • 50Hz Input Frequency • 50Hz Output Frequency • 125\% Output Overioad • \$3,650

## - QRMIKVA

1kVA • 84\% Output Efficiency • 50Hz Input Frequency • 50Hz Output Frequency • 125\% Output Overioad • \$2,750

## - QRM2KVA

2KVA • 90\% Output Efficiency • 50Hz Input Frequency - 50Hz Output Frequency - 125\% Output Overioad • \$4,675
The QRM Series features outstanding isolation including isolation of output neutral. RS232 computer interface port allows control and display or 18 power parameters and 12 alarm conditions

## ■ RC3KVA

3KVA - 90\% Output Efficiency - 60Hz Input Frequency - 60Hz Output Frequency • 125\% Output Overload • $\$ \mathbf{5 , 4 9 5}$

## © RC5KVA

5kVA • 91\% Output Efficiency • 60Hz Input Frequency - 60Hz Output Frequency • 125\% Output Overload • \$7,695
The RC Series features outstanding isolation including isolation of output neutral. RS232 computer interface port allows control and display or 19 power parameters and 22 alarm conditions.

RM1.5KVA
1.5kVA • 88\% Output Efficiency • 60Hz Input Frequency • 60Hz Output Frequency • 125\% Output Overload • \$3,185

## - RM1KVA

1KVA • 88\% Output Efficiency • 60 Hz Input Frequency • 60Hz Output Frequency • 125\% Output Overload • \$2,395

## - RIM2KVA

2kVA • 90\% Output Efficiency • 60Hz Input Frequency - 60Hz Output Frequency • 125\% Output Overioad • \$4,065
The RM Series features outstanding isolation including isolation of output neutral. RS232 computer interface port allows control and display or 18 power parameters and 12 alarm conditions.


OMGUARD PC 2400
800VA - 85\% Output Efficiency • 50/60Hz Input and Output Frequency - $\$ 1,590$ ONGUARD is universally recognized as one of the finest Uninterruptible Power Systems available today. Its patented non-linear design makes it over $50 \%$ smaller and lighter than comparable UPS. A reliable UPS provides more than blackout protection. Blackouts don't occur daily. Power disturbances such as sags, spikes, surges, noise and brownouts do. They wear and tear hardware, software and business profits. Only a true on-line, sinewave UPS like ONGUARD prevents such problems by regenerating new AC power for complete protection. Off-line and other so-called "on-line" UPS (non-regenerative) cannot. They only filter some of this power "pollution" and leave systems at risk. ONGUARD is available from 40VA to 3.75kVA in cabinet, rackmount and universal configuration. Clary offers a complete UPS line to 37.5 kVA for all DEC . . applications.

## - OWGUARD PC 1240

400VA • 85\% Output Efficiency • 50/60 Hz Input and Output Frequency - $\$ 950$

## OmGUARD PC 1.2KV

1250VA • 85\% Output Efficiency • 50/60 Hz
Input and Output Frequency • \$2,390

## $\square$ OWCUARD SL 400

400VA • 85\% Output Efficiency • 50/60 Hz Input and Output Frequency • $\mathbf{\$ 1 , 2 9}$

## - OMGUARD SL 800

800VA • 85\% Output Efficiency • 50/60 Hz Input and Output Frequency • \$1,690

## © OWGUARD 1.2kVA

1.2kVA • 50/60Hz Input and Output Frequency• \$3,750
© OWGUARD 1.5kVA
1.5kVA • 50/60Hz Input and Output Frequency • $\$ 4,350$

## OMGUARD 1kVA

$1 \mathrm{kVA} \cdot 50 / 60 \mathrm{~Hz}$ Input and Output Frequency ${ }^{\circ}$ \$3,450
© OMGUARD 2.5kVA
$2.5 \mathrm{kVA} \cdot 50 / 6 \mathrm{~Hz}$ Input and Output Frequency • \$6,090

- OMGUARD 2kVA

2kVA $\bullet 50 / 60 \mathrm{~Hz}$ Input and Output Frequency • $\$ 5,590$

■ OMGUARD 3.75kVA
3.75kVA • 50/60Hz Input and Output Frequency

## \$7,050

## omeuard 3kVa

$3 k V A \cdot 50 / 60 \mathrm{~Hz}$ Input and Output Frequency ${ }^{\circ}$ \$6,550

## OMGUARD 800VA

800VA • 50/60Hz Input and Output Frequency \$2,990

■ OMGUARD JR GOOVA
$600 \mathrm{VA} \cdot 50 / 6 \mathrm{~Hz}$ Input and Output Frequency \$1,790

- OMGUARD JR 800VA

800VA • 50/60Hz Input and Output Frequency • \$1,990
-10k-1A-SBS
10kVA • 60Hz Input and Output Frequency
-15K-1A
$15 \mathrm{kVA} \cdot 60 \mathrm{~Hz}$ Input and Output Frequency
22.5K-1A
$22.5 \mathrm{kVA} \cdot \mathbf{6 0 H z}$ Input and Output Frequency
-30K-1A
30kVA • 60Hz Input and Output Frequency

## - 37.5 K -1A

37.5kVA - 60Hz Input and Output Frequency •
$\$ 36,500$

5k-1A-SBS
5kVA • 60Hz Input and Output Frequency
7.5k-1A-SBS
$\mathbf{7 . 5 k V A} \cdot 60 \mathrm{~Hz}$ Input and Output Frequency
Clary manufactures on-line, sinewave UPS from 400 VA to 37.5 kVA . UL listed, quiet, efficient. Features high demonstrated MTBF, ten years proven history, and transistorized field upgradable options.

## Computer Accessories Corporation

## - PowerSaver Plus U5

Equipped with self test and diagnostics, intelligent interface for unattended network file server shutdown and provides data line protection permitting fast transfer time of $1-3 \mathrm{~ms}$.

## Computer

Power Products

- mRU025

25kVA - $\$ 35,000$

## - MRUO5O

50kVA - \$55,000

- SRU075
$75 \mathrm{kVA} \cdot \$ 49,000$
- SRU1000

1000kVA - \$270,000

## Computer Power, Inc.

- ComputerSave Mark II
$16.6 \mathrm{kVA} \cdot 90 \%$ Output Efficiency • 60 Hz Input Frequency - 60Hz Output Frequency $\cdot \mathbf{1 5 0 \%}$ Output Overload • \$2,219+
UL listed.
- ComputerSave Mark III

50kVA • 87-90\% Output Efficiency • 60Hz Input
Frequency - 60Hz Output Frequency • 150\%
Output Overioad • $\mathbf{\$ 1 8 , 9 0 6 +}$
UL pending.

## Defender Long Run Series

1kVA • 97\% Output Efficiency • 60 Hz Input Frequency $\cdot \mathbf{6 0 H z}$ Output Frequency • 150\% Output Overioad • \$601+
UL listed.

## - Defender Series

1.2kVA • 98\% Output Efficiency • 60Hz Input Frequency • 60Hz Output Frequency • 150\% Output Overioad • \$626+ UL listed.

## - HI-REL

10kVA • 75\% Output Efficiency • 60Hz Input Frequency • 60Hz Output Frequency • 130\% Output Overioad • \$3,678+
UL pending.

## - Pulsector

3-10kVA - 80\% Output Efficiency • 60 Hz Input Frequency • 60Hz Output Frequency • 130\% Dutput Overload • \$5,406+
UL and CSA listed.

## Series 36

1.5kVA • 75\% Output Efficiency • 60Hz Input Frequency • 60Hz Output Frequency • 130\% Output Overload • \$3,168+
UL listed.

## ■ Survivor

10kVA

■ TriMax
400kVA • 82-89\% Output Efficiency • 60 Hz Input Frequency - 60Hz Output Frequency $150 \%$ Output Overload • $\$ 26,065+$

## Controlled <br> Power Company

## - Series 1000

2-25kVA • 95\% Output Efficiency • 60Hz Input Frequency $\cdot 60 \mathrm{~Hz}$ Output Frequency • 120\% Output Overload • \$3,900+
The Series 1000 provides power distribution through flexible cables.

## - Series 10000

24kVA • 95\% Output Efficiency • 60Hz Input Frequency - 60Hz Output Frequency - 125\% Output Overioad • $\$ 13,000$

## Cuesta Systems Corporation

## - DataSaver 200

250VA • 60 Hz Input Frequency • 60 Hz Output Frequency - \$495
Standby power protection designed specifically for desktop microcomputer users with fixed drives, small printers or other peripherals. International voltages available.

## - DataSaver 400

500VA • 60Hz Input Frequency • 60 Hz Output
Frequency - $\$ 695$
Standby power protection for high-level microcomputers with peripherals, multi-
tasking systems and communication networks including AT, 286, 386, PS/2-80, and fileservers. Awarded "Editor's Choice" in PC magazine.

## ■ DataSaver 600

750VA • 60 Hz Input Frequency • 60Hz Output Frequency - 985
Standby power protection designed specifically for the largest desktop micros, LANs, and CAD/CAM network fileserver systems. Features an auto shutdown capability.

## ■ DataSaver 90

110VA • 60Hz Input Frequency • 60Hz Output Frequency - $\$ 350$
Standby power protection designed specifically for small desktop and portable microcomputers including Apple, Kaypro, grids, and laptops.

## Cyberex, Inc.

## - Mini-UPS

7.5kVA • 60Hz Input Frequency • 60Hz Output Frequency • 125\% Output Overload • $\mathbf{\$ 1 0 , 0 0 0 +}$

## - Series IV

50kVA • 90\% Output Efficiency • 60Hz Input Frequency $\cdot \mathbf{6 0 H z}$ Output Frequency • 120\% Output Overload
Eliminates the need for dedicated input power lines and enables the use of smaller sized breaker panels, switchgear, and wiring. Front end design reduces electrical noise to unprotected personal computers and electronic typewriters.

## ■ SIII/Plus

30kVA • 85\% Output Efficiency • 60Hz Input Frequency - 60 Hz Output Frequency • 300\% Output Overload • \$22,500+

## - SIII/Plus

30kVA • 60Hz Input Frequency • 60 Hz Output Frequency • 150\% Output Overload • $\$ 40,000+$ The SIII/Plus Series features built-in batteries for up to 30 minutes of full load backup time, on-line operation for continuous power conditioning, a pulse-width modulated (PWM) inverter, and a solid state static transfer switch for "hands-free" response to overloads and faults.

## DataSheld

## - SS400

.4kVA • 80\% Output Efficiency • 60Hz Input Frequency - 60Hz Output Frequency • 300\% Output Overload • \$1,025

## - 55700

7kVA • 80\% Output Efficiency • 60Hz Input Frequency - 60 Hz Output Frequency • 300\% Output Overioad • \$1,250
The SS400 and SS700 feature regulated output, extended battery life, and AC polarity check. Serve as mini power directors with no heavy transformers.

## Deitron, Inc.

## - Series FL

1.5kVA • 60Hz Input Frequency • 60Hz Output

Frequency
The Series FL is UL listed.

## Series ML

1.5kVA • 60Hz Input Frequency • 60Hz Output

Frequency
The Series NL is UL listed.

## Series TP

$5 \mathrm{kVA} \cdot 60 \mathrm{~Hz}$ Input Frequency • 60Hz Output Frequency

## Elgar Corporation

- 103-3B

10kVA - 80\% Output Efficiency • $57-63 \mathrm{~Hz}$ Input Frequency $\cdot \mathbf{6 0 H z}$ Output Frequency • 125\% Output Overload • \$25,465

## - 502-1T-02

$5 \mathrm{kVA} \cdot \mathbf{7 8} \%$ Output Efficiency • 50/60Hz Input

Frequency • 50/60Hz Output Frequency • 125\% Output Overload • \$9,995

## - IPS 1100

1.1kVA • $90 \%$ Output Efficiency • $50 / 60 \mathrm{~Hz}$ Input Frequency • 50/60Hz Output Frequency • \$1,295

## I IPS 1600

1.6kVA•90\% Output Efficiency • 50/60Hz Input Frequency • 50/60Hz Output Frequency • \$1,695

## IPS 400+600

90\% Output Efficiency • 60Hz Input Frequency 60Hz Output Frequency • $\$ 745$


And...so is the Technology, Quality \& Service!

## The price is right...now what?

Computer Power, Inc. offers over 190 models Of Uninterruptible Power Systems from 400VA to 400kVA in all three types of technologies - Standby (Off-Line), On-Line and True On-Line.

Now you can choose the UPS that solves your power problems and you're back in business.

124 West Main Street High Bridge, NJ 08829 POWER INC. Telephone: (201) 638-8000 1-800-526-5088, Ext. 170 Fax: (201) 638-4931 Telex: 847481

- IPS 560

560VA • 90\% Output Efficiency • $\mathbf{5 0} / 60 \mathrm{~Hz}$ Input Frequency • 50/60Hz Output Frequency - $\$ 995$

Elitec, Imc.

- Deltec

5KVA - $\$ 5,690$

- Deftec
$25 \mathrm{kVA} \cdot \$ 25,000$


## Emerson <br> Computer Power

- AP1000-1500
1.5kVA - 60Hz Input Frequency - 60Hz Output Frequency - $\mathbf{\$ 1 , 7 9 8}$
- AP1000-200

200VA - 60 Hz Input Frequency • 60Hz Output Frequency - $\$ 412$

## - AP1000-300

300VA • 60Hz Input Frequency • 60Hz Output Frequency - \$550

## - AP1000-800

800VA • 60Hz Input Frequency • 60Hz Output Frequency - $\$ 998$
The AP1000 Series features PWM, sine wave output, automatic overload/overtemperature safeguards, automatic operation on power failure, and UL listing. Supplies CPUs with conditioned power and provides a back-up source during brown- or black-out conditions.

## - AP115

80\% Output Efficiency • 60Hz Input Frequency
-60Hz Output Frequency • 120\% Output
Overioad • \$3,800

## - AP115

1.5kVA • 60Hz Input Frequency • 60Hz Output Frequency - $\$ 3,800_{+}$
Compact, plug-in true on-line system designed for applications such as LANs, PBX, large scale micro clusters, ATMs, minicomputers and peripherals.

## - AP130

80\% Output Efficiency ${ }^{60 \mathrm{~Hz} \text { Input Frequency }}$

- 60Hz Output Frequency • 120\% Output

Overioad • \$6,000

## - AP161

3kVA • 80\% Output Efficiency • 60Hz Input Frequency - 60 Hz Output Frequency • 150\% Output Overioad • $\$ 8,000$

## $\square$ AP166

5kVA • 80\% Output Efficiency • $\mathbf{6 0 H z}$ Input
Frequency - 60Hz Output Frequency - 150\% Output Overload • $\$ 11,000$

## - AP176

10kVA • 82\% Output Efficiency • 60Hz Input Frequency - 60Hz Output Frequency • 150\% Output Overload - $\$ 16,000$
The AP161,166, and 176 provide complete power conditioning with voltage and frequency regulations that surpasses the VAX CPUs input power specifications. Several LED and status displays ensure full diagnostics.

## - AP320

15kVA • 82\% Output Efficiency • 60Hz Input Frequency - 60Hz Output Frequency • 150\% Output Overload • $\$ 20,000+$

## - AP340

30kVA • 85\% Output Efficiency • 60Hz Input Frequency - 60Hz Output Frequency • 150\% Output Overload - $\$ 24,000+$

- AP355

50kVA - 87\% Output Efficiency • 60 Hz Input Frequency $\bullet$ 60Hz Output Frequency • 150\% Output Overload • $\$ 33,000+$

## - AP365

75kVA • 88\% Output Efficiency - 60Hz Input Frequency - 60Hz Output Frequency • 150\% Output Overload • \$40,000+
The AP3xx Series features several LED and status displays to ensure full diagnostic capabilities.

## - PC-ET

720VA - 60Hz Input Frequency • 60Hz Output Frequency - $\$ 995$
True on-line UPS featuring PWM, sine wave output, automatic overload/overtemperature safeguards, automatic operation on power failure, and UL listing. Supplies CPUs with conditioned power and provides back-up in a compact design.

## - SW1000

1kVA - 60Hz Input Frequency • 60Hz Output Frequency - $\$ 698$
Features PWM, sine wave output, automatic overload/overtemperature safeguards, automatic operation on power failure, and UL listing. Supplies CPUs with conditioned power and provides back-up in a compact design.

## - UPS 1250

$1.25 \mathrm{kVA} \bullet 60 \mathrm{~Hz}$ Input Frequency $\bullet 60 \mathrm{~Hz}$ Output Frequency - \$1,398

## - UPS 600

600VA • 60Hz Input Frequency • 60Hz Output Frequency - $\$ 798$
The UPS 1250 and 600 feature PWM, sine wave output, automatic overload/overtemperature safeguards, automatic operation on power failure and UL listing. Supply CPUs with conditioned power and provides a back-up source during brown- or black-out conditions.

## Exide Electronics

- 10-10

10kVA • 83\% Output Efficiency • 50Hz Input Frequency - 50Hz Output Frequency

## - 10-10

10kVA • 83\% Output Efficiency • 60Hz Input Frequency - 60Hz Output Frequency

## - 10-6

6kVA • 83\% Output Efficiency • 50Hz Input Frequency - 50Hz Output Frequency

## - 10-6

$6 \mathrm{kVA} \cdot 83 \%$ Output Efficiency • 60 Hz Input
Frequency - 60Hz Output Frequency

- 10-8

8kVA • 83\% Output Efficiency • 50 Hz Input
Frequency - 50Hz Output Frequency

## - 10-8

8kVA • 83\% Output Efficiency • 60 Hz Input Frequency - 60Hz Output Frequency

## - 125-100

100kVA • 91\% Output Efficiency • 50Hz Input Frequency ${ }^{50 \mathrm{~Hz} \text { Output Frequency }}$

## - 125-100

100kVA • 91\% Output Efficiency • 60Hz Input
Frequency - 60 Hz Output Frequency

- 125-125

125kVA • 92\% Output Efficiency • 60Hz Input Frequency - 60Hz Output Frequency
[125-62
62.5kVA - 89\% Output Efficiency • 50Hz Input Frequency • 50Hz Output Frequency

## ■ 125-75

75kVA • 90\% Output Efficiency • 60Hz Input Frequency - 60Hz Output Frequency

- 125-75

75kVA • 90\% Output Efficiency • 50Hz Input Frequency • 50Hz Output Frequency

## - 20-10

10kVA • 88\% Output Efficiency • 60Hz Input Frequency - 60Hz Output Frequency • 150\% Output Overload

## - 20-10

10kVA • 88\% Output Efficiency • 50Hz Input Frequency • 50Hz Output Frequency • 150\% Output Overioad

- 20-15

15kVA • 88\% Output Efficiency • 50Hz Input Frequency • 50Hz Output Frequency • 150\% Output Overioad

## - 20-15

15kVA • 88\% Output Efficiency • 60Hz Input Frequency - 60Hz Output Frequency • 150\% Output Overload

## - $20-20$

20kVA • 88\% Output Efficiency • 60Hz Input Frequency - 60Hz Output Frequency • 150\% Output Overioad

## - 20-20

20kVA - 88\% Output Efficiency • 50 Hz Input Frequency - 50Hz Output Frequency • 150\% Output Overload

## - 6

6kVA • 83\% Output Efficiency • 60Hz Input Frequency • 60Hz Output Frequency
Exide Electronics' products filter all incoming electrical disturbances and provide battery backup protection.

## Geveral

Power Corporation

- GPS 15K

15kVA
■ GPS 37.5K
37.5 kVA

## - U1000

1kVA • 84\% Output Efficiency • 60Hz Input Frequency $\cdot \mathbf{6 0 H z}$ Output Frequency $\bullet \mathbf{1 5 0 \%}$ Output Overload • \$2,400

## ■U10000

10kVA • 86\% Output Efficiency • 60 Hz Input Frequency - 60Hz Output Frequency • 150\% Output Overioad • $\mathbf{\$ 1 1 , 5 0 0}$

## - 43000

3kVA - 85\% Output Efficiency • 60Hz Input Frequency ${ }^{60} \mathbf{6 0 H z}$ Output Frequency - $150 \%$ Output Overload • $\$ \mathbf{5 , 0 0 0}$

## - 105000

5kVA • 86\% Output Efficiency • 60Hz Input Frequency - 60Hz Output Frequency • 150\% Output Overload • \$7,000

## - V-12

12.5VA • 85\% Output Efficiency • 60 Hz Input Frequency - 60Hz Output Frequency • $150 \%$ Output Overload • \$16,000

## - Y-18

18.75VA - 87\% Output Efficiency - 60Hz Input Frequency • 60Hz Output Frequency • 150\% Output Overload • $\$ 23,000$

## - V-30

30kVA • 89\% Output Efficiency • 60Hz Input Frequency - 60 Hz Output Frequency - 150\% Output Overioad • \$32,000

## - V-45

45kVA • 89.5\% Output Efficiency • 60Hz Input Frequency • 60Hz Output Frequency • 150\% Output Overload • $\$ 38,000$

## - V-62

62.5kVA • 90\% Output Efficiency - 60Hz Input Frequency • 60Hz Output Frequency • 150\% Output Overload • $\$ 42,000$
General Power's UPS Series features transistorized rather than SCR inverter technology.

Gotec, Lto.

- MaxiPower 150kVA
- MicroPower

2kVA

## HDR Power

Systems, Inc.
■ HOR 1300
5kVA - $\$ 11,000$

## - HDR 1300

30kVA - $\$ 24,000$

## - HDR 1400-10

10kVA • 93\% Output Efficiency • 60Hz Input Frequency - 60Hz Output Frequency

- HDR 1400-15

15kVA • $93 \%$ Output Efficiency • 60 Hz Input Frequency $\cdot 60 \mathrm{~Hz}$ Output Frequency
© HDR 1400-5
5kVA - 93\% Output Efficiency - 60Hz Input Frequency • 60Hz Output Frequency

## HDR 1400-7.5

7.5kVA • 93\% Output Efficiency •60Hz Input Frequency $\mathbf{6 0 H z}$ Output Frequency Includes power conversion, and transfer circuitry, and an internal load distribution panel. Available with an optional remote panel. Features a 20 minute minimum back-up.

- HDR 3100

10kVA - \$21,500

- HDR 3100

100kVA - $\mathbf{\$ 6 0 , 0 0 0}$

## Hitron Corporation

- BA0279-00-03

10kVA - $\$ 19,485$

- BAO280-00-03

15 kVA - $\$ 24,350$

- BA0281-00-03

20kVA - $\$ 29,070$

## ICS, Inc.

- E-PaC/10

10kVA - 85\% Output Efficiency - 60Hz Input
Frequency - 60 Hz Output Frequency • 150\%
Output Overload • \$15,950

## - E-PAC/15

15kVA • 85\% Output Efficiency • 60 Hz Input Frequency - 60 Hz Output Frequency • 150\% Output Overioad • $\mathbf{\$ 1 8 , 5 5}$

- E-PAC/2.0

2kVA • 85\% Output Efficiency • 60Hz Input Frequency - 60Hz Output Frequency • 150\% Output Overioad • $\mathbf{\$ 6 , 9 9 5}$
Rackmount version also available.

## - E-PAC/20

20kVA • 85\% Output Efficiency • 60Hz Input Frequency - 60Hz Output Frequency - 150\% Output Overioad • \$22,975

## ■ E-PAC/3.0

3kVA • 85\% Output Efficiency • 60Hz Input Frequency - 60 Hz Output Frequency $\cdot \mathbf{1 5 0} \%$ Output Overioad • $\$ 8,695$

## © E-PAC/5.0

5kVA • 85\% Output Efficiency - 60Hz Input Frequency - 60 Hz Output Frequency • 150\% Output Overioad • $\mathbf{\$ 1 1 , 9 7 5}$

## © E-PAC/7. 5

7.5kVA - 85\% Output Efficiency - 60Hz Input Frequency - 60Hz Output Frequency - 150\% Output Overioad • $\$ \mathbf{1 3 , 2 0 0}$
The-PAC Series consists of electronically regulated battery chargers, sinewave in verters, and static switches.

## - m95-1000

1kVA • 90\% Output Efficiency - 60Hz Input Frequency - 60Hz Output Frequency - $\mathbf{\$ 2 , 7 8 0}$ Features a 25 minute run time.

## - M95-200

200VA - 90\% Output Efficiency • 60Hz Input Frequency - 60Hz Output Frequency - 200\% Output Overload • \$1,455

## - M95-200

200VA • 90\% Output Efficiency • 60Hz Input Frequency ${ }^{\mathbf{6 0 H}} \mathbf{~ O u t p u t ~ F r e q u e n c y ~} \boldsymbol{2 0 0} \%$ Output Overload • \$1,235
Features a seven minute run time. No transfer time when a deviation is sensed CPU loads are automatically protected with no loss of information.

## - M95-3000

3kVA • 90\% Output Efficiency • 60Hz.Input Frequency • $\mathbf{6 0 H z}$ Output Frequency •\$7,400 Features a 15 minute run time.

## - M95-600

600VA - 90\% Output Efficiency • $\mathbf{6 0 H z}$ Input Frequency - 60Hz Output Frequency - \$1,695 Features a 15 minute run time. No trans fer time when a deviation is sensed; CPU loads are automatically protected with no loss of information

## ESB 400

400VA - 60Hz Input Frequency • 60Hz Output Frequency - \$449

## - SB 400LB

400VA • 50Hz Input Frequency • 50Hz Output
Frequency - \$495
Features a 16 minute run time

## - SB 800

$\mathbf{8 0 0 V A} \cdot 60 \mathrm{~Hz}$ Input Frequency • 60 Hz Output Frequency - $\$ 795$
Includes standby units that feature a 3 ms switch time to standby power, and pro vides black- and brown-out protection, as well as surge and spike protection. Features an eight minute run time.

## Imunelec, Imc.

- Series 11
- Series 31
$20 \mathrm{kVA} \cdot \$ 29,78$


## International

Computer Power

## - Rotop Plus

1-10kVA

## International Power Machines Corporation

- DP100

100kVA • 85\% Output Efficiency • $50 / 6 \mathrm{~Hz}$ Input Frequency • 50/60Hz Output Frequency • 105\% Output Overioad

## - DP125

125kVA • 87\% Output Efficiency • 50/60Hz Input Frequency • $50 / 60 \mathrm{~Hz}$ Output Frequency 105\% Output Overioad

## - DP150

150kVA • 87\% Output Efficiency • 50/60 Hz Input Frequency • 50/60Hz Output Frequency 105\% Output Overioad

## ■ DP20

20kVA • 78\% Output Efficiency • 50/60Hz Input Frequency • 50/60Hz Output Frequency • 105\% Output Overload

## - DP225

225kVA • 90\% Output Efficiency • 50/60 Hz Input Frequency • 50/60Hz Output Frequency • 105\% Output Overioad

## - DP25

25kVA • 80\% Output Efficiency • 50/60 Hz Input Frequency • 50/60Hz Output Frequency • 105\% Output Overload

## - DP300

300kVA - 91\% Output Efficiency • 50/60 Hz Input Frequency - 50/60Hz Output Frequency 105\% Output Overload

## - DP38

38kVA • 81\% Output Efficiency • 50/60Hz Input Frequency • 50/60Hz Output Frequency • 105\% Output Overioad

## - DP400

400kVA • 91\% Output Efficiency • 50/60Hz Input Frequency • 50/60Hz Output Frequency * 105\% Output Overload

## - DP50

50kVA • 81\% Output Efficiency • 50/60Hz Input Frequency • 50/60Hz Output Frequency • 105\% Output Overioad

## - DP500

500kVA - 91\% Output Efficiency • 50/60 Hz Input Frequency • 50/60Hz Output Frequency * 105\% Output Overioad

## - DP600

600kVA - 91\% Output Efficiency • 50/60 Hz Input Frequency • 50/60Hz Output Frequency • 105\% Output Overioad

## ■ DP75

75kVA • 84\% Output Efficiency • 50/60Hz Input Frequency • 50/60 Hz Output Frequency • 105\% Output Overioad
Employs traditional SCR technology to provide clean, reliable power to computers. All 60 Hz models are listed by ETL Laboratories and feature standard analog meters.

## - EP100

100kVA • 90.5\% Output Efficiency • 50/60Hz Input Frequency • 50/60Hz Output Frequency © 105\% Output Overload

## - EP133

133kVA • 90.5\% Output Efficiency • 50/60 Hz Input Frequency • 50/60Hz Output Frequency 105\% Output Overioad

## - EP167

167kVA • 90.5\% Output Efficiency • 50/60Hz Input Frequency • 50/60Hz Output Frequency 105\% Output Overioad

## - EP32

32kVA • 87\% Output Efficiency • 60Hz Input Frequency • 60Hz Output Frequency • 105\% Output Overload

## - EP64

$64 \mathrm{kVA} \cdot 88 \%$ Output Efficiency • 50/60Hz Input Frequency • 50/50Hz Output Frequency • 105\% Output Overload
Provides clean, reliable power through the latest transitor technology. Features include quiet operation, computer peripheral design, on-board LEDs, a digital display panel, internal redundancy of critical components and of power boards, and UL listing of 60 Hz models.

## - SP18

18.75kVA • 87\% Output Efficiency • 60 Hz Input Frequency - 60Hz Output Frequency • 125\% Output Overload

## - SP30

30kVA • 87\% Output Efficiency • 60 Hz Input Frequency - 60Hz Output Frequency • 125\% Output Overioad
Features quiet operation for computer room installation and is available as standalone or with matching battery packs.

## Isoreg Corporation

## © ISOGUARD

$5 \mathrm{KVA} \cdot 60 \mathrm{~Hz}$ Input Frequency • 60 Hz Output Frequency • 125\% Output Overload

## - ISOGuARD

$3 \mathrm{KVA} \bullet 60 \mathrm{~Hz}$ Input Frequency $\bullet 60 \mathrm{~Hz}$ Output
Frequency • 125\% Output Overload

## - ISOGUARD

2kVA•60Hz Input Frequency • 60Hz Output Frequency $\mathbf{~} 125 \%$ Output Overload

## - ISOGUARD

1kVA • 60 Hz Input Frequency $\bullet 60 \mathrm{~Hz}$ Output Frequency $\mathbf{1}^{125 \%}$ Output Overload

## E ISOGUARD

$62.5 \mathrm{kVA} \bullet 60 \mathrm{~Hz}$ Input Frequency • 60 Hz Output Frequency - 125\% Output Overload

## - ISOGUARD

45kVA • 60Hz Input Frequency • 60Hz Output
Frequency • 125\% Output Overload

## - ISoguard

30kVA • 60Hz Input Frequency • 60Hz Output Frequency • 125\% Output Overload

## - ISOGUARD

18.75kVA • 60 Hz Input Frequency • 60Hz Output Frequency • 125\% Output Overload

- ISOGUARD
$12.5 \mathrm{kVA} \bullet 60 \mathrm{~Hz}$ Input Frequency • 60 Hz Outpui Frequency • 125\% Output Overload


## Liebert Corporation

## - PPC

75kVA - 60Hz Input Frequency • 60Hz Output
Frequency
The PPC (Programmed Power Center) features internal logic, UL listing, and offers maintenance and service.

## - Series 300

$\mathbf{7 5 k V A} \cdot 60 \mathrm{~Hz}$ Input Frequency •60Hz Output Frequency • 125\% Output Overload
Features a microprocessor with self-diagnostics, UL listing, and offers maintenance and service. Displays battery time remaining during power outages and is equipped with a manually selected static bypass with auto retransfer.

## Lortec Power <br> Systems, Inc.

- ContinuAC

160 kVA - $\$ 5,000+$
Features custom tailored battery reserve times, and installation, testing, and maintenance/extended warranty options.

- UPS Single Phase

2-5kVA - \$4,995+

- UPS Three Phase

160kVA - \$17,500+

## Northern Pacific Power Devices

■ UPS 650
.65kVA - \$1,595

## Nova Electric, Inc.

- EC11-10K60

10kVA • 85\% Output Efficiency • 60Hz Input
Frequency • $\mathbf{6 0 H z}$ Output Frequency • 150\% Output Overload • \$14,910

## - 6C11-15K60

15kVA • 80\% Output Efficiency • 60 Hz Input Frequency • 60Hz Output Frequency • 150\% Output Overload

## ■ GC11-5K60

5kVA • 85\% Output Efficiency • 60Hz Input
Frequency • 60 Hz Output Frequency $\cdot \mathbf{1 5 0} \%$ Output Overload •\$9,495
Features a built-in reverse transfer static transfer switch, a built-in maintenance bypass switch, Rack mount configuration available.

## ■ EC11-7.5K60

7.5kVA • 80\% Output Efficiency • 60Hz Input Frequency • $\mathbf{6 0 H z}$ Output Frequency • 150\% Output Overload • $\mathbf{\$ 1 3}, \mathbf{2 3 0}$
Equipped with casters and is available with optional input and output connectors.

## - GR11-3K60

3kVA • 85\% Output Efficiency • 50/60 Hz Input Frequency • 50/60Hz Output Frequency • 150\% Output Overload •\$4,995
Rack mount configuration that includes a battery pack, built-in reverse transfer static transfer switch, and two plug-in boards. Optional features include MIL connectors as well as slide guides.

## Panamax

- PowerMax

450VA

- PowerMax

800VA

## - PowerMax

1.2kVA

The PowerMax Series features audio/visual signals, multiple outlets, DB-9 communication contact, and is designed to provide maximum protection for microcomputer and word processing systems.

## Precise Power <br> Corporation

[15-60
15kVA • 81\% Output Efficiency • $59-62 \mathrm{~Hz}$ Input Frequency - 60 Hz Output Frequency • 125\% Output Overload •\$19,950

- 35-60

35kVA • 84\% Output Efficiency • 59-62Hz Input Frequency - 60Hz Output Frequency • 125\% Output Overload • \$29,950
The 15-60 and 35-60 are Extended Power Assurance (XPA) systems that feature full electrical isolation, providing 15 seconds of constant frequency ride through protection at full load without the use of batteries.

## PTI Industries

## - SS700

$.7 \mathrm{kVA} \cdot \mathbf{6 0 H z}$ Input Frequency • 60 Hz Output Frequency - \$1,199

## RTE Deltec Corporation

4000 Series
1kVA • 85\% Output Efficiency • 60Hz Input Frequency •60Hz Output Frequency • 150\% Output Overload
Features input/output filters, a power switch, a control circuit, a sealed lead acid battery, and an isolation transformer

## 6000 Series

56kVA - \$27,900+

## 7000 Series

10kVA • $\$ 5,195+$


## 8000 Series

10-25kVA • 95\% Output Efficiency • 60Hz Input Frequency $\cdot 60 \mathrm{~Hz}$ Output Frequency

## - 9000 Series

$56.25 \mathrm{kVA} \bullet 95 \%$ Output Efficiency $\bullet 60 \mathrm{~Hz}$ Input Frequency • 60Hz Output Frequency • 125\% Dutput Overload
The 8000 and 9000 Series features small footprints, electronic line conditioning, filtering, surge suppression, isolated output control and on-line bidirectional PWM converters that eliminate the need for a separate rectifier/charger.

## Safe Power Systems, Inc.

## UPS 1000

1kVA • 73\% Output Efficiency • 50/60Hz Input Frequency • $50 / 60 \mathrm{~Hz}$ Output Frequency • $150 \%$ Output Overload • \$2,995

## - UPS 2000

2kVA • 73\% Output Efficiency • 50/60Hz Input Frequency • 50/60Hz Output Frequency • 150\% Output Overload •\$4,495

## ■ UPS 3000

3kVA • $73 \%$ Output Efficiency • $50 / 60 \mathrm{~Hz}$ Input Frequency • 50/60Hz Output Frequency • 150\% Output Overload • $\mathbf{\$ 6 , 4 9 5}$

## - UPS 5000

5kVA • 73\% Output Efficiency • 50/60Hz Input Frequency • 50/60Hz Output Frequency • 150\% Output Overload •\$9,995
Safe's UPS line is designed for applications in areas that are subject to continuous power fluctuations and offers protection for systems requiring power with constant regulation and conditioning.

## Sola Electric

### 1.5 Electronic

$\mathbf{1 . 5 - 3 k V A} \cdot 60 \mathrm{~Hz}$ Input Frequency $\cdot 60 \mathrm{~Hz}$
Output Frequency • $\$ 4,435+$
Features automatic no-break transfer

## Electronic 87 UPS

5-10kVA • 85\% Output Efficiency • 60 Hz Input Frequency •60Hz Output Frequency • 110\% Output Overload •\$9,640
True no-break UPS that features a multitapped input/output which allows a variety of configurations.

## - Interact 57 Series

10-25kVA • 95\% Output Efficiency • 60Hz Input Frequency $\cdot 60 \mathrm{~Hz}$ Output Frequency $\cdot \mathbf{1 1 5} \%$
Output Overload • \$21,800
This Series features a high output efficiency (AC-to-AC) of $95 \%$.

## - Mini-UPS/2

.5-1kVA $\cdot 60 \mathrm{~Hz}$ Input Frequency $\cdot 60 \mathrm{~Hz}$ Output Frequency - \$1,885

## - Mini-UPS/2

$.5-1 \mathrm{kVA} \cdot 60 \mathrm{~Hz}$ Input Frequency $\bullet 60 \mathrm{~Hz}$ Output Frequency - \$1,885
Features "true" on-line, no-break systems that features RS232 interfaces

## PWM-UPS

3kVA • 60Hz Input Frequency •60Hz Output
Frequency • \$6,560

## Solidstate <br> Controls, Imc.

- PB4050-1

5kVA • 79\% Output Efficiency • 60Hz Input Frequency • 60Hz Output Frequency • 125\% Output Overioad - $\$ 10,523$
The PB4050-1 is UL listed

- PB4050-3

5kVA • 79\% Output Efficiency • 60Hz Input
Frequency • 60Hz Output Frequency • 125\% Output Overload • \$15,330
Batteries included.

## - PBA100-1

10kVA • 81\% Output Efficiency • 60 Hz Input Frequency - 60Hz Output Frequency • 125\% Output Overload • $\$ 12,541$

## - PB4100-3

10kVA • 83\% Output Efficiency • 60Hz Input Frequency - 60Hz Output Frequency - 125\% Output Overioad • \$18,948

## - PB4150-3

15kVA • 83\% Output Efficiency - 60Hz Input Frequency - 60Hz Output Frequency • 125\% Output Overioad • $\mathbf{\$ 2 6 , 2 6 0}$
The PB41xx Series is UL listed.

## - P84200-3

20kVA • 85\% Output Efficiency - 60Hz Input Frequency - 60Hz Output Frequency - 125\% Output Overload • \$29,413
The PB4200-3 is UL listed.

- P85030-2

20kVA • 83\% Output Efficiency • 60 Hz Input Frequency - 60Hz Output Frequency • 125\% Output Overload • $\mathbf{\$ 3 5 , 1 5 3}$

- PB5030-4

30kVA • 85\% Output Efficiency • 60Hz Input Frequency - 60Hz Output Frequency - 125\% Output Overioad • $\$ \mathbf{3 5 , 1 5 3}$

## - PB5050-2

50VA • 87\% Output Efficiency • 60Hz Input Frequency - 60Hz Output Frequency • 125\% Output Overioad • $\$ 37,976$

## - P85050-4

50kVA • 87\% Output Efficiency • 60Hz Input Frequency - 60Hz Output Frequency • 125\% Output Overload • $\$ 37,976$

## - PB5075-2

75kVA • 87\% Output Efficiency • 60Hz Input Frequency - 60Hz Output Frequency • 125\% Output Overload • $\$ 53,200$

## - PB5075-4

75kVA • 90\% Output Efficiency • 60Hz Input Frequency - 60Hz Output Frequency - 125\% Output Overload • \$53,200

## - PB5100-2

100kVA • 88\% Output Efficiency • 60 Hz Input Frequency • 6OHz Output Frequency • 125\% Output Overioad •\$53,200

## - P85100-4

100kVA • 90\% Output Efficiency - 60 Hz Input Frequency • 60 Hz Output Frequency $\boldsymbol{\bullet} \mathbf{1 2 5} \%$ Output Overioad • $\$ \mathbf{5 3 , 2 0 0}$

## - PB5150-4

150kVA • 90\% Output Efficiency • 60Hz Input Frequency - 60Hz Output Frequency - 125\% Output Overload - $\$ 76,023$

- PowerBase 1101

1kVA • 74\% Output Efficiency • 60Hz Input Frequency • 60Hz Output Frequency • 120\%

## Output Overioad • \$3,000

On-line portable unit designed for computers and small automated office systems.

## - PowerBase 1103-3B

3kVA • 74\% Output Efficiency - 60Hz Input Frequency - 60Hz Output Frequency • 130\% Output Overioad • $\mathbf{\$ 8 , 1 2 5}$

- Powerkase 1103-3S

3kVA • 75\% Output Efficiency • 60Hz Input Frequency - 60Hz Output Frequency - 130\% Output Overload • \$7,748

- PowerBase 1103-6S

3kVA • 75\% Output Efficiency • 60 Hz Input Frequency • 60Hz Output Frequency • 130\% Output Overload • \$8,286

- PowerBase 1103-B

3kVA • 74\% Output Efficiency • 60Hz Input Frequency - $\mathbf{6 0 H z}$ Output Frequency - 130\% Output Overioad • \$7,742

- PowerBase 1103-S

3KVA • 75\% Output Efficiency • 60Hz Input Frequency - 60Hz Output Frequency • 130\% Output Overioad • $\$ \mathbf{6}, 528$
The PowerBase Series features UL listings.

## Square D Company

- PowerIMaker E/S

5-25kVA • 84\% Output Efficiency • 60Hz Input Frequency ${ }^{60 \mathrm{~Hz}}$ Output Frequency $\boldsymbol{\bullet} \mathbf{1 2 5} \%$
Output Overload • \$27,220
Features exclusive microcomputer controlled waveform synthesis.

## - PowerWaker Micro UPS

$.4-1.3 \mathrm{kVA} \cdot \mathbf{6 0 H z}$ Input Frequency $\cdot \mathbf{6 0 H z}$
Output Frequency - \$835+
Designed specifically for protecting PCs and small business computers against power outages and electrical noise. Provides a sine wave output that matches the waveshape of commercial power.

## - Powerllaker Mini

3-10kVA • 87\% Output Efficiency • 50/60Hz Input Frequency • $50 / 60 \mathrm{~Hz}$ Output Frequency • 200\% Output Overload • $\mathbf{\$ 6 , 4 5 0 +}$
New innovative line that supplies 3-10kVA of clean sinusoidal output power. Features advanced PWM technology, exclusive on-line/off-line selectability, and selectable voltages and frequencies

## - PowerMaker UPS

1.8VA - 93\% Output Efficiency - 50/60Hz Input Frequency • 50/60Hz Output Frequency • 150\% Output Overioad • \$2,890
Protects microcomputers and super micros against noise, voltage fluctuations, and power outages. Features 1 ms power transfer plus complete power conditioning that emulates on-line systems. Available in a 2.5 kVA model at $\$ \$ 4,850$.

## - Series 82000

1.5kVA • 80\% Output Efficiency • 60 Hz Input Frequency • 60Hz Output Frequency • 170\% Output Overload • $\$ 5,325$

## - ULTRA-ISOLATOR

to 130kVA • 95\% Output Efficiency • 50/50 Hz Input Frequency • 50/60Hz Output Frequency • 200\% Output Overload • \$12,510
Noise suppressors that protect computers and sensitive electronic equipment against electrical noise disturbances. Guaranteed to eliminate noise-related equipment problems or Topaz will provide a full refund.

## Summus <br> Computer Systems

- Tosnic
$.5 \mathrm{kVA} \cdot 88 \%$ Output Efficiency • 60Hz Input Frequency • 60Hz Output Frequency • 120\% Output Overioad • \$3,599


## - Tosnic

1kVA • 88\% Output Efficiency • 60 Hz Input Frequency $\cdot \mathbf{6 0 H z}$ Output Frequency $\boldsymbol{1 2 0 \%}$ Output Overload • \$2,299

## Tosnic

2kVA • 88\% Output Efficiency • 60Hz Input Frequency $\cdot 60 \mathrm{~Hz}$ Output Frequency • 120\% Output Overioad

- Tosnic
$5 \mathrm{kVA} \cdot 88 \%$ Output Efficiency $\bullet 60 \mathrm{~Hz}$ Input Frequency • 60Hz Output Frequency • 120\% Output Overload • $\$ 8,299$
- Tosnic
$50 \mathrm{kVA} \cdot 88 \%$ Output Efficiency • 60 Hz Input Frequency $\boldsymbol{6 0 H z}$ Output Frequency ${ }^{\mathbf{1 2 0}} \mathbf{1 2 0}$ Output Overioad •\$26,000


## Sutton Desians, Inc.

F Series
3.5 kVA - $\$ 5,995$

- F Series

15kVA - \$9,995

## - MM 12005s

1440VA $\bullet>75 \%$ Output Efficiency • 60 Hz Input Frequency • 60Hz Output Frequency •\$1,599

## - MM 1600ss

1920VA • > $75 \%$ Output Efficiency • 60 Hz Input Frequency • 60Hz Output Frequency •\$1,999
The MM1200SS and 1600SS feature separate units that house the battery.

## - MM 2502

300VA • >75\% Output Efficiency • 50/60Hz Input Frequency • 50/60Hz Output Frequency • \$399
Features a phase locked, synchronized, stepped rectangular waveform.

## - MM 300ss

360VA • > 75\% Output Efficiency • 60Hz Input Frequency $\cdot \mathbf{6 0 H z}$ Output Frequency • $\mathbf{\$ 5 4 9}$

## - MM 5002

600VA • $>75 \%$ Output Efficiency • $50 / 60 \mathrm{~Hz}$ Input Frequency • 50/60Hz Output Frequency • \$699

## - MM 600ss

360VA • > 75\% Output Efficiency - 60Hz Input Frequency • $\mathbf{6 0 H z}$ Output Frequency • $\$ 899$ The MM 300SS, 500 Z , and 600 SS feature a LED status display readout.

## - MM-900SS

$\mathbf{6 0 H z}$ Input Frequency • 60Hz Output Frequency - \$1,299

Switches to inverter operation in less than 1 ms . Features extensive LED status indicators and is UL listed.

## - IX-5000 Series

$1.8 \mathrm{kVA} \bullet>99 \%$ Output Efficiency • $50 / 60 \mathrm{~Hz}$ Input Frequency • 50/60Hz Output Frequency

## ZX-5000 Series

$7.2 \mathrm{kVA} \bullet>99 \%$ Output Efficiency • 50/60Hz Input Frequency • 50/60Hz Output Frequency • $\$ 190$

## The Superior Electric Company

- Stabiline 200VA500V
$\mathbf{2 0 0}-500 \mathrm{VA} \cdot 60 \mathrm{~Hz}$ Input Frequency $\bullet 60 \mathrm{~Hz}$ Output Frequency
Units offer ten minutes of back-up time, under full load. Battery back-up packs are available for extended back-up time Maintenance free battery UL approved.


## Toshiba/Houston <br> soman Sowna

.5-50kVA • 80\% Output Efficiency • $50 / 60 \mathrm{~Hz}$ Input Frequency • 50/60Hz Output Frequency • 150\% Output Overload
Toshiba's on-line UPS devices feature the latest state-of-the-art technology producing a true sinewave through pulse width modulation(PWM) with less than $3 \% \mathrm{THD}$.

## Transtector <br> Systems, Inc.

## UP2S 1000

1kVA • 60 Hz Input Frequency • 60 Hz Output
Frequency • 150\% Output Overload
Features Lattice Matrix suppression and sine wave synchronization during initial start up from AC to inverter.

## Viteo Corporation

- 15A
1.5kVA • 75\% Output Efficiency • 60Hz Input Frequency • 60 Hz Output
Frequency - $\$ 3,195$
The Benchmark on-line UPS Series offers complete on-line protection for DEC micro and minicomputers, both standalone and in LAN applications. High starting surge capability (up tp $\mathbf{1 0 0 0} \%$ of the nominal startup rating) combined with true sinewave output and precision frequency improves reliability from utility power MTBF of 24 hours to VITEQ output power MTBF of 40,000 hours. The model 15 A protects any DEC minicomputer or other critical equipment rated 12Amps or lower from all power line disturbances. It is the only power interface device at this rating which does not require higher amperage or expensive rewiring.
- 385/LAM

750VA - 75\% Output Efficiency • 60 Hz Input Frequency ${ }^{60 \mathrm{~Hz} \text { Output Fre- }}$ quency - $\$ 1,895$
Protects any DEC microcomputer load or 286 or 386-based file servers up to 750VA from all power disturbances.

## - MIMI/GP

$3 \mathrm{kVA} \cdot 75 \%$ Output Efficiency • 60 Hz
Input Frequency • 60Hz Output
Frequency - \$7,750
Automatically configures itself to power any equipment requiring single phase 120 VAC, dual phase 208/120 VAC, or split phase 240/120 VAC.



[^12]-

[^13][^14][^15][^16]
$\qquad$






[^17][^18][^19]

## ENCLOSURES

## SYSTEM AND PERIPHERAL ENCLOSURES



## Trimmundustriles A Global View...

## DISK EXPANSION

In a world of continuing disk expansion, TRIMM Industries offers a comprehensive range of enclosure products. Enclosures from single drive expansion to disk farm applications are available. Dec write protection functions are available in most configurations as well as fully regulated individual peripheral power supplies. Thermal protection and a variety of options make TRIMM the choice for a world full of configurations.

## Q-BUS SYSTEM EXPANSION

TRIMM Industries allows the system integrator a world of options for configuring Q-bus based systems. Trimm offers a CD backplane available in either eight or twelve slots as well as an eight slot Q22 backplane. Fully regulated 350 or 500 watt (continuous) power supplies run the systems. Rack-mount, pedestal, and roll-around models allow configurations for all applications and with our variety of options, the world is the limit.


DA 5 PERIPHERAL ENCLOSURE


DA 50 DISK STORAGE ENCLOSURE


TWR DISK EXPANSION


DEC COMPATIBLE CABINETS


DA 123


DA 23 SYSTEM ENCLOSURE


DA 523 SYSTEM ENCLOSURE


TWR SYSTEM ENCLOSURE

## Trimmindustanks

11949 Sherman Road, North Hollywood, CA 91605
Phone: 818983 -1833
Call toll-free: 800 423-2024 outside CA, 800 272-3557 inside CA
Fax: 818503 -0438 TWX: 9104994745
DEC, CD, and Q22 are registered trademarks of Digital Equipment Corporation

## SYSTEM AND PERIPHERAL ENCLOSURES



## SYSTEM AND PERIPHERAL ENCLOSURES



## SYSTEM AND PERIPHERAL ENCLOSURES



## System And <br> Peripheral Enclosures

## Damac Products, Inc. <br> \section*{- 9000 Series}

26.00 Inch Width • 72.00 Inch Height • 32.00 Inch Depth

The 9000 Series is a modem rack cabinet that features adjustable tracks for locating mounting rails anywhere within the cabinet. Accessories available.

## Dyma Five Corporation

## - BA123

## Large Systems Cabinet

Available in pedestal, rackmount, and tabletop configurations. Has panels for up to 32 lines, supports 22 bit addressing, front access to peripherals, designed for UL and FCC compliance.

## - D5-EE101

Q-bus Systems Cabinet • 19.00 Inch Width • 5.25 Inch Height • 19.75 Inch Depth

Available in tabletop and rackmount configurations. Doubles the system size providing power and back plane space for additional peripheral, communication and process I/O controllers. Physically and functionally compatible with DEC Q-bus BA11 enclosures.

## - D5-PE100

Q-bus Systems Cabinet
Available in tabletop or rackmount versions. Provides greater capacity for Micro 11 and MicroVAX applications where only additional peripherals are required.

## - D5-PE101

Q-bus Systems Cabinet • 19.00 Inch Width • 5.25 Inch Height • 19.75 Inch Depth Provides mounting and power for disk and tape drives in desktop and rackmount configurations. Designed for DEC BA11 and Micro 11/MicroVAX style boxes.

## - D5-SE100

LSI-11 Systems Cabinet
Available in pedestal, tabletop, or rackmount versions. Supports Micro 11/ MicroVAX processors. Has 16-, 18-, and 22 -bit addressing and multiple drive support.

## - D5-SE101

Q-bus Systems Cabinet • 19.00 Inch Width ${ }^{\circ}$ 5.25 Inch Height • 19.75 Inch Depth

Available in tabletop or rackmount versions. This unit is for mounting processor, memory and controllers. Compatible with DEC $Q$-Bus BA11 enclosures, the unit accommodates the latest options such as 22-bit addressing, 1173 and MicroVAX processors.

## - D5-VS102

VME Large Systems Cabinet
Accommodates up to 12 double height boards and provides internal mounting for a wide variety of 5.25 " and 8 " peripherals. Enclosure provides 750 watt power supply. Available in pedestal, rackmount, and desktop configurations.

## - PE-103

$8^{8 \prime}$ Fujitsu Drive Cabinet • 19.00 Inch Width • 5.25 Inch Height - 24.50 Inch Depth

Unit includes power supply, shock and vibration mounting hardware, cooling fans, and power cable. Also includes thermal
monitor and shutdown protection. Available in tabletop or rackmount.

## - SE-105

DEC BA123 Cabinet
Provides a 12 slot backplane, 750 watts, mounting for five $5.25^{\prime \prime}$ peirpherals, and will support either MicroVAX II or MicroPDP 11 processors and memory. Configurations available for pedestal, rackmount, and tabletop.

## - SE-108

Q-bus Systems Cabinet • 19.00 Inch Width •
5.25 Inch Height • 19.75 Inch Depth

Available in rackmountable and tabletop configurations. Features include mounting for two half high $5.25^{\prime \prime}$ peripherals, support for MicroPDP 11 processors, four quad slot backplane, and a user configurable rear loading back panel.

## Everest <br> Electronic Equipment <br>  <br> EH-123

Micro Systems Cabinet • $\mathbf{1 7 . 0 0}$ Inch Width • 20.12 Inch Height • 27.75 Inch Depth • \$950 Compatible with the DEC BA123 World Box, this rollaround cabinet is designed to accommodate multiple configurations for disk subsystems expansion, and system integration.

## - EH-9642-EA

Mid-sized Systems Cabinet • 21.25 Inch Width 41.75 Inch Height • 30.00 Inch Depth • \$1,975

Used as single bay applications for PDP 11/24 and disk drives. Provides space for up to 24 communication lines.

## ■ 태-9642-ES

Mid-sized Systems Cabinet • 21.25 Inch Width - 41.75 Inch Height • 30.00 Inch Depth • \$1,425
Used for a wide variety of general purpose applications where I/O connections are not required.

## C EH-9645-EA

Shielded Cabinet • 29.10 Inch Width • 39.50 Inch Height • $\mathbf{3 0 . 0 0}$ Inch Depth • \$2,250 For PDP-11/24 and PDP-11/14 systems. Ideal for mounting CPUs, dual disk drives and communication lines.

## - EHS60-F

Large Systems Cabinet • 18.31 Inch Width 71.50 Inch Height • 37.75 Inch Depth • \$2,250 Primarily used for PDP Series upgrades and expansion requirements.

## - EH9602-19F

Heavy Load Cabinet - 22.56 Inch Width • 60.42 Inch Height • $\mathbf{3 0 . 0 0}$ Inch Depth • \$1,487 A 19" corporate style cabinet for standalone or expansion applications that demand structural strength.

## - EH9602-24F

Large Systems Cabinet • 27.50 Inch Width 60.42 Inch Height • $\mathbf{3 0 . 0 0}$ Inch Depth • \$1,790 A $24^{\prime \prime}$ corporate style cabinet especially useful for large VAX upgrade applications

## - EH9610-F

Small Systems Cabinet • 21.25 Inch Width 30.75 Inch Height • $\mathbf{3 0 . 0 0}$ Inch Depth • \$935 Small systems cabinet using PDP-11, small disk drives and MicroVAX.

## EH9642-AF

Disk Drive Cabinet • 21.25 Inch Width • 41.75 Inch Height • $\mathbf{3 6 . 0 0}$ Inch Depth • $\mathbf{\$ 1 , 3 2 5}$
This model is designed for front-loading RA60 disk drives.

## - EH9642-AP

Disk Drive Cabinet • 21.25 Inch Width • 41.75 Inch Height • 36.00 Inch Depth $\boldsymbol{\$ 1 , 3 2 5}$
This model is designed for top-loading disk drives and other equipment requiring a depth of 36 inches.

## - EH9642-AS

Disk Drive Cabinet • 21.25 Inch Width • 41.75
Inch Height • $\mathbf{3 6 . 0 0}$ Inch Depth $\mathbf{\$ 1 , 3 2 5}$
This model is designed for top-loading RA80/81 disk drives.

## - EH9642-FA

Mid-sized Systems Cabinet • 21.25 Inch Width -41.75 Inch Height • 30.00 Inch Depth • \$1,850
Same as the EH9642-AS. This shielded cabinet is also ideal for disk drives, BA-11 expansion boxes and communication lines.

## - EH9642-FC

Mid-sized Systems Cabinet • 21.25 Inch Width 41.75 Inch Height • 30.00 Inch Depth • \$1,850
The EH-9642-FC is a shielded UNIBUS expansion cabinet, specifically designed for the VAX 11/730 and 11/750.

## - EH9642-FFL

Medium Systems Cabinet • 21.25 Inch Width • 41.75 Inch Height • 30.00 Inch Depth • \$1,066 A general purpose front load unshielded cabinet.

## E EH9642-FIL

Medium Systems Cabinet • 21.25 Inch Width • 41.75 Inch Height • 30.00 Inch Depth • $\$ 1,009$ A general purpose front load unshielded cabinet for PDP-11/73 systems.

## © EH9642-JA

Micro Systems Cabinet • 26.59 Inch Width •
$\mathbf{4 1 . 7 5}$ Inch Height • $\mathbf{3 6 . 0 0}$ Inch Depth • $\$ \mathbf{3 , 4 6 5}$ An unshielded micro systems cabinet that offers flexibility for devices requiring more than conventional cooling.

## ■ EH9642-SC

Tape Drive Cabinet • 21.25 Inch Width • 41.75 Inch Height • $\mathbf{3 0 . 0 0}$ Inch Depth •\$1,541
Top load streamer cabinet for the CDC family of streaming or start/stop tape drives. There is a vented side panel kit available for the EH9642 Series that starts at $\$ 485$.

## - EH9646-ES

Large Systems Cabinet • 21.25 Inch Width • 58.00 Inch Height • 30.00 Inch Depth • \$1,485

## ■ EM9646-JA

Large Systems Cabinet • 21.25 Inch Width • 60.00 Inch Height • 30.00 Inch Depth • $\$ 2,128$ The EH9646-ES and-JA provide front load shielded rackmount space.

## - EH9646F

Mid-sized Systems Cabinet • 21.25 Inch Width - 60.25 Inch Height • 30.00 Inch Depth • \$1,435
This model may also be used as an expansion cabinet for larger systems.

## - EH9647-AA

Large Systems Cabinet • 29.10 Inch Width • 58.00 Inch Height • $\mathbf{3 0 . 0 0}$ Inch Depth • $\$ 2,375$ This model is a shielded cabinet for custom
configuration requirements. This unit will house expander boxes, disk drives as well as CPUs.

## TwIO-SABRE

Micro Pedestal Cabinet • 11.50 Inch Width • $\mathbf{2 4 . 3 0}$ Inch Height • $\mathbf{3 1 . 2 0}$ Inch Depth • $\mathbf{\$ 8 1 0}$ Accommodates up to four $8^{\prime \prime}$ Sabre series (9720) disk drives from Imprimis Technology (CDC) utilizing the standard 10.5 inch enclosure.

## Hybricon

## - 027-088-04

Card Cage • 2.87 Inch Width • 12.37 Inch
Height • 10.00 Inch Depth • \$4,310
Quad size height with four slots.

## - 027-088-08

Card Cage • 4.75 Inch Width•11.88 Inch
Height • $\mathbf{1 0 . 0 0}$ Inch Depth •\$386
Quad size height with eight slots.
-027-095-10
Card Cage • 6.80 Inch Width $\cdot 12.60$ Inch
Height • 10.00 Inch Depth • \$481
Quad size height with ten slots

## 027-302

Card Cage • 7.97 Inch Width • 5.75 Inch
Height • 9.45 Inch Depth • $\$ 345$
Quad size height with 12 slots.

## - 027-372-04

Card Cage • 2.87 Inch Width • 12.37 Inch Height • $\mathbf{1 0 . 0 0}$ Inch Depth • \$310
Quad size height with four slots.

## Interlogic Industries

- $\quad$ ovin1-8

LSI-11 Backplane • \$235
Expanded version of the standard LSI-11 backplane. Rows A, B, C, and D are dedicated to the LSI-11. Bus slot \#1 is reserved for the LSI-11 processor board.

## - H-9270

Q-bus Backplane - \$195
This model is a 22 -bit backplane and card file with four quad slots designed to accept Q-bus processors, memory boards, and optional modules.

## - H-9275

Q-bus Backplane - $\$ 365$
This model is an 18- to 22-bit backplane and card file with nine quad slots designed to accept Q-bus compatible plug-in boards.

## - H-9278

## Q-bus Backplane - \$190

Wired for 22-bit addresssing and equipped with socketed termination resistors. Contains 13 dual Q-22 bus slots and three C-D slots wired for MicroVAX applications.

## Lion Cabinets

- DT-525

The Lion range of desktop enclosures are available for mounting $3.5^{\prime \prime}, 5.25^{\prime \prime}$, and $8^{\prime \prime}$ devices. The enclosures are available in single or dual form. This model is for $5.25^{\prime \prime}$ devices.

## 图 DT-800

The Lion range of desktop enclosures are available for mounting $3.5^{\prime \prime}, 5.25^{\prime \prime}$, and $8^{\prime \prime}$ devices. The enclosures are available in single or dual form. This model is for $8^{\prime \prime}$ devices.
© L-123-A
Disk Drive Cabinet • 17.00 Inch Width • 24.5
Inch Height • 29.50 Inch Depth
Cabinet holds three 5.25 " devices.

## - L-123-B

Disk Drive Cabinet • 17.00 Inch Width • 24.5
Inch Height - 29.50 Inch Depth
Cabinet holds two $5.25^{\prime \prime}$ devices and one $8^{\prime \prime}$ drive.

## - L-123-C

Disk Drive Cabinet • 17.00 Inch Width • 24.5 Inch Height • 29.50 Inch Depth
Cabinet holds one $5.25^{\prime \prime}$ devices and two $8^{\prime \prime}$ drives.

## - RM-525

Disk Drive Cabinet

## - RM-800

Disk Drive Cabinet
The Lion range of 19 " enclosures are available for mounting 8 " devices. The RM-525 and -800 enclosures are available to mount one or two full height devices and are supplied with mounting hardware, fan cooling and power supply. The RM-800 includes a 180 Watt DC power supply.

## © UMD-FP

Large Systems Cabinet • 21.25 Inch Width ${ }^{\circ}$ 41.62 Inch Height • 36.00 Inch Depth

Front loading cabinet equipped with a top cover and front filler panels.

## - Uwo-up

Large Systems Cabinet • 21.25 Inch Width • 41.62 Inch Height • 36.00 Inch Depth Front loading cabinet equipped with a top cover and a lower front filler panel.

## CumD-TOP

Large Systems Cabinet • 21.25 Inch Width • 41.62 Inch Height • 36.00 Inch Depth This is a top loading cabinet equipped with a top trim kit and $2 / 3$ lower front filler panels or a $2 / 3$ lower front door.

## - UME-FD

Medium Systems Cabinet • 21.25 Inch Width • 41.62 Inch Height • 31.37 Inch Depth

- UME-FP

Medium Systems Cabinet • 21.25 Inch Width 41.62 Inch Height • 31.37 Inch Depth

Front loading cabinet with a top cover and front filler panels.

## - UME-HDP

Medium Systems Cabinet • 21.25 Inch Width 0 41.62 Inch Height • 31.37 Inch Depth Front loading cabinet equipped with a top cover, a $2 / 3$ height lower front door, and a front top filler panel.

## - Une-KEY

Medium Systems Cabinet • 21.25 Inch Width • 41.62 Inch Height • 31.37 Inch Depth

ACDC Keystone horizontal mounting tape cabinet.

## © IME-MP

Medium Systems Cabinet • 21.25 Inch Width 41.62 Inch Height • 31.37 Inch Depth

Front loading cabinet equipped with a top cover and a lower front filler panel

- UWE-STC

Medium Systems Cabinet • 21.25 Inch Width • 41.62 Inch Height • 31.37 Inch Depth An STC 2920 horizontal mounting tape cabinet.
© UME-TED
Medium Systems Cabinet • 21.25 Inch Width •
41.62 Inch Height • 31.37 Inch Depth

A Thorn EMI 8900 horizontal mounting tape cabinet.

## © UME-TOP

Medium Systems Cabinet • 21.25 Inch Width • 41.62 Inch Height • 31.37 Inch Depth

Top loading cabinet equipped with a top trim kit and $2 / 3$ lower front filler panels or a $2 / 3$ lower front door.

## © UUS-FP

Small Systems Cabinet • 21.25 Inch Width e 31.62 Inch Height • 31.37 Inch Depth Front loading cabinet with a top cover and front filler panels.

## ■ UMS-WP

Small Systems Cabinet • 21.25 Inch Width 31.62 Inch Height • 31.37 Inch Depth

Front loading cabinet with a top cover and lower front filler panels.

## © UXT-FD

Large Systems Cabinet • 21.25 Inch Width • 61.62 Inch Height • 31.37 Inch Depth

Front loading cabinet with a top cover.

## ■ UXT-FP

Large Systems Cabinet • 21.25 Inch Width ${ }^{\circ}$ 61.62 Inch Height • 31.37 Inch Depth Front loading cabinet with a top cover and front filler panels.

## - UXT-HDP

Large Systems Cabinet • 21.25 Inch Width $\bullet$ 61.62 Inch Height • 31.37 Inch Depth

Front loading cabinet with a top cover, a $1 / 2$ height lower front door and a front top filler panel.

## E UXT-NP

Large Systems Cabinet • 21.25 Inch Width • 61.62 Inch Height • 31.37 Inch Depth

Front loading cabinet with a top cover and a lower front top filler panel.

## - V40-FMFD

Medium Systems Cabinet • 21.25 Inch Width • 41.62 Inch Height • 31.37 Inch Depth

Equipped with mounting brackets. The V40-HHFD is another model that features a half-height front door

## - V60-FMFD

Large Systems Cabinet • 21.25 Inch Width ${ }^{\bullet}$ 61.62 Inch Height • 31.37 Inch Depth

Equipped with mounting brackets. The V60-HHFD is another model that features a half-height front door

## - VAL-30

Medium Systems Cabinet • 21.25 Inch Width • 31.62 Inch Height • 24.37 Inch Depth

- VAL-30C

Small Systems Cabinet • 21.25 Inch Width • 31.62 Inch Height • 24.37 Inch Depth

The VAL-30 and-30C are front loading cabinets with top covers and lower front filler panels.

## © VAL-40

Medium Systems Cabinet • 21.25 Inch Width 0
41.62 Inch Height • 31.37 Inch Depth

- VAL-40C

Medium Systems Cabinet • 21.25 Inch Width • 41.62 Inch Height • 31.37 Inch Depth

ThVAL-40 and 40 C offer the same features and options as the VAL-60.

## © VAL-60

Large Systems Cabinet • 21.25 Inch Width • 61.62 Inch Height • 31.37 Inch Depth

Front loading cabinet with a top cover, leveling feet and castors, and a lower front filler panel. Options include a stabilzer bar (VAL-SBAR), 1.25" (VAL-0125), 1.75" (VAL-0175), 3.5" (VAL-0350), 5.25" (VAL 0525), and $10.5^{\prime \prime}$ (VAL-1050) front filler panels.

## - VAL-6OC

Large Systems Cabinet • 21.25 Inch Width 0 61.62 Inch Height • 31.37 Inch Depth

Front loading communications cabinet equipped with a top cover, a lower front filler panel, and leveling feet and castors. Options include a stabilizer bar (VAL SBAR), a fixed mounting tray (CAB-SHFX), and a sliding mounting tray (CAB-SHSL).

## - VXE-FD

Large Systems Cabinet • 27.50 Inch Width $\bullet$ 60.50 Inch Height • $\mathbf{3 0 . 5 0}$ Inch Depth

## -VXE-FP

Large Systems Cabinet - 27.50 Inch Width $\bullet$ 60.50 Inch Height • $\mathbf{3 0 . 5 0}$ Inch Depth

UNIBUS expansion cabinet with long side filler strips and front filler panels.

## ■ VXE-HDP

Large Systems Cabinet • 27.50 Inch Width • 60.50 Inch Height ${ }^{\mathbf{3}} \mathbf{0 . 5 0}$ Inch Depth

UNIBUS expansion cabinet with a $1 / 2$ height lower front door, a $1 / 2$ height top side filler strip and top filler panels.

## © VXE-NP

Large Systems Cabinet • 27.50 Inch Width • 60.50 Inch Height • 30.50 Inch Depth

UNIBUS expansion cabinet with long side filler strips only.

## - VXE-SBI

Large Systems Cabinet • 27.50 Inch Width • $\mathbf{6 0 . 5 0}$ Inch Height • $\mathbf{3 0 . 5 0}$ Inch Depth
Processor (SBI) expansion cabinet with an SBI system unit and PSU mounting, fan cooling, and power looms for PSUs.

## MDB Systems, Inc.

- MLSI-BA11-2000-F

Q-bus Chasssis • $19.00^{\circ}$ Inch Width $\bullet 5.25^{-1}$ Inch Height • 18.00' Inch Depth • $\mathbf{\$ 1 , 7 5 0}$

## - mesi-Ba11-2000-R

Q-bus Chassis $\boldsymbol{\bullet} \mathbf{1 9 . 0 0}{ }^{\circ}$ Inch Width $\bullet \mathbf{5 . 2 5 "}$ Inch Height • 18.00' Inch Depth • \$1,750 The MLSI-BA11-2000-F and -R are backplane assemblies and feature a $\mathrm{Q}-22$ bus on all slots/rows in serpentine fashion.

## - MLSI-BA11-2200-F

Q-bus Chassis $\mathbf{1 0}^{19.00^{\prime}}$ Inch Width $\bullet 5.25^{\prime \prime}$ Inch Height • 18.00" Inch Depth • \$1,950

## - MLSI-BA11-2200-R

 Height - 18.00" Inch Depth - $\mathbf{\$ 1 , 9 5 0}$
The MLSI-BA11-2200-F and -R are backplane assemblies and feature a Q-22 bus on all slots/rows in serpentine fashion except for rows one, two, and three. Rows one, two, and three have C-D bus slots.

## - MLSI-BA11-3000-F

 Height • 18.00' Inch Depth • \$1,650

## E MLSI-BA11-3000-R

Q-bus Chassis • 19.00" Inch Width • 5.25" Inch Height • 18.00 Inch Depth • $\mathbf{\$ 1 , 6 5 0}$
The MLSI-BA11-3000-F and -R are backplane assemblies and feature a $\mathrm{Q}-22$
bus on all slots/rows in serpentine fashion Used to expand Q-bus PDP-11 or MicroVAX II systems with additional boards.

## SI Technology, Inc.

## - 3000

Modem Cabinet • 19.00 Inch Width • 4.50 Inch Height • 12.00 Inch Depth
This enclosure allows SI Technology's fiber optic and metallic bit-drivers to be mixed and matched.

## Sigma <br> Imformation Systems

## - SA-BA11M-3

Q-bus Systems Cabinet • 19.00 Inch Width •
5.25 Inch Height • 20.00 Inch Depth • \$1,578 Available in a MicroVAX configuration with three C-D slots.

## © SA-H101

Flexible Disk Drive Cabinet • 19.00 Inch Width - 5.25 Inch Height • 24.75 Inch Depth • $\$ 709$

Designed for mounting one or two Shugart SA800/850 drives side by side.

## © SA-H110

5.25" Disk Drive Cabinet • 19.00 Inch Width • 6.00 Inch Height • 20.50 Inch Depth • \$1,578 A tabletop (or optional free-standing floor) enclosure that provides power and mounting for up to two full-sized drives.

## - SA-H112/2

5.25" Disk Drive Cabinet • 19.00 Inch Width •
$\mathbf{5 . 2 5}$ Inch Height • $\mathbf{2 0 . 0 0}$ Inch Depth • $\$ 698$
Supports (1) two 5.25 " drives or (2) one $5.25^{\prime \prime}$ drive and one 8 " flexible drive, (3) one tape cartridge, or (4)two 8 " slimline drives

## - SA-H115

5.25/8" Disk Drive Cabinet • 12.00 Inch Width

- 26.5 Inch Height • 20.00 Inch Depth • $\$ 2,602$

Provides power and mounting for up to two full-sized $5.25{ }^{\prime \prime}$ drives, an $8^{\prime \prime}$ drive, and a removable 8 " tape cartridge or floppy disk drive.

## © SA-H116

g" Disk Drive Cabinet - $\$ 649$
The SA-H116 provides mounting space for three industry-standard $5.25^{\prime \prime}$ drives or one $8^{\prime \prime}$ drive.

## - SA-H116/2

5.25" Disk Drive Cabinet • 13.00 Inch Width • 6.87 Inch Height • 18.00 Inch Depth • $\$ 541$

A tabletop enclosure that provides power and mounting for up to three full-sized 5.25 " drives.

## - SA-H123 S/250

5.25" Disk Drive Cabinet • 19.00 Inch Width • 7.00 Inch Height • 26.00 Inch Depth • \$1,093 Supports two drives and is available in either tabletop or rackmount configurations.

## - SA-H123S/2382

8" Disk Drive Cabinet • 19.00 Inch Width • 7.00 Inch Height • 24.00 Inch Depth • \$1,558 Supports two 8" Fujitsu M2382 drives and is available in either tabletop or rackmount configurations.

## © SA-H123S/350

8" Disk Drive Cabinet • 19.00 Inch Width •
7.00 Inch Height • 26.00 Inch Depth • \$1,442 Supports either Fujitsu's M2300 series(SAH123S/350F) or Toshiba's MK180 or MK280 series (SA-H123S/350T). Includes shock mounting brackets.

## - SA-H124/Q

5.25" Disk Drive Cabinet • 7.43 Inch Width • $\mathbf{2 6 . 5}$ Inch Height • 22.25 Inch Depth • $\$ 1,754$ Provides power and mounting for up to four full-sized drives.

## - SA-H125

5.25" Disk Drive Cabinet • 19.00 Inch Width • 5.25 Inch Height • 24.00 Inch Depth • $\$ 1,540$ Available in rackmountable or standalone configurations. Also supports a slimline floppy, or $8^{\prime \prime}$ slimline floppies, or an $8^{\prime \prime}$ removable drive, or an $8^{\prime \prime}$ tape cartridge.

## - SA-H125/3

MicroVAX Systems Cabinet • 19.00 Inch Width - 5.25 Inch Height • $\mathbf{2 4 . 0 0}$ Inch Depth • \$1,555 System chassis supports $5.25^{\prime \prime}$ or $8^{\prime \prime}$ slimline drives available with a MicroVAX backplane.

## - SA-H136

Q-bus Systems Cabinet • 11.70 Inch Width $\bullet$ 3.62 Inch Height • 13.38 Inch Depth • $\$ 753$ Supports up to four dual modules.

## - SA-H140

Q-bus Systems Cabinet • 12.12 Inch Width • 14.00 Inch Height • 5.50 Inch Depth • \$1,315 Wall-mount enclosure that may be used for industrial security or remote control applications.

## - SA-H144

5.25" Disk Drive Cabinet • 7.43 Inch Width • $\mathbf{2 6 . 5 0}$ Inch Height • 26.00 Inch Depth •\$1,905 Supports (1) an 8 " removable tape car tridge, (2) a floppy drive, (3) dual slimline floppies, or (4) three additional 5.25 " drives.

## - SA-H147

Q-bus Systems Cabinet • 19.00 Inch Width ${ }^{\circ}$ 7.00 Inch Height • 19.75 Inch Depth • $\$ \mathbf{2 , 0 2 9}$ Available in both rackmount or tabletop configurations.

## - SA-H149

5.25/8" Disk Drive Cabinet • 19.00 Inch Width - 12.25 Inch Height • 24.00 Inch Depth • $\$ 4,500$
Ruggedized enclosure that supports one 8" and two 5.25 " fixed Winchesters mounted on shockmount brackets.

## © SA-H152

5.25" Disk Drive Cabinet • 17.00 Inch Width • $\mathbf{2 1 . 0 0}$ Inch Height • $\mathbf{2 4 . 0 0}$ Inch Depth • $\$ \mathbf{5 , 5 0}$ Refrigerated industrial enclosure that supports three $5.25^{\prime \prime}$ fixed Winchesters and one removable drive mounted on shockmount brackets.

## - SA-H154

a-bus Systems Cabinet • 19.00 Inch Width 0 5.25 Inch Height • 22.00 Inch Depth Available in both rackmount or tabletop configurations. An optional battery backup is also available.

## - SA-H155

5.25" Disk Drive Cabinet • 19.00 Inch Width • $\mathbf{1 2 . 2 5}$ Inch Height • $\mathbf{2 4 . 0 0}$ Inch Depth • $\mathbf{\$ 4 , 5 0 0}$ Ruggedized, self-contained enclosure that supports three 5.25 " fixedWinchesters and/ or removable media drives that are shock mounted.

## - SA-H157

$8^{8}$ Disk Drive Cabinet • $\mathbf{1 9 . 0 0}$ Inch Width 7.00 Inch Height • 26.00 Inch Depth • \$1,208 Supports two PRIAM 806, 807, or 808 drives and is designed for convenient installation and removal for maintenance and troubleshooting.

## ■ SA-H158

$8^{8}$ Disk Drive Cabinet • 7.50 Inch Width -
$\mathbf{2 4 . 0 0}$ Inch Height • 23.00 Inch Depth • $\$ 1,840$ Supports two Fujitsu, two Toshiba, or two CDC drives in a wide tower enclosure with shockmounted brackets.

## - SA-H159

MicroVAX II/LSI-11 Cabinet • 19.00 Inch Width - 5.25 Inch Height • 24.00 Inch Depth • \$1,694 The SA-H159 is the rackmount equivalent to DEC's BA23. Provides write protect and drive status controls and indicators, and mounting for DEC RD54 drives.

## - SA-H160

MicroVAX II Cabinet • 19.00 Inch Width •
$\mathbf{1 0 . 5 0}$ Inch Height • $\mathbf{2 4 . 0 0}$ Inch Depth •\$3,134 The SA-H160 is the rackmount equivalent to DEC's BA123. Provides write protect for two or four DEC drives or four ESDI drives with Sigma's RQD11-EC disk controller.

## - SA-H161Q

5.25" Disk Drive Cabinet • 21.25 Inch Width • 7.25 Inch Height • 16.25 Inch Depth • $\$ 969$ Tabletopenclosure that supports three halfheight drives on LSI-11 systems.

## - SA-H162

5.25" Disk Drive Cabinet • 14.60 Inch Width • 26.87 Inch Height • 28.00 Inch Depth • \$3,815 Provides expansion for the BA23MicroVAX II box with support for four removable drives including Q-bus boards.

## - SA-H163/3

5.25" Disk Drive Cabinet • 19.00 Inch Width • 5.25 Inch Height • 18.00 Inch Depth • $\$ 1,388$ Removable drive expansion enclosure Designed for ESDI or ST506 disks, featuring switch selectable capabilities and a write protect for use with Sigma's controllers.

## - SA-H165

$8^{\text {n }}$ Disk Drive Cabinet • 19.00 Inch Width $\bullet$ 5.25 Inch Height • 26.00 Inch Depth • \$1,442 Supports dual 8" SMD disk drives such as the Fujitsu M2372 or the Toshiba MK288 Provides write protect and drive status indicators.

## - SA-H166

Q-bus Systems Cabinet • 19.00 Inch Width • 8.75 Inch Height • 22.00 Inch Depth • $\$ 2,948$ Available with an optional battery back up unit (BBU) and an enhanced coprocessor

## © SA-H168/2

5.25" Disk Drive Cabinet • 19.00 Inch Width • $\mathbf{1 2 . 2 5}$ Inch Height • $\mathbf{2 4 . 0 0}$ Inch Depth • $\$ 4,871$ Ruggedized, self-contained system chassis that supports three fixed or removable drives. Provides integral MicroVAX patch panel for CPU status, battery back-up, and write protection.

## - SA-H169

5.25" Disk Drive Cabinet • 19.00 Inch Width • 12.25 Inch Height • 26.00 Inch Depth $\bullet$

## \$10,833

Ruggedized, military chassis that supports three drives and one tape cartridge drive Meets MIL-STD-5541 specifications.

## © SA-H173

5.25" Disk Drive Cabinet • 19.00 Inch Width • 6.75 Inch Height • 22.50 Inch Depth • \$1,445 Supports up to four 5.25" Winchester or removable drives, including ESDI, ST-506, or SCSI interfaces. Accommodates Sigma controller interface panels that mount in the rear I/O area.

SA-H176
Q-bus Systems Cabinet • 20.25 Inch Width • 3.50 Inch Height • 19.50 Inch Depth • \$1,208 Slim tabletop enclosure that supports two fixed and/or removable $5.25^{\prime \prime}$ slimline drives.

## - SA-H184

5.25" Disk Drive Cabinet • 10.00 Inch Width • 20.75 Inch Height • 20.50 Inch Depth • \$2,284 Supportsup to four $5.25^{\prime \prime}$ Winchester drives, including ESDI or SCSI interfaces. Provides internal mounting space and power for a SCSI-ESDI adapter.

## - SA-H185

8" Disk Drive Cabinet • 19.00 Inch Width • 12.25 Inch Height • $\mathbf{2 6 . 0 0}$ Inch Depth • $\$ 3,128$ Supports two 8" Fujitsu M2300 drives and one 5.25 " TK50 tape drive.

## - SA-H187

5.25" Disk Drive Cabinet • 19.00 Inch Width • 5.25 Inch Height • 18.00 Inch Depth • \$4,150 A two drive expansion chassis designed for applications that require the use of disk drives in rugged environments. Drive canisters include an ESDI or SCSI interface.

## - SA-H188

5.25" Disk Drive Cabinet • 19.00 Inch Width • 5.25 Inch Height • 22.25 Inch Depth • \$1,270 Rackmount chassis $t$ hat supports four 5.25 " removable Winchester drives. Chassis contains a front console with Write protect and Ready switches and LEDs for each drive.

## - SA-H189

5.25" Disk Drive Cabinet • 7.00 Inch Width $\bullet$ 5.25 Inch Height • 15.00 Inch Depth • $\$ 353$ A mini enclosure that supports one or two slimline $5.25^{\prime \prime}$ drives or a single full height 5.25 " drive.

## - SA-H190

8" Disk Drive Cabinet • 19.00 Inch Width • $\mathbf{8 . 5 0}$ Inch Height • $\mathbf{2 6 . 0 0}$ Inch Depth • $\$ 1,716$ An expansion chassis that supports two 8" Fujitsu M2300 series drives.

## Summus

Computer Systems
-ssumenc

## Trimm Industries

## - D8410-CA

Small Systems Cabinet • 21.25 Inch Width • 31.00 Inch Height • 30.00 Inch Depth All D84xx models are among Trimm Industries Value Line products which feature flexible systems packaging at economical prices. Inside dimensions are $19 \times 24.50 \times 26.75$.

## - D8442-CA

Medium Systems Cabinet • 21.25 Inch Width • 41.64 Inch Height • 30.00 Inch Depth

This model is a front loading standalone cabinet with inside dimensions of $19 \times 35 \times 26.75$.

## - D8442-CDC

CDC's Keystone Cabinet • 21.25 Inch Width •
61.50 Inch Height • 30.00 Inch Depth

## - D8442-STC

STC's 2920 Cabinet • 21.25 Inch Width • 61.50 Inch Height • $\mathbf{3 0 . 0 0}$ Inch Depth

D8442-TLX
Telex's Shamrock Cabinet • 21.25 Inch Width - 61.50 Inch Height • $\mathbf{3 0 . 0 0}$ Inch Depth

The D8442-CDC, -STC, and -TLX are horizontal mount cabinets with inside dimensions of $19 \times 35 \times 26.75$.

## - D8446-CA

Large Systems Cabinet • 21.25 Inch Width • 61.50 Inch Height • 30.00 Inch Depth

This model is a general purpose cabinet with inside dimensions of $19 \times 52.50 \times 26.75$.

## - D9602-CA

Large Disk/Tape Cabinet • 27.50 Inch Width • 60.00 Inch Height • 30.00 Inch Depth

A 24 " wide VAX cabinet with 19 " setback rails and $5^{\prime \prime}$ of useable vertical space for equipment side mounting. Designed for more than 1000 pounds of load capacity and is equipped with inside dimensions of $19 \times 52.50 \times 26.75$.

## - D9602-DF

Large Systems Cabinet • 27.50 Inch Width • 60.00 Inch Height • 30.00 Inch Depth

## - D9602-EA

Large Systems Cabinet • 27.50 Inch Width • 60.00 Inch Height • 30.00 Inch Depth

The D9602-DF and -EA models are designed specifically for VAX 780/785 UNIBUS expansion with inside dimensions of $19 \times 52.50 \times 26.75$.

## - D9602-MF

Large Systems Cabinet • 21.25 Inch Width • 60.00 Inch Height • 30.00 Inch Depth

Ideal for mounting large GCR tape drives or for large disk installations. Suits Digital's 8000 Series VAX machines and is fully expandable to VAX 8600/8650 CPUs.

## ■ D9602-SM

Large Disks Cabinet • 21.25 Inch Width • 41.64 Inch Height • 30.00 Inch Depth

The D9602-SN is equipped with inside dimensions of $19 \times 33.25 \times 26.75$.

## - D9602-SR

Large Systems Cabinet • 27.50 Inch Width • 41.64 Inch Height • 30.00 Inch Depth Short VAX cabinet with a 24 " wide frame and $19^{\prime \prime}$ setback rails. Ideal for applications requiring large load capacity in a limited area. Inside dimensions are $19 x 33.25 \times 26.75$.

## - D9610-CA

Small Systems Cabinet • 21.25 Inch Width • 31.00 Inch Height • 30.00 Inch Depth This model is a general purpose cabinet with inside dimensions of $19 \times 24.50 \times 26.75$.

## - D9642-AD/AE

Medium Systems Cabinet • 21.25 Inch Width • 41.64 Inch Height - 30.00 Inch Depth

This model is a standalone top loading cabinet with inside dimensions of $19 \times 35 \times 26.75$.

## - D9642-BD/BE

Medium Systems Cabinet • 21.25 Inch Width • 41.64 Inch Height • 30.00 Inch Depth

This model is an expansion top loading cabinet with inside dimensions of $19 \times 35 \times 26.75$.

## - D9642-CA

Medium Systems Cabinet • 21.25 Inch Width • 41.64 Inch Height • 30.00 Inch Depth

This model is a front loading standalone cabinet with inside dimensions of

## - D9642-CDC

CDC's Keystone Cabinet • 21.25 Inch Witth • 41.64 Inch Height • $\mathbf{3 0 . 0 0}$ Inch Depth

This is a horizontal mount tape cabinet with inside dimensions of $19 \times 35 \times 26.75$.

## - D9642-DA

Medium Systems Cabinet • 21.25 Inch Width • 41.64 Inch Height • 30.00 Inch Depth

## - D9642-STC

STC's 2920 Series Cabinet • 21.25 Inch Width - 41.64 Inch Height • 30.00 Inch Depth

## - D9642-TLX

Telex's Shamrock Cabinet • 21.25 Inch Width - 41.64 Inch Height 030.00 Inch Depth The D9642-DA, -STC, and -TLX models are front loading expansion cabinets with inside dimensions of $19 \times 35 \times 26.75$.

## - D9646-AA

Large Systems Cabinet • 21.25 Inch Width • 61.50 Inch Height • 30.00 Inch Depth

This model is a tape cabinet with inside dimensions of $19 \times 52 \times 26.75$.

## - D9646-BA

Large Systems Cabinet • 21.25 Inch Width • 61.50 Inch Height • 30.00 Inch Depth

This model is a tape expansion cabinet with inside dimensions of $19 \times 52.50 \times 26.75$.

## - D9646-CA

Large Systems Cabinet • 21.25 Inch Width • 61.50 Inch Height ${ }^{0} 30.00$ Inch Depth

This model is a general purpose cabinet with inside dimensions of $19 \times 52.50 \times 26.75$.

## - D9646-DA

Large Systems Cabinet • 21.25 Inch Width • 61.50 Inch Height • 30.00 Inch Depth

A 60 " general purpose expansion cabinet with inside dimensions of $19 \times 52.50 \times 26.75$. It is capable of mounting a $40^{\prime \prime}$ cabinet along its side.

## - D9646-EA

Large Systems Cabinet • 21.25 Inch Width • 61.50 Inch Height • 30.00 Inch Depth A $60^{\prime \prime}$ general purpose expansion cabinet with inside dimensions of $19 \times 52.50 \times 26.75$. It is capable of mounting a $60^{\prime \prime}$ cabinet along its side.

## - DA 23

5.25 " Disk Drive Cabinet

Q-bus compatible with a 350 watt continuous power supply.

## ■ DA 5

5.25 " Disk Drive Cabinet • 9.20 Inch Witth • 5.70 Inch Height • 13.00 Inch Depth

Available with either ST506/ESDI orSCSI/ IPI I/O configurations which allow configuration flexibility.

- DA 50-2
5.25" Disk Drive Cabinet • 19.00 Inch Width • 5.25 Inch Height • 25.00 Inch Depth

The DA $50-2$ is a 19 " rackmount product that houses two disk drives.

## - DA 50-4

5.25" Disk Drive Cabinet • 19.00 Inch Width • 5.25 Inch Height • 25.00 Inch Depth

The DA $50-4$ is a 19 " rackmount product that houses four disk drives.

## - DA 80-EMD

8" CDC EMD-9720 Cabinet • 19.00 Inch Width $\bullet 5.25$ Inch Height • 30.00 Inch Depth

- DA 80-FJ
$\mathbf{8}^{\text {" }}$ Fujitsu 2300 Cabinet • 19.00 Inch Width • 5.25 Inch Height • 30.00 Inch Depth


## - DA 90-CDC

9- CDC 9710/9715 Cabinet • 19.00 Inch Width

- 10.50 Inch Height • 30.00 Inch Depth
© DA 90-HTC
$\mathrm{g}^{2}$ Hitachi DK815 Cabinet • 19.00 Inch Width • 10.50 Inch Height • 30.00 Inch Depth


## - DA 90-MEC

9" NEC D2300 Cabinet • 19.00 Inch Width •
10.50 Inch Height • 30.00 Inch Depth

The DA 80 Series mounts two drives side by side in 19 " rackmount configurations.

## - DA523-xx

Q-bus Chassis Cabinet • 19.00" Inch Width • $10.50^{\circ}$ Inch Height ${ }^{25.13^{\prime \prime}}$ Inch Depth Top-access, twelve slot Q-bus CD backplane mounting for up to five 5.25 " peripheral drives. Includes a 500 watt power supply for the system and two I/O devices. Individual 50 watt power supplies provide power for additional peripheral drives.

## Zoltech Corporation

- vca-11/Model 11

Basic Chassis • 19.00 Inch Width • 5.25 Inch Height • 17.00 Inch Depth • $\$ 500$
Basic minimum chassis includes sheet metal chassis and AC input assembly. Does
not include power supplies, card cages, nor control panels. Also available in tower and rackmount versions.

- VCQ-11/Model 16

Subsystem Cabinet • 19.00 Inch Width • 5.25 Inch Height • 17.00 Inch Depth • $\$ 925$
Basic mass storage subsystem chassis complete except for the storage devices and I/O cables. Includes rear I/O panel, 100W P/S, DC cages, and mounting kits.

## - VCO/Model 20

Card Cage Chassis • 19.00 Inch Width • 5.25 Inch Height • 17.00 Inch Depth • $\mathbf{\$ 1 , 2 5 0}$

## - VCa/Model 28

Card Cage Chassis • 19.00 Inch Width • 5.25 Inch Height • $\mathbf{1 7 . 0 0}$ Inch Depth • $\mathbf{\$ 1 , 3 0 0}$
The VCQ/Model 20 and 28 are basic card cages that include full function control panels, deluxe I/O panels, 22-bit Q-bus card cages, and optional C-D interconnect 140W P/S.

## ■ VHO-11/Model 11

Basic Chassis • $\mathbf{1 9 . 0 0}$ Inch Width • $\mathbf{1 0 . 5 0}$ Inch Height • 17.00 Inch Depth • $\$ 750$
Basic minimum chassis includes sheet metal chassis and AC input assembly. Does not include power supplies, card cages, nor control panels. Also available in tower and rackmount versions.

## ■ VHQ-11/Model 16

Subsystem Cabinet • 19.00 Inch Width • 10.50 Inch Height • 17.00 Inch Depth • $\mathbf{\$ 1 , 5 0 0}$
Basic mass storage subsystem chassis complete except for the storage devices and I/O cables. Includes rear I/O panel, 250 W P/S, DC cages, and mounting kits.

## - VHQ-11/Model 30

Integrated Systems Cabinet • 19.00 Inch Width - 5.25 Inch Height • 17.00 Inch Depth • \$1,775

## - VHO-11/Model 38

Integrated Systems Cabinet • 19.00 Inch Width - 10.50 Inch Height • 17.00 Inch Depth • \$1,795
The VHQ-11/Model 30 and 38 are basic integrated systems chassis that include a 22 -bit $Q$-bus card cage, drive mounting kits, power cables, a deluxe I/O panel, and a full function control panel at 250 W P/S.

## ■ VHO/Model 20

Card Cage Chassis • 19.00 Inch Width • 10.50 Inch Height • 17.00 Inch Depth •\$2,350

- VHO/Model 28

Card Cage Chassis • 19.00 Inch Width • 10.50 Inch Height • 17.00 Inch Depth • $\$ 2,350$
The VHQ/Model 20 and 28 are basic card cage chassis that include full function control panels, deluxe I/O panels, 22 -bit Qbus card cages, and optional C-D interconnect 400W P/S.

- VLQ-11/Model 11

Basic Chassis • 19.00 Inch Width • 10.50 Inch Height • $\mathbf{2 5 . 5 0}$ Inch Depth • $\$ 850$
Basic minimum chassis includes sheet metal chassis and AC input assembly. Does not include power supplies, card cages, nor control panels. Also available in tower and rackmount versions.

## - VLQ-11/Model 30

Integrated Systems Cabinet • 19.00 Inch Width $\bullet 10.50$ Inch Height • 25.50 Inch Depth • \$3,000
Basic integrated systems chassis includes a 22 -bit Q -bus card cage, drive mounting kits, power cables, a deluxe I/O panel, and a full function control panel at 500 W P/S.

## - VQ-11/Model 11

Basic Chassis • 19.00 Inch Width • 5.25 Inch Height • $\mathbf{2 5 . 5}$ Inch Depth • $\$ 575$
Basic minimum chassis includes sheet metal chassis and AC input assembly. Does not include power supplies, card cages, nor control panels. Also available in tower and rackmount versions.

## - VQ-11/Model 16

Subsystem Cabinet • 19.00 Inch Width • 5.25 Inch Height • $\mathbf{2 5 . 5 0}$ Inch Depth • $\mathbf{\$ 1 , 1 5 0}$
Basic mass storage subsystem chassis complete except for the storage devices and I/O cables. Includes rear I/O panel, 200W P/S, DC cages, and mounting kits.

## - VQ-11/Model 30

Integrated Systems Cabinet • 19.00 Inch Width - 5.25 Inch Height • 25.50 Inch Depth • $\mathbf{\$ 1 , 5 0 0}$ Basic integrated systems chassis includes a 22 -bit $Q$-bus card cage, drive mounting kits, power cables, a deluxe I/O panel, and a full function control panel at 250 W P/S.

## ADAPTERS \& CONTROLLERS

## GRAPHICS CONTROLLERS



## HOST ADAPTERS



## HOST ADAPTERS

| \% |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sigma Information Systems 714 630-6553 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SDC-HA11 | Y | Y | Q-bus | Y | Y | SASI | 4-7 | Y | .8Mbps |  | D | 1 yr | \$354 |
| Simpact Associates, Inc. 619 565-1865 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CPI 12000 |  |  | Q-bus |  | Y |  |  |  |  |  |  |  |  |
| VCI 8000 |  |  | Q-bus |  | $Y$ |  |  |  |  |  |  |  |  |
| TD Systems, Inc. 508 937-9465 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| QDO | Y |  | Q-bus |  | $Y$ | SCSI | 4 |  | 1.5Mbps | Y/- | D |  | \$1,395 |
| QDT | Y | $Y$ | Q-bus |  | $Y$ | SCSI | 4 |  | 1.5 Mbps | Y/Y | D |  | \$1,995 |
| QTO |  | Y | a-bus |  | $Y$ | SCSI | 4 |  | 1.5Mbps | -M | D |  | \$1,395 |
| TDL-12 | $Y$ |  | Q-bus |  | $Y$ | SCSI | 4 |  | .8Mbps | Y/- | D |  | \$695 |
| UDO | $Y$ |  | UNIBUS |  | $Y$ | SCSI | 4-7 |  | 1.5 Mbps | Y/- | 0 |  | \$1,595 |
| UDT | $Y$ | Y | UNIBUS |  | $Y$ | SCSI | 4-7 |  | 1.5 Mbps | Y/Y | 0 |  | \$2,195 |
| UHA-11 | Y |  | UNIBUS |  | $Y$ | SCSI | 4-7 |  | . 6 Mbps |  | 0 |  | \$895 |
| UTO |  | Y | UNIBUS |  | Y | SCSI | 4-7 |  | 1.5Mbps | -/Y | 0 |  | \$1,595 |
| U. S. Design Corporation 301 577-2880 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| HA-1108 | Y | Y | Q-bus |  |  | SCSI | 4 |  |  | Y/- | H |  | \$1,250 |
| HA-1109 | Y | $Y$ | Q-bus |  |  | SCSI | 4 |  |  | Y/- | H |  | \$1,750 |
| HA-1128 |  | $Y$ | Q-bus |  |  |  |  |  |  | - $/$ Y | D |  | \$1,595 |
| HA-1158 | Y | $Y$ | UNIBUS |  |  | SCSI | 4 |  |  | Y/- | H |  | \$1,500 |
| HA-1178 |  | $r$ | UNIBUS |  |  |  |  |  |  | - $/$ | 0 |  | \$1,850 |
| IEEE-488 GOMTROLERS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| む̃ |  |  |  |  |  |  |  |  |  |  |  |  | む̃ㄴㄴ |
| Design Analysis Associates 801 753-2212 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ICA |  |  |  |  |  |  |  |  |  | Blbus |  |  |  |
| National Instruments 512 250-9119 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GPIB-MV3000 | Y/Y | Y/Y |  | Y/Y | Y/ |  |  | Y/Y | Y | Q-bus | D | 2 yrs | \$2,095+ |
| GPIB-MVII | Y/Y | Y/ |  | Y/ | Y/ |  |  | $\mathbf{Y} \boldsymbol{Y}$ |  | Q-bus | D | 2 yrs | \$1,995 |
| GPIB11 V-1 | Y/Y | Y/Y |  | Y/Y | Y/Y |  |  | Y/Y | $Y$ | Q-bus | D | 2 yrs | \$795+ |
| GPIB11 V-2 | $\mathbf{Y} / \mathbf{Y}$ | Y/ |  | Y/ | Y/ |  |  | Y/Y | $Y$ | Q-bus | 0 | 2 yrs | \$1,495+ |
| GPIB11-1 | Y/Y | Y/Y | 250K | Y/Y | Y/ |  |  | Y/Y | $Y$ | UNIBUS | H | 2 yrs | \$1,395+ |
| GPIB11-2 | Y/Y | $\mathbf{Y} \boldsymbol{Y}$ | 250K | Y/ | Y/ |  |  | Y/Y | Y | UNIBUS | H | 2 yrs | \$2,195 |

## PERIPHERAL INTERFACE CONTROLLERS



## PRINTER CONTROLLERS



## PRINTER CONTROLLERS



## SPECIAL FUNCTION BOARDS



## SPECIAL FUNCTION BOARDS



## SPECIAL FUNCTION BOARDS

## Graphics Controllers

## Advanced Technology Center

## - TwinTerm

Designed to enable personal computers to function as full-featured graphics terminals.

## Camintonn Corporation

## - AST-220

## $\$ 595$

The AST-220 enables an IBM PC, XT, or AT compatible to emulate a VT220 terminal. It supports multitasking capabilities that allow two VMS sessions and one PC DOS session to run concurrently. It also features windowing and is equipped with an on-board 80186 microprocessor and 128KB RAM.

## - AST-220C

$\$ 795$
The AST-220C enables an IBM PC, XT, or AT compatible emulate a VT220 terminal. It supports multitasking capabilities that allow two VMS sessions and one PC DOS session to run concurrently. It also features windowing and is equipped with an on-board 80186 microprocessor and 128 KB RAM.

## Dieital <br> Imstruments Corporation

## - B © 512 ReB

## 512x512dpi • \$3,940

The QD512 RGB Color Imaging and Display board is supplied with extensive callable drivers in VMS or RT-11 allowing custom imaging packages to be assembled by the user quickly. Fast built-in hardware features include zoom, pan, DMA, multi-split screen, extensive I/O lookup tables, input data shifter, and eight maskable bit-planes. Available companion memory board QM256 allows roaming through 32 MB images, fast overlays, and cyclic animation.

## Intermational <br> Software Corporation

## - Viewmate

## 19"Monitor Supported •1280x960dpi •

 \$4,995The ViewMate converts the IBM PC, AT, and XT computers into VT220 terminals.

## LSI Logic Sciences, Inc. <br> \section*{- HSR-11B}

The HSR-11B is a high speed processor for vector to raster conversion.

## - Turbograph-300

300x300dpi

## Turbograph-700

## Matrox

Electronic Systems

## - $\mathbf{B G - 6 4 0}$

$19^{\mathbf{9}}$ Monitor Supported • $640 \times 480 \mathrm{dpi} \bullet \mathbf{\$ 2 , 5 9 5}$ Features include 256 displayable colors from a palette of 262,144 and supports four monochrome displays.

## Mega Vision <br> $1024 \times \mathrm{M}$ <br> \$40,000+

The 1024 XM is a true thousand line image acquisition, processing, and display system with a 44.7 MIPS pipeline processor.

## Metheus Corporation

■1104
$1280 \times 1024 \mathrm{dpi} \cdot \$ 1,595$

## - 1124

1024x768dpi • \$2,195

## 图 1128

## 1024x768dpi • \$2,995

The 11 xx Series is available with TGRAF software as a standard feature that allows any PC to be used as a serial connected Tektronix 4107,4115 , or 4125 compatible terminal. Emulates IBM CGA, EGA, or VGA display modes.

## Omega 3600

$1280 \times 1024 \mathrm{dpi} \cdot \$ 17,000+$
Designed to meet the needs of image processing, simulation, C3I and CAD/CAM system builders. Expandable from 8 to 32 bit planes. Features a pixel fill rate of 160 million pixels per second and a vector draw rate of six million pixels per second.

## - Omega 3700

$2048 \times 2048 \mathrm{dpi} \cdot \$ 40,000+$
Same as the 3600 . Also features $2 \mathrm{~K} \times 2 \mathrm{~K}$ resolution with main-frame quality local intelligence. Expandable from 4 to 16 bit planes and features a pixel fill rate of 384 million pixels per second.

## - Omega 500

$1280 \times 1024 \mathrm{dpi}$ - $\$ 13,000+$
Features pan and zoom and a 30 million pixel per second fill rate and displays 256 colors from a palette of 16.7 million.

## Peritek Corporation

## - VCE-Q

19 Monitor Supported • 512x512dpi • \$1,700 Features block or line-by-line addressing, a 4096 color palette, and is available with graphics subroutine packages. Also supports 13 " monitors.

## - VCH-Q

$19^{\text {n }}$ Monitor Supported • $512 \times 512 \mathrm{dpi} \bullet \$ 2,280$ The VCH-Q displays 256 out of 16 million colors; dual height board. Also available with subroutine packages. Also supports $13^{\prime \prime}$ monitors.

## - VCK-Q/N

$19^{\text {n }}$ Monitor Supported •1024x1024dpi •

## \$3,495+

The VCH-Q displays 256 out of 16.7 million colors. Features alpha and single-bit graphics overlays and an intelligent graphics controller chip. Options include DMA and SCSI support and a 68010 CPU. Also supports $15^{\prime \prime}$ monitors.

## [ VCK24-0/N

$19^{\text {² }}$ Monitor Supported •1024×1024dpi • \$9,995+
Designed for high resolution true color applications. Features include $1024 \times 1024 \times 24$ graphics plus 3-bit graphics and alpha overlays, ACRTC, hardware zoom and pan, as well as dynamic switching between 8 -bit and 24 operation. Also supports $15^{\prime \prime}$ monitors.

- VCL-Q

19" Monitor Supported •1280x1024dpi
Features $2048 \times 1024$ addressable 8 -bit graphics memory, a 4-bit graphics overlay, a 2-bit cursor, ACRTC, an optional 68030 CPU, DMA, SCSI suppport, four serial ports, and hardware zoom and pan. Also supports $15^{\prime \prime}$ monitors.

## E VCM-Q

$19^{\text {¹ M Monitor Supported •1280x1024dpi }}$
Features $2048 \times 1024$ address bits, 8 -bit graphics and memory, a 4-bit graphics overlay, a 2-bit cursor, an advanced graphics controller chip and hardware zoom and pan. Also supports $15^{\prime \prime}$ monitors.

## - VEW-Q

19 Monitor Supported • $640 \times 512 \mathrm{dpi}$ \$1,700+
Options include one or two display channels, graphics cursors, 4-or 8-bit graphics and color alpha overlay, and an intelligent graphics controller chip. Also supports $13^{\prime \prime}$ monitors.

## - VCx-9/v

$19^{-}$Monitor Supported $\cdot 512 \times 512 \mathrm{dpi}$ -

## \$5,215+

Designed for true color applications and displays any of 16 million colors at any moment. Includes a color alphanumeric overlay and is supported by graphics subroutine software. Also supports $13^{\prime \prime}$ monitors.

## - VRA-Q

$\mathbf{1 5}^{\text {² }}$ Monitor Supported •\$615

## VRA-U

15" Monitor Supported •\$670
The VRA-Q and -U are high performance alphanumeric display devices for information handling on a CRT monitor. Allow direct, low overhead random access to all display positions on the screen.

## - VRE-Q

15" Monitor Supported • $512 \times 512 \mathrm{dpi} \bullet \$ 1,150$ Features block or line-by-line addressing. The graphics and alphanumeric displays can be blanked independently without changing the images stored in the memory. The graphics display image may be complemented by setting a single bit.

## - VRH-Q

15" Monitor Supported • 1024×1024dpi •
\$1,950
This board simultaneously supports $1024 \times 1024$ graphics and 128 character x 64 line alpha. Alpha includes RAM-programmable character sers and multipage display.

## 国 VRS-Q

15" Monitor Supported • $512 \times 512 \mathrm{dpi}$ • $\$ 1,650$ Features block or line-by-line addressing. The graphics and alphanumeric displays may be blanked independently without changing the images stored in the memory. The graphics display image may be complemented by setting a single bit.

## Versatec

## - 260 Series

$1280 \times 1024 \mathrm{dpi} \cdot \$ 5,495$
Video hard copy controller that converts video analog data displayed on a monitor to Versatec parallel data and then drives Versatec electrostatic and thermal plotters.

## Virtual Imagimg

## - FCDA19

$1280 \times 1024 \mathrm{dpi}$
The VHR display operates in full color (RGB) mode.

## MCD419

$19^{\prime \prime}$ Monitor Supported •1280x1024dpi

## PCD419

$1280 \times 1024 \mathrm{dpi}$
The FCD, MCD, and PCD Series is designed for Virtual Imaging's VIE2000 VAX workstations. It provides a Very High Resolution(VHR) option to the VIE2000 as well as an additional $640 \times 512$ pixel graphics overlay that may be positioned over the entire image area.

## Host Adapters

## Able Computer <br> - EH128

10Mbps Transfer Rate - \$12,750
This Ethernet/LAT Terminal Server provides 128 ports of access to any Ethernet supporting LAT. Emulates DECserver 500 Terminal Servers.

## [ FP105

Q-bus Supported • RS422 Supported •\$2,500 This Q-bus Host Server emulates up to 16 DEC DHV-11 interfaces providing 128 ports of access to any Q-bus host with a single quad-size module.

## - FP110

UNIBUS Supported • RS422 Supported •
\$3,000
This UNIBUS Host Server emulates up to eight DEC DHV-11 interfaces, providing 128 ports of access to any UNIBUS host with a single hex-sized module.

## - VB512

Blbus Supported - 1Mbps Transfer Rate *
$\$ 3,000$
This VAXBI Host Server permits connection of any EASY way network to any of the DEC BIbus machines. Supports up to 512 virtual circuits.

## Bit 3 Computer Corporation

## - 405

O-bus Supported • Bytes • $\$ 2,495$
IBM PC/AT to Q-bus adaptor. Allows the PC/AT to become a bus master processor on the Q-bus. Dual port RAM to 1 MB . Cables to 25 feet; LLDRVR to 300 feet.

## 431

Q-bus Supported - Bytes • 1 Mbps Transfer
Rate - \$2,695
The 431 connects an IEEE 796 Multibus system to the Q-bus. Memory-mapped interface. Optional dual-port RAM to 1 MB .

## - 432

Q-bus Supported - Bytes • 1Mbps Transfer Rate - \$2,695
The 432 connects an IEEE 1014 VMEbus system to the Q-bus. Memory-mapped interface. Optional dual port RAM to 1 MB .

## - 433

Q-bus Supported - Bytes • 1Mhps Transfer
Rate - $\$ 3,895$
The 433 connects two Q-bus systems. Master/Master or Master/Slave. Cables to 50 feet; LLDRVR to 300 feet. Dual port RAM to 1 MB .

# Peritek does it with color! 



| COLOR/GRAY SCALE | MODEL | BUS \& SIZE | FEATURES AND OPTIONS | PIXEL PRIMARY | RAPHICS <br> OVERLAY (S) | ALPHANUMERICS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | VCL | $\begin{gathered} \mathrm{Q} \\ \text { QUAD } \end{gathered}$ | 68030,68882 32-BIT RAM, ACRTC, DMA 2 DUART, PAN ZOOM, SCSI | $\begin{gathered} 1024 \times 1024 \\ \times 8 \end{gathered}$ | $\begin{gathered} 1024 \times 1024 \\ \times 4 \end{gathered}$ <br> HARDWARE CURSOR |  |
|  | VCM | $\begin{gathered} \mathrm{Q} \\ \text { DUAL } \end{gathered}$ | ACRTC, PAN ZOOM, DUARI | $\begin{gathered} 1024 \times 1024 \\ \times 8 \end{gathered}$ | $\begin{gathered} 1024 \times 1024 \\ \times 4 \end{gathered}$ <br> HARDWARE CURSOR |  |
|  | VCW | $\underset{\text { DUAL }}{\mathrm{Q}}$ | ACRTC, PAN, 2 CHANNELS | $\begin{gathered} 640 \times 480 \\ \times 8 \end{gathered}$ | HARDWARE CURSORS | $\begin{gathered} 50 \times 80 \\ \times 6 \\ \hline \end{gathered}$ |
|  | $\begin{gathered} \text { VCT } \\ \text { (avail. } \\ 1 / 90 \text { ) } \end{gathered}$ | $\mathrm{Q}$ | 34020, PAN ZOOM, SCSI, 2 DUART | $\begin{gathered} 1024 \times 1024 \\ \times 24 \end{gathered}$ | $\begin{gathered} 1024 \times 1024 \\ \times 8 \end{gathered}$ <br> HARDWARE CURSOR |  |
|  | VCX | Q \& U QUAD | $\begin{aligned} & \text { EXTERNAL } \\ & \text { SYNC } \\ & \text { INPUT } \end{aligned}$ | $\begin{gathered} 512 \times 512 \\ \times 24 \end{gathered}$ |  | $\begin{gathered} 50 \times 80 \\ \times 6 \end{gathered}$ |
|  | VRH | $\begin{gathered} \text { DUAL } \end{gathered}$ |  | $1024 \times 1024$ |  | $64 \times 128$ |
|  | VRS | $\begin{gathered} \mathrm{Q} \\ \text { DUAL } \end{gathered}$ |  | $512 \times 512$ |  | $50 \times 80$ |
|  | VRA | $\begin{gathered} \mathrm{Q} \\ \text { DUAL } \end{gathered}$ |  |  |  | $24 \times 80$ |



RT, RSX, VMS, ULTRIX, LSI, PDP, VAX and MicroVAX are trademarks of Digital Equipment Corporation. TSX is a trademark of S \& H Associates.

## Graphics and alphanumerics for LSI, PDP, VAX and MicroVAX.

Peritek has been offering the widest range of Q-bus and Unibus display controllers available anywhere for over 10 years. Hardware and software for most applications. Color and monochrome. Low to high resolution. Software support for RT/TSX, RSX, VMS, and ULTRIX, and bit-level subroutines which interface directly to Fortran and C. Image processing software is also available.

Peritek's most powerful board, the VCL-Q combines an advanced CRT controller and a very fast 68030 -based computer on one quad-height card.
You get:

- $1024 \times 1024 \times 8$ color graphics
- $1024 \times 1024 \times 4$ graphics overlays
- CPU with 1 MB to 10 MB 32 -bit private memory, optional 68882 FPU
- hardware graphics cursor
- hardware pan and zoom
- 4 serial RS-232 I/O ports
- 2 Channel DMA controller
- High speed, 8-bit SCSI port

The VCL-Q prices range from $\$ 4,870$ to $\$ 6,795$. A complete package with software and monitor starts at $\$ 7,790$.

For your special requirements, Peritek can supply custom configurations of our standard products. We're ready to quote on custom software and hardware design projects, too.

Call or write for free catalog.
Peritek Corporation 5550 Redwood Rd., Oakland, California 94619.
Phone (415) 531-6500.
In the east, (516) 798-1919.

## 445

Q-bus Supported • Bytes • \$2,695
Allows the PS/2 a bus master on the Q -bus. Cables to 25 feet; LLDRVR to 300 feet. Dual port RAM to 1MB.

## CMD Technology, Inc.

## CDU-700/M

UNIBUS Supported • 16KBytes • SCSI
Supported • 2Mbps Transfer Rate •\$1,650
Supports up to seven devices and features on-board and utility bootstrapping and onboard formatting and bad block replacement.

## CDOU-700\%M

UNIBUS Supported • $16 \mathrm{KBytes} \cdot$ SCSI
Supported • 2Mbps Transfer Rate •\$2,250
The CDU-700/OM supports both optical and magnetic disks and is capable of supporting up to seven devices. Features onboard and utility bootstrapping and onboard formatting and bad block replacement.

## - CDU-700/T

UNIBUS Supported • 16KBytes • SCSI
Supported - 2Mbps Transfer Rate •\$1,750
Supports up to seven devices and features on-board and utility bootstrapping and onboard formatting and bad block replacement. Compatible with TMSCP.

## - CDU-700/TM

UNIBUS Supported • 16KBytes • SCS
Supported • 2Mbps Transfer Rate •\$2,250
Supports tape, 8 mm , and magnetic disks and up to seven devices and features onboard and utility bootstrapping and onboard formatting and bad block replacement.

## - CDU-712/M

UNIBUS Supported • 16KBytes • SCSI
Supported • 2Mbps Transfer Rate •\$1,895
Supports differential/single-ended SCSI with cable length up to 80 feet. Supports up to seven devices and features on-board and utility bootstrapping and on-board formatting and bad block replacement.

## - CDU-712/0M

UNIBUS Supported • 16 KByy tes • SCS
Supported - 2Mbps Transfer Rate •\$2,495
Supports differential/single-ended SCSI with cable length up to 80 feet. Supports both optical and magnetic disks and supports up to seven devices. Features onboard and utility bootstrappiing and onboard formatting and bad block replacement.

## - CDU-712/

UNIBUS Supported • 16KBytes • SCS Supported • 2Mbps Transfer Rate • \$1,995 Supports differential/single-ended SCSI with cable length up to 80 feet. Supports tape, 8 mm and up to seven devices. Features on-board and utility bootstrapping and on-board formatting and bad block replacement.

## Cou-712/m

UNIBUS Supported • 16KBytes • SCSI Supported •2Mbps Transfer Rate •\$2,495
Supports differential/single-ended SCSI with cable length up to 80 feet. Supports tape, 8 mm , and magnetic disks and up to seven devices. Features on-board and utility bootstrappiing and on-board formatting and bad block replacement.

- COD-200/m
a-bus Supported • 16KBytes • SCSI Supported - 2Mbps Transter Rate • \$1,250

Supports up to seven devices and features on-board and utility bootstrapping and onboard formatting and bad block replacement.

## COD-200\%M

Q-bus Supported • 16KBytes • SCSI Supported - 2Mbps Transfer Rate • \$1,750

Supports both optical and magnetic disks and up to seven devices. Features onboard and utility bootstrapping and onboard formatting and bad block replacement.

## - CQD-200/T

Q-bus Supported • 16KBytes • SCSI Supported - 2Mbps Transfer Rate - \$1,350

Supports up to seven devices and features on-board and utility bootstrapping and onboard formatting and bad block replacement.

## COD-200/TM

Q-bus Supported • 16KBytes • SCSI Supported - 2Mbps Transter Rate • $\$ 1,750$

Supports tape, VCR, and magnetic disks and up to seven devices. Features onboard and utility bootstrapping and onboard formatting and bad block replacement.

## - CQD-220/M

Q-bus Supported • SCSI Supported • 4.8Mbps Transfer Rate - \$1,650
Supports up to seven devices and features on-board and utility bootstrapping and onboard formatting and bad block replacement.

## - CQD-220/TM

Q-bus Supported • SCSI Supported • 4.8Mbps Transter Rate • $\$ \mathbf{2 , 1 5 0}$
Supports tapes, VCR, and magnetic disks and up to seven devices. Features onboard and utility bootstrapping and onboard formatting and bad block replacement.

## Emulex Corporation

## исонмммо

a-bus Supported • 20KBytes • SCSI Supported - $\$ 1,800+$

Supports a variety of $5.25^{\prime \prime}$ Winchester disk drives and .25 " tape drives. Supports magnetic and optical device support,

## UCOT

a-bus Supported • 64KBytes • SCSI Supported - 2Mbps Transfer Rate • \$1,600

Intelligent host adapter compatible with DSA and supports full implementation on SCSI for standard 22-bit Q-bus systems. Firmware diagnostics supports multiple drive operations. Operates with helical scan tape cartridges allowing several disks to be backed up to one tape so that archival backup can be done unattended. Common Command Set fully supported. Devices supported include magnetic and optical disk drives, tape drives and helical scan tape cartridges.

## UC07-III

Q-bus Supported • 64KBytes • SCSI Supported - 2Mbps Transfer Rate • \$1,600

Same as the C07, but designed for MicroVAX 3xxx series using the BA213 enclosure. The "daughterboard" handle arrangement includes a transition panel for cable adaption.

## UC08

a-bus Supported • 64 KBytes • SCSI Supported - 2Mbps Transfer Rate •\$2,050

Same as the UC07. However, the UC08 is actually two individual UC07s on one board. Each of the two independent controller interfaces on the UC08 is switch-selectable between MSCP and TMSCP. As a result, one UC08 can support one MSCP and one TMSCP, two MSCP, or two TMSCP implementations

## UCO8-III

Q-bus Supported • 64KBytes • SCSI Supported - 2Mbps Transfer Rate •\$2,050

Same as the UC08, but designed for MicroVAX $3 x x x$ series using the BA213 enclosure. The 'daughterboard' handle arrangement includes a transition panel for cable adaption.

## UC14M/MO

UNIBUS Supported • 20KBytes •\$2,200+
Supports a variety of $5.25^{\prime \prime}$ Winchester disk drives and $.25^{\prime \prime}$ tape drives. Supports magnetic and optical drive support.

## Ikon Corporation

$\square 10077$
Multibus I Supported • DR11-W Supported • \$1,200
Used as a general purpose peripheral DMA interface for the Multibus and as an interprocessor link to DEC or other CPUs via the DEC DR11-W

## 10083

BERSAbus Supported • DR11-W Supported • \$2,150
Used as a general purpose peripheral DMA interface for the VERSAbus and as an interprocessor link to DEC or other CPUs via the DEC DR11-W.

## 10084

VMEbus Supported • DR11-W Supported • \$1,250
Used as a general purpose peripheral DMA interface for the VMEbus and as an interprocessor link to DEC or other CPUs via the DEC DR11-W

## 10087

Multibus Supported • DR11-W Supported •
\$1,450
Used as a general purpose peripheral DMA interface for the Multibus and as an interprocessor link to DEC or other CPUs via the DEC DR11-W.

## 10089

VMEbus Supported • DR11-W Supported • \$1,500
Used as a general purpose peripheral DMA interface for the VMEbus and as an interprocessor link to DEC or other CPUs via the DEC DR11-W

## 10094

PC/ATbus Supported • DR11-W Supported • $\$ 750$
Used as a general purpose peripheral DMA interface for the PC/AT and as an interprocessor link to DEC or other CPUs via the DEC DR11-W

## Intel Corporation

## - FASTPATH 9750D

\$80,000+
The FASTPATH 9750D features both hardware and software in providing a DEC to IBM link. The software is developed by Flexlink International which enables a linkage between IBM 30xx and 43xx class mainframes to DEC VAX systems.

## MDB Systems, Inc.

## MDB/MLSI-DW11

UNIBUS/Q-bus Supported • \$1,225
Allows UNIBUS and Q-bus controllers and peripherals to operate in Q-bus and UNIBUS hosts, respectively. Address MAP switch allows DMA transfers from UNIBUS devices to MAP anywhere in the $Q$ bus 4MB range.

## - MDB/MLSI-DWQ11

UNIBUS/Q-bus Supported •\$1,200
Allows UNIBUS and Q-bus controllers and peripherals to operate in Q-bus and UNIBUS hosts, respectively. FCC cable kit available.

## Memory <br> Sclences Corpooation

- FASTOR

UNIBUS/Q-bus/Blbus Supported • 1MBytes •
4.8Mbps Transfer Rate

FASTOR may be multiported to same or unlike computers.

## Qualogr

© QLC-1100
UNIBUS Supported • SCSI Supported • \$2,395 Optical adapter that features high capacity optical storage for backup and archival storage applications as well as TMSCP emulation.

## Sigma <br> Imformation Systems

## - SOC-HA1

Q-bus Supported • SASI Supported • .8Mbps Transter Rate - $\$ 354$
Supports up to eight SASI bus devices and plugs directly into any contiguous Q -bus slot. There must be no vacant slots between this board and the CPU module, otherwise the DMA and Interrupt Grand signals will not be routed to the
adapter.

## Simpact Associates, Imc. <br> \section*{- CPI 12000}

Q-bus Supported
Provides a comprehensive set of turnkey solutions for MicroVAX-to-IBM SNA interconnectivity. Includes a front-end processor, two software modules, a distribution panel kit, initialization and test programs as well as user documentation.

## - VCI 8000

Q-bus Supported
Communication interface board used to connect VME-based computers to DEC computers using DDCMP communication links.

## TD Systems, Imc. <br> - QDO <br> Q-bus Supported • SCSI Supported • 1.5Mbps Transfer Rate • \$1,395

## 00T

Q-bus Supported • SCSI Supported • 1.5Mbps Transfer Rate • \$1,995

## aTO

Q-bus Supported • SCSI Supported • 1.5Mbps Transfer Rate •\$1,395

- TDL-12

Q-bus Supported • SCSI Supported • .8Mbps Transfer Rate - \$695
The TDL-12 provides RLV-12 emulation.

## © 100

UNIBUS Supported • SCSI Supported •
1.5Mbps Transfer Rate • $\$ \mathbf{1 , 5 9 5}$

## © UOT

UNIBUS Supported • SCSI Supported •
1.5Wbps Transter Rate • \$2,195

- UMA-11

UNIBUS Supported • SCSI Supported • .6Mbps Transter Rate - $\$ 895$
The UHA-11 provides RL-11 emulation.

## ■ UTO

UNIBUS Supported • SCSI Supported •
1.5Mbps Transfer Rate • \$1,595

## U. S. Design <br> Corporation

## - HA-1108

Q-bus Supported • SCSI Supported • \$1,250 Provides the link between the CPU and the optical disk drive. It features MSCP command buffering, holding 20 command packets in one buffer, seek optimization, self-sizing and variable partitioning, and expanded error recovery procedures. One $12^{\prime \prime}$ optical disk stores up to 2GB of information.

## - Ha-1109

Q-bus Supported • SCSI Supported • \$1,750
Provides the link between the CPU and the optical disk drive. It features MSCP command buffering, holding 20 command packets in one buffer, seek optimization, self-sizing and variable partitioning, and expanded error recovery procedures. Designed for the DEC Micro VAX 3000.

## - HA-1128

## Q-bus Supported • \$1,595

Designed for easy integration and operation with the complete U. S. Design Q-Stor family of products

## ■ HA-1158

UNIBUS Supported • SCSI Supported •\$1,500 Provides the link between the CPU and the optical disk drive. It features MSCP command buffering, holding 20 command packets in one buffer, seek optimization, self-sizing and variable partioning, and expanded error recovery procedures. One $12^{\prime \prime}$ optical disk stores up to 2 GB of information.

■ HA-1178
UNIBUS Supported • \$1,850
Designed for easy integration and operation with the complete U.S. Design Q-Stor family of products.

## IEEE-488 Controllers

## Design <br> Analysis Associates

## - ICA

## Blbus Supported

The ICA is equipped with a VAXBI card, internal cables, software, and a connector plate for the IEEE-488,RS232 and STDbus interfaces.

## - EPIB-MVII

250KBytes • Q-bus Supported • $\$ 1,995$
This GPIB interface kit is designed for the MicroVAX II system. It includes the GPIB11 V-2 interface board, GPIB11 DEC software, internal cables, and complete documentation.

## National Instruments



## - GPIB11 V-1

50KBytes - Q-bus Supported • $\$ 795+$
This device permits IEEE-488 compatible engineering, scientific or medical instruments to be controlled from the host. Applications include data acquisition, computer-aided design, graphics, and interprocessor communications systems that require high rates of data transfer.

## 6PIB11 V-2

250KBytes • Q-bus Supported • $\$ 1,495+$
This device permits IEEE-488 compatible engineering, scientific or medical instruments to be controlled from the host. Applications include data acquisition, computer-aided design, graphics, and interprocessor communications systems that require high rates of data transfer.

## - GPIB11-1

500KBytes • UNIBUS Supported •\$1,395+
Designed for PDP-11 systems; features source code which includes VMS multiboard handler software. This device permits IEEE-488 compatible engineering, scientific or medical instruments to be controlled from the host. Applications include data acquisition, computer-aided design, graphics, and interprocessor communications systems that require high rates of data transfer.

## - CP1B11-2

500KBytes • UNIBUS Supported • \$2,195
Designed for VAX systems; features source code which includes VMS multiboard handler software. This device permits IEEE-488 compatible engineering, scientific or medical instruments to be controlled from the host. Applications include data acquisition, computer-aided design, graphics, and interprocessor communications systems that require high rates of data transfer.

Peripheral Interface Controllers

## U. S. Design Corporation

-4200-05
4 Supported Drives(s) - SCSI Supported •
120ms Access Time
Features an asynchronous SCSI and one ESDI port.

## 4200-20

4 Supported Drives(s) • SCSI Supported • 120 ms Access Time

- 4220-05

4 Supported Drives(s) • SCSI Supported • 120ms Access Time
The 4220-05 features four ESDI ports.

## -4220-20

4 Supported Drives(s) - SCSI Supported • 120ms Access Time

## 4240-05

4 Supported Drives(s) • SCSI Supported •
120 ms Access Time
The 4240-05 features a synchronous SCSI and four EDSI ports.

## 4240-20

4 Supported Drives(s) - SCSI Supported • 120 ms Access Time
The 4200 Series employs cache memory and artificial intelligence to reduce access times while boosting transfer rates.

## Webster <br> Computer Corporation

## - wqeso

4 Supported Drives(s) • ESDI Supported • 4ms Access Time - $Q$-bus Supported
The WQESD is a 1 MB cached MSCP ESDI Winchester disk controller that supports Standard, Modified, Enhanced, and Extended SMD. Features WOMBAT on-board interactive formatting and diagnostics and programmable look ahead.

## - wasmb

2 Supported Drives(s) • SMD Supported • 4ms Access Time • Q-bus Supported
The WQSMD is a 1 MB cached MSCP SMD Winchester disk controller that supports Standard, Modified, Enhanced, and Extended SMD. Features WOMBAT on-board interactive formatting and diagnostics and programmable look ahead.

## - WUESD

4 Supported Drives(s) • ESDI Supported • 4ms Access Time • UNIBUS Supported • $\$ 2,800$ The WUESD is a 1 MB cached MSCP ESDI Winchester disk controller that supports Standard, Modified, Enhanced, and Extended SMD. Features WOMBAT on-board interactive formatting and diagnostics and programmable look ahead.

## - WUSMD

4 Supported Drives(s) • SMD Supported • 4ms Access Time • UNIBUS Supported • $\$ \mathbf{3 , 0 2 0}$ The WUSMD is a 1 MB cached MSCP SMD Winchester disk controller that supports Standard, Modified, Enhanced, and Extended SMD. Features WOMBAT on-board interactive formatting and diagnostics and programmable look ahead.

## Printer Controllers

## Able Computer

## - PS100

1 Printer(s) Supported • DataProducts
Interfaces Supported • Printronix Printers
Controlled - \$1,500
Equipped with a multidrop feature that allows addition or removal of servers without network disruption. Compatible with all Easyway host and terminal servers. Also controls DataProduct printers.

## - VIZZLPII

1 Printer(s) Supported • Parallel/DataProducts Interfaces Supported •\$1,800
The VMZ/LPII provides a DMF printer port with DMA output from the system.

## Advanced Technologies International

## DW-2

Serial/Parallel Interfaces Supported - $\mathbf{\$ 4 , 9 9 0 +}$ Features a page description language (LaserDRIVE) that enables users to generate graphics, bar codes, and merging text and graphics on one page. Also features master fonts which may be used to create over 1000 custom fonts.

## [DW-3

Serial/Parallel Interfaces Supported • $\$ 3,990+$ Designed to perform a full range of applications from basic data processing to advanced plotter graphics. Drives ATT's 0880 , 1570 , and the 2670 laser printers.

## LC-6000

Serial/DataProducts Interlaces Supported •
LC-6026 Printers Controlled •\$10,500

## Advanced <br> Vision Research

- TiGer-EMS

Hewlett-Packard/Ricoh Printers Controlled • \$1,795
Bundled support memory management software included to integrate text, images and graphics. Serves as a scanner buffer, image buffer, and a printer buffer. Supports PDLI. Also supports Canon printers.

## Computer Products, Inc.

## GT361

DataProducts/Parallel Interfaces Supported • DataProducts Printers Controlled
Equipped with user selectable features including parity select and upper-to-lower and lower-to-upper character conversion.

## ■ GT361T

DataProducts/Parallel Interfaces Supported • $\$ 395$
Interfaces the Tektronix 4693D Color Image Printer to the LSI-11 and MicroVAX systems. Supports four-level interrupts, 22 -bit addressing with selectable vector and base address.

## Digital Associates Corporation

- 4110

1 Printer(s) Supported • Serial Interfaces
Supported • DataPrinter Printers Controlled
44111
1 Printer(s) Supported • Serial Interfaces
Supported • DataProducts Printers Controlled
-4132-11
1 Printer(s) Supported • Serial Interfaces Supported

## Dyna Five Corporation ■ D5-LP100

Paraliel/DataProducts Interfaces Supported
Features internal selftest, switch selectable device addresses, and switch selectable interrupt address vectors.

## GEN/COMP, Imc.

## $\square 2024$

1 Printer(s) Supported • DataProducts Interfaces Supported • Hewlett-Packard and DataProduct Printers Controlled - $\$ 525$
Used with the DEC LP11, LA11 and LS11 line printers as well as the LXY11 and LV11 printer/plotters.

## MDB Systems, Inc.

## - MDE-LP11

1 Printer(s) Supported • DataProducts Interfaces Supported • DataPrinter Printers Controiled - $\$ 750$
Supplied with a 25 foot cable. Features MDB's exclusive PrinTest and Loop back self test capabilities, and LEDs for visual indication of data being transferred.

## - MDB-LP11-LIO

1 Printer(s) Supported • DataProducts Interfaces Supported • DataProducts Printers Controlled - $\$ 950$
Supplied with a 15 foot cable. Features MDB's exclusive PrinTest and Loop back self test capabilities. Differential drivers and receivers allow placement of printer up to 3000 feet from computer.

## ■ MLSI-F-LP11

1 Printer(s) Supported • DataProducts Interfaces Supported • DataProducts Printers Controlled - $\$ 510$
Features cable cabinet kit for FCC compliant computers, MDB's exclusive PrinTest and Loop back self test capabilities, and an optional "A" size panel.

## - mLSI-LP11

1 Printer(s) Supported • DataProducts Interfaces Supported • DataProducts Printers Controlled •\$475
Supplied with a 25 foot cable. Features MDB's exclusive PrinTest and Loop back self test capabilities, and LEDs for visual indication of data being transferred.

## QMS, Imc.

- JetScript

1 Printer(s) Supported • Serial/Parallel Interfaces Supported - \$2,495
Upgrades any HPLaserJet Series II or any Canon LBP-8II printer to feature PostScript functionality. Includes 35 resident typefaces and requires 8 -bit or greater PCbus for a single board controller.

## - PSJet+

1 Printer(s) Supported • Serial/Paralle Interfaces Supported - \$2,250

## - PSJet + M

1 Printer(s) Supported • Serial/Parallel Interfaces Supported • $\$ \mathbf{3}, 495$
The PSJet+ and the PSJet+M upgrade any Canon CX-based printers to feature PostScript functionality. This series includes 35 resident typefaces, supports RS232/422, Centronics Parallel, AppleTalk, and emulates Diablo 630, LaserJet+, and HP-GL

## Talaris Systems Inc. Peps

Serial/Parallel Interfaces Supported • Xerox Printers Controlled
Single-board laser printer controller with dualprocessing architecture. The standard C programming environment facilitates programming changes, should they be required by new hardware. Also supports Ricoh printers.

## Tartan Techincal, Imc.

- Sprint it

Serial/Parallel Interfaces Supported
Supports the PDP11/73 and the MicroVAX I, II, and III. Feautes DMA, optimized bus handling, and on-board buffering.

## The Logical Company

## - PCU-1000

1 Printer(s) Supported • DataProducts Printers Controlled • $\$ 995$
High speed parallel line printer controller emulating the printer functions of a DMF32 providing on-board character formatting contained on a single quad UNIBUS module.

## Wespercorp

- DPL-11

1 Printer(s) Supported • DataProducts/Parallel Interfaces Supported • \$690
The DPL-11 operates with DEC LA-180 printers and all printers using Centronics or DataProducts standards.

## - DPL-1100

1 Printer(s) Supported • DataProducts/Parallel Interfaces Supported • DataProducts Printers Controlled • \$430
Supports printers that operate using Centronics or DataProducts standards.

## - DPL-1132

2 Printer(s) Supported • DataProducts/Parallel Interfaces Supported •\$1,500
DMA controller that increases system throughput by allowing the printer to access memory rather than the CPU. Supports two printers that operate using Centronics orDataProducts standards, and is equivalent to the DEC DMF32 line printer controller.

## Xyplex, Inc.

■ MPC
6 Printer(s) Supported • Serial/Parallel Interfaces Supported • DEC LP32 Printers Controlled •\$2,575
The NPC (Network Printer Controller) supports printers that are linked to mul-tiple-VAX print queues on Xyplex Ethernet, Thin-Wire Ethernet or Linear Coaxial cabling architectures. Also supports DataProducts and Centronics interfaces.

## Special Function Boards

## Adac Corporation

1604
Q-bus Supported • Counts and stores input impulses from four separate sources.
Counts input impulses from four separate sources and stores the results into 16 -bit storage registers. Ideally suited for rotation/pulse event and similar measurements.

- 1616/MIC

Q-bus Supported • Expands the interrupt capability of the LSI-11 systems.
Expands the interrupt capability of the LSI-11 systems and accepts inputs from up to 16 external devices and passes them through a priority encoder before requesting an interrupt on the bus.

## - 1616/0II

a-bus Supported • Isolates discrete inputs from Q -bus hosts.

## - 1616/010

Q-bus Supported • Isolates discrete inputs from a-bus hosts.
The 1616/OII and OIO provide a means of isolating discrete outputs from the computer bus.

## - 1616CCI

Q-bus Supported • Detects contact closure on any or all of 16 discrete input lines.
Detects contact closure on any or all of 16 discrete input lines; stores the status of individual lines in a register and is interfaced directly to the bus of the LSI-11 system.

## -16220MA

Q-bus Supported • Allows external TTL devices operate with Q-bus hosts.
Controller allows external TTL devices to operate with Q-bus hosts in DMA mode. Also allows any Adac analog-to-digital converter to operate in DMA mode.

## Adept Digital Systems, Inc.

■ SCSI Interface
UNIBUS Supported • Interfaces the UNIBUS host to a SCSI controller • \$4,000 Includes both hardware and software to interface the UNIBUS host to a SCSI controller. The device driver software for VMS, RSX, or RT-11 operating systems allows the application software to create SCSI command description blocks to communicate with the SCSI controller

## Aeon Systems, Inc.

## - 8482

Blbus Supported - Connects the Blbus to a front-end VME system • $\mathbf{\$ 1 5 , 4 9 5}$
VIVA (8482) uses Aeon's 8510 VAXBI controller and Aeon's 8530 to create a high speed (up to 5.5 Mbps ) VAXBI to VME connection. Intended for real time distrib uted applications. VME/VAXBI separation is 50 meters using coax cables, up to 2 km with fiber optic transceivers.

## - 8500

NBytes • Q/B Supported • TTL/CMOS
compatible daughterboard - $\$ 2,495$
Daughterboard that connects Aeon's High Speed Link to a simple TTL compatible specification. Suitable for connecting cus tom instrumentation to VAXBI or Q-bus processors.

## - 8510

Blbus Supported • Multiplexes virtual connections to alternate backplane buses • \$9,995 Single slot VAXBI controller to Aeon's High Speed Link ( 10 Mbps ). On-board processor multiplexes virtual connections to alternate backplane buses (VME, Multibus II, Q-bus, or BI). DMA engine transfers data at full VAXBI data rates (up to 6 Mbps ).

## 8510

Blbus Supported • Multiplexes virtual connec-
tions to alternate backplane buses - $\$ 9,995$ Single slot VAXBI controller to Aeon's High Speed Link ( 10 Mbps serial). On-board processor multiplexes virtual connections to alternate backplane buses (VME, Multibus II, Q-bus or Blbus). DMA engine tranfers data at full VAXBI data rates (up to 6 Mbps ).

- 8520

Q-bus Supported • Multiplexes virtual connections to alternate backplane buses - $\$ 7,495$ Q-bus controller to Aeon's High Speed Link $(10 \mathrm{Mbps})$ serial. On-board processor multiplexes virtual connections on the link to alternate backplane buses (VME, Multibus II, BI, or Q-bus). DMA engine takes advantage of Q-bus block and pipeline transfers to allow maximum data transfer at 3.1 Mbps .

## Augat, Inc.

## - 050-DECVI

Blbus Supported - Prototype board used as a multiphase development tool.
This device is a Unilayer wire-wrapped prototype board that is used as a multiphase development tool for module designs.

## E MLT-DECVI

Blbus Supported • Prototype board used as a multiphase development tool.
This device is a Multilayer wire-wrapped prototype board that is used as a multiphase development tool for module designs. Both the 050-DECVI and the MLTDECVI use sophisticated wiring algorithms that promote the use of high speed, high performance devices.

## Avalon <br> Computer Systems

## - AP/30мо4

4MBytes • UNIBUS/Q-bus Supported • Offloads demands from UNIBUS and Q -bus hosts $\cdot$ $\$ 15,900$

## © AP/30M08

8MBytes • UNIBUS/Q-bus Supported • Offloads demands from UNIBUS and Q -bus hosts $\cdot$ \$19,300

## - AP/30M12

12MBytes • UNIBUS/Q-bus Supported • Offloads demands from UNIBUS and Q-bus hosts • $\$ 22,700$

## - AP/30M16

16MBytes • UNIBUS/Q-bus Supported • Offloads demands from UNIBUS and Q -bus hosts • $\$ 26,100$

## - AP/30M32

32 MBytes • UNIBUS/Q-bus Supported • Offloads demands from UNIBUS and Q -bus hosts •\$39,700

## - AP/30M64

64MBytes • UNIBUS/Q-bus Supported • Offloads demands from UNIBUS and Q-bus hosts • \$66,900
The VACCELERATOR AP/30 Series combines VMS with the high-performance of the RISC into a single board, single slot attached processor for application programs running on VAX and MicroVAX systems. Runs computer bound programs at speeds of 15 to 20 times faster than a MicroVAX II, five to seven times faster than a MicroVAX III, and twice as fast as a VAX 8810.

## Camintonn Corporation

## - AST-220C

UNIBUS Supported • Connects IBM PC/XT/ATs
to the VAX with VT220 emulation - $\$ 795$
The AST-220C offers VT220 terminal emulation and connects IBM PC/XT/AT computersto VAX systems using two VT220 RS232 ports which may be connected either to two different ports on the host or to two different host systems.

## - CM-MXV11-B

a-bus Supported • Multifunction board with dual serial ports.
Multifunction board with dual serial ports, 8 -bit switch or user command register, supports 512 KBx 8 -bit EPROM, and equipped with 128 KB EPROM containing bootstrap and system diagnostic routines.

## - CPC-220

UNIBUS Supported • Connects IBM PC/XT/ATs to the VAX with VT220 emulation - \$795
The CPC-220 offers VT220 terminal emulation and connects IBM PC/XT/AT computers to VAX systems using two VT220 RS232 ports which may be connected either to two different ports on the host or to two different host systems.

## Digital Data

Systems, Inc.

## - DOS-UFUM

1mByte • $\$ 3,000$
The DDS-UFUM will double system speed and triple peripheral capacity when used with the USI/HSR.

## - MC70

2MBytes • PDP 11 Supported • \$9,000
When used in conjunction with the PEP70 , the HC70 will duplicate the performance improvement experienced with the PEP-70.

## © PEP-70

2-4MBytes • UNIBUS Supported • $\$ 17,000+$ Increases system data rate capability and improves user response time under heavy CPU and/or UNIBUS DMA activity.

## - USUMSR

UNIBUS Supported • Allows maximum UNIBUS utilization and freedom • $\$ \mathbf{3}, 000$
The USI/HSR is a (1) UNIBUS Segment Isolator that electronically breaks the bus into smaller segments and a (2) High Speed Repeator that enables the UNIBUS to run as fast as the CPU will allow.

## Dieital Technology, Inc.

 - BIU-1538I64KBytes • VAXBI Supported • Emulates MIL-STD-1553 terminals on a single bus interface.

## - BIU-530

Q-bus Supported • Emulates MIL-STD-1553 terminals on a single bus interface.
The above BIU Series emulates two MIL STD-1553 terminal types on a single bus interface. Features 1553 message buffer queues, a continously accessible register control bank, comprehensive interrupt control, and comprehensive error injection.

## - 1 BIU-550

Q-bus Supported • Provides "logic-analyzer" functions.
This board, in conjunction with the Q-bus host, provides "logic-analyzer" functions for use in design, debug, and functional testing of MIL-STD-1553A/B.

## DSP Technology, Inc.

 - CC-DR11UNIBUS/Q-bus/Blbus Supported • Interfaces to external ports of DR11-W or DRV-11WA modules.
The CC-DR11 is a CAMAC crate controller that interfaces to the external port of a DR11-W or DRV-11WA parallel DMA I/O module, providing a DMA access to the CAMAC dataway from UNIBUS or BI-bus processors.

## GEN/COMP, Inc.

- 2042-01

UNIBUS/Q-bus Supported • Provides a DMA parallel transfer to user device - $\$ 900$ Provides a DMA parallel transfer to user device or interprocessor link between UNIBUS and Q-bus CPUs. Emulates the DEC DR11-W, DR11-B, and DA11-B

- 2042-02

UNIBUS Supported • Provides a DMA paraliel transter to user device - \$1,400
Same as the 2042-01. However, this model features long-line opto-isolators.

## - 2142-01

UNIBUS/Q-bus Supported • Provides DMA parallel transfer between the UNIBUS and 0 bus • $\$ 800$
The $2142-01$ provides a DMA parallel transfer to user device or interprocessor link between PDP UNIBUS and MicroVAX Qbus CPUs. It emulates the DEC DR11-W, DR11-B and DA11-B.

## - 2142-02

UNIBUS/Q-bus Supported • Provides DMA parallel transfer between the UNIBUS and $\mathbf{Q}$ bus - $\$ 1,300$
Same as the 2142-01. However, this model features long-line opto-isolators.

## Heritage

Commumication Systems

## - еммма

16KBytes • UNIBUS/Q-bus Supported • Allows programs to be written in native VT220/320 mode - \$199
Emulates VT220 and 320 terminals and is comprised of both hardware and software that enables end users and software devel opers to write customized computer programs for DEC mainframes in native VT220/320 mode. Programmers may utilize the extended attributes generic to VT220/320 terminals and perform those functions on IBM PCs, PS/2s or compatibles.

## Hybaicon

- 024-050

Q-bus Supported • Four slot backplane with removable terminations $\mathbf{0} \mathbf{\$ 1 9 5}$
This model is a four slot backplane with removable terminations.

## - 024-053

Q-bus Supported • Eight slot backplane with an 18 -pin header - \$238
This model is an eight slot backplane with an 18 pin header for power and ground $I / O$. Removable terminations.

## - 024-056

Q-bus Supported • Nine slot backplane with power and ground $I / 0$ on barrier strip - $\$ 438$ This model is a nine slot backplane with power and ground I/O on the barrier strip No provision for terminations.

- 024-061

Q-bus Supported • Nine slot backplane with power and ground I/O on barrier strip - \$438 This model is a nine slot backplane with power and ground $\mathrm{I} / \mathrm{O}$ on the barrier strip. No provision for terminations.

## [024-085-01

Q-bus Supported • Four slot backplane used as a barrier strip power and ground $1 / 0$ - $\$ 195$ This model is a four slot backplane and is used as a barrier strip for power and ground I/O. Removable terminations.

## - 031-010-01

UNIBUS Supported • Wire wrap board for high speed logic and analog applications • \$279 Wire wrappable board with 75 columns, 168 16-pin and 19214 -pin DIP capacities Features a continuous ground plane and frequency to 55 MHz , low noise and crosstalk, and is suitable for high speed logic and analog applications.

## - 031-014-01

Q-bus Supported • Extender card with 2 sided construction - \$116

## . 1 031-014-02

Q-bus Supported • Extender card with 2 sided construction - $\$ 198$

## . 031-014-03

UNIBUS Supported • Extender card with two sided construction - $\$ 310$
The 031-014-01, -02, and -03 are extender cards with two sided construction and dimensions of $11.8 \times 9.875$ inches. Feature gold plated test points on double sided extenders, staggered test points to eliminate test probe cluttering, full clearance of adjacent cards, and controlled impedance

## - 031-020

Q-bus Supported • Wire wrap board for high speed logic and analog applications •\$459 Wire wrappable board with 50 columns, 11216 -pin and 12814 -pin DIP capacities. Feature a continuous ground plane and frequency to 55 MHz , low noise and crosstalk, and is suitable for high speed logic and analog applications.

## - 031-032-03

UNIBUS Supported • Extender card with multilayer construction - $\$ 473$
Extender card with multilayer construc tion. Features gold plated test points on double sided extenders, staggered test points to eliminate test probe cluttering, full clearance of adjacent cards, and controlled impedance.

## - 031-033

Wire wrap board for high speed logic and analog applications •\$840
Wire wrappable board with 75 columns, 264 16-pin and 288 14-pin DIP capacities Feature a continuous ground plane and frequency to 55 MHz , low noise and crosstalk, and is suitable for high speed logic and analog applications.

## - 031-043

UNIBUS Supported • Wire wrap board for high speed logic and analog applications - \$630
Wire wrappable board with 75 columns, 168 16-pin and 19214 -pin DIP capacities. Features a continuous ground plane and frequency to 55 MHz , low noise and crosstalk, and is suitable for high speed logic and analog applications.

- 031-055

Q-bus Supported • Wire wrap board for high
speed logic and analog applications •\$200
Wire wrappable board with 50 columns, 11216 -pin and 12814 -pin DIP capacities Features a continuous ground plane and frequency to 55 MHz , low noise and crosstalk, and is suitable for high speed logic and analog applications.

## - 031-063

Wire wrap board for high speed logic and analog applications •\$115

## 봅 031-066

Q-bus Supported • Wire wrap board for high speed logic and analog applications • $\$ 595$ The 031-063 and -066 are wire wrappable boards with 25 columns, 5216 -pin and 56 14 -pin DIP capacities. Feature a continuous ground plane and frequency to 55 MHz , low noise and crosstalk, and is suitable for high speed logic and analog applications.

## - 031-078-02

Q-bus Supported • Extender card with multilayer construction - $\$ 450$
Extender card with multilayer construction and dimensions of $15.30 \times 12.75$ inches Features gold plated test points on double sided extenders, staggered test points to eliminate test probe cluttering, full clear ance of adjacent cards, and controlled impedance.

## - 031-078-03

UNIBUS Supported • Extender card with multilayer construction - $\$ 632$
Extender card with multilayer construction and dimensions of $15.30 \times 12.75$ inches. Features gold plated test points on double sided extenders, staggered test points to eliminate test probe cluttering, full clearance of adjacent cards, and controlled impedance.

## - 067-106

Q-bus Supported • Twelve slot backplane with power and ground $I / 0$ on barrier strip.
This model is a 12 slot backplane with power and ground I/O on barrier strip. Provision for terminations.

## 图 067-178

Q-bus Supported • Nine slot backplane with power and ground $I / 0$ on barrier strip.

## - 067-178

O-bus Supported • Nine slot backplane with power and ground I/O on barrier strip.
The 067-178 Series features nine slot backplanes with power and ground I/O on the barrier strip. No provisions for terminations. Auxilliary voltage on the barrier strip.

## Intel Corporation

■ VVSAda 386-75
UNIBUS Supported • Enables programmers to develop Ada applications.

## IVSAda 386-82

UNIBUS Supported • Enables programmers to develop Ada applications.

## [ VVSAda 386-83

Blbus Supported • Enables programmers to develop Ada applications.

## - VVSAda 386-85

Blbus Supported • Enables programmers to develop Ada applications.

- VVSAda 386-88

Blbus Supported • Enables programmers to develop Ada applications.
The 386 Series is a cross-compilation pack-
age that consists of both software and firmware. Its function enables programmers to develop Ada applications, from initial unit testing with the VMS-targeted compiler to compiling and linking using the 80386 -targeted cross compiler. Downloading to the 80386 target and debugging may also be accomplished from a VAX terminal. Please consult factory for detailed information on the software tools included in this package.

## IVErson, Inc.

## - IVAC 750

UNIBUS Supported • Accelerator board that increases processor speed by $\mathbf{2 5 \%}$ •\$9,950 The IVAC 750 is an accelerator board that accelerates the processor at an average of $25 \%$. It is transparent to software

## K-Systems of Texas

- AITG

Q-bus Supported • Propagation delaycorrected IRIG-B time base generator - $\mathbf{\$ 1 , 5 0 0}$

## - AITG-U

UNIBUS Supported • Propagation delaycorrected IRIG-B time base generator - $\mathbf{\$ 1 , 5 0 0}$ The AITG and AITG-U models incorporate the three functions of a propagation delaycorrected IRIG-B synchronizable time base generator, an event time freeze register Applications include radar data collection, data time annotation, "bit-creep" elimination, and time-correlated distributed data collection.

## - KTL-100

Q-bus Supported • Emulates a VT100 with advanced video option - $\$ 600$
Emulates a VT100 with advanced video option and operates on all LSI-11 systems at up to 19.2 Kbps , supporting up to 32 terminals.

## TFL-100

Q-bus Supported • Emulates a VT100 with advanced video option - $\$ 675$
Emulates a VT100 with advanced video option and operates on all LSI-11 systems at up to 19.2 Kbps . Features 3 auxilliary port modes for screen dump, communicat ing with a second keyboard, or DLV-11 serial interface emulation mode

## $\square$ VITR-U

UNIBUS Supported • Event time freeze register, IRIG-B reader, time match detector \$1,500
Incorporates the functions of an event time freeze register, an IRIG-B reader, and a time match detector. Applications include VCR time annotation reading, data acquisition time tagging, time correlated distributed data collection, tape reading (searching), and digitizer control.

## Mitek Systems <br> Corpobation

## - 1 M011

UNIBUS Supported • Connects a VAX CPU to an IBM multiplexer channel $\cdot \$ 17,000_{+}$
Mitek Systems Corporation designs, manufactures, and distributes connectivity solutions for linking IBM SNA products to TCP/IP vendor systems. Product features include bidirectional logon and file transfer and IBM terminal emulation.

## MRI Computers

■ USIMSR
UNIBUS Supported • Allows maximum UNIBUS
utilization and freedom.
The USI/HSR is a (1) UNIBUS Segment Isolator that electronically breaks the bus into smaller segments and a (2) High Speed Repeator that enables the UNIBUS to run as fast as the CPU will allow. This device was designed specifically to allow maximum UNIBUS utilization and freedom in system configurations.

## Nemonix, Inc.

■ nx0008-SCA
UNIBUS Supported • Increases CPUs information processing up to $25 \%$.
The NX0008-SCA is a Synchronized Clock Accelerator that extends the life and performance of the CPU by increasing its information processing up to $15 \%$.

## Optivision, Inc.

## - Optibus-DR11

UNIBUS Supported • Fiber optic module that connects machines that support DR11-W • \$6,000
The Optibus-DR11 is a high speed fiber optic module that connects any two machines that support a DR11-W interface. It is capable of transferring data over distances up to 2 km at rates up to 1.5 Mbps .

## Peritek Corporation

## - DMA-Q

Q-bus Supported • High performance board for general purpose applications - \$575
High performance board designed for general purpose applications; it handles all the hardware protocol including bus handshaking, bus timeout, interrupt request and vectoring, DMA request/grant and data transfer. Also supports the R LSI-11.

## [ ${ }^{6}$ FDI-Q

LSI-11 Supported • Extracts the maximum performance from flexible diskettes.
Supports $3.5^{\prime \prime}, 5.25^{\prime \prime}$, and $8^{\prime \prime}$ single/double sided, single/double density disks and DEC's RX01, RX33, and RX50.

## - HEX-Q

LSI-11 Supported • Creates a combined DMA and PIO data path among processors •\$4,455 Multiprocessor linking system which creates a combined DMA and PIO data path between a goup of processors. Allows the host to select and perform bidirectional transfer via DMA with one of six satellite processing units.

## Purvis Systems, Inc. <br> - Q-bus/WTDS

UNIBUS/Q-bus Supported • Emulates functions of the NTDS processor I/O controller •\$3,400

## - Unibus/MTDS

UNIBUS Supported • Links DEC CPUs and Navy Tactical Data System (NTDS) devices • $\mathbf{\$ 5 , 4 0 0}$ The Q-bus/NTDS and UNIBUS/NTDS are MIL-STD-1397 NTDS interfaces for 16 and 32-bit, full duplex, parallel, data trans fers. Differential line receivers are standard for Type B (NTDS-FAST) and Type C (ANEW). I/O drivers, users manuals and test and installation software are included.

## Rahyon Corporation

## - 68Sum

UNIBUS Supported • Single board supercomputer for high speed computations • $\$ \mathbf{5 , 8 5 0}$ The68SUM is a singleboard 68020-based supercomputer that uses a 69991 floating
point coprocessor for high speed computa tional performance. It is packaged with 2 MB RAM and 256 KB of host memory may be shared via windows.

## Rockwell International Corporation

## - 110 C

UNIBUS/Q-bus Supported • Commuicates between Q-bus or UNIBUS and MIL-STD machines •\$9,500
The IIOC provides communication between a Q-bus or UNIBUS system and MIL-STD 1397 (Type E) low level serial military computers and peripherals.

## - IIOC

Q-bus Supported • Communicates between $\mathbf{0}$ bus and MIL-STD machines •\$4,950
Provides communication between the Q bus, BA200 and 3000 series computers and peripherals, and MIL-STD 1397 (Type A, B, or C) military computers. Operates with 16 - or 32 -bit words.

## - 110 C

256KBytes • Blbus Supported • $\mathbf{\$ 1 0 , 5 0 0}$ The IIOC includes a 10 MHz 68000 microprocessor, a 68450 -DMA controller, 256 KB of zero wait state SRAM (with 2 KB of SRAM dual-ported to the host), and 64 KB EPROM. Conforms to MIL-STD1397(Type $\mathrm{A}, \mathrm{B}, \mathrm{C}$, and H ).

## - 110 C

UNIBUS Supported • Enables the VAX to perform as a computer to NTDS peripherals $\$ 4,850$
-
UNIBUS Supported • Enables the VAX to perform as a computer to NTDS peripherals * \$6,525

## - IIOC

Q-bus Supported • Enables the VAX to perform as a computer to NTDS peripherals • $\mathbf{\$ 5 , 2 0 0}$

## [1IOC

Q-bus Supported • Enables the VAX to periorm as a computer to NTDS peripherals • \$6,795 In addition to performing all Naval Tactical Data Systems (NTDS) transfers, the above boards enable the VAX CPU to perform as a computer or intercomputer channel. (Type A, B, or C).

## - 110 C

Blbus Supported • Enables the VAX to perform as a computer to NTDS peripherals • $\mathbf{\$ 6 , 7 9 5}$ Designed for the BIbus and includes a 10 MHz 68000 microprocessor, a $68450-$ DMA controller, 258 KB of zero wait state SRAM (with 2KB of SRAM dual-ported to the host), and 64 KB EPROM. Users communicate with the IIOC by loading a chain program into the dual ported memory and interrupting the board. The IIOC then executes the chain without further host intervention, thereby reducing host overhead and NTDS response time over typical "CSR" based designs.

## Sky Computers, Inc.

## - SKY320-Q

64KBytes• Q-bus Supported • Fixed point digital signal processor for data processing • \$2,900
Fixed point digital signal processor designed for high speed data processing. Equipped with software; applications include speech and image processing, vibration analysis, realtime control, and digital filtering.

## StarSoft

## Technologies, Inc.

- MTC

UNIBUS Supported • Allows an IBM PC/AT/XT to emulate a VT220 - \$495
Enables an IBM PC/AT/XT to emulate a
VT220 terminal. MTC software available.

## Sunflex Company

## -188/530

Connects to a wide range of DTE devices to an SPX network.
Designed to work in conjunction with N. E. T. Comdesign's SPX series of I/O processor boards to connect to a wide range of DTE devices to an SPX network. It meets the MIL-STD -188 -114A Type I electrical specifications. It connects up to 32 channels in an SPX/30 network and up to 750 channels in SPX/50 clustered networks.

## Systems Concepts, Inc.

- IU-11

UNIBUS Supported • Connects up to four strings of disk modules.
When configured with a one or two FA channel, the IU-11 connects up to four strings of disk modules, with up to eight spindles in each string. Sustains a data transfer rate of two million bytes per second.

## - IU-11

UNIBUS Supported • Connects to one or more IBM-compatible peripheral control units.
When configured with a one or two SA channel, the IU-11 connects to one or more IBM-compatible peripheral control units, and is able to sustain a data transfer rate of two million bytes per second.

## Talon Technology <br> Corporation

## - QFAX

Q-bus Supported • Connects hosts to any
Group III facsimile worldwide - \$1,895
Connects hosts to any Group III facsimile worldwide over standard telephone lines and transmits and receives text or graphics images directly to any FAX machine for output.

## The Logical Company

## - BCQ-1000

Q-bus Supported •\$1,295
Software transparent controller used to repeat, extend, or convert the $Q$-bus up to distances of 1 km over a single fiber optic cable.

## - BCU-1000

## UNIBUS Supported •\$1,295

A software transparent controller used to repeat, extend, or convert the UNIBUS up to distances of 1 km over a single fiber optic cable.

## - DCQ-1000

Q-bus Supported • Emulates a DRV11-WQ with fiber optic output - \$1,295
A single quad width Q -bus controller that emulates a DRV11-WQ with fiber optic output for high speed transfers at distances up to 1 km .

## SPECIALIZED PRODUCTS

## Bar Code Readers

## BarComp, Inc.

## [ PDB-10

\$1,195
This product requires an RS232 interface.

## Control Module, Inc.

## - Bar Code Readers

Each bar code product that is manufactured by Control Module consists of a bar code decoder with keyboard emulation circuitry for the VT100, 220, 240, 330, and 340.

## Identicon

## - 3501

\$1,695
The 3501 requires an RS232 interface.

## Intemigent Controls Inc.

## - 8000

Available in communication outputs of RS232/422/485 and binary. Features onboard decoding capabilities and the ability to monitor two input relays and to toggle one output relay.

## Kimtron Corporation

## - KBR-100

Compatible with all Kimtron KT-series terminals. It wedges between the keyboard and the adapter and features a selectable carriage return. Does not require an RS232 port or additional power. Supports CODEABAR, UPC-A/E, and EAN-8/ 13 code symbologies.

## Percon, Inc.

## E-Z Reader

\$635
Requires an RS232 interface. Bar code information is entered into the system as if the keyboard were providing the data, making it totally transparent to any program. Equipped with a wand holder that cushions and protects bar code wands, digitizers or light pens.


## TPS Electronics

## - PC-350

$\$ 595$
Incorporates a microprocssor and enters the bar code information into the system as if the keyboard were providing the data, making it totally transparent to any program. RS232 port not required.

## - PC-3500

$\$ 745$
Combines a bar code reader and a magnetic strip reader in one unit. Information is entered into the system as if the keyboard were providing the input, making it totally transparent to any program.

## Vertex Industries

- Bar Code Readers

Manufactures bar code data collection systems.

## Videx, Inc.

- TimeWand II
$\$ 698$
TimeWand II is a portable data collector
that collects bar code information without being connected to a host. Housed in a rugged, cast metal case that features a 32 character liquid crystal display.


## Magnetic Strip

 Readers
## TPS Electronics

## pec.3500

\$525
Combines a bar code reader and a magnetic strip reader in one unit. Information is entered into the system as if the keyboard were providing the input, making it totally transparent to any program.

## - PC-550

## \$525

Incorporates a microprocessor and is easily connected between the keyboard and the CPU. Enters the magnetically encoded information as if the keyboard were providing the input, making it transparent to any program. RS232 port not required.

## Monitoring and Test Devices

## Auled Telesis, Inc.

 - 1 resp:Ethemet Cable Fault Locator - \$995
Features a negative pulse digital time domain reflectometer with scope output capabilities.

## at\&T Paradyme Corporation

## 1551

## Network Management

Provides noninterfering, automatic and constant monitoring of local and remote hardware and VF line impairments. Features modem and DDS II diagnostics, automatic polling, analog line measurements, firmware, database files, terminal and full reporting capabilities.

## Beckman Industrial

## - TMT-1

Transmission Medium Tester • \$3,200
Hand-held instrument used to verify the suitability of LAN media to conduct Eth-ernet-based data communication. Performs tests automatically or manually.

## Cabletron Systems, Imc.

## - LAN-MD

## Network Component Tester

The LAN-MD tests all major components of Ethernet or IEEE 802.3 networks. This device complements the TDR 5000 by isolating network faults outside the coaxial cables.

## - Wetwork Design

## ETDR 5000

Network Component Tester
The TDR 5000 is a portable LAN tester
that uses negative pulse technology to test for faults on network coaxial cable.

## Camoga-Perkins

## - 1401

## Time Domain Reflectometer •\$2,295

Locates faults in telephone lines including shorts, crosses, opens, splits, etc. Features LCD screen, menu drive soft keys, dual trace capability, and crosstalk mode.

## Case/Datatel

## - DCP2083

Data Link Analyzer
The DCP2083 tests communications facilities as well as asynchronous and synchronous modems and multiplexers with speeds up to 6 Mbps .

## - DCP2183

## Data Link Analyzer

The DCP2183 is a $19{ }^{\prime \prime}$ rackmount device that features the same capabilities as the DCP2083.

## - DCP2283

Data Link Analyzer
The DCP2283 is a portable device that features the same capabilities as the DCP2083.

## Datacom Technologies, Inc.

## - DataTool 5000

Data Communications Tester $\mathbf{\bullet} \mathbf{8 7 9}$
Features a special pulse level voltmeter that indicates whether a dynamic data stream is approaching a marginal value.

## - EXBERT T1

T1 Monitor and Test Set •\$2,195
Generates and receives stress test patterns. Features D4 and ESF framing, inservice monitoring, out-of-service testing, CSU and network loop codes, and a printer port for hard copy test results.

## - Four State Series

RS232 Interface Tester
This series monitors up to 25 lines, providing instant line status with separate red and green LEDs.

## - Tri State Series

## Interface Tester

This series monitors up to 12 lines, providing instant line status with separate red and green LEDs. Tests RS232, RS422, and V. 35 interfaces.

## - Two State Series

Interface Tester
This series monitors up to 15 lines, providing instant line status with separate red and green LEDs. Tests RS232, RS449, and Centronics interfaces.

## Digital Accessories, Inc.

 - RTP-2000Data Communications •\$550+
This device tests the continuity and integrity of cables up to 2000 feet, including wiring faults, reversals, openings and shorts.

## Electrodata, Inc.

- AG 1

Audio generator tester - \$220

This device provides calibrated low distortion sine waves for audio testing and loss measurements on voice-grade communication channels.

## GATS 1

## Audio generator tester - $\$ 695$

This device is a self-contained pocket-size audio generator and level meter.

## - ATS 2

Audio generator tester - $\$ \mathbf{6 9 5}$
This device is a self-contained pocket-size audio generator and level meter and also measures Impulse Noise, Peak-to-Average Ratio (P/AR), and Signal-to-Noise (S/ N) ratio.

## - CLE 404

Communications Line Expander
This device allows up to four modems or terminals to share a single four-wire leased drop line.

## - CLS 2

Communications Line Switch
This device allows two RS232 interfaces to be switched to a common connector for modems or terminals, and employs status indicators to show which line is selected, self-wiping contacts for reliability, and female screw locks to hold cables securely.

## - CTS 3

Data Communications Tester - $\mathbf{\$ 1 , 9 9 5}$
The CTS 3 executes a user-generated simulation program, simultaneously monitors transmit and receive data, as well as performs bit and block error-rate tests, distortion tests, and delay measurements.

## - ICT 2

RS232 Cable Tester - \$275
The ICT 2 identifies shorts and open wire configurations.

- ITS 1

RS232 Tester

## - ITS 2

RS232 Tester - \$99

## ITS 3

Tests RS232 Interfaces - \$225
The ITS Series monitors and tests RS232 interfaces.

## - ITS 4

V. 35 Interface Tester •\$495

The ITS 4 monitors and identifies sources of trouble between a modem and terminal or CPU.

## - ITS 5

RS232 Tester - $\$ 195$
The ITS 5 monitors and tests RS232 interfaces and is equipped with a pulse trap and voltage source.

## - ME 2

Modem Eliminator/Drive
This device permits direct connection of terminals and CPU's without modems.

## C ME 3

Modem Eliminator/Converter
This device permits direct connection of terminals and CPUs without modems.

## - MTS 1

Modem Tester - \$375
This device tests asynchronous and syn-
chronous modems, data communication links, and is equipped with alkaline batteries, wire jumpers, and a technical manual.

## - MTS 1R

Modem Tester
This device tests asynchronous and synchronous modems, data communication links and is equipped with nickle-cadmium batteries, wire jumpers, technical manual, and a battery eliminator/charger.

## - MTS 2

Modem/Interface Tester • $\$ 595$
The MTS 2 tests asynchronous modems from 300 bps to 9600 bps , externally timed synchronous modems from 600bps to 19.2 Kbps , and internally timed synchrounous modems up to 76.8 Kbps .

## - TM 1

T Carrier Monitor • $\$ 795$
This device monitors in- and out-of-service T1 equipment, circuits, and transmitters.

## TTS 2

T Carrier Tester • \$2,995
This device performs in-service monitoring and out-of-service testing on T1 equipment, circuits and span repeaters.

## - VFM 1 vF

Tests audio signals •\$215
This device measures and monitors audio signal levels on voice-grade data communication dedicated or dial channels.

## Experdata

## - 5100

StarLAN Installation Tester •\$1,195
Checks the ability of an existing twistedpair network to handle a 1 Mbps StarLAN, checks the StarLAN hub before installation, completes validation of the StarLAN network from a wall-plate connector, and performs network maintenance and troubleshooting.

## s Vigilan

CSMA-CD Network Management • \$5,200
LAN performance monitoring and diag nostic probe which may be controlled, locally or remotely via an RS232 from a nondedicated PC based central station.

## Gandalf Data, lic.

## -TTS400C

Data Transmission Tester - $\$ 925$
The TTS400C combines a data generator and receiver/error detector in one unit, ideally suited for both bench or portable use. Used to install or troubleshoot modems, multiplexers, and other data communication equipment.

## International Data Sciences, Inc.

## 5100

Data Communications Tester •\$1,795+
A hand-held unit designed for field service.

## 15200

Data Communications Tester •\$3,895+
The 5100 and 5200 perform bias distortion, and trap and monitor tests, in addition to point-to-point or multidrop polling, and analog testing.

## - 5300

Protocol Analyzer - \$1,995+
The 5300 performs the same tests as the 5200. Equipped with the Megacapture
feature which increases data storage capacities up to 16 MB . Also performs unattended monitoring with no editing of traffic on the circuit being diagnosed.

## 71 Pocket T1 Monitor

Datacom Test Equipment •\$395
A hand-held unit that allows the user to monitor T1 data on any T1 or ISDN Network.

## 72/91 Bert and Analog Tester

Datacom Test Equipment • \$1,095
The IDS Model 72/91 is a bit error rate test set and analog test set all in one small, portable, battery-operated unit. Bert and error free seconds test up to 72 Kbps and analog tests on voice lines can be performed.

## 76A Bit Error Rate Tester

Datacom Test Equipment • \$1,195
The IDS Model 76A is an all-purpose BERT for testing T1, DDS, ISDN and all asynchronous and synchronous networks from 50 bps to $10,000,000 \mathrm{bps}$.

## - Blue Box II

Modem/Terminal Tester •\$199+
The Blue Box II, Model 62 is designed to access and monitor all 25 conductors of the EIA RS232 and CCITT V. 24 interfaces between data terminal and data communications equipment.

## Intermational

 Data Sciences, Inc.
## - IDS Blue Box 100

Datacom Test Equipment •\$249
The IDS Blue Box 100 is a hand-held, battery-powered, 100-LED breakout box and cable tester. Red and green LEDs, isolation switches and piggy-back jumpers make this product perfect for field services.

## - IDS Model 92 Pocket Fax Tester

Datacom Test Equipment •\$495
The IDS Fax Tester is the first pocket size Fax Tester ever produced. It is intended to be used by field service, dealers, and end users for installation and maintenance of Group I, II, and III facsimile machines.

## alis TIMS 110

Datacom Test Equipment • $\mathbf{\$ 2 , 9 9 5}$
A battery powered, portable, analog test set to test networks from 20 Hz to 110 KHz . Ideal for testing voice freguency lines, dialup lines, program and wide-band circuits. P/AR, Jitter, S/N, Noise, etc.

## - Model 72/62 Pocket Bert

Datacom Test Equipment - $\$ 550$
Asmall lightweight, battery-powered EIA RS-232-C bit error rate test set with a full breakout box. Test patterns include five pseudo-random and Fox.

## - Red Box II

Bit Error Rate Tester - \$795+
The Red Box II, Model 72/62 is a hand-held error rate testing device capable of testing data rates up to 38.4 Kbps (asynchronous) and 72 Kbps (synchronous) and is fully equipped with LEDs to monitor the status of EIA terminal interface signals.

- Series 6000 Shert Haul Modems

Limited Distance Modem • Approximately $\$ 300$ Per Unit
A series of inexpensive limited distance modems, both synchronous and asynchronous, from 50 bps to 19.2 Kbps over distances up to 11 miles.

## Series 8500 Data Switches

 Network Management • Approximately $\mathbf{\$ 2 0 0}$ Per ModuleA family of rackmounted, plug-in switching modules for switching, patching, and A-B back-up of data communications net works. Available in rackmount or desktop versions

## © Series 8900 Switching System

Network Management Systems Approximately \$450 Per Module
A modular, plug-in, rackmount switching system for patching, A-B back-up switching, and monitoring of data communications networks. Both manual and PC computer remote switching available

## Series 9000 Switching and Patching

Network Management Systems -
Approximately $\$ 450$ Per Module
A comprehensive series of plug-in, rackmount modules for switching, patching, monitoring. Provides channel access switching for the digital and analog side of data communications modems and net works. Both computer and manual control available.

## - Sherlock EP Data Line Monitor

## Datacom Test Equipment • \$1,995

Converts the Epson Equity LT laptop computer into a powerful wide band data line monitor and protocol analyzer with plug-in interfaces such as RS-232, V.35, RS-449, DDS, MIL/188 and the new EIA 530.

## © Sherlock GP

## LAN/WAN Monitor • \$14,500

Monitors the activity of up to 1024 Eth ernet or IEEE 802.3 stations. Contains a time domain reflectometer to locate opens, shorts, or transceiver faults on the LAN itself.

## © Sherlock LW Model 5835

Datacom Test Equipment • $\mathbf{\$ 1 8 , 0 0 0}$
New IDS Sherlock LAN/WAN combines a LAN analyzer, both Ethernet and Token Ring, and a WAN analyzer into a high speed test set.

## . Sheriock LT

Datacom Test Equipment • $\$ 3,995$
All-in-one WAN data line monitor and protocol analyzer with full laptop PC compatibility, and testing asynchronous, synchronous, SNA, SDLC and X. 25 protocols up to 72 Kbps .

## - Token-Ring Back-up Switch

Datacom Test Equipment • Approximately

## $\$ 400$ Per Module

The IDS new Token-Ring switch provides FEP back-up and isolation of faulty terminals. This PC computer-controlled switch disables faulty terminals to protect Token Ring operation.

## ISA Consultants



## 国 RTM

## Response Time Monitor • $\$ 695$

By measuring response time as seen by users, RTM provides a unique and meaningful performance statistic to system and project managers. Unlike software-based performance measurement tools, RTM is a hardware device that examines characters communicated between a user terminal and CPU. Performance statistics are col-
lected and maximum, minimum, and aver age transaction times are displayed on request. Complex transaction definitions are supported, including those used in All-In-One and OLTP (ACMS, DECintact) based environments.

## Johm Fluke Manufacturimg Company, Inc.

## -1752a

Data Acquisition System •\$8,000+
Powerful microcomputer based system for measurement and control applications. Data acquisition functions are integrated into the same chassis as the computer to minimize desktop or rack space. Simplifies programming and increases system performance

## -2289A-Helios

Computer Front End •\$2,300+
Rugged and highly accurate measurement and control system. Conditioning over two dozen signal types, Helios I provides confidence in the accuracy and repeatability of measurements from a variety of sensors.

## 24008

Intelligent Computer Front End • $\$ \mathbf{5 , 0 0 0 +}$
Accurate microprocessor based analog and digital data acquisition system. Serves as an interface between a computer and both the measurement and control of a physical process.

## 40 Series

Analog/Digital Multimeter - \$79-145

## 180 Series

Handheld Digital Multimeters © \$189
A three member family of high performance meters with 11 functions and 40 ranges for a wide variety of electronic and industrial applications. Offers an impressive range of capabilities including frequency, duty cycle, and capacitance measurement and provides durable construction and unique safety features.

## 18060 A

$\$ 359$
Performs fast audible/visual continuity tests.

- 8840

Digital Multimeter Tester - \$795-995

## - 9010

Micro-System Tester • $\$ \mathbf{3 , 2 9 5 - 5 , 1 9 0}$
Performs preprogrammed kernel test routines and simple peripheral troubleshooting. Please note that the quoted list price does not include the cost of interface pods.

## © 9100

## Digital Test System • \$9-21,500

Tests microprocessor-based digital circuitry from the microprocessor outward. It performs automated functional and guided fault isolation tests.

## - Fluke 45

Dual Display Multimeter - \$595
A feature-rich, five digit 100,000 count DMW with a unique multifunction dual display, allowing measurement of two parameters from a single test connection. Offers high performance and versatility for manufacturing test, depot, and field service, and research and development. A standard RS232 interface makes the Fluke 45 ideal for PC instrument applications.

## © DS-100

Portable Datacom Tester - $\$ 795$
The DS-100 has the ability to simulate either DTE or DCE functions and features a built-in breakout box and auto-configuration.

## Мамттесн



- Master Console

Maintech's Master Console, a state-of-the art console management utility, is able to monitor and control up to 16 processors from a single location. Utilizing a dynamic windowing system, Master Console links the communication interface from each monitored processor to a separate window on the workstation screen. An enhanced secure remote access feature allows authorized operations personnel to execute any function available at a processor's console or the resident Master Console procesor.

## Network <br> Gemeral Corporation

## $\square$ The Sinffer

LAN Protocol Analyzes - $\$ 12,500+$
A family of self-contained portable protocol analyzers supporting Ethernet, TokenRing, PC LAN and others, that monitor network traffic and capture images of all or of selected frames (packets) in a working buffer, ready for immediate analysis and display. Captured frame images may also be stored to hard disk as trace files for subsequent analysis.

## Nu Data, Inc.

## R5024

Matrix Line Monitor
Remotely controlled data monitoring device that enables up to 32 EIA- 232 VAX interface circuits to be monitored at any of eight remote ports.
Real-Time Devices -10та-1

> Real-Time

/0 Transaction • \$8,750
Bus transaction monitoring device supports both Q-bus and UNIBUS. Captures 2 K transactions with extensive filtering and triggering capabilities. Derived information includes timing for each phase of the transaction and elapsed time with 100 ns resolution, data and address values,
transaction type, and error conditions. Al information is accessible from the portable display unit or the target computer. Also detects timing problem areas in real time Useful for hardware and software development, integration, and maintenance.

## Siecor Corporation

## - Fiber Optic Testers

Test Equipment
A family of fiber optic test equipment in cluding attenuation test equipment, handheld optical testers, power meters, and light sources.

## - PETT

LAN Tester •\$3,500
The Portable Ethernet Transceiver Tester (PETT) is an Ethernet LAN installation tester and troubleshooting tool for use with coax, twisted pair, and fiiber optic media and transmission equipment.

## Staff Computer Techmology

## - The MEY

Controls Remote Access • $\$ 150$
THE KEY prevents unauthorized computer system access by remote terminals or computers. May also be used to prevent software or data piracy.

## Team Systems, Inc. <br> - Istrovegis

Programmable Video Generator - \$12,950 The new ASTRO VG-819 is fully programmable. Features a dot clock of 240 MHz and horizontal scan rates to 130 KHz , simplified operation and programming, and GPIB and RS232 interfaces. Also features many new standard test patterns.

## TLC S.E., Imc.

## - T1200

Monitors Electrical Power - $\$ 695$
A monitoring and diagnostic instrument that detects electronic power problems, checks for correct electrical wiring, and indicates power status via a LED display. Recommends solution to any power problems

## Security Systems

## Busimess <br> Security Systems

## - Technalock

$\$ 22.45$
Physical cable and lock that mounts on equipment and secure surface to deter theft.

## C. H. Systems, Inc. - Sleuth <br> $\$ 329$

Designed to operate in conjunction with Hayes and Hayes compatible modems at up to 2400 bps . Stores up to 74 names and provides a barrier against unauthorized entry into the computer system.

## - SuperSleuth

## $\$ 529$

A full featured dialback access control device. Features an internal modem, stores up to 74 names, and provides a barrier against unauthorized entry into the computer system.

## Digital Pathways, Inc.

## - Detender II

## $\$ 4,725-10,000$

The Defender II provides a wide range of information security technologies for dialup access to computers, including callback and direct connect authorization strategies.

## - Defender System

$\$ 4,725-10,000$
The Defender System provides a wide range of information security technologies for dial-up access to computers, including callback and direct connect authorization strategies.

## - SBE

## \$7,250-10,000

The SBE (SecureBridge Ethernet) bridges Ethernet LANs and when used in conjunc tion with Digital Pathways' SecureManager bridge it communicates only between the nodes that are specified, acting as a security controller.

## - SLX

## $\$ 6,000$

The SLX (SecureLink) provides a hostindependent solution to the secure management and control of bidirectional, point to-point access over any X. 25 network.

## LeeMah Datacom Security Corporation

## Elinfokey

## $\$ 150$

InfoKey is a portable secure call-in device that authenticates both the security device and user by using a unique and automatic multilevel security process.

## - TraqMet 2001

$\$ 845$
TraqNet 2001 is a single line dial-in security system that incorporates patented secure callback and call-in technology to protect unauthorized host access on single lines.

## - TraqWet Series

$\$ 4,240+$
LeeMah's multiport security devices (models 2008, 2032, and 2128) protect from one to 13,000 dial-in ports against unauthorized access. Their analog configuration permits for protocol, baud rate and interface independence.

## Plexcom, Inc.

- 901 WatchDog

The 901 WatchDog is designed to continuously monitor the integrity of a cable by sending light down one fiber and checking the amount of received light. It shares fiber with the data transmission equipment with the use of optical couplers; however, the use of dedicated lines is more cost effective. Features alarms and switches, detects intrusion, and affords users the option of immediately closing data transmission.

## Racal-Milgo

- Datacryptor 1027 Key Management Center

Government endorsed link encryptor designed to provide communication with centralized control of network and key management functions.

## - Datacryptor 1027C

Government endorsed link encryptors
designed to provide secure data communication with centralized control of network and key management functions via RacalMilgo's Datacryptor 1027 Key Management Center.

## - Datacryptor 64

\$1,900 +
QES link encryptor designed to protect data transmissions in point-to-point, multidrop, dial-up, or dedicated communication networks.

## - Datacryptor 64-1027

\$1,900+
Government endorsed link encryptor designed to protect unclassified, national security-related information from disclosure, manipulation or destruction in point-to-point, multidrop, and dial-up networks.

## - Datacryptor 64R

\$1,900
QES link encryptor designed to protect dial-up communication networks. These remote units are restricted from communicating with each other and only communicate with a central site Datacryptor 64.

## Secure Technologies

## - StationLock

## $\$ 49.95$

The StationLock is a key operated electrical security switchlock that replaces the on/off switch on DEC VT2xx and VT3xx terminals. Provides high security and access restriction.

## - Secure Cover

The Secure Cover line of locking security cabinets provides access control for the DEC MicroVAX Series using high security locking systems and sliding LEXAN windows.

## Security Dynamics

## © ACM-1600

Features an 80186 CPU, 320MB SRAM, as well as an extensive administrative management menu and interactive software for extensive and detailed control of all relevant paramters, port configurations, and system options.

## Smart Ambient Monitors

## International Power Machines Corporation

## - Failsafe

Designed to monitor up to 16 UPS machines manufactured by International Power Machines. Diagrams are displayed on the monitor regarding these systems and their components to identify the location of alarm faults.

> We've Moved! Our new address is 101 Witmer Road Horsham, PA 19044 (215) 957-1500


## Timing Devices

## Adac Corporation <br> -1601GPT <br> Computer Products, Inc. - $\quad$ rr306

$\$ 695$
Programmable real time clock with optional battery backed clock calendar.

## - GT307

\$350
Complete time of day clock and one hundred year calendar with battery back-up. Automatic leap year compensation and end of the month recognition.

## Data Translation, Inc.

## - 0 r27269

\$1,080
Programmable real time clock with five clock frequencies, four operating modes, and two Schmitt triggers.

Precision Standard Time - 1010
$\$ 695$

## - 1020

\$1,295
The 1010 and 1020 provide unattended, continuous time information synchronized to the International Time Standard, Coordinated Universal Time (UTC). Time outputs include year, month, day, hour, minute, seconds, tenths, hundreds, and thousandths-of-seconds.

## - 1021

\$1,495
Similar to models 1010 and 1020; however, the 1021 includes Time Manager software to sychronize the system clocks of VAX/ VMS computers in standalone or DECnet networks.

Associates, Inc.

## SMITDECL



## - RTC01

$\$ 4,990$
The RTC01, a single board, native VAXBI module, is a programmable real time clock allowing user selection of operating mode, time/count source, and timing resolution. The clock utilizes a 32 -bit wide counter, that may be read without stopping the count, to provide over seven minutes of timing duration at $\mathbf{1 0 0} \mathrm{ns}$ resolution. An on-board FIFO buffer is capable of storing the times or counts of 512 events for subsequent retrieval. The RTC01 is supported by VMS and VAXELN drivers adhering to Digital's real time calling standard (RTCS). The RTCO1's VAXELN capability makes it an ideal real time clock for VAXRTA.


If you're looking for some good reading, you've just found it. The free Consumer Information Catalog.

The Catalog lists about 200 federal publications, many of them free. They can help you eat right, manage your money, stay healthy, plan your child's education, learn about federal benefits and more

So sharpen your pencil. Write for the free Consumer Information Catalog. And get reading worth writing for

Consumer Information Center
Department RW
Pueblo, Colorado 81009

# MAINTENANCE 

## Maintenance

## Advanced Data Support Systems

- On-site maintenance and depot repair Services DEC PDP-11/VAX and IBM PC and compatible systems. Add-in peripheral sales. Advanced Data Analyzer and Power Line Monitoring Systems.


## American Computer Emgimeers

Services systems and processors, disk drives/subsystems, tape drives/subsystems, terminals/workstations, printers/ plotters, and controllers. ACE also offers maintenance for and support of the entire DEC PDP-11 series, VAX 11/7xx series, and the entire MicroVAX line.

## BTI

- On-site maintenance and depot repair Services IBM, Acer, AT\&T, Panasonic, Okidata, HP, Fujitsu, CDC, and Maxtor products. Services disk drives, printers, and monitors. Provides on-site and depot repair, loaners, computer upgrades, training, intallation, and spare parts.


## Caltronix

- Calibration and repair

Electronic-Physical dimensional member of the National Conference of Standards Lab. Also offer maintenance agreements, on-site calibration and emergency service.

## Carn Industries, Lto.

- Depot repair

Refurbish/repair electromechanical assemblies such as servo motors, and spindles.

## Century <br> Computer Marketing

- Depot repair

Services a wide range of new and refurbished DEC equipment including data communications products, high speed printers, peripherals, and PCs.

## Cimcimmati Beu Suppiy

- Depot repair

Provides repair/exchange services for DEC equipment including systems and tape drives. All equipment features six month warranty and is fully inspected for wear.

## Communications

Test Design, Inc.

- Depot repair

Services DEC, DataProducts, AT\&T, and HP controllers, disk drives, tape drives, memory boards, modems, and printers.

## Control <br> Data Corporation

- Third party maintenance

DEC and IBM and associated peripherals in a multi-vendor environment - Large, medium, and small computer systems and peripherals - On-site maintenance and
on-call maintenance for systems and compatible peripherals with value-added software enhancements for DEC and IBM.

## Cosmic Enterpriss, Inc.

 - Depot repairServices DEC, CDC, Fujitsu, Cipher, Printronix, DataProducts Clearpoint, and EMC products. Cosmic offers classic coverage with a four hour response, basic coverage with same day or best effort response, per call service, and depot repair contracts and service. Repairs DEC equipment, from LSI11 to 8650 CPUs. Services include total system repair, upgrades, calibrations, power conversions, system and option refurbishment, burn-in service, diagnostic screening service, and module repair.

## Digital Solutions, Inc.

- Depot repair

Services DEC and DEC compatible products including systems, peripherals, tape drives, disk drives, memory, printers, enclosures, and cables.

## Dow Jones Service

- Depot repair

Services DEC systems and related peripherals with a standard turn-around time of two-five days. Other services include onsite maintenance, extended warranty service, and emergency repairs.

## DynService Network

## - Depot repair

National depot repair organization specializing in computer peripheral and electronic equipment.

## Electronic <br> Service Specialists

- Depot repair

Over 35 courses available at the training center for technicians. Remote diagnostic and technical support available. ESS has four core business areas: (1) depot repair of DEC computers and peripherals (PDP-8 to VAX 8800) featuring one week repair, with 24 -hour and swap service available, as well as a one year warranty, (2) spare parts, subsystems, and systems available from a $\$ 13$ million, 180,000 item inventory, (3) field service training: 35+ courses customized and conducted at ESS's facility or at customer's site, and (4) remote diagnostic and technical support, including standalone diagnostics.

## GE Computer Service

## - Depot repair

Provides single source, customized repair, calibration, and maintenance services for a broad range of computers and multivendor computer systems, as well as electronic test and measurement equipment and industrial control systems.

## Grumman Data Systems

- On-site maintenance and depot repair Services DEC, Data General, WYSE, and IBM products. Services mainframes, minis, micros, peripherals, LANs, voice communications, PCs, and office equipment. GSS provides hardware service, network main-
tenance, telecommunications, depotrepair, equipment sales, consulting and other sevices to commercial, governmental, institutional and industrial customers.


## HRL Associates, Imc.

TMS, Total Maintenance System, is a complete program containing all the features required for facilities maintenance management.

## Integrated

## Systems Group, Inc.

Maintains and services UNIBUS and Qbus compatible DEC equipment.

## Jadtec Computer Group

- Depot repair

Offers on-site computer maintenance for boards, printers and terminals.

## KCS Computer Services

- Depot repair

Repairs and refurbishes a wide range of micro and minicomputer peripherals including $5.25^{\prime \prime}$ hard disk drives and $.25^{\prime \prime}$ cartridge tape drives.

## Lex Computer Systems

Lex Computer Systems is a nationwide resource for DEC system needs specializing in system enhancements, productivity improvements and industry specific solutions. Lex's DEC system includes DECstations, VAXstations, MicroVAX and the VAX 6000/8000 line. Lex's DEC offering also includes complete networking, terminals, printers, and accessories. Lex's total support programs include installation, maintenance training, custom configuration, system integration and consulting. Lex also offers one of the most competitive leasing programs available.

## Маімтесн



Maintech is a multifaceted service organization providing a single source for all computer service requirements. Since 1971, Maintech has provided the quality alternative for DEC and SUN hardware maintenance requirements. Our specialties include multi-system and multi-vendor critical applications environments utilizing contract terms custom-tailored to service needs. Maintech. The experience, resources and commitment to provide a total service solution.

## McDonnel Douglas

McDonnell Douglas Field Service Company has grown into one of the largest field service companies in the nation. For over two decades, McDonnell Douglas has been a leader in providing flexible and costeffective third party service. Delivers single-source maintenance on superminis,
micros, PCs, and peripherals, on DEC and DEC compatible systems and processors, Tandem computers and data communication networks and devices, disk and tape drives/subsystems, terminals, workstations, printers, plotters and controllers. Provides service on a wide variety of computer system hardware such as DEC, IBM PCs, AT\&T PCs, Tandem, Memorex, Fujitsu, Cipher, Printronix, Emulex, Control Data, and McDonnell Douglas.

## MESA

## Technology Corporation

## ■ On-site maintenance and depot repair

Depot repair and on-site maintenance for DEC and DEC compatible peripherals including Printronix, DataProducts, QMS, HP, and C.Itoh. Repairs PCs, laser printers, impact printers, disk drives, terminals, controllers, and networking products.

## Peripheral <br> Manufacturimg, Inc.

Services disk and tape storage equipment. Cleaning and certification of computer tape and disk packs. Repairs Winchesters and disk packs, heads and filters. Manufactures new and repaired customer engineer aligment disk packs, skew tapes, heads, and filters.

## Randomex, Inc.

National computer maintenance firm that provides preventive maintenance for DEC compatiblememory and peripheral devices.

## Solid Systems, Inc.

Maintains all DEC equipment, from PDP11 through the VAX Series throughout the entire state of Texas. Offers complete service with over 25 K square feet of office and warehouse space.

## Sobzus, Iluc.

Sorbus services more than 400 brands of computer equipment, totaling over 3,000 different hardware based products. With 200 locations across the United States, Sorbus is hard at work for more than 45,000 customers at over 60,000 sites. Features the Sorbus Service Agreement that offers multi-year discounts and provides terms for standard on-site, carry-in/mail-in, deferred and hourly maintenance.

## TRW Customer <br> Service Division

- Depot repair

Depot and on-site repair specializing in DEC and DEC compatible system support for over 40,000 customers at 126 service points nationwide by over 2300 field engineers.

## U. S. Resale Corporation

- Depot repair

Services include depot repair and maintenance for new and used equipment designed for PDP-11 and MicroVAX based systems.

# emariotan Mamenole sainces. 



## MANNTECH. Since 1971, the quality alternative for your DEC and Sun hardware maintenance requirements.

Critical applications maintenance is our only business. If your maintenance needs include multi-system, multivendor DEC or Sun based applications, then Maintech is your quality service choice.

- Flexible contract terms.
- Remote diagnostic capability.
- Twenty-four hour support hotline.
- "800" service dispatch.
- Typical installations include E911 Emergency Dispatch,

411 Directory Assistance, Directory Publication, Electronic Funds Transfer, Stocks and Bonds Trading, and Research and Development Laboratories.
MAINTECH. The experience, resources and commitment to provide you with a total service solution.

All product names are registered trademarks of their respective manufacturers

MANTIECH
GUARDIAN MAINTENANCE SERVICES
1800-426-TECH


## SERVICE

## Distributors

 And Resellers
## ACS

## Equipment Corporation

Sells and leases DEC equipment, specializing in VAX systems and peripherals. Features three month to three year rental terms with option to buy.

## American Computer Hardware Corporation

Offers a full line of new or refurbished DataProduct printers and supplies. Provides parts, customer interfaces and technical support.

## American Diversified Capital Corporation

Sells DEC and DEC compatible used equipment including data communications devices, database processors, printers, plotters, and terminals.

## American Digital <br> Technologies, luc.

- Distributes systems and processors, data communications, networking, disk drives, tape drives, terminals, printers, power and security, system enclosures, controllers, and memory products • Distributes for Alps, AST, AT\&T, Anderson Jacobson, CTX, CDC, Cipher, Clearpoint, C.Itoh, DataProducts, DEC, DataSouth, Dyna Five, Esprit, Emulex, Exabyte, Fujitsu, Maxtor, Microcom, Micropolis, Multi-Tech, Micom, Miniscribe, National Semiconductor, Persyst, Rodime, Segate, Sigma, Syquest, Teac T.D. Systems, Trimm, Unison, and Western Digital. Offers a full line of DEC and DEC compatible products including processors, networking, data communications, disk and tape drives, terminals and printers.


## AnDATACo

Offers a full line of DEC compatible peripherals including tape drives, non impact printers, controllers, processors, and disk drives.

## Аитнем <br> Technology Systems

- Distributes systems and processors, networking, disk drives/subsystems, tape drives/subsystems
Distributes high performance mass storage subsystems for OEMs, VARs, VADs, and large volume corporate end users. ATS, a subsidiary of Anthem Electronics, also offers LAN equipment, controllers and adapters.


## Arrow Electronics, Imc.

- Distributes systems and processors, disk drives/subsystems, tape drives/subsystems, terminals, printers/plotters, power, and security systems • Distributes for MDB,
Imprimis, DILOG, and Trimm
Standard packages incorporate Trimm Industries tower or fullrack cabinets,
removable $5.25^{\prime \prime}$ chassis from MDB Systems, and Imprimis disk drives. All subsystems are equipped with DEC compatible DILOG controllers.


## Bel Atlantic Data

Offers a wide range of DEC compatible equipment including processors, communications, networking, disk and tape drives, terminals, output devices, and controllers. Option to lease.

## BOMARA

Distributor of DEC compatible data communication equipment manufactured by Advanced Computer Communications (ACC).

## Brookvale Associates

Quality and support are hallmarks of Brookvale's 16 years as a leader in the DEC used equipment marketplace. Today, Brookvale is the premier supplier of reconditioned fully-integrated VAX systems from the low-end MV II and 700 through Digital's 6000 and 8000 series. Buy, sell, rent or lease-call Brookvale.

## C. D. Smith \& Associates

Buys, sells, trades, rents and leases all VAX systems and options in VAX 62 xx , 63xx, 8xxx, 7xx and MicroVAX II and III Series.

## Califormia Boards

Buys and sells DEC and DEC compatible equipment including processors, disk drives and controllers, tape units, communication devices, memory, terminals and printers. Backed by a one year warranty. Eligible for DEC maintenance.

## Carlson Computer International

Offers DEC compatible equipment including processors, communications, networking, disk and tape drives, terminals, workstations, output devices, data acquisition systems and controllers.

## Century <br> Computer Marketimg

Offers a wide range of new and refurbished DEC equipment including data communications products, high speed printers, peripherals, and personal computers.

## Channel Marketing Inc

Sells DEC compatible terminals, printers networking devices and storage subsystems.

## Cincinмati Beu Supply

Remanufactures DEC equipment including systems and tape drives. All equipment features a six month warranty and has been fully inspected for wear. Lease and finance options available.

## Clayton Computer Systems

Clayton computer systems offers new and
used DEC and DEC compatible hardware including CPUs, printers, subsystems, peripherals, cables, communication devices, memory, and accessories. Distributes Cipher tape drives, CDC disk drives, DataProducts printers, and DILOG, Emulex and Fujitsu disk and tape drives.

## Compurex SYstems INC.

Specializes in new and reconditioned DEC equipment including systems, memory, clusterhardware, communication products, disk drives, tape drives, printers, and terminals. Lease and rental options available.

## Computer Clearimg House

Provides DEC compatible integration of processors, networking, communication, disk and tape subsystems, output devices, and controllers for the UNIBUS, Q-bus and BIbus environments.

## Computer Dataco

Carries laser, band, matrix, color, graphics, and label printers. Features DataProducts, Genicom and Miltope products. Nationwide service is also provided. Printers to 90 ppm .


## Computer Management

Sells and maintains DEC compatible used equipment. Lease options available.

## Contemporary Cybernetics Group, Inc.

- Distributes for Wyse, Genicom, and Exabyte Offers DEC compatible peripheral products including terminals, workstations, impact and non-impact printers, and high capacity tape and disk subsystems. .


## Contimental Resources

Sells and services microcomputers, computer peripherals and electronic test equipment for DEC desktop products. Lease options available. Offices nationwide. Toll free 800 937-4688.

## Control Cable

Provides fully tested, unconditionally guaranteed cables as well as data communication, networking, and Ethernet products.

## Craig Data Cable

Offers a full line of DEC compatible productsincluding modems, LAN devices, cables and accessories. Products are backed by a one year warranty.

## CYCOM Systems Limited

- Distributes data communications equipment for ACC.
Distributor for DEC compatible data communication equipment manufactured by Advanced Computer Communications (ACC).


## Data 3 <br> Computer Corporation

Sells unused, used, and refurbished DEC processors, disk drives, memory, data communication devices, tape drives, controllers, terminals, and printers.

## Data Com South

- Distributes data communications equipment for ACC.
Distributor for DEC compatible data communication equipment manufactured by Advanced Computer Communications (ACC).


## Data Rewtals \& Sales

Sells new and used DEC compatible euqipment specializing in data communication devices and terminals. Lease options available.

## Datalease

Offers a full line of DEC and DEC compatible products including terminals, printers, disk subsystems, tape subsystems, memory, communications, and accessories.

## DCD

- Distributes data communications equipment for ACC.
Distributor for DEC compatible data communication equipment manufactured by Advanced Computer Communications (ACC).


## Delta $Z$ Corporation

Sells DEC used equipment.

## Demco Inc.

Sells DEC compatible terminals, workstations, system enclosures, and power and security systems.

## DEX Corporation

Offers DEC compatible disk and tape drives from manufacturers including Fujitsu, Toshiba, DILOG, Spectra Logic, and Cipher.

## Digital Basics, Inc.

- Distributes computer systems, workstations, personal computers, controllers, disk subsystems, tape subsystems, optical subsystems, memory, printers, terminals, enclosures. - Distributes for DEC, Allied Telesis, Cipher, Clearpoint, CMD Technology, Dataram, DILOG, Everest, Imprimis, Kennedy, Laserdrive, Maxtor, Microterm, Tektronix, Toshiba, and Trimm. DEC system solutions for a wide range of computer applications. Complete system integration of hardware and software products to provide the best price/performance solutions available.


## Digital Computer Ехснанєе, Imc.

Buys, sells, and trades DEC VAX, PDP, and LSI systems and peripherals including CPUs, memories, disk and tape drives, terminals, printers, and interfaces.

## Digital Computer Resale

Buys, sells, and leases DEC and DEC compatible equipment.

## Digital Solutions, Inc.

- Distributes for DILOG, DEC, Imprimis, EMC, Emulex, Trimm, Cipher, and Maxtor
Offers a full line of DEC and DEC compat ible products including systems, peripherals, tape drives, disk drives, memory, printers, enclosures, and cables


## Douglas Computer International

Supplier of new and refurbished computer systems, tape drives, disk drives, controllers, terminals, and printers.

## DPS

- Distributes data communications equipment for ACC
Distributor for DEC compatible data communication equipment manufactured by Advanced Computer Communications (ACC).


## Dynamic

Systems Northwest, Inc.
Offers DEC compatible laser printers, line and band printers, microcomputers, networking devices, terminals, and printer supplies.
Eakins Associates, Inc.
Specializes in DEC compatible products
including disk and tape subsystems, Ethernet solutions, communications, custom cables, and terminals for the VAX and MicroVAX.

## El Camino <br> Resources, Lto.

Buys, sells, trades, rents and leases new DEC equipment that has been accepted for DEC maintenance.

## Eltec, Inc.

Sells a full line of DEC compatible peripherals including disk/tape drives and controllers, terminals, memory, and communication devices specifically for the Q-bus, UNIBUS, and BIbus.

## Glasgal

Communications, Imc.
Offers a full line of advanced data communication and networking products including LANs, modems, fiber optic devices, multiplexers, security equipment, voiceand data integration, T-1 devices and cables.

## Group Three Electroonics

Offers DEC compatible disk drives and subsystems, tape drives and subsystems as well as controllers from Cipher, Fujitsu, and DILOG.

## Hacopian \& Associates

Sells new and used DEC and DEC compatible products

Ideal Technologies
Distributes laser printers for Texas Instruments.
Offers the full line of Omnilaser Series laser printers manufactured by Texas Instruments.

## Integrated Design Engineering, Inc.

- Distributes for ADDS, RAD Data, and Okidata.
Offers a full line of DEC compatible products including data communication devices, networking, Ethernet devices, terminals, workstations, and output devices.


## Jack Hadley Design

ICEX maintains an inventory of over $\$ 1.5$ million of new and used DEC and Sun equipment. Custom configured systems with DEC or third party compatibles.

## Jadtec Computer Group

Suppliers of new and used DEC and DEC compatible equipment including complete CPU upgrades, terminals, printers, communication devices, and modems, and interfaces add-on disk drives and back-up storage drives.

## Jordan Electronics

Data communication specialists offering solutions for LANs (broadband, baseband, data switches), WANs (packet networks, switching multiplexers, leased line net-
works), and DOVs (data over voice) net works.

## K/Rep Sales

Sells new DEC compatible equipment including systems, subsystems, data communications, and terminals.

## KEL-MAT/DAK

- Distributes data communications equipment for ACC.
Distributor for DEC compatible data communication equipment manufactured by Advanced Computer Communications (ACC).


## Kimberly Electronics

Worldwide source of DEC and DEC compatible equipment including systems, CPUs, VAXclusters, communications, networking, memory, printers, tape drives, disk drives, and controllers. Custom configures DEC systems.

## L.A. Cable Connection

Sells, installs and services new and refurbished DEC compatible equipment, specializing in cabling, patch bays, multiplexers, and modems.

## Lamcom Corporation

Consulting specialists in local and wide area networking. Products include Datability terminal server, ACC remote bridges, Retix local bridges, network accessories, and TCP/IP software and hardware.

BUY, SELL, RENT DECVIVAX

+ New and used equipment
- DEC maintenance guaranteed
- 3- to 12-month rental terms
- Purchase accruals
- Immediate delivery
"Since 1966"


## LDI Technologies

Distributor and lessor for DEC and DEC compatible data communication equipment manufactured by Advanced Computer Communications, Emulex, Codex, and DEC. Offers DEC compatible systems, processors, data communications, networking, disk and tape drives, terminals, output devices, workstations, enclosures, and controllers. Leasing options available.

## Lex Computer Systems <br>  <br> COMPUTER <br> SYSTEMS

Lex Computer Systems is a nationwide resource for DEC system needs specializing in industry specific solutions. Inventory includes systems, networking, workstations and terminals. Leasing options available.

## LifeSense Computer Products, Inc.

Buys, sells, trades and leases new and used DEC, IBM, CDC, Emulex, and Cipher products. System configuration and large inventory of refurbished equipment available.

## LIOCS Corporation

Offers a full line of used DEC equipment including systems and processors, data communications, networking and Ethernet devices, disk and tape drives, terminals, output devices, and controllers.

## Management Computer Service

Buys new and used DEC equipment with cash, certified bank checks, and wire transfers.

## Maximum Strategy, Inc.

Buys and sells new and used DEC equipment including systems, memory products, printers, terminals, disk drives, controllers, tape drives, newtworking and communications devices.

## McDonnel Douglas

Provides field service on DEC and DEC compatible systems and processors, data communication devices, disk and tape drives/subsystems, terminals, workstations, printers, plotters, and controllers.

## MCS Computer <br> Products, Inc.

Specializes in the application of optical disk technology; provides mass storage solutions using the latest laser optical disk (CD-ROM, WORM, Erasable) and helical scan mag tape technologies.

## Meadowlark Enterprises, Inc.

Buys and sells new and used DEC and DEC compatible equipment including systems, tape drives, disk drives, data communication and networking products, and controllers. Lease options available.

## MESA <br> Technology Corporation

- Distributes for Cipher, Hewlett-Packard, Optimem, C.Itoh, DataProducts, Printronix, Laser Connection, and Caere.
Provides a variety of leading DEC compatible peripherals including impact and nonimpact printers, optical disks, magnetic disks, and tape subsystems, bar coding systems, networking and communication products, terminals, and power supplies.


## Micro Solutions

- Distributes data communications equipment for ACC.
Distributor for DEC compatible data communication equipment manufactured by Advanced Computer Communications (ACC).


## Microtek Systems International

Buys, sells, and trades used DEC equipment and all equipment is eligible for DEC maintenance service. Lease options available.

> Miowest Systems, Inc.
> Leading supplier of new and used DEC hardware including systems, memory upgrades, printers, communication devices, tape drives, disk drives, and power supplies. All equipment is pretested and guaranteed eligble for DEC maintenance.

Minicomputer Exchange
Buys and sells DEC compatible systems,
disk drives/subsystems, tape drives/subsystems, terminals, workstations, printers, plotters, and controllers. Lease options available

## Mineecomputers, Inc.

A seven year old full service dealer in new and used DEC equipment. Buys and sells the complete line of DEC and DEC compatible equipment.

## MTI Systems Corporation

Sells, installs and services computer and data equipment for DEC, Hewlett-Packard, DataProducts, Texas Instruments, and C.Itoh. Lease options available.

Leading distributor of DEC and DEC compatible equipment including systems, data communications, networking devices, printers, and disk and tape storage systems. Offers buy, lease or rent options.

## Mulititonics

Multitronics, Inc. has been a leader in the DEC marketplace for more than ten years, specializing in DEC VAX hardware, peripherals, and power convertions.

## New York <br> Computer Exchange

Specializing in new and used, fully warranted DEC hardware. Sells and buys systems, peripherals, options, disk and tape drives, printers and terminals.

## DIGITAL HARDWARE FOR YOUR DISTRIBUTED COMPUTING SOLUTIONS

TriLogic, your total solution Digital Desktop Distributor. Whether building a DECnet*/Ethernet local area network, expanding your system, integrating personal computing or adding workstations, TriLogic offers the required components, hardware and software.

Call for Trade in Values on Your Digital Equipment.

Authorized Distributor

COMMUNICATION \&
NETWORKING
H4005
Ethernet Transceiver
DSRVB-AA*
RS232 Ethernet
Communication Server
DSRVB-BA*
RS423 Ethernet
Communication Server
DELNI-BA*
Allows up to eight Ethernetcompatible devices to be grouped together (not terminals)
DEMPR-AA*
Thin Wire Ethernet Multiport Repeater
DESTA*
Thinwire Ethernet station adapter
DSRVS-CA
DEC Server 550*

## NEW DESKTOP PRODUCTS

DECstation 210*
Intel 80286, 10MHZ
DECstation 316*
Intel 80386, 16MHZ
DECstation 320*
Intel 80386, 20MHZ

## DSRVF-BA

DEC Server 300*

## VAXstation 3100*

Model 30 Standalone Workstation Model 30 Networked Workstation Model 40 Server/Workstation

DECstation 3100/3100S*
15 " Monochrome, 8MB Diskless
$19^{\prime \prime}$ Monochrome, 8MB Diskless
19" Monochrome, 16MB Diskless
19" Color, 8MB Diskless
19" Color, 16MB Diskless
19" Color, 16 MB Internal RZ23

## Northeast <br> Minicomputer, Inc.

Sells used DEC equipment including sys tems and processors, data communication products, disk and tape drives/subsystems, terminals, workstations, output devices, and controllers.

## Northeast

## Peripherals Inc.

Provides DEC compatible peripherals including disk drives, floppy drives, tape drives, controllers, memory and tape subsystems.

## Onyx Components

Buys and sells DEC equipment including systems, tape drives, cabinets, communication devices, disk drives, memory, terminals, printers, and cluster products. Lease options available.

## PACE

- Distributes data communications equipment for ACC.
Distributor for DEC compatible data communication equipment manufactured by Advanced Computer Communications (ACC).


## Penipheral Manufacturimg, Inc.

Disk drives and tape drives, magnetic computer tape cleaner/rewinder, certifiers. Remanufactured disk packs. C.E. alignment disk packs. Recertified computer tape.

## Peripheral <br> Parts Support, lic.

Sells new and used DEC compatible equipment including disk drives and subsystems, tape drives and subsystems, terminals, workstations, printers, plotters, and controllers for the Unibus and Q-bus environments.

## Pioneer <br> Technologies Group

- Distributes electronic component parts, computer systems and peripherals Distributes for DEC, Wyse Technologies, Intel, Motorola, Mips, Maxor, Mountain Fujitsu, Western Digital, Genicom, Tektronics, Emerson, and National.
A technical sales force, integration department, and ten locations in the Mid-Atllantic, Southeast and California give Pioneer Technologies the ability to meet technological needs.


## Radgo

Sells new DEC accessories including disk packs, W/P ribbons, spare parts, boards and components, computer furniture and terminal stands.

## Relable Computer Services, lic.

Buys and sells DEC used equipment including processors, data communication devices, networking, disk and tape drives, terminals, output devices, data acquisition systems, and controllers.

## Scherers

Sells a full line of DEC equipment.

## Software Systems Technology, Inc.

- Distributes laser, bar code, solid ink, line and dot matrix printers, terminals, and modems • Distributes for DataProducts and Hewlett-Packard.
$\mathrm{S} / \mathrm{S} / \mathrm{T}$ is a full service software and hardware supplier specializing in networking, desk top publishing, office automation, and communications, both domestically and internationally.


## Soli Systems, Inc.

Buys and sells all DEC and DEC compatible hardware. Specializes in custom-configuration of VAX and MicroVAX hardware. All equipment carries a 30 day to one year warranty and is guaranteed eligible for DEC maintenance.

## South Hius Electronics

Sells DEC and DEC compatible data communication equipment, cabling systems, and power devices.

## Southern Digital Services

Sells DEC and DEC compatible equipment including systems and processors, data communication and networking devices, disk and tape drives, terminals, output devices, enclosures, and controllers.

## Susco Technology

Procurement, Inc.
Sells used DEC compatible equipment including systems and processors, data communication and networking devices, disk and tape drives, subsystems, terminals, output devices, and workstations.

## System <br> Technology Associates

Specialists in DEC compatible computer peripherals including disk/tape drives and subsystems, controllers, printers, terminals, and power products.

Tartan Techmical, Inc.

- Distributes laser printers, and memory


## products.

Tartan Technical distributes laser printers manufactured by AST Research and memory products for DEC, Sun, and MacIntosh manufactured by Camintonn Corporation, Kensington Technology, and The Advanced Ironworks.

## Technic <br> Computer Service

- Distributes printers for DataProducts.

Offers a complete line of high performance DEC compatible DataProducts printers, including laser printers, band printers, and dot matrix printers.

## Tecmimat

Tecnimat/TDS, supplying Ethernet products as components or integrated systems, specializes in premise distribution hard-
ware, LAN/LAN and LAN/WAN bridges, routers, and Network Management Systems

## The Printer Source

Specializes in selling new high speed printers including heavy duty band printers, general purpose band printers, high performance line matrix printers, and nonimpact laser printers.

## Total Tec Systems, Inc.

Supplier of new and used DEC and DEC compatible products, including systems, disk and tape drives, networking, memory, controllers, terminals, printers and enclosures.

## Trilogic

## Trifogic

Sells DEC compatible printers, controllers, data communication devices, disk drives, and tape drives.

## U.S. Computer Sources

Suppliers of Imprimis, Fujitsu, Kennedy, Cipher, Printronix, DataProducts, and Centronics equipment, as well as DEC CPUs. Domestic customer base includes the U.S. government, Fortune 500 companies, and businesses nationwide.

## U.S. <br> Resale Corporation

Buys and sells DEC Q-bus and compatible computer equipment including systems, upgrades, and peripherals.

## Ur Associates, Inc.

- Distributes data communications equipment for ACC.
Distributor for DEC compatible data communication equipment manufactured by Advanced Computer Communications (ACC).


## US Digital

Sells new and used DEC and DEC compatible equipment including terminals, disk storage subsystems, tape storage subsystems, printers, systems, and controllers.

## Leasing/Rental

## ACS

## Equipment Corporation

Sells and leases DEC equipment, specializing in VAX systems and peripherals. Features three month to three year rental terms with options to buy.

## American Diversified Capital Corporation

Rents and leases DEC and DEC compatible used equipment including data communications devices, database processors, printers, plotters, and terminals.

## Brookvale Associates

Short-term RENTAL of VAX systems and peripherals is BROOKVALE'S specialty Six and 12 month rental contracts are tailored to fit budget requirements.

## Cincinuati Beu Suppiy

Leases remanufactured DEC equipment including systems and tape drives. All equipment features a six month warranty and has been fully inspected for wear.

## Clayton

## Computer Systems

Rents and leases new and used DEC and DEC compatible hardware includingCPUs, printers, systems, subsystems, peripherals, cables, communication devices, memory, and accessories.

## COSAG

## Computer Systems

Offers DEC and DEC compatible equipment including systems, disk drives, tape drives, memory upgrades, communication controllers, printers, and terminals.

## Data Revtals \& Sales

Leases new and used DEC compatible equipment specializing in data communication devices and terminals.

## Datalease

Offers a full line of DEC and DEC compatible products including terminals, printers, disk subsystems, tape subsystems, memory, communications and accessories with rent, lease, or buy options.

## Dataware Systems Lease

Buys, sells, leases, and rents DEC and DEC compatible pheripheral equipment for the PDP, VAX, and MicroVAX systems.

## Dieital Solutions, Inc.

Offers a full line of DEC and DEC compatible products including systems, peripherals, tape drives, disk drives, memory, printers, enclosures, and cables.

## El Camino <br> Resources, Ltd.

Buys, sells, trades, rents and leases new DEC equipment that has been accepted for DEC maintenance.

## GE Computer Service

Provides short- and long-term rental and leasing of top-name PCs, computer equipment, and electronic test and measurement equipment. Also sells used equipment and computer supplies.

## LDI Technologies

DEC compatible systems, processors, data communications, networking, disk and tape drives, terminals, output devices, workstations, enclosures, and controllers.

## Lex Computer Systems

Lex Computer Systems is a nationwide resource for DEC system needs specializing in industry specific solutions. Inventory includes systems, networking, workstations, and terminals.

## LifeSense Computer

Products, Inc.
LifeSense Computer Products, Inc. buys, sells, trades and leases new and used DEC,

IBM, CDC, Emulex, and Cipher products. System configuration and large inventory of refurbished equipment available.

## Meadowlark Enterprises, Inc.

Leases new and used DEC and DEC compatible equipment including systems, tape drives, disk drives, data communication and networking products, and controllers.

## Minicomputer Exchamge

Leases DEC compatible systems, disk drives/subsystems, tape drives/subsystems, terminals, workstations, printers, plotters, and controllers.

## MTI Systems Corporation

Leases computer and data equipment for DEC, Hewlett-Packard, DataProducts, Texas Instruments, and C.Itoh.

## Multitronics

Multitronics, Inc. has been a leader in the DEC marketplace for more than ten years, providing leasing options for DEC VAX hardware, peripherals, and power conversions.

## Onyx Components

Rents and leases DEC equipment including systems, tape drives, cabinets, communication devices, disk drives, memory, terminals, printers, and cluster products.

## Transtector Systems, Inc.

Leases used DEC equipment and all equipment is eligible for DEC maintenance service.

## U. S. Leasimg

Leading financial resource for DEC customers, one of the nation's largest lessors of new DEC equipment and one of the largest suppliers of used DEC equipment to the secondary DEC market.

## SERVICES

## Abend Associates, Inc.

- Consultanting

Abend Associates, Inc. provides custom systems design and application software development using the ORACLE RDMS.

## American Digital

Technologies, Imc.

## - Timesharing

Remote or on-site usage on clusters with $11 / 780 \mathrm{~s}$, 785 s and 8 GB disk storage. Features Tymnet access, media conversions, development tools, and sales/marketing software.

## - Disaster Recovery Facility

Within 24 hours of disaster, VAX 11/780 and 785 computers are available for emergency use. Features Tymnet access, consulting services, and on-site workspaces.

## American Diversified Capital Corporation

- Disaster Recovery

Provides a hotsite computer back-up facility with VAX $11 / 780,11 / 785$, and 8600 CPUs. Offers RA81 disk drives, tri-density tape systems and high speed printers through a VAXcluster.

## - VAX Timesharing

Provides remote or on-site timesharing services via a VAXcluster including 8600 , $11 / 785$ and $11 / 780$ CPUs. Available 24 hours per day, seven days per week, on either timeshared or dedicated processors.

## Cabletron Systems, Imc.

 - ConsultingOffers a comprehensive set of integrated network services to establish and maintain an Ethernet network. Services include network planning and design, installation and start-up, training and ongoing operational support.

## Comolisco Disaster Recovery Services

- Diaster Recovery

Provides a VAX 8700 and 8810 processor with a full set of peripherals. This configuration has 12MIPS and 15GB of storage; one of the largest DEC hotsites in the world.

## Computer <br> Methods Corporation

## Consulting

Specialists in integrating VAX-toMacintsoh networks including options for document interchange (text and graphics), electronic mail, office automation, and engineering and scientific applications.

## Computer <br> Transportation Services

- Computer Transportation

Provides specialized transportation for all computer equipment via padded van or air freight.

## Continuum

Consulting, Lto.

## - Consulting

Continuum Consulting provides management, technical consulting services and software products to companies using DEC VAX/VMS systems, layered software, or any variety of commercial application products.

## Control <br> Data Corporation

## - Training

Provides on-going hands-on training in CDC's computer laboratory, including classroom instruction and individual study.

## Coptech

- Magnetic Media Duplication

Duplicates magnetic media on .5" 9-Track tape and TK-50 tape cartridges. Fast turnaround with guarantee on service.

## Data Clean Corporation

- Computer Room Cleaning

Computer room and electronic equipment cleaning specialists. Maintain computer rooms to create dirt- and dust-free environments. Also provides disaster recovery clean-up.

## Digital Dealers Association (DDA)

- Trade Association

Trade association founded in 1982 to promote an orderly secondary market for DEC products. Member benefits include educational meetings, newsletters, and other services.

## DiscopyLabs

Tape Duplication
TK50 tape duplication services include the $.5^{\prime \prime}$ cartridges, $.25^{\prime \prime}$ cartridges, $.50^{\prime \prime}$ magnetic tapes, Bernoulli cartridges and any size diskette.

## Disk Interchamge Service Company

Disk Format Conversion
DISC specializes in transferring files between incompatible computers, including mainframes, minis, micros, workstations, word processors, and other equipment. DISC supports VAX TK-50 and magnetic tape, PDP-11 floppies, disk packs and tape, DECmate, Rainbow, and others, providing over 1000 formats in all.

## Essential <br> Resources, Inc.

- Training

Essential Resources, Inc. (ERI Training) is the largest independent DEC training company in the country. The company produces and distributes the largest DEC based video course training library available. ERI Training also provides instruc-tor-led training at the customer's site as well as hotel-based seminars.

## FluTtrack <br> Learning Systems

## Training

Fliptrack, a leading publisher of audio cassette courses for business software, has courses for computer operation, word processing, spreadsheets, databases, desktop publishing and integrated software.

## Jadtec Computer Group

- Consulting

Offers training in Jadtec system installation and integration into office operations.

## Lamcom Corporation

Consulting
Consulting specialists in local and wide area networking. Products include Datability terminal server, ACC remote bridges, Retix local bridges, network accessories, and TCP/IP software and hardware.

## Lex Computer Systems

## Training

Lex Computer Systems is a nationwide resource for DEC system needs specializing in system enhancements, productivity improvements and industry specific solutions.

Consulting
Lex Computer Systems is a nationwide resource for DEC system needs specializing in system enhancements, productivity improvements and industry specific solutions.

## Meyer Software <br> - Disaster Recovery

Recovers "irrevocably" corrupt disks, mounts the unmountable, with $90 \%$ success to date, and over 4GB of data rescued.

## National <br> Computer Systems

- Disaster Recovery

National Computer System's recovery center consists of two VAX hot sites that when clustered, provide a 30MIPS processing capability with 40 GB of disk storage capacity.

## National Data Conversion Institute

## Data Conversion

Services include data translation between minis, mainframes and micros, document conversion between word processors, data conversion for databases and spreadsheets, optical scanning (OCR) to achieve high quality output for text, and typeset materials in over 2500 formats.

## Provident <br> Recovery Systems PRPOV DENT



Provident provides relocatable emergency data centers mobilized to the client site for disaster recovery. Environmentally controlled, computer ready, facilities arrive on-site to re-establish operations and communications. Keeping staff at "home" rather than at a remote location allows you to significantly reduce the cost, logistics, and trauma of a data center disaster. Provident not only delivers and installs the emergency data center, but communications, hardware replacement and multiple other phases of the recovery process. Because Provident facilities are available in 320 square foot increments up to 3500 square feet, recovery processing may be a mirror image of current data center environments, whatever the hardware requirements, rather than a scaled down "disaster mode" operation. Facilities include raised flooring, computer air conditioning, main and distributive power panels, halon, security, and diesel generators. Since 1985 Provident has serviced the data processing community with the innovative mobile data center, and continues to prove to be the most logical approach to recreating the data center operations of your company. Please call or write Mr. Kim Belk for more information on how Provident can help in the survival of a computer disaster.

## Sidlimer Computer Corporation

■ Consulting
Consultants for system configuration, management, training, and technical and software support on the VAX.

## Simpact Associates, Inc.

## - Development Training

The Software Development Toolkit provides all software, training, and support necessary for successful custom software development. It aids the user in developing custom protocol software for Simpact's ICP series of front-end communication processors. The Toolkit includes (1) a real time executive, host resident driver for VMS, RSX, or ULTRIX, (2) an ICP resident driver, (3) application templates for bit synchronous, byte synchronous, and asynchronous protocols, (4) software necessary for generation of object code for linking and downloading programs, (5) debugging tools, (6) a three-day training class for three programmers, and (7) documentation.

## Sungard

Recovery Systems

## - Disaster Recovery

Offers access to and exclusive use of DEC 8800 systems, clustered VAX configurations, remote testing support, centralized network control, state-of-the-art telecommunications capabilities, and complete contingency planning services.

## System Inoustriles

- Consulting

Provides consulting serives designed to define and improve data center management and application efficiency.

## Techmology <br> Congepts Inc.

## - Consulting

Provides voice and data communication services and software products. Specialists in connectivity, integration, and network management. Services include consulting, software engineering and educational support services.

## U. S. Professional Development Institute

## - Training

USPDI, founded in 1977, provides on-site and video/CBT training in the computer technology and federal government standards areas.

## Up Time Disaster Recovery, Inc. <br> \section*{■ Computer Disaster Recovery}

Provides contingency planning and relocatable hotsites with VAX 6300 systems in the event of disaster.

## Western Union

- Data Communications Services

Provides public electronic mail and data communication services for users of PCs, word processors, terminals, and mainframe and minicomputer systems worldwide.

## SUPPLIES

## Almetek Industries Inc.

Provides MINI-TAGS that eliminate the high cost of tracing outlines by marking wires for technicians. Non-conductive, noncorrosive and safe for fiber optic cables, LANs and voice and data line communications. Ten year warranty.

## American Computer Haroware Corporation

Sells supplies and accessories for DataProducts printers including band printers, dot matrix printers, and laser printers.

## Appled <br> Creative Technology

Manufactures "Systemizer Plus" peripheral sharing device. Features IM buffering per user, file transfer, bidirectional comminication, universal serial/parallel adapting, distributed processing. Priced at $\$ 399$.

## Appled Data Communications

Manufacturers the RDH-3.5, a $3.5^{\prime \prime}$ loader/ labeler/printer that duplicates data from flexible drives to this device for custom label printing and application.

## Compu-Cart

Compucart holds a PC system in a compact space (four square feet) and offers security. One key locks up cart and the mobility allows more than one user.

## Computer Expressions

Specializes in applying company logos to a long line of premium mouse pads. Major clients include DEC and Apple Computer. Pads are used to advertise service numbers and logos, and to list short cuts and tips. A unique process is employed instead of screening, providing nearly $300 \times 300 \mathrm{dpi}$ resolution. Clients get excellent reproduction even from sophisticated computer generated artwork. Special inks penetrate into the pad. The entire pad's surface may be imprinted, notjust a small corner. Logos are guaranteed not to peel or crack for the life of the pad. Mouse pads are available in grey, red and gold. Samples with logos are only $\$ 12.50$ and are shipped in 72 hours; 144 pads with imprinting cost $\$ 3.70$ each.


Suppliers of QUAKE GRIP, a computer fastening product that secures terminals, modems, printers, and other equipment from theft and destruction from earthquakes. Access floor lifters and bracket holds your floor lifter tool. An attractive highly visible bracket holds your floor lifter tool. Ready for any emergency.

## Datacover Imc.

Manufactures hard plastic covers for MicroVAX and VAX CPUs, disk drives and power switches. Designed to protect exposed switches from accidental shutdown. Over 150 different types available for most computers and peripherals.

## GE Computer Supplies

GE Computer Supplies sells computer supplies for a broad range of computers and multivendor computer systems.

## Jensen Tools, Inc.

Provides specialty tools, tool kits, test equipment, and supplies used by electronic technicians, and communication service personnel.

## MESA Technology Corporation

Complete printer supplies for all major manufacturers including ribbons, laser toner, cartridges, drums, plotters, thermal and ink jet printers, magnetic diskettes, and tape and optical media.

## Misco

Offers 24 hour shipment for over 2500 computer supplies and accessories. Products include magetic media, furniture, printer supplies and data communications equipment.

## Optical Coating Laboratory Inc.

Manufactures the Glare/Guard Profile, an optically coated tempered glass that fits over a DEC 220 or compatible screen. Reduces glare, flicker, static and VLF radiation. Enhances contrast and resolution.

## Samsung Semiconductor

Manufactures a FIFO dual port buffer memory for use in high-speed, high end computers and communication systems.

## Sprague Magnetics, Inc.

Offers new and refurbished computer supplies and accessories including magnetic tape heads, disk heads, printheads, and head disk assemblies. Also features replacement components such as AC/DC motors, capstans, filters, spindles, and printed circuit boards.

## Sunflex Company

TheSunflex Voltfree Filter is the industryleading, premium quality microfiber VDT filter. It reduces glare and reflections, eliminates static, enhances contrast and reduces VLF (very low frequency) emissions. Available in Behind-The-Bezel, custom conforming or Front Plate styles to fit any DEC VDT. Prices from $\$ 69.99$ to \$149.00.

## Synctronics

Maximize your software investment with custom computer key sets that display any symbol, language, code, or legend. Compatible with DEC, IBM, WYSE, COMPAQ and other systems. Supports software including WordPerfect, MASS-11, and WPS + on VT200 and VT300 Series keyboards.

Peripheral Manufacturing, Inc. PERIPHERALS


Manufactures new and repairs disk packs and magnetic computer tape. C. E. alignment disk packs. Disaster recovery of tape and disks. On-site cleaning and inspection of disk packs and computer tape.


Data tape with ten year warranty. Special "ARCHIVAL STORAGE TAPE" for security of valuable information. Thirty year warranty. Cleaning/ceritfication on-site available.


Reduce job aborts. Increase tape life. Microprocessor base controlled. Self-diagnostics. Archival wind. Many options available. Certifiers fortesting 1600/ 6250. Purchase, lease or rent.

## Tartan Techinical, Inc.

Manufactures Sprint It, a printer accelerator that is a transparent buffered DMA device which uses available VMS drivers to reduce the print job loads on the MicroVAX.

## Texwipe

Manufactures products for cleaning and maintaining automated office and data processing equipment, including supplies that remove CRT dust and printer ribbon ink.

## The Cylux Corporation

Manufactures surge protection for all communication lines including LANs, Ethernet, RS232/RS422, dedicated lines, dial-up, and high energy lines with nanoseconds response time. Features state-of-the-art protection for all voice data and signal applications regardless of interface type.

## Time Motion Tools

Provides quality field service tools and tool kits including voice and data communication and telecommunication equipment, static control products, production aids, and test equipment.

## System Integrators/

 OEMs/NARs
## Almac Electronics

Provides integration and networking solutions for UNIBUS, Q-bus and BIbus architectures and offers a full line of DEC compatible products including disk and tape subsystems, terminals, workstations, output devices and controllers.

## Arrow Electronics, Inc.

Provides standard integration packages that incorporate Trimm Industries tower or full-rack cabinets, removeable 5.25 ' chassis from MDB Systems, and Imprimis disk drives. All subsystems are equipped with DEC compatible DILOG controllers.

## Cambridge Automation

Offers custom configurations of new VAX, MicroVAX, and PDP-11 systems including memory, disk and tape storage, processors, and software. Fully integrated and tested prior to shipment. System pricing starts at $\$ 8,000$ and subsystem pricing starts at \$2,000.

## Clayton <br> Computer Systems <br> 

Offers new and used DEC and DEC compatible hardware including CPUs, printers, systems, subsystems, peripherals, cables, communication devices, memory and accessories

## Combustion

 Emgimeerimg, Inc.Provides complete turnkey information based solutions for multicomputer equipment, operating systems and application software

## Compu-Share Busimess Management Systems <br> Compu-Share

Value added reseller for DEC hardware that accommodates accounting systems, distribution systems, and integrated accounting/distribution systems software packages.

## Computer Clearimg House

Provides DEC compatible integration of processors, networking, communication, disk and tape subsystems, output devices, and controllers for the UNIBUS, Q-bus and BIbus environments.

## Computer Locistics Inc.

Integrates processors, disk drives and subsystems, and tape drives and subsystems for Q-bus, UNIBUS, Sun and Apple environments.

## CPU Options

Offers fully trained and experienced engineers, tested and carefully packaged equipment, and systems configured for specific needs.

## Datalease

Provides integration of a full line of DEC and DEC compatible products including terminals, printers, disk subsystems, tape subsystems, memory, communications, and accessories.

## DEX Corporation

Provides integration of DEC compatible disk and tape drives from manufacturers including Fujitsu, Toshiba, DILOG, Spectra Logic, and CIPHER.

## Digital Accessories, Imc.

Digital Accessories markets a variety of disk and tape subsystems for DEC and Sun computer systems, optical disks, wireless modems and DEC compatible subsystems.

## Digital Basics, Inc.

Provides integration of DEC and DEC compatible workstations, disk subsystems, memory, tape drives, and controllers. Provides cost effective, reliable solutions to configuration requirements.

## Eakins Associates, Inc.

Specializes in integrating DEC compatible products including disk and tape subsystems, Ethernet soultions, memory, communications, X Window display stations and terminals for VAX and MicroVAX environments. Services all products.

## Glasgal <br> Communications, Imc.

Integrates a full line of advanced data communication and networking products including LANs, modems, fiber optic devices, multiplexers, security equipment, voice and data integration, T-1 devices and cables.

## Grumman Data Systems

Integrates large scale information systems including military, commercial, adminisrative, and financial applications. Specializes in adapting commercial hardware and software for DoD and industrial manu facturing requirements.

## L.A. Cable Connection

Authorized Level III value added reseller for 3Com, specializing in electronic printer sharing devices and A-B switches.

## Lex Computer Systems

Lex Computer Systems is a nationwide resource for DEC system needs specializng in system enhancements, productivity mprovements and industry specific solutions.

## LIOCS Corporation

LIOCS offers a full range of support services including pre-installation consultation, conversion and implementation planning, user training, and post-installation assistance. Since 1975, LIOCS has been
marketing DEC products and services in conjunction with its own application software expertise.

## Maxcomp Computers, Inc.

Maxcomp Computers, Inc., is a system integrator for DEC and Motorola systems, including disk and tape subsystems for DEC, Motorola, and Sun Microsystems.

## Mincomputer Exchange

Integrates DEC compatible systems, disk drives and tape drives/subsystems, terminals, workstations, printers, and controllers. Lease options available.

## MOD-TAP System MOD-TAP.

Offers full integration of cabling and wiring communication systems that are compatible within UNIBUS, Q-bus, and BIbus environments.

## MTI Systems <br> Corporation

Integrates DEC and DEC compatible equipment including systems, data communications, networking devices, printers, and disk and tape storage systems.

## Nevada Westerm

Specializes in "corporate" data and voice network systems. Designs, manufactures, and distributes a complete family of interconnection devices.

## Peritek Corporation

Peritek offers a full line of standard alpha and graphics display controllers, as well as DMA and floppy disk controllers to DEC OEMs. Peritek will be pleased to quote on custom and modified products as well.

## Quadrex <br> Computer Systems

Provides CIM consulting services, advanced supervisory control and data ac quistion software, computer systems and networking selection, custom interface development, and system installation for process industries.

## Sidlinger

## Computer Corporation

Integrates VAX based systems for law firms with all functions including time billing and expense, accounting, payroll, docket, database, and word processing

## Software Systems Technology, Inc.

$\mathrm{S} / \mathrm{S} / \mathrm{T}$ is a full service software and hardware supplier, specializing in networking, desktop publishing, office automation and communications, both domestically and internationally.

## Solid Computer Power

Solid Computer Corporation markets 2-D and 3-D CAD/CAM workstations to the manufacturing, engineering, and architec-
tural industry. A full service company Solid Computer offers everything from installation and training to upgrades and support.

## Sutable Soutuions

Designs and manufactures DEC Rainbow enhancement products, including a 12 MHz accelerator board, a 1 MB memory board, a clock/calendar board, an IBM compatible flexible drive, and more.

## Tecmimat

Specialists in the design, engineering, installation, and service of data communication components and systems, LAN sys tems, and cable systems, including twisted pair, fiber optics, and coax. Provides Ethernet products as components or integrated systems, specializing in premise distribu tion hardware, LAN/LAN, and LAN/WAN bridges, routers, and network management systems.

## Thomas

Business Systems, Inc.
Buyer and seller of surplus DEC computer hardware. Deals in systems and peripherals, memory products and terminals for VAX, MicroVAX and PDP-11 systems.

## Total Tec Systems, Inc.

Specializes in system integration of DEC and DEC compatible equipment, includ ing disk and tape drives, networking/communications, memory, controllers, terminals, printers, optical disks and enclosures.

## Unicom Electric

Provides the Optimum Wiring Solution utilizing twisted pair technology for coaxial and RS232 voice and data wiring systems. Handles the integrated distribution for multi-story buildings, shared tenant services, campus environments, and local area networking.

## Universal Computing

System integtators for over ten years for aerospace and military systems in the following areas: (1) high rate continuous data acquistion, (2) real time array and signal processing, (3) parallel processing architectures, (4) graphics and imaging, and (5) heterogeneous computer networks. The following system solutions have been provided per customer specification: (1) beamforming and tracking algorithms, (2) filtering and Fourier transform analysis, (3) noise and distortion analysis, (4) medical, landsat and infrared imaging, (5) image warping and classification, (6) real time video imaging, (7) synthetic and inverse synthetic aperture radar, and (8) local area networking and distributed processing. Universal Computing customers include: Boeing, Burroughs, GD, Hughes, JPL, Litton, Lockhead, Motorola, Rockwell, Schlumberger, TRW, the U. S. Navy and more.

## Wilco International

Wilco, a multinational DEC OEM provides a full range of DEC services around the world, including both software and hardware maintenance, disaster recovery (DEC restart) and educational services

A
3COM CORPORATION
3165 Kifer Road
Santa Clara, CA 95052
408 562-6400
-Communication Processors
-Communication Servers ${ }^{-}$Switching
Devices ${ }^{-N e t w o r k i n g ~ I n t e r f a c e s ~}$

## 3M CORPORATION

8200 Highwood
Minneapolis, MN 55438 800 888-1889 • 612 736-3094
-Tape Drives

## ABACUS CONTROLS, INC.

80 Readington Road Somerville, NJ 08876
201 526-6010
-UPS Systems
ABEND ASSOCIATES, INC.
265 Winn Street
Suite 305
Burlington, MA 01803
617 273-5383
-Services

## ABLE COMPUTER

2567A SE Main Street
Irvine, CA 92680
714 553-1188
-Modems ${ }^{\circ}$ Communication Servers
-Communication Controllers •Host
Adapters ©Switching Devices $\bullet$ Terminal Servers $\bullet$ Networking Interfaces $\bullet$ Printer Controllers

ACCEL TECHNOLOGIES, INC.
6825 Flanders Drive
San Diego, CA 92121
619 695-2000
-Database Processors
ACCU-TECH CABLE, INC.
645 Hembree Parkway
Roswell, GA 30076
800 221-4767 • 404 751-9473
-Wiring Systems and Cables
ACER COUNTERPOINT, INC.
2127 Ringwood Avenue
San Jose, CA 95131
408 434-0190
-X Window Terminals

## ACS EQUIPMENT CORPORATION

26319 I 45 N
The Woodlands, TX 77380
800 288-1846 • 713 363-9126
-Distributors \& Resellers -Leasing/Rental

## ACTIVE MEMORY TECHNOLOGY

26802 Aston Street
Suite 103
Irvine, CA 92714
714 261-8901
-CPU Systems

## ADAC CORPORATION

70 Tower Office Park Woburn, MA 01801
617 935-6668
-CPU Systems ${ }^{-}$Specialized Systems - Terminal Servers •Analog-to-Digital Conversion •Analog I/O •Digital-toAnalog Conversion •Timing Devices - Special Function Boards

ADEPT DIGITAL SYSTEMS, INC.
2381 Zanker Road
\#150
San Jose, CA 95131
408 435-9151
-Optical Subsystems •Special Function
Boards
ADVANCED COMPUTER
COMMUNICATIONS (ACC)
720 Santa Barbara Street
Santa Barbara, CA 93101
805 963-9431
-Communication Processors ${ }^{\circ}$ Ethernet Devices $\bullet$ Networking Interfaces

## ADVANCED DATA

SUPPORT SYSTEMS
217 Mount Vernon Avenue
Bakersfield, CA 93307
805 327-2118
-Maintenance
ADVANCED ELECTRONICS
DESIGN, INC. (AED)
440 Potrero Avenue
Sunnyvale, CA 94086-3632
800 538-1730 • 408 733-3555
$\bullet$ Graphics Terminals
ADVANCED MATRIX
TECHNOLOGY, INC.
1157 Tourmaline Drive
Newbury Park, CA 91320
805 499-8741
-Dot Matrix Printers
ADVANCED TECHNOLOGIES
INTERNATIONAL
355 Sinclair-Frontage
Milpitas, CA 95035
408 942-1780

- Laser Printers $\bullet$ Printer Controllers

ADVANCED TECHNOLOGY CENTER
5711 Slauson Avenue \#2
Culver City, CA 90230
213 568-9119
-Graphics Controllers
ADVANCED VISION RESEARCH
2201 Qume Drive
San Jose, CA 95131
408 434-1115

- Printer Controllers

AEON SYSTEMS, INC.
8401 Washington Place
Albuquerque, NM 87113
505 828-9120
-Special Function Boards
AGFA-GAVEART
90 Industrial Way
Wilmington, MA 01887
617 658-5600

- Laser Printers


## ALANTEC

101 Hammond Avenue
Fremont, CA 94539
415 770-1050
-Switching Devices ${ }^{\bullet}$ Ethernet Devices
ALGO, INC.
9198-C Red Branch Road
Columbia, MD 21045
301 730-7442
$\bullet$ Multiplexers
ALLIANT COMPUTER
SYSTEMS COMPANY
One Monarch Drive
Littleton, MA 01460
508 486-1451
-Graphics Terminals

ALLIED TELESIS, INC.
627 National Avenue
Mountain View, CA 94043
415 964-2771
-Ethernet Devices ${ }^{-M o n i t o r i n g ~ \& ~ T e s t ~}$ Devices

ALMAC ELECTRONICS
14360 SE Eastgate Way
Bellevue, WA 98007
206 643-9992

- System Integrators

ALMETEK INDUSTRIES INC.
2 Joy Drive
Hackettstown, NJ 07840
201 850-9700
-Supplies
ALPHA DATA, INC
Mass Memory Technologists
20750 Marilla Street
Chatsworth, CA 91311-4488
818 882-6500
-Disk Drives

## ALPHATRONIX

4900 Prospectus Drive
Suite 1000
Research Triangle Park, NC 27709
919 544-0001
-Optical Subsystems
ALPS AMERICA
3553 North First Street
San Jose, CA 95134
408 432-6000•800 828-2577
-Dot Matrix Printers

## AMERICAN

COMPUTER ENGINEERS
11175 Flintkote Avenue
San Diego, CA 92121
619 587-9002
$\bullet$ Maintenance

## AMERICAN COMPUTER

HARDWARE CORPORATION
2205 S. Wright Street
Santa Ana, CA 92705
714 549-2688
$\bullet$ Distributors \& Resellers ©Supplies

## AMERICAN DATA

SYSTEMS MARKETING
53 Elderwood Drive
Stoughton, MA 02072
617 341-0171
$\bullet$ Disk Subsystems •Tape Subsystems
AMERICAN DIGITAL
SYSTEMS, INC.
490 Boston Post Road
Sudbury, MA 01776
508 443-7711
$\bullet$ Disk Drives ${ }^{-D i s k ~ S u b s y s t e m s ~ \cdot T a p e ~}$ Drives

AMERICAN DIGITAL
TECHNOLOGIES, INC.
23041 Avenida De La Carlota
Suite 210
Laguna Hills, CA 92653
714 583-2930
-Distributors \& Resellers ©Services

## AMERICAN DIVERSIFIED

CAPITAL CORPORATION
3200 Park Center Drive
Costa Mesa, CA 92626
800 426-5890 • 800 345-2265 (CA)
-Distributors \& Resellers ${ }^{\text {S Services }}$
$\bullet$ Leasing/Rental

AMF GEOSPACE CORPORATION
7334 N. Gessner Street
Houston, TX 77040
713-666-1611
-Miscellaneous Printers
ANALOGIC CORPORATION
Computing Systems Group 8 Centennial Drive
Peabody, MA 01961
508 977-3000 • 800 237-1011
$\bullet$ Array Processors $\bullet$ Analog-to-Digital Conversion

## ANASCO CORPORATION

42A Cherry Hill Drive
Danvers, MA 01923
508 777-8888
UPS Systems
ANDATACO
10054 Mesa Ridge Court
Suite 102
San Diego, CA 92121
619 453-9191 • 800 334-9191

- Distributors \& Resellers

ANDROMEDA SYSTEMS, INC.
9000 Eton Avenue
Canoga Park, CA 91304
818 709-7600
-Disk Controllers

## ANTHEM TECHNOLOGY SYSTEMS

2157 O'Toole Avenue
Suite 100
San Jose, CA 95131
800 451-5441 • 408 943-6630
Distributors \& Resellers
APOLLO COMPUTER, INC.
330 Billerica Road
Chelmsford, MA 01824
508 256-6600
Laser Printers
APPLE COMPUTER, INC.
20525 Mariani Avenue
MS: 36-Z
Cupertino, CA 95014
408 996-1010 • 408 252-2775
-Laser Printers
APPLIED CREATIVE TECHNOLOGY
8333 Douglas Avenue
\#700
Dallas, TX 75225
214 739-4200 • 800 433-5373
-Supplies
APPLIED DATA COMMUNICATIONS
14272 Chambers Road
Tustin, CA 92680
714 731-9000
-Tape Drives ${ }^{-S u p p l i e s}$

## APPLIED DIGITAL DATA SYSTEMS

A Subsidiary of NCR
100 Marcus Blvd.
Hauppauge, NY 11788
516 231-5400
-Display Terminals
APPLIED DIGITAL SYSTEMS
30 State Street
Fairport, NY 14450
716 377-7000
-Tape Subsystems
APPLIED INNOVATION, INC.
651 Lakeview Plaza Blvd.
Suite C
Columbus, OH 43085
614 846-9000 • 800 247-9482
-Switching Devices

APTEC COMPUTER SYSTEMS，INC．
P．O．Box 6750
Portland，OR 97228
503 626－9000 • 800 552－7832
－Specialized Systems $\bullet$ Disk Subsystems
AQUIDNECK
SYSTEMS INTERNATIONAL
650 Ten Rod Road
North Kingstown，RI 02852
401 295－2691
$\bullet$ Disk Subsystems •Optical Subsystems

## ARISTO GRAPHIC CORPORATION

5 Emery Avenue
Randolph，NJ 07869
201 366－7000
－Graphics Terminals
ARIX CORPORATION
821 Fox Lane
San Jose，CA 95131
408 922－8478
－CPU Systems
ARROW ELECTRONICS，INC．
25 Hub Drive
Melville，NY 11747
516 391－1300 • 516 391－1544
$\bullet$ Distributors \＆Resellers $\bullet$ System Integrators

## ASTRONAUTICS

CORPORATION OF AMERICA
4115 N．Teutonia Avenue
Milwaukee，WI 53209－6731
414 447－8200
－Multiplexers $\bullet$ Modems
AT\＆T INFORMATION SYSTEMS
100 Southgate Parkway
Morristown，NJ 07960
201 898－8000 •201 898－8229
－Display Terminals
AT\＆T MICROELECTRONICS
111 Speen Street
Point West Place
Framingham，MA 01701
508 626－3729
－UPS Systems
AT\＆T PARADYNE CORPORATION
8550 Ulmerton Road
P．O．Box 1347
Largo，FL 34294－1347
813 530－2000 • 800 482－3333
$\bullet$ Multiplexers $\bullet$ Modems $\bullet$ Monitoring \＆ Test Devices

## ATLAS ENERGY SYSTEMS

16872 Milliken Avenue
Irvine，CA 92714
714 863－0900
$\bullet$ UPS Systems
AUGAT，INC．
Interconnection Systems Group
40 Perry Avenue
Attleboro，MA 02703
617 222－2202
－Special Function Boards
AVALON COMPUTER SYSTEMS
425 E．Colorado Blvd．
\＃710
Glendale，CA 91205
818 247－2216
－Special Function Boards
AVIV CORPORATION
26 Cummings Park
Woburn，MA 01801
617 933－1165
－Switching Devices ${ }^{-D i s k}$ Subsystems $\bullet$ Optical Drives $\bullet$ Optical Subsystems －Disk Controllers •Tape Subsystems Tape Controllers

AXONIX CORPORATION
2257 S 1100 E
Salt Lake City，UT 84106
801 466－9797
－Dot Matrix Printers
AYDIN CONTROLS
414 Commerce Drive
Ft．Washington，PA 19034
215 542－7800
－Graphics Terminals

## B

BARCOMP，INC．
18226 W．McDurmott Street Suite D
Irvine，CA 92714
714 863－0901
－Bar Code Readers
BEAVER ELECTRONIC
LABORATORY，INC．
P．O．Box 202
Kingston，MA 02364
617 585－5666
UPS Systems
BECKMAN INDUSTRIAL
630 Puente Street
Brea，CA 92621
714 671－4822
$\bullet$ Monitoring \＆Test Devices
BEHLMAN ENGINEERING
1142 Mark Avenue
Carpinteria，CA 93013
805 684－8311
－UPS Systems
BELDEN WIRE AND CABLE
P．O．Box 1980
Richmond，IN 47375
317 983－5200
－Wiring Systems and Cables
BELKIN COMPONENTS
14550 S．Main Street
P．O．Box 3978
Gardena，CA 90247－7540
213 515－7585
800 223－5546
－Wiring Systems and Cables
BELL \＆HOWELL COMPANY
Document Management Products Division
6800 McCormick Road
Chicago，IL 60645－2797
312 675－7600
－Graphics Terminals
BELL ATLANTIC DATA
8400 Normandale Lake
Suite 1600
Bloomington，MN 55437
612 896－1400
－Distributors \＆Resellers
BEST POWER TECHNOLOGY，INC．
P．O．Box 280
Route 1
Necedah，WI 54646
800 356－5794 • 608 565－7200 UUPS Systems

BGL TECHNOLOGY CORPORATION
438 Constitution Avenue
Camarillo，CA 93010
805 987－7305
－Laser Printers
BICC DATA NETWORKS，INC．
1800 West Park Drive
Westborough，MA 01581
508 898－2422
－Multiplexers ${ }^{\circ}$ Ethernet Devices

BISCOM，INC．
85 Rangeway Road
Billerica，MA 01821
508 670－5521
－Specialized Systems
BIT 3 COMPUTER CORPORATION
8120 Penn Avenue S
Minneapolis，MI 55431
612 881－6955
－Host Adapters
BIZCOMP CORPORATION
532 Mercury Drive
Sunnyvale，CA 94086
408 733－7800
－Modems
BLACK BOX CORPORATION
Mayview Road at Park Drive
Lawrence，PA 15055
412 746－5500
412 746－6685
$\bullet$ Multiplexers $\bullet$ Modems $\bullet$ Terminal
Servers •Ethernet Devices •Wiring
Systems and Cables
BO－SHERREL COMPANY，INC．
36133 Niles Blvd．
Fremont，CA 94536
415 792－0354
－Multiplexers •Modems

## BOMARA

Three Courthouse Lane
Chelmsford，MA 01824
508 452－2299
－Distributors \＆Resellers
BROOKVALE ASSOCIATES
265 Oser Avenue
Hauppauge，NY 11788
516 273－7777
$\bullet$ Distributors \＆Resellers •Leasing／ Rental
Additonal Sales Office：
1495 NW Gilman Blvd
Issaquah，WA 98027
206 392－9878

## BRUNING COMPUTER GRAPHICS

777 Arnold Drive
Martinez，CA 94553
415 372－7568
$\bullet$ Pen Plotters
BTI
45－120 San Pablo
Suite 2 F
Palm Desert，CA 92260
619 341－7332
619 345－6244
－Maintenance
BULL PERIPHERALS
CORPORATION
303 Wyman Street
Waltham，MA 02154
617 890－5200
$\bullet$ Magnetography Printers
BURR－BROWN
P．O．Box 11400
Tucson，AZ 85734
602 746－1111
－Display Terminals
BUSINESS SECURITY SYSTEMS
25 East Frisco
Suite 200
St．Louis，MO 63119
314 962－4446
－Security Systems
\＆C TECHNOLOGY，INC
245 W Roosevelt Road
Building 9 Unit 60
West Chicago，IL 60185
312 231－0015
－Networking Interfaces
C．D．SMITH \＆ASSOCIATES，INC．
12605 East Freeway
Houston，TX 77015
713 451－3112
－Distributors \＆Resellers
C．H．SYSTEMS，INC．
13914 Bora Bora Way
Marina del Rey，CA 90292
213 305－9341
－Security Systems
C．ITOH ELECTRONICS，INC．
2505 McCabe Way
Irvine，CA 92714
714 757－4485 • 714 660－1421
$\bullet$ Graphics Terminals $\bullet$ Display Terminals
－Laser Printers •Dot Matrix Printers
－Electrostatic Plotters •Ion Deposition
Printers
CABCO INC
140 Arona Road
Irwin，PA 15642
412 864－3400
－Wiring Systems and Cables

## CABLE MANAGEMENT

SYSTEMS，INC．
3100 W．Warner Avenue \＃11
Santa Ana，CA 92704－5331
714 662－0664
－Wiring Systems and Cables
CABLETRON SYSTEMS，INC．
10 Main Street
P．O．Box 6257
E．Rochester，NH 03867
603 332－9400
－Ethernet Devices $\bullet$ Monitoring \＆Test Devices ${ }^{-}$Services

CALCOMP，INC．
A Lockheed Company
2411 W．La Palma Avenue
P．O．Box 3250
Anaheim，CA 92801
714 821－2100
－Workstations ${ }^{\circ}$ Electrostatic Plotters
－Pen Plotters $\bullet$ Thermal Transfer Printers
CALIFORNIA BOARDS
4030 Spencer Street
Torrance，CA 90503
213 542－3000
－Distributors \＆Resellers

## CALTRONIX

1020 Lehigh Station
Henrietta，NY 14467
716 359－3780
$\bullet$－Maintenance

## CAMBRIDGE AUTOMATION

119 Braintree Street
Boston，MA 02134
617 254－6666
－System Integrators
CAMINTONN CORPORATION
2121 Alton Avenue
Irvine，CA 92714－4992
714 553－0247
－Multiplexers ${ }^{\circ}$ Communication
Controllers ${ }^{\circ}$ Memory Boards ${ }^{\circ}$ Laser
Printers ${ }^{\circ}$ Graphics Controllers ${ }^{\circ}$ Special
Function Boards

CANOGA-PERKINS
21012 Lassen Street Chatsworth, CA 91311-4241 818 718-6300 $\bullet$ Multiplexers $\bullet$ Modems ${ }^{\circ}$ Ethernet Devices ${ }^{-}$Monitoring \& Test Devices

CANON USA, INC.
One Canon Plaza
Lake Success, NY 11042
516 488-6700

- Laser Printers


## CARLSON

COMPUTER INTERNATIONAL
3534 E. Sunshine Hwy
Springfield, MO 65804
417 887-1907 • 800 548-7073
-Distributors \& Resellers
CARN INDUSTRIES, LTD.
15 Hale Street
Haverhill, MA 01830
508 373-0026
$\bullet$-Maintenance
CASAT TECHNOLOGY, INC.
10 Northern Blvd. Unit 5
Amherst, MA 03031
603 880-1833
-Ethernet Devices
CASE/DATATEL
55 Carnegie Plaza
Cherry Hill, NJ 08003
800 424-4451
-Multiplexers •Modems $\bullet$ X. 25 PAD
Processors ${ }^{\circ}$ Monitoring \& Test Devices
CENTURY COMPUTER MARKETING
4755 Alla Road
Marina Del Rey, CA 90292
213 827-0999
$\bullet$ Distributors \& Resellers •Maintenance
CENTURY DATA SYSTEMS
1270 N. Kraemer Blvd.
Anaheim, CA 92806
714 632-7500
-Disk Drives
CERMETEK MICROELECTRONICS
1308 Borregas Avenue
Sunnyvale, CA 94088
800 862-6271 • 408 752-5000
$\bullet$ Modems ${ }^{\bullet}$ Graphics Terminals
CHI CORPORATION
26055 Emery Road
Cleveland, OH 44128
216 831-2622
-Display Terminals
CHIPCOM CORPORATION
195 Bear Hill Road
Waltham, MA 02154
617 890-6844
$\bullet$ Ethernet Devices
CHRISLIN INDUSTRIES, INC.
31332 Via Colinas
Westlake Village, CA 91362
818 991-2254
-Memory Boards
CHROMATICS
2558 Mountain Industrial Blvd.
Tucker, GA 30084-3893
404 493-7000
-Graphics Terminals
CINCINNATI BELL SUPPLY
1022 Kenner Street
Cincinnati, OH 45214
513 579-8200
-Distributors \& Resellers •Maintenance
-Leasing/Rental

CIPHER DATA PRODUCTS, INC.
9715 Business Park Avenue
San Diego, CA 92131
619 693-7084
-Tape Drives
CISCO SYSTEMS, INC.
1350 Willow Road
P.O. Box 475

Menlo Park, CA 94026
800 553-NETS • 415 326-1941
-Communication Processors ${ }^{-}$Terminal
Servers $\bullet$ Ethernet Devices $\bullet$ Networking Interfaces

CITIZEN AMERICA CORPORATION
2401 Colorado Avenue Santa Monica, CA 90404
213 453-0614
-Dot Matrix Printers
CLARY CORPORATION
320 W. Clary Avenue
San Gabriel, CA 91776-1306
818 287-6111
-UPS Systems
CLAYTON COMPUTER SYSTEMS
271-I Opportunity Street
Sacramento, CA 95838
916 925-5727
-Distributors \& Resellers •Leasing/ Rental eSystem Integrators

CLEARPOINT RESEARCH CORPORATION
35 Parkwood Drive
Elmwood Industrial Park
Hopkinton, MA 01748
800 253-2778 • $508435-2000$
-Memory Boards
CMD TECHNOLOGY, INC.
3851 South Main Street
Santa Ana, CA 92707
714 549-4422
800 426-3832
$\bullet$ Host Adapters •Disk Subsystems •Disk Controllers

CMS ENHANCEMENTS, INC.
1372 Valencia Avenue
Tustin, CA 92680
714 259-9555
$\bullet$ Disk Subsystems $\bullet$ Disk Controllers
-Tape Subsystems ${ }^{-T a p e}$ Controllers
COASTCOM
2312 Stanwell Drive
P.O. Box 27068

Concord, CA 94527
415 825-7500
-Multiplexers
CODAR TECHNOLOGY, INC.
Computer Products Division
1500 Kansas Avenue
Bldg. 2E
Longmont, CO 80501
303 776-0472
-Specialized Systems •Disk Subsystems
-Tape Subsystems

## CODEX CORPORATION

Maresfield Farm
7 Blue Hill River Road
Canton, MA 02021-1097
617 364-2000
617 364-5662
-Specialized Systems ${ }^{\bullet}$ Multiplexers $\bullet$-Modems

## CODONICS INC.

18001 Englewood Drive
Middlesburg Heights, OH 44130 216 243-1198
-Graphics Terminals •Hard Copy Units

COLORGRAPHIC
COMMUNICATIONS CORPORATION
5388 New Peachtree Road
Atlanta, GA 30341
404 455-3921
-Workstations ${ }^{\circ}$ Graphics Terminals
COMBUSTION ENGINEERING, INC.
Information Management Services
900 Long Ridge Road
P.O. Box 9308

Stamford, CT 06904
203 285-4782

-     - $y$ ystem Integrators

COMDISCO DISASTER
RECOVERY SERVICES
6400 Shafer Court
Rosemont, IL 60018
312 698-3000

- Services

COMM/SCOPE, INC.
1375 Lenoir-Rhyne Blvd.
Hickory, NC 28602
800 982-1708
704 324-2200
-Wiring Systems and Cables
COMMNETICS, INC.
148 Linden Street S.
Wellesley, MA 02181
617 237-5860
-Communication Processors
COMMUNICATION
MACHINERY CORPORATION (CMC)
125 Cremona Drive
Santa Barbara, CA 93117
805 968-4262
-Communication Controllers $\bullet$ Terminal
Servers ${ }^{\circ}$ Ethernet Devices

## COMMUNICATIONS

TEST DESIGN, INC.
Goshen Corporate Par
1373 Enterprise Drive
West Chester, PA 19380
800 223-3910 •215 436-5203
-Maintenance
COMPU-CART
107 N Roma Avenue
Tampa, FL 33601-2095
800 237-9024 • 813 251-2431
-Supplies
COMPU-SHARE BUSINESS
MANAGEMENT SYSTEMS
5214 68th Street
Lubbock, TX 79424
800 356-6568 • 806 794-1400
-VARs
COMPUREX SYSTEMS INC.
P.O. Box 117

75 Tosa Drive
Stoughton, MA 02072
800 426-5499 • 617 344-8600
$\bullet$ Distributors \& Resellers

## COMPUTER

ACCESSORIES CORPORATION
6610 Nancy Ridge Drive
San Diego, CA 92121
619 457-5500
$\bullet$ UPS Systems $\bullet$ Power Conditioners
COMPUTER CLEARING HOUSE
246 Commerce Drive
Rochester, NY 14623
716 334-0550
-Distributors \& Resellers ©System
Integrators

## COMPUTER DATACO

2020 Charlotte
Kansas City, MO 64108
800 821-5003
816 221-1212
-Distributors \& Resellers
COMPUTER DESIGN
\& APPLICATIONS, INC.
411 Waverly Oaks Road
Waltham, MA 02154
617 647-1900
-Database Processors ${ }^{\circ}$ Graphics
Terminals
COMPUTER EXPRESSIONS
3833 Chestnut Street
Philadelphia, PA 19104
215 222-4400
-Supplies
COMPUTER LOGISTICS INC.
3401 E. La Palma Avenue
Anaheim, CA 92806
714 630-6435

- System Integrators

COMPUTER MANAGEMENT
20 Waterside Plaza
New York, NY 10010
212 683-0606
-Distributors \& Resellers

## COMPUTER

METHODS CORPORATION
525 Route 73 South
Suite 300
Marlton, NJ 08053
609 596-4360
-Services
COMPUTER POWER PRODUCTS
227 E. Compton Blvd.
Gardena, CA 90248
213 323-1231 • 800 421-6102
$\bullet$ UPS Systems •Power Distribution
Controllers
COMPUTER POWER, INC.
124 W Main Street
High Bridge, NJ 08829
800 526-5088 •201 638-8000
$\bullet$ UPS Systems •Power Conditioners
COMPUTER PRODUCTS, INC.
Measurement \& Control Division
2900 Gateway Drive
Pompano Beach, FL 33069
305 974-5500

- Specialized Systems •Multiplexers
$\bullet$ Modems $\bullet$ Terminal Servers $\bullet$ Printer
Controllers $\bullet$ Timing Devices


## COMPUTER

TRANSPORTATION SERVICES
107 Main Street
Breda, IA 51436
800 831-0030 • 712 673-2354
-Services

## COMPUTER

UPGRADE CORPORATION
2910 E. La Palma Avenue
Anaheim, CA 92806
714 630-3457
$\bullet$ Disk Subsystems $\bullet$ Optical Drives
$\bullet$ Optical Subsystems
COMPUTROL
239 Ethan Allen High
Ridgefield, CT 06877
203 431-2000
$\bullet$-Modems

COMSPEC, INC.
2313 West Belt North
Houston, TX 77043
713 461-4487
$\bullet$-Modems
CONSTANTINE ENGINEERING LABS
70 Constantine Drive
Mahwah, NJ 07430
201 327-1123

- Miscellaneous Printers

CONTEMPORARY
CYBERNETICS GROUP, INC.
11830 Canon Blvd.
Newport News, VA 23606
804 873-0900
-Tape Subsystems •Distributors \&
Resellers
CONTINENTAL RESOURCES
175 Middlesex Turnpike
Bedford, MA 017301469
800 343-4688
617 275-0850
-Distributors \& Resellers
CONTINUUM CONSULTING, LTD.
19125 N. Creek Parkway
Bothell, WA 98011
206 485-4357

- Services

CONTROL CABLE
7261 Ambassador Road
Baltimore, MD 21207
301 298-4411
-Distributors \& Resellers
CONTROL DATA CORPORATION
8100 34th Avenue
Bloomington, MN 55440
612 851-4114
-Services ${ }^{\circ}$ Maintenance
CONTROL MODULE, INC.
380 Enfield Street
Enfield, CT 06082
203 745-2433
-Display Terminals $\bullet$ Bar Code Readers
CONTROLLED POWER COMPANY
1955 Stephenson Highway
Troy, MI 48083
800 521-4792
$\bullet$ UPS Systems •Power Distribution
Controllers ${ }^{\circ}$ Power Conditioners

## CONVEX

COMPUTER CORPORATION
701 North Plano Road
Richardson, TX 75081
214 952-0200
-CPU Systems

## COPTECH

36 Commerce Way
Woburn, MA 01801
617 935-2679
-Services
COSAG COMPUTER SYSTEMS
375 Park Ave, Suite 31
New York, NY 10152
800 243-4267 •212 310-9400
-Leasing/Rental
COSMIC ENTERPRISES, INC.
84 South Street
Hopkinton, MA 01748
508 435-6967
-Maintenance

## CPU OPTIONS

1840 Berkshire Lane
Plymouth, MN 55441
800 777-6567 •612 557-9500
-System Integrators

## CRADEN

PERIPHERALS CORPORATION
7860 Airport Highway
Pennsauken, NJ 08109
609 488-0700
-Dot Matrix Printers
CRAIG DATA CABLE
652 Glenbrook Road
Stamford, CT 06906
800 243-5760 • 203 356-9315
$\bullet$ Distributors \& Resellers
CRISP AUTOMATION
5160 Blazer Memorial
Dublin, OH 43017
614 764-4200

- Specialized Systems

CROSSCOMM CORPORATION
P.O. Box 699

133 E. Main Street
Marlborough, MA 01752
508 481-4060
-Ethernet Devices
CS ELECTRONICS
1342 Bell Avenue
Tustin, CA 92680
714 259-9100
-Wiring Systems and Cables
CSPI
40 Linnell Circle
Billerica, MA 01821
617 272-6020 • 800 325-3110
-Array Processors

## CTS CORPORATION

Systems \& DATACOMM Division 6900 Shady Oak Road
Eden Prairie, MN 55344
800 328-6104 • 612 941-9100 $\bullet$ Modems
CUESTA SYSTEMS CORPORATION
3440 Roberto Court
San Luis Obispo, CA 93401
805 541-4160
$\bullet$ UPS Systems
CUSTOM CABLE INDUSTRIES
3221 Cherry Palm Drive
Tampa, FL 33619
813 623-2232 • 800 446-2232
-Wiring Systems and Cables
CXR TELCOM CORPORATION
521 Charcot Avenue
San Jose, CA 95131
408 435-8520
$\bullet$-Modems
CYBERCHRON CORPORATION
Computer \& Electronics Systems
3720 Farragut Avenue
Kensington, MD 20895
301 946-6488

- Specialized Systems

CYBEREX, INC.
7171 Industrial Park
Mentor, OH 44060
800 631-1236•216 946-1783
$\bullet$ UPS Systems
CYBERNEX LTD.
Division of Zavitiz Technology, Inc. 2373 Stevenage Drive
Ottowa, Ontario, Canada K1G 3W1 613 738-9301
$\bullet$ Graphics Terminals •Display Terminals
CYCOM SYSTEMS LIMITED
1A-3500 Pharmacy Avenue
Scarborough, Ontario, Canada
M1W 3P6
800 268-3171 • 416 494-5040
$\bullet$ Distributors \& Resellers

CYGNET SYSTEMS, INC.
601 W. California Avenue Sunnyvale, CA 94086
408 773-0770
$\bullet$-Optical Subsystems


DAISY DATA, INC.
333 S. Enola Drive
Enola, PA 17025-2897
717 732-8800
-Graphics Terminals
DAMAC PRODUCTS, INC.
10410-4 Pioneer Blvd.
Sante Fe Springs, CA 90670 213 946-0881
-Enclosures
DATA 3 COMPUTER CORPORATION
8400 Normandale Lake Blvd.
Bloomington, MN 55437
612 896-1400
$\bullet$ Distributors \& Resellers
DATA CLEAN CORPORATION
5602 Research Drive Suite B
Huntington Beach, CA 92649
800 553-3755

- Services eSupplies

DATA COM SOUTH
1000 N. Magnolia Street
Orlando, FL 32803
407 425-1163
-Distributors \& Resellers
DATA RENTALS \& SALES
6060 Sepulveda Blvd.
Van Nuys, CA 91411-2501 818 787-2100
$\bullet$ Distributors \& Resellers ©Leasing/ Rental

## DATA SYSTEMS HARDWARE

103 F-1 Carpenter Drive
Sterling, VA 22170
703 478-0080
-Laser Printers $\bullet^{\bullet}$ Band Printers ${ }^{\circ}$ Ion
Deposition Printers
DATA TERMINAL MART
6270 Dorman Road
Mississauga, Ontario,
Canada L4V 1G9
416 677-0184
-Laser Printers •Daisy Wheel Printers
DATA TRANSLATION, INC.
100 Locke Drive
Marlboro, MA 01752
508 481-3700
$\bullet$ Image Processors •Analog I/O •Digital
I/O 0 Timing Devices
DATABILITY
SOFTWARE SYSTEMS, INC.
322 Eighth Avenue
New York, NY 10001
800 342-537 • 212 807-7800
-Terminal Servers
DATACOM TECHNOLOGIES, INC.
11001 31st Place W.
Everett, WA 98204
206 355-0590
$\bullet$-Modems ${ }^{-S w i t c h i n g ~ D e v i c e s ~}$
$\bullet$ Monitoring \& Test Devices

DATACOPY CORPORATION
1215 Terra Bella Avenue
Mountain View, CA 94043
800 556-1234 • 800 441-2345 (CA)
-Image Processors
DATACOVER INC.
675 South Saginaw Street
Suite 200
Pontiac, MI 48053-4610
800 445-8296 • 313 332-7997
-Supplies
DATACUBE, INC.
4 Dearborn Road
Peabody, MA 01960
508 535-6644
-Image Processors

## DATAGRAPHIX

P.O. Box 82449

San Diego, CA 92138-9948
619 291-9960
-lon Deposition Printers
DATALEASE
1061 S. Melrose Avenue
Placentia, CA 92670
714 632-6986
-Distributors \& Resellers -Leasing/ Rental -System Integrators
DATAMEDIA CORPORATION
11 Trafalgar Square
Nashua, NH 03063
800 DMC-INFO • 603 886-1570
-Workstations
DATAPRODUCTS CORPORATION
6200 Canoga Avenue
P.O. Box 746

Woodland Hills, CA 91365-0746
818 887-8000
$\bullet$ Laser Printers $\bullet$ Band Printers $\bullet$ Dot
Matrix Printers $\bullet$ Miscellaneous Printers

## DATARAM CORPORATION

Digital Products
P.O. Box 7528

Princeton, NJ 08543-7528
609 799-0071

- Specialized Systems •Memory Boards
- Solid State Storage


## DATASHIELD

A Division of Solidstate Controls
269 Mount Hermon Road
Scotts Valley, CA 95066
408 438-0946
-UPS Systems
DATASOUTH COMPUTER
CORPORATION
4216 Stuart Andrew B
Charlotte, NC 28224
704 523-8500 • 800 222-4528
-Dot Matrix Printers

## DATASTREAM NETWORKING

2520 Mission College
Santa Clara, CA 95050
408 986-8022
-Display Terminals

## DATAWARE SYSTEMS LEASE

30 Bay Street
Staten Island, NY 10301
800 221-6318 • 718 447-4911
-Leasing/Rental
DATAWATCH CORPORATION
317 New Boston Street
Wilmington, MA 01887
617 932-0550
-Display Terminals

DAVID SYSTEMS, INC.
701 East Evelyn Avenue
Sunnyvale, CA 94086
408 720-8000
-Ethernet Devices
DAVOX CORPORATION
4 Federal Street
Billerica, MA 01821
508 667-4455 • 800 343-1152
$\bullet$ Graphics Terminals $\bullet$ Display Terminals
DCB, INC.
807 Pioneer Street
Champaign, IL 61820
800 637-1127
$\bullet$ Multiplexers $\bullet$ Modems

## DCD

121 E. Commercial Avenue
Suite A
Wood Dale, IL 60191
312 766-INFO
-Distributors \& Resellers
DELPHAX SYSTEMS
35 Pacella Park Drive
Randolph, MA 02368
617 961-2312
$\bullet$-lon Deposition Printers

## DELTA DATA

SYSTEMS CORPORATION
8310 Guilford Road
Columbia, MD 21046
301 290-6400
-Display Terminals
DELTA Z CORPORATION
60 E Hanover Avenue
Morris Plains, NJ 07950
201 993-9641
-Distributors \& Resellers
DELTRON, INC.
P.O. Box 1369

Wissahickon Avenue
North Wales, PA 19454
215 699-9261
$\bullet$ UPS Systems ${ }^{\bullet}$ Power Distribution Controllers
DEMCO INC.
4810 Forest Run Road
Box 7488
Madison, WI 53707
608 241-1201
-Distributors \& Resellers
DEREX INC.
7716 Wiles Road
Coral Springs, Fl 33067
305 753-0840
$\bullet$ Laser Printers ${ }^{\circ}$ Band Printers $\bullet^{D}$ Dot Matrix Printers •lon Deposition Printers

DESIGN ANALYSIS ASSOCIATES
75 West 100 South
Logan, UT 84321
801 753-2212
$\bullet$ Networking Interfaces $\quad$ IEEE-488 Interfaces

DEX CORPORATION
1061 S. Melrose Avenue
Placentia, CA 92670
714 632-1841
-Distributors \& Resellers •System Integrators

DIAN MICRO SYSTEMS, LTD.
Mersey House, Batter Road
Heaton Mersey Stockport,
Cheshire, England SK4 3EA
061 442-9788
-Analog I/O

DICONIX, INC.
Division of Eastman Kodak
3100 Research Blvd.
Dayton, OH 45420
513 259-3100

- Laser Printers

DIGI-DATA
8580 Dorsey Run Road
Jessup, MD 20794
301 498-0200
-Tape Drives •Tape Subsystems
DIGITAL ACCESSORIES, INC.
18 Elizabeth Street
W Conshohocken, PA 19428
215 828-6090
-VARs

## DIGITAL

ASSOCIATES CORPORATION
95 Burr Court
Bridgeport, CT 06605
203 366-2261

- Printer Controllers

DIGITAL BASICS, INC.
689 South Canterbury
Shakopee, MN 55379
612 496-2550 • 800 522-1742
-Distributors \& Resellers ©System
Integrators

## DIGITAL

COMMUNICATIONS ASSOCIATION
1000 Alderman Drive
Alpharetta, GA 30201
404 442-4000 • 800 241-IRMA
$\bullet$ Multiplexers $\bullet$ Modems ${ }^{\circ}$ Communication Processors

DIGITAL
COMPUTER EXCHANGE, INC.
2487 Industrial Parkway West
Hayward, CA 94545
415 887-3100
-Distributors \& Resellers
DIGITAL COMPUTER RESALE
600 Kenrick Suite C-22
Houston, TX 77060
713 445-0082
-Distributors \& Resellers
DIGITAL CONSULTANTS
2863 Teller Road
Suite 114
Newbury Park, CA 91320
805 498-4577
-Switching Devices
DIGITAL DATA SYSTEMS, INC.
1551 NW 65 Avenue
Fort Lauderdale, FL 33313
305 792-3290
$\bullet$ Memory Boards ${ }^{\circ}$ Special Function Boards

DIGITAL DEALERS
ASSOCIATION (DDA)
107 S. Main Street
Suite 202
Chelsea, MI 48118
313 475-8333
-Services
DIGITAL
ELECTRONICS CORPORATION
31047 Genstar Road
Hayward, CA 94544-7831
415 471-4700
-Graphics Terminals

DIGITAL
INSTRUMENTS CORPORATION
P.O. Box 9901

Newark, DE 19714-9901
800 222-IMAX • 215 255-4149
-Image Processors ${ }^{\circ}$ Memory Boards
-Solid State Storage ${ }^{\circ}$ Graphics Controllers

DIGITAL LINK CORPORATION
133 Caspian Court
Sunnyvale, CA 94089-9813
408 745-6200
$\bullet$-Networking Interfaces
DIGITAL PATHWAYS, INC.
201 Ravendale Drive
Mountain View, CA 94043
415 964-0707

- Security Systems

DIGITAL SOLUTIONS, INC.
3083 Gold Canal Drive S
Rancho Cordova, CA 95670
916 638-5606
-Distributors \& Resellers $\bullet$ Maintenance
-Leasing/Rental
DIGITAL TECHNOLOGY, INC.
2300 Edwin C Moses
Dayton, OH 45408
513 443-0412
-Special Function Boards

## DILOG

1555 South Sinclair
Anaheim, CA 92606
714 937-5700
-Communication Servers ${ }^{-C o m m u n i c a-~}$
tion Controllers $\bullet$ Disk Subsystems $\bullet$ Disk
Controllers •Tape Subsystems •Tape
Controllers ${ }^{-}$Tape Couplers
DIRECT SERVICE AND REPAIR
460 Aldo Avenue
Santa Clara, CA 95054
408 980-1414
-Display Terminals
DISCOPYLABS
2610-B N First Street
San Jose, CA 95134
408 433-0900

- Services

DISK INTERCHANGE
SERVICE COMPANY
2 Park Drive
Westford, MA 01886
508 692-0050
-Services
DOUGLAS
COMPUTER INTERNATIONAL
P.O. Box 151464

Salt Lake City, UT 84115
801 487-5811
$\bullet$ Distributors \& Resellers
DOW JONES SERVICE
1590 S. Sinclair Street
Anaheim, CA 92806
714 385-8975 • $800532-7373$
-Maintenance

## DPS

2327 Park Avenue
Cincinnati, OH 45206
513 961-0776
-Distributors \& Resellers
DSP TECHNOLOGY, INC.
48500 Kato Road
Fremont, CA 94538-7338
415 657-7555

- Special Function Boards

DYNA FIVE CORPORATION
173 Freedom Avenue
Anaheim, CA 92801
714 525-8795
-Communication Controllers $\bullet$ Printer
Controllers ${ }^{\circ}$ Enclosures
DYNAMIC SYSTEMS NORTHWEST, INC.
8223 44th Avenue W
Mukilteo, WA 98275
205 745-5311
$\bullet$ Distributors \& Resellers ${ }^{\bullet}$ Wiring
Systems and Cables

## DYNSERVICE NETWORK

1875 Whipple Road
Hayward, CA 94544
415 732-3080
-Maintenance


EAKINS ASSOCIATES, INC.
67 East Evelyn Avenue
Mountain View, CA 94041
415 969-5109
-Distributors \& Resellers ©System
Integrators

## EASTMAN KODAK

Copy Products Division
343 State Street
Rochester, NY 14650
800 255-3434 - 716 724-1336
$\bullet$ Ink Jet Printers •Miscellaneous
Printers
EASTMARK, INC.
240 Smith Street
Lowell, MA 01851
508 453-9150
-Graphics Terminals
EL CAMINO RESOURCES, LTD.
16671 Milliken Avenue
Irvine, CA 92714
800 367-3646 • 714 250-8991
-Distributors \& Resellers
-Leasing/Rental
ELECTRO MECHANICAL SYSTEMS
801 W. Bradley Avenue
Champaign, IL 61820
217 359-7125
-Display Terminals
ELECTRODATA, INC.
23020 Miles Road
Bedford Heights, OH 44128
216 663-3333
$\bullet$ Monitoring \& Test Devices
ELECTROHOME, LTD.
809 Wellington Street
Kitchener, Ontario,
Canada N2G 4J6
519 744-7111
$\bullet$ Graphics Terminals $\bullet$ Display Terminals

## ELECTRONIC

SERVICE SPECIALISTS
N92 W14612 Anthony Avenue
Menomonee Falls, WI 53051
414 255-4634
-Maintenance
ELGAR CORPORATION
9250 Brown Deer Road
San Diego, CA 92121
800 854-2213 • $619450-0085$
-UPS Systems

ELTEC, INC.
3001 Redhill Avenue
Costa Mesa, CA 92626
714 241-1331
$\bullet$ UUPS Systems $\bullet$ Power Distribution Controllers ${ }^{\text {D Distributors \& Resellers }}$

## ELXSI

2334 Lundy Place
San Jose, CA 95131
408 942-0900
-CPU Systems
EMC CORPORATION
171 South Street
Hopkinton, MA 01748
508 435-1000 • 800222 EMC2
$\bullet$ Disk Drives ${ }^{\circ}$ Optical Subsystems
-Memory Boards
EMERSON COMPUTER POWER
3300 S. Standard Street
Santa Ana, CA 92702
714 545-5581 • 714 641-5248
$\bullet$ UPS Systems $\bullet$ Power Conditioners
EMULEX CORPORATION
3545 Harbor Blvd
Costa Mesa, CA 92626
714 662-5600 • 800 EMU-LEX3 $\bullet$ Multiplexers $\bullet$ Host Adapters $\bullet$ Disk Subsystems ${ }^{\circ}$ Optical Subsystems ${ }^{\circ}$ Disk Controllers $\bullet$ Tape Subsystems $\bullet$ Tape Couplers

ENCORE
COMPUTER CORPORATION
257 Cedar Hill Street
Marlborough, MA 01752
800 336-2673 • 508 460-0500
-CPU Systems ${ }^{-T e r m i n a l}$ Servers
-Graphics Terminals
EPOCH SYSTEMS, INC.
313 Boston Post Road Marlborough, MA 01752 508 481-3717
-Disk Subsystems
EPSON AMERICA, INC.
Computer Products Division 2780 Lonita Blvd.
Torrance, CA 90505
213 539-9140
-Dot Matrix Printers
EQUINOX SYSTEMS
14260 SW 119th Avenue
Miami, FL 33186
800 328-2729 • 305 255-3500
$\bullet$ Multiplexers
ESPRIT SYSTEMS, INC.
8444 Delray Avenue
Sunnyvale, CA 94000
408 746-0825
-Display Terminals
ESSENTIAL RESOURCES, INC.
ERI Training
462 Broadway
New York, NY 10013
212 334-1240
-Services
EVANS \& SUTHERLAND
540 Arapeen Drive
P.O. Box 8050

Salt Lake City, UT 84108
801 582-5847
-Workstations
EVEREST ELECTRONIC EQUIPMENT
1800-G Macleod Drive
Lawrenceville, GA 30243
404 995-8688

- Power Distribution Controllers
-Power Conditioners ${ }^{\bullet}$ Enclosures

EXABYTE CORPORATION
1748 38th Street
Boulder, CO 80301
303 442-4333
-Tape Subsystems
EXCELAN, INC.
2180 Fortune Drive
San Jose, CA 95131
408 434-2300
-Ethernet Devices
EXIDE ELECTRONICS
3301 Spring Forest Road
Raleigh, NC 27604
919 872-3020 • 800 554-3448
-UPS Systems

## EXPERDATA

10301 Toledo Avenue S
Bloomington, MN 55437
612 831-2122
$\bullet$ Monitoring \& Test Devices
EXSYS STORAGE SYSTEMS
1340 Tully Road
\#301
San Jose, CA 95122
408 292-0343
-Disk Drives •Disk Subsystems


FACIT INC.
400 Commercial Street
P.O. Box 9540

Manchester, NH 03108-9540
603 647-2700
-Laser Printers •Dot Matrix Printers
FAIRCHILD DATA CORPORATION
350 N Hayden Road
Scottsdale, AZ 85257
602 949-1155

## $\bullet$ Modems

Additional Sales Office: 12020 Sunrise Valley Drive
Suite 141
Reston, VA 22091
703 391-2725

## FALCO DATA PRODUCTS

1294 Hammerwood Avenue
Sunnyvale, CA 94089
800 835-2648 • $800538-5383$ (CA)

- Graphics Terminals $\bullet$ Display Terminals
-X Window Terminals
FARGO ELECTRONICS, INC.
7690 Golden Triangle Drive
Eden Praire, MN 55344
612 941-9470
-Display Terminals •Thermal Transfer Printers

FASTCOMM DATA CORPORATION
12347-E Sunrise Valley Drive
Reston, VA 22091
703 620-3900
-Modems
FFT SYSTEMS, LTD.
2 Venture Road
Chilworth Research Center
Southampton, Hants,
England SO1 7NP
0703760611
-Specialized Systems
FIBERCOM, INC.
P.O. Box 11966

Roanoke, VA 24022
703 342-6700
$\bullet$ Modems $\bullet$ Ethernet Devices

FIBERMUX CORPORATION
9428 Eton Avenue
Chatsworth, CA 91311
818 709-6000
-Multiplexers ${ }^{\circ}$ Ethernet Devices
FIRST COMPUTER CORPORATION
8230 S Madison Street
Burr Ridge, IL 60521
312 920-1050 • 800 292-9000
$\bullet$ Disk Drives •Tape Drives $\bullet$ Band Printers

## FLIPTRACK LEARNING SYSTEMS

999 N Main Street
Glen Ellyn, IL 60137
312 790-1117•800 222-3547 -Services

FOREST COMPUTER
1749 Hamilton Road
Okemos, MI 48864
517 349-4700

- Networking Interfaces

FORNEY INTERNATIONAL, INC.
P.O. Box 189

Addison, TX 75001
214 458-6100
-Communication Controllers
FPS COMPUTING
3601 SW Murray Blvd
Beaverton, OR 97005-2399
800 635-0938 • 800 547-1860 $\bullet$ CPU Systems ${ }^{\circ}$ Specialized Systems $\bullet$ Array Processors $\bullet$ Disk Subsystems -Solid State Storage

FUJITSU AMERICA, INC.
Computer Products Group
3055 Orchard Drive
San Jose, CA 95134
408 432-1300
$\bullet$ Disk Drives


GANDALF DATA, INC.
1020 S Noel Avenue
Wheeling, IL 60090
800 722-9638 • 312 541-6060
$\bullet$ Multiplexers $\bullet$ Modems $\bullet$ Monitoring \& Test Devices

GE CALMA COMPANY
501 Sycamore Drive
Milipitas, CA 95950
408 434-4000 • 800 GE-Calma
-Specialized Systems •Workstations -Graphics Terminals

GE COMPUTER SERVICE
6875 Jimmy Carter Blvd.
Norcross, GA 30071
404 246-6200
$\bullet$-Maintenance •Leasing/Rental
GE COMPUTER SUPPLIES
2825 C Pacific Drive
Norcross, GA 30071
800 437-2537
-Supplies
GEN TERM CORPORATION
1304A Logan Avenue
Costa Mesa, CA 92626
714 662-0630
-Display Terminals

GEN/COMP, INC.
6 Algonquin Road
Canton, MA 02021
617 828-2008
-Multiplexers ${ }^{\circ}$ Communication
Processors ${ }^{-T e r m i n a l}$ Servers $\bullet$ Printer
Controllers eSpecial Function Boards

## GENERAL

DATACOMM INDUSTRIES
Rt. 63
Middlebury, CT 06762-1299
203 574-1118
$\bullet$-Modems
GENERAL INSTRUMENT
1375 Lenoir-Rhyne Blvd.
P.O. Box 1729

Hickory, NC 28602
704 324-2200 • 800 982-1708
-Wiring Systems and Cables
GENERAL POWER CORPORATION
1045 S East Street
Anaheim, CA 92815-8508
714 956-9321
-UPS Systems
GENICOM CORPORATION
1 Genicom Drive
Waynesboro, VA 22980
800 443-6426 • 703 949-1170
$\bullet$ Laser Printers $\bullet$ Band Printers $\bullet$ Dot Matrix Printers

## GENISCO PERIPHERAL SYSTEMS

10874 Hope Street
Cypress, CA 90630
714 220-0720
-Workstations ${ }^{\circ}$ Graphics Terminals
GEO BASED SYSTEMS, INC
P.O. Box 13545

Research Triangle Park, NC 27709
919 361-5717
-Workstations
GESCAN INTERNATIONAL, INC.
P.O. Box 12599

Research Triangle Park, NC 27709
800 982-2177 • 919 460-3100
-Specialized Systems
GIGATREND, INC.
2234 Rutherford Road
Carlsbad, CA 92008
619 931-9122
-Tape Subsystems
GLASGAL COMMUNICATIONS, INC.
151 Veterans Drive
Northvale, NJ 07647
201 768-8082
Distributors \& Resellers ${ }^{\text {® System }}$ Integrators

GOLD KEY ELECTRONICS, INC.
5 Lamy Drive
Goffstown, NH 03045
603 625-8518
-Switching Devices
GOTEC, LTD.
31 Derby Road
Heaton Moor
Stockport, Cheshire, United
Kingdom SK4 4NE
061 446-2171
-UPS Systems
GOULD, INC.
Imaging \& Graphics Division
46360 Fremont Blvd.
Fremont, CA 94538
415 498-3200
-Image Processors

GPC TECHNOLOGY CORPORATION
6821 W. 70th Street
Shreveport, LA 71129
318 686-1600
-Display Terminals
GRAPHICS
DEVELOPMENT CORPORATION
6479 Reflection Drive
Dublin, OH 43017
614 766-0440
-Graphics Terminals •Display Terminals
GRAPHON CORPORATION
1980 Concourse Drive
San Jose, CA 95131
408 435-8400 • 800 GRA-PHON
$\bullet$ Graphics Terminals $\bullet \times$ Window Terminals

GROUP THREE ELECTRONICS
1034 Kiel Court
Sunnyvale, CA 94089
408 747-1800
-Disk Subsystems •Tape Subsystems

- Distributors \& Resellers

GRUMMAN DATA SYSTEMS
250 Crossways Park W
Woodbury, NY 11797
800 922-1225 • $800792-5423$ (MA)
-Maintenance ${ }^{-}$System Integrators

HACOPIAN \& ASSOCIATES
200 W 7th Street
Texas Building
Fort Worth, TX 76102
817 877-3040
-Distributors \& Resellers
HARRIS CORPORATION
1025 W NASA Blvd.
Melbourne, FL 32919
800 442-7747 • 407 727-9126
$\bullet$ Display Terminals
HAYES MICROCOMPUTER
PRODUCTS, INC.
P.O. Box 105203

Atlanta, GA 30348
404 449-8791
$\bullet$-Modems
HDR POWER SYSTEMS, INC.
4242 Reynolds Drive
Hilliard, OH 43026-9908
614 771-5500 • 614 275-3113
$\bullet$ UPS Systems
HECON CORPORATION
15 Meridian Road
Eatontown, NJ 07724
201-542-9200
-Hard Copy Units

## HERITAGE

COMMUNICATION SYSTEMS
One West Deer Valley
Suite 104
Phoenix, AZ 85027
602 780-1497
-Special Function Boards
HETRA, INC
10300 102nd Terrace
P.O. Box 9000

Sebastian, FL 32958
407 589-7331
-Laser Printers •Band Printers

HEWLETT-PACKARD COMPANY
3000 Hanover Street
Palo Alto, CA 94304
415 857-1501
-Graphics Terminals $\bullet$ Display Terminals -Laser Printers $\bullet$ Dot Matrix Printers $\bullet$ Ink Jet Printers $\bullet$ Pen Plotters

HITACHI AMERICA, LTD.
950 Benicia Avenue
Sunnyvale, CA 94086
408 773-8833
$\bullet$ Ink Jet Printers
HITRON CORPORATION
362 Highway 31
Flemington, NJ 08822-9301
201 782-5525
-UPS Systems
HONEYWELL
Test Instrument Division
Box 5227 MS:211
Denver, CO 80217-5227
303 773-4491
-Tape Subsystems

## HONEYWELL

INFORMATION SYSTEMS
2701 4th Avenue
South Honeywell Plaza
Minneapolis, MN 55408
612 870-5200 • 612 896-3848
$\bullet$ Display Terminals
HOUSTON INSTRUMENT
8500 Cameron Road
Austin, TX 78753
512 835-0900
-Pen Plotters
HOWTEK, INC.
21 Park Avenue
Hudson, NH 03051
603 882-5200
$\bullet$ Ink Jet Printers
HRL ASSOCIATES, INC.
2102-B Gallows Road
Vienna, VA 22180
703 448-1442
-Maintenance
HUMAN DESIGNED SYSTEMS
3440 Market Street
Philadelphia, PA 19104
800 437-1551 • 215 382-5000
-Graphics Terminals ${ }^{\circ}$ Display Terminals
-X Window Terminals
HYBRICON
12 Willow Road
Ayer, MA 01432
508 772-5422
-Enclosures •Special Function Boards

|


IBM CORPORATION
Old Orchard Road
Armonk, NY 10504
800 IBM-7257 • 914 765-1900
-Display Terminals
ICS DATACOM
2185 Old Oakland Road
San Jose, CA 95131
408-263-4844
-Multiplexers

ICS, INC.
520 Interstate Road
Addison, IL 60101
312 543-6200
-UPS Systems
IDEAL TECHNOLOGIES
13101 Washington Blvd. \#309
Los Angeles, CA 90066
213 827-9023
-Distributors \& Resellers
IDENTICON
25 Carol Street
P.O. Box 996

Clifton, NJ 07014-0996
201 472-1331

- Bar Code Readers

IKON CORPORATION
2617 Western Avenue
Seattle, WA 98121
206 728-6465
-Host Adapters
ILLINOIS COMPUTER CABLE
5207 Walnut Street
Downers Grove, IL 60515
312 870-0200
-Wiring Systems and Cables
IMAGE GRAPHICS, INC.
917 Bridgeport Avenue
Shelton, CT 06484
203 926-0100
-Magnetography Printers
IMPERIAL TECHNOLOGY, INC.
831 South Douglas Street
El Segundo, CA 90245
213 536-0018
-Solid State Storage
IMPRIMIS TECHNOLOGY, INC.
Subsidiary of Control Data
Corporation
12701 Whitewater Drive
Minnetonka, MN 55343
612 931-8658
$\bullet$ Disk Drives
IMUNELEC, INC.
7600 Jericho Tnpk. \#201
Woodbury, NY 11797
516 364-8122
-UPS Systems
INCOMM DATA SYSTEMS
652 S Wheeling Road
Wheeling, IL 60090
312 459-8881 • 800 346-2660
$\bullet$ Multiplexers $\bullet$ Modems
INCOTEL, INC.
5 Penn Plaza
New York, NY 10001
212 594-8340
-Communication Processors
INFORMATION STORAGE INC. (ISI)
2768 Janitell Road
Colorado Springs, CO 80906
719 579-0460
-Optical Drives
INFORMER
COMPUTER TERMINALS
12781 Pala Drive
Garden Grove, CA 92641
714 891-1112
-Display Terminals
INFOSCRIBE, INC.
11507 Sunset Hills Road
Reston, VA 22090
703 689-2805
-Dot Matrix Printers

## NFOTRON

SYSTEMS CORPORATION
9 N Olney Avenue
Cherry Hill, NJ 08003
800 345-4636 • 609 424-9400
-Multiplexers

## INNOVATIVE DATA TECHNOLOGY

5340 Eastgate Mall
San Diego, CA 92121
619 587-0555
-Tape Drives $\bullet$ Tape Subsystems
INTECOLOR CORPORATION
Graphic Systems Division
2150 Boggs Road
Building 200
Duluth, GA 30136
404 623-9145
-Graphics Terminals
INTEGRATED AUTOMATION
Industrial Products Division
1301 Harbor Bay Pkwy.
Alameda, CA 94501
415 769-5400
-Graphics Terminals
INTEGRATED
DESIGN ENGINEERING, INC.
1078 Headquarters Pkwy.
Fenton, MO 63026
314 343-0005
$\bullet$ Distributors \& Resellers
INTEGRATED SOLUTIONS, INC.
1140 Ringwood Court
San Jose, CA 95131
408 943-1902
-Workstations
INTEGRATED
SYSTEMS GROUP, INC.
920 East Broadway
Glendale, CA 91205
818 502-1414 • 800 502-1414
$\bullet$ Maintenance
INTEL CORPORATION
2402 W Beardsley Road
DV2-95
Phoenix, AZ 85027
602 869-3805
-Communication Controllers $\bullet$ Host
Adapters $\bullet$ Networking Interfaces
-Special Function Boards
INTELLIGENT CONTROLS INC.
6825 216th Street
Lynwood, WA 98036
800 842-0221 • 206 771-8107

- Bar Code Readers

INTERACTIVE MACHINES, INC.
26588 Agoura Road
Calabassas, CA 91302
818 707-1880
-Graphics Terminals
INTERGRAPH CORPORATION
One Madison Industrial
M/S IW1510
Huntsville, AL 35807
205 772-2000
-Workstations
INTERLAN, INC.
155 Swanson Road
Boxborough,MA01719
508 263-9929
-Communication Protocol Interfaces
-Terminal Servers ${ }^{\circ}$ Ethernet Devices

INTERLINK
COMPUTER SCIENCES, INC.
47370 Fremont Blvd.
Fremont, CA 94538-6501
415 657-9800

- Networking Interfaces

INTERLOGIC INDUSTRIES
85 Marcus Drive
Melville, NY 11747
516 420-8111
-Enclosures
INTERNATIONAL
COMPUTER POWER
2620 N Lee Avenue
South El Monte, CA 91733
818 443-7557
-UPS Systems
INTERNATIONAL
DATA SCIENCES, INC.
7 Wellington Road
Lincoln, RI 02865
401 333-6200 • 800 437-3282
$\bullet$ Monitoring \& Test Devices
INTERNATIONAL
DATA TECHNOLOGY
1551 NW 65th Avenue
Plantation, FL 33313
305 587-6823
-Memory Boards
INTERNATIONAL
IMAGING SYSTEMS
1500 Buckeye Drive
Milpitas, CA 95035
408 262-4444

- Image Processors

INTERNATIONAL POWER
MACHINES CORPORATION
2975 Miller Park N
Garland, TX 75042
214 272-8000 • 800 527-1208
-UPS Systems ${ }^{\circ}$ Smart Ambient Monitors
-Power Distribution Controllers

## INTERNATIONAL

SOFTWARE CORPORATION
528 Commons Drive
Golden, CO 80401
303 526-0388

- Graphics Controllers

INTERSCIENCE
COMPUTER SERVICES
5171 Clareton Drive
Agoura Hills, CA 91301 818 707-2000
$\bullet$ Laser Printers $\bullet^{\circ}$ Band Printers $\bullet^{D}$ Dt
Matrix Printers
INTERSTATE
ELECTRONICS CORPORATION
1001 East Ball Road
P.O. Box 3117

Anaheim, CA 92803
714 758-0500
-Array Processors
INTRA COMPUTER INC.
875 Avenue of the Americas
New York, NY 10001
212 947-5533
-Smart Ambient Monitors
IOLINE CORPORATION
12020 113th Avenue \#250
Kirkland, WA 98034
206 821-2140
-Pen Plotters

IPS TECHNOLOGY
11201 Richmond Avenue
Suite A102
Houston, TX 77082
713 870-0880
-Optical Subsystems $\bullet$ Tape Subsystems
-Tape Controllers
ISA CONSULTANTS
5550 Touhy Avenue
Suite 204
Skokie, IL 60077
312 677-3530
-Monitoring \& Test Devices
ISOREG CORPORATION
410 Great Road
Littleton, MA 01460
508 486-9483
$\bullet$ UPS Systems $\bullet$ Power Distribution
Controllers •Power Conditioners
ITHACA PERIPHERALS, INC.
147 Main Street
Groton, NY 13073
607 898-9970
-Dot Matrix Printers
IVERSON, INC.
One Saunders Avenue
San Anselmo, CA 94960
415 459-5665

- Special Function Boards


JACK HADLEY DESIGN
4636 Devonshire Street
Boulder, CO 80301
303 530-7628
-Distributors \& Resellers
JADTEC COMPUTER GROUP
546 W Katella Avenue
Orange, CA 92667
714 997-8927
-Distributors \& Resellers •Maintenance
-Services
JDL, INC.
2649 Townsgate Road \#104
Westlake Village, CA 91361
805 495-3451
-Dot Matrix Printers
JENSEN TOOLS, INC.
7815 S 46th Street
Phoenix, AZ 85044
602 968-6241
-Supplies
JOHN FLUKE MANUFACTURING
COMPANY, INC.
P.O. Box C9090

Everett, WA 98206
206 356-5425

- Monitoring \& Test Devices

JORDAN ELECTRONICS
1590 N Batavia Street Suite 3
Orange, CA 92667
714 998-1810
-Distributors \& Resellers
JUPITER SYSTEMS
1100 Marina Village
Alameda, CA 94501
415 523-9000
-Workstations


KYOCERA UNISON, INC.
3165 Adeline Street
P.O. Box 3056

Berkeley, CA 94703
415 848-6680
-Laser Printers
Moorpark Avenue
San Jose, CA 95129
408 257-1445

- Monitoring \& Test Devices

K-SYSTEMS OF TEXAS
11501 Rojas Drive Suite P
El Paso, TX 79936
915 598-9769
-Special Function Boards

## K/REP SALES

2733 Shelter Island Suite 237
San Diego, CA 92106
619 457-9654
-Distributors \& Resellers

## KCS COMPUTER SERVICES

7462 Talbert Avenue
Huntington Beach, CA 92647
714 848-7971

- Maintenance

KEL-MAT/DAK
P. O. Box 17117

Pittsburgh, PA 15235
412 361-7400
-Distributors \& Resellers
KENNEDY COMPANY
A Division of Shugart Corporation
9292 Jeronimo Road
Irvine, CA 92718
714 770-1100
-Tape Drives

## KENTEK INFORMATION SYSTEMS

6 Pearl Court
Allendale, NJ 07401
201 825-8500
-Laser Printers
KIMBERLY ELECTRONICS
140 Route 17 N Street
Paramus, NJ 07652
800 843-4009 • 201 387-0872
-Distributors \& Resellers
KIMTRON CORPORATION
1709 Junction Court Bldg. 380
San Jose, CA 95112-1090
800 828-8899 • 408 436-6550
-Display Terminals $\bullet$ Bar Code Readers
KINETICS, A DIVISION OF EXCELAN
2540 Camino Diablo
Walnut Creek, CA 94596
415 947-0998
-Ethernet Devices
KINETICSYSTEMS CORPORATION
11 Maryknoll Drive
Lockport, IL 60441
815 838-0005

- Specialized Systems

KMW SYSTEMS CORPORATION
6034 West Courtyard Suite 100
Austin, TX 78730
512 338-3000
-Networking Interfaces
KOM, INC.
145 Spruce Street
Ottawa, Ontario, Canada KIR 6P1
613 238-7766
$\bullet$ Optical Subsystems •Disk Controllers


## L.A. CABLE CONNECTION

340 W Regent Street Suite 4
Inglewood, CA 90301-1188
213 419-2900
-Distributors \& Resellers •VARs

## LAGO SYSTEMS

160-E Albright Way
Los Gatos, CA 95030
408 374-1818
-Disk Controllers

## LAMCOM CORPORATION

112 W Canada
San Clemente, CA 92672
714 361-8895
-Distributors \& Resellers -Services
LAN SYSTEMS, INC.
784 Ulloa Street
San Francisco, CA 94127
415 566-4798
$\bullet$ Multiplexers $\bullet$ Modems
LANMARK TELECOM, INC.
2624 Fayette Drive
Mountain View, CA 94040
415 941-4163
-Wiring Systems and Cables
LANPAR TECHNOLOGIES, INC.
35 Riviera Drive
Markham, Ontario,
Canada L3R 8N4
416 475-9123 • 800 387-4205
-Graphics Terminals •Display Terminals

## LANTEK

2131 University Avenue \#412
Berkeley, CA 94704
415 549-0928
-Communication Processors
LASER MAGNETIC STORAGE
4425 Arrows West Drive
Colorado Springs, CO 80907-3489
719 593-7900
-Optical Drives •Tape Drives
LASERDATA, INC.
10 Technology Drive
Lowell, MA 01851
508 937-5900

- Specialized Systems

LASERDRIVE
1101 Space Park Drive
Santa Clara, CA 95054
408 920-3600
-Optical Drives •Optical Subsystems
LASERGRAPHICS, INC.
17671 Cowan Avenue
Irvine, CA 92714
7146609497
-Thermal Transfer Printers
LDI TECHNOLOGIES
2368 Victory Parkway Suite 401
Cincinnati, OH 45206
513 281-4100
-Distributors \& Resellers -Leasing/
Rental

LEE DATA CORPORATION
7075 Flying Cloud Drive
Eden Prairie, MN 55344
612 828-0523 • 800 328-3998
-Graphics Terminals $\bullet$ Display Terminals
LEEMAH DATACOM
SECURITY CORPORATION
3948 Trust Way
Hayward, CA 94545
415 786-0790
-Security Systems
LEX COMPUTER SYSTEMS
371 Van Ness Way
Suite 200
Torrance, CA 90501
213 320-9800
-Distributors \& Resellers ©Services
-Maintenance $\bullet$ Leasing/Rental -System Integrators
Additional Sales Offices:
Boston, MA
617 439-5959
New York/New Jersey
201 757-1121•800 234-LEXX
Washington, DC
301 720-1000•800 336-7779
Orlando, FL
407 767-0007•800 321-0800
Philadelphia, PA
215 956-0504
Chicago, IL
312 250-7380•800 777-LEXX
San Francisco, CA
415 654-9013 • 800 356-5359
Orange County, CA
714 250-9402
Los Angeles, CA
213 320-9800
Hartford, CT
203 633-8675
Detroit, MI
313 522-0024
Milwaukee, WI
414 782-6767

## LEXIDATA

A Division of Adage Inc.
165 Lexington Road
Billerica, MA 01821
508 667-7070
-Graphics Terminals

## LIBERTY ELECTRONICS

332 Harbor Way
South San Francisco, CA 94080
415 742-7000
-Graphics Terminals $\bullet$ Display Terminals
LIEBERT CORPORATION
1050 Dearborn Drive
P.O. Box 29186

Columbus, OH 43229
614 888-0246
-UPS Systems

## LIFESENSE

COMPUTER PRODUCTS, INC.
18305 Minnetonka Blvd
Wayzata, MN 55391
612 473-2737•800 937-2242
-Distributors \& Resellers •Leasing/ Rental

LINK TECHNOLOGIES, INC.
47339 Warm Springs Blvd.
Fremont, CA 94539
415 651-8000•800 448-5465
-Display Terminals

LINOTYPE COMPANY
425 Oser Avenue
Hauppauge, NY 11788
516 434-2016
Laser Printers
LIOCS CORPORATION
246 E Janata Blvd. Suite 262
Lombard, IL 60148
312 953-2220
$\bullet 0 E M s \bullet D i s t r i b u t o r s$ \& Resellers
-System Integrators
LION CABINETS
249 Goffle Road
Hawthorne, NJ 07506
201 427-3500
-Enclosures
LOCAL DATA
2771 Plaza Del Amo
Torrance, CA 90503
213 320-7126
-Communication Protocol Interfaces
LOGICRAFT, INC
22 Cotton Road
Nashua, NH 03063
603 880-0300
-Specialized Systems
LORTEC POWER SYSTEMS, INC.
145 Keep Court
Elyria, OH 44035
216 327-5050 • 800 222-2600
UUPS Systems
LSI LOGIC SCIENCES, INC
10808 Fallstone Road
Houston, TX 77099
713 879-0536
-Graphics Controllers
LXE
303 Research Drive
Norcross, GA 30092
404 447-4224
-Specialized Systems •Display Terminals


MACDONALD
DETTWILER \& ASSOCIATES
3751 Shell Road
Richmond, BC, Canada V6X 2Z9
604 278-3411
Laser Printers $\bullet$ Miscellaneous Printers

## MAINTECH

1133 Avenue of the Americas
New York, NY 10038
800 426-TECH
212 827-2603
$\bullet$ Monitoring \& Test Devices

- Maintenance


## MANAGEMENT COMPUTER

## SERVICE

113 North State Street
Ansonia, CT 06401
203 732-5177
-Distributors \& Resellers
MARWAY PRODUCTS, INC.
311 N Clara Street
Santa Ana, CA 92703
714 973-1800
Power Distribution Controllers
MATROX ELECTRONIC SYSTEMS
1055 St. Regis Blvd.
Dorval, Quebec, Canada H9P 2T4 514 685-2630
$\bullet$ Image Processors ${ }^{\circ}$ Graphics Controllers

MAXCOMPCOMPUIERS, NC.
3800 Monroe Avenue
Pittsford, NY 14534
716 381-8320
-System Integrators
MAXTOR CORPORATION
211 River Oaks Parkway
San Jose, CA 95134
408 432-1700
$\bullet$ Disk Drives •Optical Drives
MCCOMB RESEARCH
245 East Sixth Street
St. Paul, MN 55101
612 298-9561

- Networking Interfaces

MCDONNELL DOUGLAS
Information Systems Group
McDonnell Blvd.
P.O. Box 516

St. Louis, MO 63166-0516
800 325-1551 • 314 232-7671
-Workstations ${ }^{\circ}$ Graphics Terminals
MCDONNELL DOUGLAS
Field Service
2361 McGaw Avenue
P.O. Box 16427

Irvine, CA 92713
714 250-1000

- Distributors \& Resellers $\bullet$ Maintenance

MCG ELECTRONICS, INC.
12 Burt Drive
Deer Park, NY 11729
516 586-5125
-Power Conditioners
MCS COMPUTER PRODUCTS, INC.
2785 White Bear Avenue
St. Paul, MN 55109
612 770-5232
$\bullet$ Multiplexers •Optical Subsystems
$\bullet$ Memory Boards ${ }^{-}$Distributors \&
Resellers
MDB SYSTEMS, INC.
1110 West Taft Avenue
Box 5508
Orange, CA 92613
714 998-6900
-CPU Upgrades $\bullet$ Multiplexers
-Communication Processors
-Communication Controllers •Host
Adapters $\bullet$ Terminal Servers $\bullet^{-D i s k}$
Subsystems $\bullet$ Disk Controllers $\bullet$ Printer Controllers ${ }^{\bullet}$ Enclosures

## MEADOWLARK

ENTERPRISES, INC.
37 High Street
Danvers, MA 01923
508 777-4666
$\bullet$ Distributors \& Resellers ©Leasing/ Rental

## MEGA VISION

5765 Thornwood
Goleta, CA 93117
805 964-1400
-Graphics Controllers

## MEGADATA CORPORATION

35 Orville Drive
Bohemia, NY 11716
516 589-6800
Graphics Terminals
MEGATAPE CORPORATION
1041 Hamilton Road
P.O. Box 317

Duarte, CA 91010-0317
818 357-9921
$\bullet$ Tape Drives •Tape Subsystems

MEGATEK CORPORATION
9645 Scranton Road
San Diego, CA 92121
619 455-5590
Graphics Terminals

## MEMORY

SCIENCES CORPORATION
9028 Prince William
Manassas, VA 22110
703 361-9745
$\bullet$ Host Adapters •Disk Subsystems •Disk
Controllers ${ }^{\circ}$ Solid State Storage
MENTEC
COMPUTER SYSTEMS, LTD.
Mentec House
Pottery Road, Dun Laoghaire
Dublin, Ireland
353-1-858444
-CPU Systems

## MERCURY COMPUTER SYSTEMS

600 Suffolk Street
Lowell, MA 01854
508 458-3100
Array Processors

## MESA

TECHNOLOGY CORPORATION
9720 Patuxent Woods Drive
Columbia, MD 21046
301 290-8150
-Distributors \& Resellers •Maintenance
-Supplies

## METHEUS CORPORATION

1600 NW Compton Drive
OGC Science Park
Beaverton, OR 97006-6905
503 690-1550
-Graphics Controllers
METHOD SYSTEMS, INC.
3511 Lost Nation Road Suite 202
Willoughby, OH 44094
800 533-6116 • 216 942-2100
$\bullet$ Multiplexers ${ }^{\circ}$ Communication Protocol
Interfaces ${ }^{\circ}$ Ethernet Devices

## MEYER SOFTWARE

616 Continental Road
Hatboro, PA 19040
215 675-3890
-Services

## MICOM

COMMUNICATIONS CORPORATION
4100 Los Angeles Avenue
P.O. Box 8100

Simi Valley, CA 93062-8100
805 583-8600
-Multiplexers ${ }^{\circ}$ Communication Protocol
Interfaces oSwitching Devices ©X. 25
PAD Processors
MICRO SOLUTIONS
10670 N Central Suite 110
Dallas, TX 95204
214 361-5578
-Distributors \& Resellers
MICRO TECHNOLOGY, INC.
5065 E Hunter Avenue
Anahiem, CA 92807
714 632-7580 •800 FON-4MTI
-Ethernet Devices ${ }^{\circ}$ Disk Subsystems
-Disk Controllers •Tape Subsystems
MICRO-TERM INC.
3630 South Geyer \#3
St. Louis, MO 63127
314 822-4111
-Graphics Terminals •Display Terminals

MICROCOM, INC.
500 River Ridge Road
Norwood, MA 02062
617 551-1000
-Specialized Systems •Modems
Ethernet Devices
MICROPOLIS CORPORATION
21211 Nordhoff Street
Chatsworth, CA 91311
818 709-3300
-Disk Drives

## MICROTEK

SYSTEMS INTERNATIONAL
8370 Dow Circle
Cleveland, OH 44136
800 828-0303 • 216 234-8040
-Distributors \& Resellers
MICROTRONIX SYSTEMS, LTD.
120 Bessemer Road
London, Ontario, Canada N6E 1R2 519 681-3430
-Communication Processors ©X. 25 PAD Processors

## MID-AMERICA

COMPUTER CORPORATION
101 E Carmel Drive
Carmel, IN 46032
800 234-1028 • 317 846-3101
MIDWEST SYSTEMS, INC.
2800 Southcross Drive Burnsville, MN 55337-9953
800 328-7000 • 612 894-4020
-Distributors \& Resellers
MILTOPE CORPORATION 1770 Walt Whitman Road Melville, NY 11747
516 420-0200
-Disk Drives •Tape Drives •Tape Controllers ${ }^{\bullet}$ Graphics Terminals ${ }^{\circ}$ lon Deposition Printers

MINI COMPUTER TECHNOLOGY
696 E Trimble Road
San Jose, CA 95131
408 435-1616
-Disk Controllers
MINICOMPUTER EXCHANGE
1010 Stewart Drive
Sunnyvale, CA 94086
408 733-4400
-Distributors \& Resellers -Leasing/
Rental eSystem Integrators
MINNECOMPUTERS, INC.
9201 East Bloomington
Minneapolis, MN 55420
612 884-6601
-Distributors \& Resellers
MINOLTA CORPORATION
101 Williams Drive
Ramsey, NJ 07446
201 825-4000

- Specialized Systems

MIPS COMPUTER SYSTEMS, INC.
928 Arques Avenue
Sunnyvale, CA 94086
408 720-1700
-CPU Systems ${ }^{-W}$ Workstations

## MISCO

One Misco Plaza
Holmdel, NJ 07733
201 264-8200

- Supplies

MITEK SYSTEMS CORPORATION
2033 Chennault Drive \#100
Carrollton, TX 75006
214 490-4090
-Special Function Boards
MITEK SYSTEMS, INC.
6225 Nancy Ridge Drive
San Diego, CA 92121
619 587-9157 • 800 367-5660 -Laser Printers

MOD-TAP SYSTEM
285 Ayer Road
P.O. Box 706

Harvard, MA 01451
508 772-5630
-Wiring Systems and Cables oSystem Integrators

MODGRAPH, INC.
149 Middlesex Tnpk.
Burlington, MA 01803
617 229-4800
-Graphics Terminals
MONOLITHIC
SYSTEMS CORPORATION
7050 S Tucsan Way
Englewood, CO 80112
303 790-7400
-Memory Boards
MOTOROLA INFORMATION SYSTEMS
9445 Airport Road
Brampton, Ontario
Canada L6S 4J3
416 793-5700
-Multiplexers

## MRI COMPUTERS

1520 NW 65th Avenue \# 2 Ft. Lauderdale, FL 33313
305 587-7464
-Special Function Boards
MTI SYSTEMS CORPORATION
38 Harbor Park Drive
Port Washington, NY 11050 516 621-6200 • 800 645-6530 -Distributors \& Resellers LLeasing/ Rental -System Integrators

MULTI-TECH SYSTEMS, INC.
82205 Woodale Drive
Mounds View, MN 55112
800 328-9717 • 612 785-3500
$\bullet$ Multiplexers $\bullet$ Modems
MULTIFLOW COMPUTERS, INC.
175 N Main Street
Branford, CT 06405
203 488-6090
-CPU Systems
MULTITRONICS
340 Manley Street
West Bridgewater, MA 02379
800 BUY-A-VAX • 508 584-2800
-Distributors \& Resellers
-Leasing/Rental

N.E.T. COMDESIGN

DATA COMMUNICATIONS GROUP
26 Castilian Drive
Santa Barbara, Ca 93117
805 562-3312
$\bullet$ Multiplexers ${ }^{\text {MModems }}$-X. 25 PAD Processors

NATIONAL COMPUTER SYSTEMS
400 Northridge Road
Atlanta, GA 30350
404 641-4100
-Services
NATIONAL DATA
CONVERSION INSTITUTE
5 East 16th Street
New York, NY 10003
212 463-7511

- Services

NATIONAL INSTRUMENTS
6504 Bridgeport Blvd.
Austin, TX 78731
512 250-9119
-IEEE-488 Interfaces

## NATIONAL

SEMICONDUCTOR CORPORATION
Memory Systems M/S-7315
2900 Semiconductor Drive
P.O. Box 8090 M/S 73

Santa Clara, CA 95050-8090
800 538-8510 • 800 345-4006 (CA)
$\bullet$ Memory Boards
NBS SOUTHERN, INC.
11451 South Belcher
Largo, FL 34643
800 327-5602 • 813 441-1981
-Laser Printers •lon Deposition Printers
NEC INFORMATION
SYSTEMS, INC
1414 Massachusetts Avenue
Boxborough, MA 01719
508 264-8000

- Laser Printers

NEMATRON CORPORATION
5840 Interface Drive
Ann Arbor, MI 48103
313 994-0501
-Display Terminals
NEMONIX, INC.
106 South Street
Hopkinton, MA 01748
800 435-8650 • 508 435-9087
-CPU Upgrades ${ }^{\circ}$ Memory Boards
-Special Function Boards

## NETWORK COMPUTING DEVICES

350 N Bernardo Avenue
Mountain View, CA 94043
415 694-0650
-X Window Terminals

## NETWORK

GENERAL CORPORATION
1945A Charleston Road
Mountain View, CA 94043
415 965-1800
$\bullet$ Monitoring \& Test Devices

## NETWORX DATA

PRODUCTS COMPANY
80 Modular Avenue
Commack, NY 11725
516 864-5800
-Display Terminals
NEVADA WESTERN
615 North Tasmen Drive
Sunnyvale, CA 94089
408 734-2700

- System Integrators


## NEW YORK COMPUTER EXCHANGE

130 Gazza Blvd.
Farmingdale, NY 11735
516 752-8666 • 800 645-9109
$\bullet$ Distributors \& Resellers

## NEWGEN SYSTEMS CORPORATION

17580 Newhope Street
Fountain Valley, CA 92708
714 641-8600
-Laser Printers
NISSEI SANGYO AMERICA, LTD.
A Division of Hitachi
11770 Bernardo Plaza Suite 300
San Diego, CA 92128
619 485-8552
$\bullet$ Laser Printers $\bullet$ Band Printers

## NISSHO

ELECTRONICS CORPORATION
17310 Red Hill Avenue
Irvine, CA 92714
714 261-8811
-CPU Upgrades $\bullet$ Laser Printers
NORTH ATLANTIC INDUSTRIES
Peripheral Products Department
60 Plant Avenue
Hauppauge, NY 11788
516 582-6060
-Dot Matrix Printers
NORTHEAST MINICOMPUTER, INC.
55 High Street Unit 6
Billerica, MA 01862
508 663-2550
-Distributors \& Resellers
NORTHEAST PERIPHERALS INC.
106 Access Road
P.O. Box 602

Norwood, MA 02062
617 769-9110
-Distributors \& Resellers
NORTHERN PACIFIC
POWER DEVICES
12919 Alcosta Blvd.
San Ramon, CA 94583
415 866-9415
-UPS Systems
NORTHERN TELECOM, INC.
640 Massman Drive
Nashville, TN 37210
$800558-9936$ • $615883-9220$
-Display Terminals
NORTHWEST DIGITAL SYSTEMS
10303 Aurora Avenue
P.O. Box 15288

Seattle, WA 98133
206 524-0014
-Graphics Terminals $\bullet$ X Window
Terminals
NOVA ELECTRIC, INC.
263 Hillside Avenue
Nutley, NJ 07110
201 661-3434
$\bullet$ UPS Systems
NU DATA, INC.
32 Fairview Avenue
P.O. Box 125

Little Silver, NJ 07739-1515
201 842-5757
$\bullet$ Menitoring \& Test Devices
NUMERIX CORPORATION
20 Ossipee Road
Newton, MA 02164-1444
617 964-2500
-Array Processors
NUMONICS CORPORATION
101 Commerce Drive
Montgomeryville, PA 18936
215 362-2766
$\bullet$-Pen Plotters

0
OPTRONICS, INC.
7 Stuart Road
Chelmsford, MA 01824
617 256-4511
-Miscellaneous Printers

## OUTPUT

TECHNOLOGY CORPORATION
9922 E. Montgomery \#6
Spokane, WA 99206
509 926-3855
-Dot Matrix Printers

P

PERIPHERAL
PARTS SUPPORT, INC.
411 Waverly Oaks Road
Waltham, MA 02154
617 891-9101
-Distributors \& Resellers
PERITEK CORPORATION
5550 Redwood Road Oakland, CA 94619 415 531-6500
-Image Processors $\bullet$ X Window Terminals $\bullet$ Graphics Controllers -Special Function Boards 0 EMMs

PHOENIX DATA, INC.
3384 West Osborn Road Phoenix, AZ 85017 602 278-8528
$\bullet$ Analog-to-Digital Conversion •Digital I/O •Digital-to-Analog Conversion
PIONEER COMMUNICATIONS
OF AMERICA, INC.
600 E Crescent Avenue
Upper Saddle River, NJ 074568
800 421-6450 • 201 327-6400
$\bullet$ Optical Drives ${ }^{\bullet}$ Optical Subsystems
-Disk Controllers ${ }^{-S}$ Solid State Storage
PIONEER TECHNOLOGIES GROUP
15810 Gaither Drive
Gaithersburg, MD 20877
800 227-1693
-Distributors \& Resellers
PLEXCOM, INC.
65 Moreland Road
Simi Valley, CA 93065
805 522-3333
-Multiplexers ${ }^{-M o d e m s}$-Ethernet
Devices $\bullet$ Networking Interfaces
-Security Systems
PLEXUS COMPUTERS, INC.
3833 North First Street
San Jose, CA 95134
408 943-9433
-Display Terminals
PMC ASSOCIATES
74 North Central Avenue
Ramsey, NJ 07446
201 934-1835
-Disk Subsystems
POWER TECHNIQUES, INC.
40 Aero Camino
Goleta, CA 93117
805 685-0533

- Power Distribution Controllers

PRECISE POWER CORPORATION
715 60th Street Court E
P.O. Box 9547

Bradenton, FL 34206
813 746-3515
-UPS Systems
PRECISION IMAGE CORPORATION
501 Chesapeak Drive
Redwood City, CA 94063
415 366-8900
-Electrostatic Plotters
PRECISION STANDARD TIME
105 Fourier Avenue
Fremont, CA 94539
415 656-4447
$\bullet$-Timing Devices
PRENTICE CORPORATION
266 Caspian Drive
Sunnyvale, CA 94088-3544
408 734-9810
$\bullet$ Modems

PRESTON SCIENTIFIC
805 East Cerritos Avnue
Anaheim, CA 92805
714 776-6400
$\bullet$ Analog-to-Digital Conversion •Analog
I/O •Digital-to-Analog Conversion
PRIMAGES, INC.
151 Trade Zone Drive
Ronkonkoma, NY 11779
516 585-8200
-Daisy Wheel Printers
PRINTEK, INC.
1517 Townline Road
Benton Harbor, MI 49022
616 925-3200
-Dot Matrix Printers
PRINTER SYSTEMS CORPORATION
9055 Comprint Court Suite 200
Gaithersburg, MD 20877
301 258-5060
-Laser Printers
PRINTRONIX, INC.
17500 Cartwright Blvd.
P.O. Box 19559

Irvine, CA 92713
714 863-1900

- Laser Printers •Dot Matrix Printers

PROCESSING INNOVATIONS, INC.
10471 S Brookhurst
Anaheim, CA 92804
714 535-8161
-Modems

## PROVIDENT RECOVERY SYSTEMS

110 MacKenan Drive
Cary, NC 27511
919 481-0011

- Services


## PTI INDUSTRIES

269 Mt . Hermon Road
Scotts Valley, CA 95066
408 438-0946
-UPS Systems
PULIZZI ENGINEERING, INC.
3260 S Susan Street
Santa Ana, CA 92704-6865
714 540-4229
$\bullet$ Power Distribution Controllers
PURVIS SYSTEMS, INC.
1272 W Main Road
Middletown, RI 02840
401 849-4750
-Communication Protocol Interfaces
-Special Function Boards


QMS, INC.
One Magnum Pass
Mobile, AL 36618
205 633-4300

- Laser Printers ${ }^{-T h e r m a l ~ T r a n s f e r ~}$

Printers •Printer Controllers
QUADREX COMPUTER SYSTEMS
1700 Dell Avenue
Campbell, CA 95008-6986
408 370-4216
-System Integrators
QUALOGY
1751 McCarthy Blvd.
Milpitas, CA 95035
408 434-5200

- Host Adapters •Optical Subsystems
-Disk Controllers

QUICKWARE
ENGINEERING DESIGN, INC.
255 Riverview Avenue
Waltham, MA 02154-3874
800 237-1185•617 782-8330
-CPU Upgrades

## QUME CORPORATION

500 Yosemite Drive
Milpitas, CA 95035
408 942-4000 • 800 223-2479
-Graphics Terminals ${ }^{\circ}$ Display Terminals $\bullet$ Laser Printers ${ }^{\bullet}$ Dot Matrix Printers


RDK, INC.
P.O. Box 9703

Austin, TX 787669703
512 832-5464
-Thermal Transfer Printers

## REAL-TIME DEVICES

1326 West Kettering
P.O. Box 4368

Lancaster, CA 93534
805 948-5396
$\bullet$ Monitoring \& Test Devices
RECOGNITION CONCEPTS, INC.
P.O. Box 8510

341 Ski Way
Incline Village, NV 89450
702 831-0473
$\bullet$ Image Processors •Disk Subsystems
RELIABLE
COMPUTER SERVICES, INC.
511 S State Street
Lockport, IL 60441
815 838-0134
-Distributors \& Resellers

## RETIX

2644 30th Street
Santa Monica, CA 90405-3009
800 255-2333 • 213 399-2200
-Ethernet Devices
RICHARD
HIRSCHMANN OF AMERICA
Industrial Row
P.O. Box 229

Riverdale, NJ 07574
201 836-5002
-Ethernet Devices
RICOH CORPORATION
2661 Gates Avenue
P.O. Box 16184

Irvine, CA 92714
714 863-0550

- Laser Printers

ROCKWELL
INTERNATIONAL CORPORATION
Interface Products Group
3370 Miraloma Avenue
P.O. Box 4921

Anaheim, CA 92804
714 762-1476

- Special Function Boards


## ROSE ELECTRONICS

10850 Wilcrest \#900
Houston, TX 77099
713 933-7673
-Switching Devices
RTE DELTEC CORPORATION
2727 Kurtz Street
San Diego, CA 92110
619 291-4211
$\bullet$ UPS Systems •Power Conditioners
RUGGED DIGITAL SYSTEMS, INC.
665 Clyde Avenue
Mountain View, CA 94043
415 966-1770

- Specialized Systems

RWT CORPORATION
1601 Feehanville Drive Suite 500
Mt. Prospect, IL 60056
312 390-0200
-Specialized Systems

303 530-1620
$\bullet$
$\bullet$ Multiplexers
Devices

## RCA BUSINESS SERVICES

Route 38 Bldg.
Bldg. 204-2
Cherry Hill, NJ 08385
609 486-5526
-Display Terminals

S
SAEC MICROSYSTEMS
10925 Reed Hartman Suite 311
Cincinnati, OH 45242
513 793-4959
-Workstations
SAFE POWER SYSTEMS, INC.
528 W 21st Street
Tempe, AZ 85282
602 894-6864
$\bullet$ UPS Systems ${ }^{\circ}$ Power Conditioners
SAI TECHNOLOGY
4224 Campus Point Court
San Diego, CA 92121
800 447-4373 • 619 450-3847
$\bullet$ Workstations ${ }^{\bullet}$ Graphics Terminals
SAMSUNG ELECTRON DEVICES
AMERICA, INC.
14251 E Firestone Blvd. Suite 101
La Mirada, CA 90838
213 802-8425
-Graphics Terminals •Display Terminals

## SAMSUNG SEMICONDUCTOR

3725 N First Street
San Jose, CA 95134-1708
408 434-5400
-Supplies

## SCHERERS

575 Scherers Court
Worthington, OH 43085
614 847-2200•614 847-2395
-Distributors \& Resellers
SCHLUMBERGER GRAPHICS
385 Ravendale Drive
Mountain View, CA 94043-5217
800 545-5445 • 415 964-7900
$\bullet$ Pen Plotters $\bullet$ Thermal Transfer Printers
SCI SYSTEMS, INC.
5000 Technology Drive
Huntsville, AL 35805
205 882-4800 • 205 882-4340
-Specialized Systems
SCIENTIFIC MICRO SYSTEMS, INC.
339 N Bernardo Avenue
P.O. Box 7777

Mountain View, CA 94043
415 964-5700
$\bullet$-CPU Systems ${ }^{\circ}$ Disk Subsystems
$\bullet$ Optical Subsystems •Disk Controllers

- Tape Subsystems

SECONDARY COMPUTER STORAGE
650 N. Cannon Avenue
Lansdale, PA 19446
215 362-7050
-Tape Drives -Tape Controllers
SECURE TECHNOLOGIES, INC.
1504 Providence Highway
Norwood, MA 02062
617 769-6886 • 800 832-LOCK

- Security Systems

SECURITY DYNAMICS
2067 Massachusetts Avenue
Cambridge, MA 02140
617 547-7820

- Security Systems

SEE FIRST TECHNOLOGY, INC.
4655 Old Ironsides Drive Suite 100
Santa Clara, CA 95054
408 748-7717
$\bullet$ Memory Boards ©Solid State Storage

## SEIKO INSTRUMENTS

Graphic Devices \& Systems Division
1130 Ringwood Court
San Jose, CA 95131
408 922-5950 • 408 943-9100
-Workstations ${ }^{\bullet}$ Graphics Terminals

- Hard Copy Units •Thermal Transfer Printers

SEIKOSHA AMERICA, INC.
1111 MacArthur Blvd.
Mahwah, NJ 07430
800 338-2609 • 201 529-4655
-Dot Matrix Printers
SEQUOIA SYSTEMS, INC.
3 Metropolitan Corp
Marlborough, MA 01752
508 480-0800

- Specialized Systems

SHAPE MAGNETRONICS, INC.
901 DuPage Avenue
Lombard, IL 60148
203 726-1411 • 800 367-5811
-Power Conditioners
SHARE BASE (BRITTON LEE)
14600 Winchester Blvd.
Los Gatos, CA 95030
408 378-7000
-Database Processors
SI TECHNOLOGY, INC.
P.O. Box 609

Geneva, IL 60134
312 232-8640
$\bullet$ Multiplexers $\bullet$ Modems ${ }^{\bullet}$ Enclosures

## SIDLINGER

COMPUTER CORPORATION
7551 Callaghan Road Suite 330
San Antonio, TX 78229-2862
512 DIG-ITAL
-Services eSystem Integrators
SIECOR CORPORATION
489 Siecor Park
Hickory, NC 28601
704 327-5824
-Ethernet Devices ${ }^{\circ}$ Monitoring \& Test Devices

## SIEMENS DATA

SWITCHING SYSTEMS
5500 Broken Sound Blvd.
Boca Raton, FL 33487
407 955-5000
-Communication Processors

## SIGMA INFORMATION SYSTEMS

3407 East La Palma Avenue
Anaheim, CA 92806
714 630-6553
-Multiplexers $\bullet$ Host Adapters ${ }^{-T e r m i n a l}$
Servers ${ }^{-D}$ Disk Controllers $\bullet$ Tape
Controllers ${ }^{-A n a l o g-t o-D i g i t a l ~}$
Conversion •Power Distribution
Controllers ${ }^{\circ}$ Enclosures
SILICON GRAPHICS, INC.
P.O. Box 7311

2011 N Shoreline Blvd.
Mountain View, CA 94039-7311
415 960-1980 • 415 962-3365
-Workstations
SIMPACT ASSOCIATES, INC.
9210 Sky Park Court
San Diego, CA 92123
619 565-1865
-Communication Protocol Interfaces
-Communication Processors ${ }^{\circ} \mathrm{Host}$
Adapters $\bullet$ Terminal Servers *Networking
Interfaces $\quad$ X. 25 PAD Processors
$\bullet$ Timing Devices ${ }^{\circ}$ Services

RAMTEK CORPORATION

$$
2-20-0-20
$$

SKY COMPUTERS, INC.
Foot of John Street
Lowell, MA 01852
508 454-6200
-Array Processors eSpecial Function Boards

## SLR ASSOCIATES

377 Shadow Run Drive
San Jose, CA 95110
408 984-7588
-Tape Subsystems
SOFTWARE
RESULTS CORPORATION
940 Freeway Drive N
Columbus, OH 43229
614 785-0282•800 772-3282
-Communication Protocol Interfaces
-Communication Processors
SOFTWARE
SYSTEMS TECHNOLOGY, INC.
305 Broadway
New York, NY 10007
212 964-9600

- Distributors \& Resellers ©System Integrators

SOLA ELECTRIC
1717 Busse Road
Elk Grove Village, IL 60007
312 439-2800 • 312 228-1393
$\bullet$ UPS Systems ${ }^{\circ}$ Power Conditioners
SOLANA ELECTRONICS
7124 Convoy Court
San Diego, CA 92111
619 573-0800
-Multiplexers
SOLID COMPUTER POWER
100 Galleria Pkwy.
Suite 400
Atlanta, GA 30339
404 984-2003
-VARs
SOLID SYSTEMS, INC.
7286 Langtry
Houston, TX 77040
713 895-0500
-Distributors \& Resellers •Maintenance
SOLIDSTATE CONTROLS, INC.
875 Dearborn Drive
Columbus, OH 43085
614 846-7500
-UPS Systems

## SONY CORPORATION OF AMERICA

Information Products Division
One Sony Drive
Park Ridge, NJ 07656
201 930-6588
$\bullet$ Disk Drives
SONY MICROSYSTEMS, INC.
1049 Elwell Court
Palo Alto, CA 94303
415 965-4492
-Workstations
SOPHIA SYSTEMS
3337 Kifer Road
Santa Clara, CA 95051
800 824-9294•800 824-6706 (CA)
-Specialized Systems
SORBUS, INC.
50 E Swedesford Road
Frazer, PA 19355
215 296-6000
$\bullet$-Maintenance

SOUTH HILLS ELECTRONICS
Cord Cable Company
760 Beechnut Drive
Pittsburgh, PA 15205
800 245-6215 - 412 921-9000
$\bullet$ Distributors \& Resellers ${ }^{-W}$ Wiring
Systems and Cables
SOUTHERN DIGITAL SERVICES
6061 Oakbrook Pkwy.
Norcross, GA 30093
404 441-2230
-Distributors \& Resellers
SPECTRA LOGIC CORPORATION
Division of Western Automation
1227 Innsbruck Drive
Sunnyvale, CA 94089
408 734-8121

- Tape Controllers

SPECTRAGRAPHICS
CORPORATION
9125 Rehco Road
San Diego, CA 92121
619 450-0611
$\bullet$ Workstations ${ }^{\bullet}$ Graphics Terminals
SPRAGUE MAGNETICS, INC.
15720 Stagg Street
Van Nuys, CA 91406
800 553-8712 • 800 325-4243 (CA)

- Supplies


## SQUARE D COMPANY

Power Protection Systems
9192 Topaz Way
San Diego, CA 92123
619 279-0831
$\bullet$ UPS Systems •Power Conditioners
STAFF COMPUTER TECHNOLOGY
440 San Lucas Drive
Solana Beach, CA 92075
619 259-1313
$\bullet$ Monitoring \& Test Devices
STANDARD MEMORIES
9 Whatney Drive
Irvine, CA 92718
800 543-3323 • 800 247-9313 (CA)
$\bullet$ Memory Boards
STAR TECHNOLOGIES, INC.
515 Shaw Road
Sterling, VA 22170
703 689-4400
-Array Processors
STARSOFT TECHNOLOGIES, INC.
14884 Berry Way
San Jose, CA 95124
408 377-6949
-Special Function Boards
STORAGE CONCEPTS, INC.
1622 Deer Avenue
Irvine, CA 92714
714 852-8511
-Disk Subsystems
SUITABLE SOLUTIONS
1700 Wyatt Drive, \#12
Santa Clara, CA 95054
408 727-9090
-System Integrators
SUMMUS COMPUTER SYSTEMS
P.O. Box 219270

Houston, TX 77213
713 492-6611
$\bullet$ Multiplexers $\bullet$ Disk Drives ${ }^{-D i s k}$
Subsystems $\bullet$ Optical Drives $\bullet$ Optical
Subsystems $\bullet$ Tape Subsystems $\bullet$ Display
Terminals $\bullet$ Laser Printers $\bullet$ Dot Matrix
Printers ॰UPS Systems ${ }^{\circ}$ Enclosures

SUN MICROSYSTEMS, INC.
2550 Garcia Avenue
Mountain View, CA 94043
415 960-1300
-Workstations

## SUNFLEX COMPANY

73 Digital Drive
Novato, CA 94949
415 883-1221
-Supplies
SUNGARD RECOVERY SYSTEMS
11845 Olympic Blvd.
Los Angeles, CA 90064
213 444-5220
-Services
SUSCO TECHNOLOGY
PROCUREMENT, INC.
316 Derby Street
Salem, MA 01970
508 745-2784
$\bullet$ Distributors \& Resellers
SUTTON DESIGNS, INC.
Computer Security Division
300 N Tioga Street
Ithaca, NY 14850
607 277-4301
$\bullet$ UPS Systems $\bullet$ Power Distribution
Controllers

## SYNCTRONICS

4901 Morena Blvd.
Suite 302
San Diego, CA 92117-9873
619 581-6303
-Supplies
SYNERGY PRINTER SYSTEMS
45999 Warm Springs \#6
Fremont, CA 94539-6746
415 490-0223
$\bullet$-Band Printers
SYNOPTICS COMMUNICATIONS
501 East Middlefield
Mountain View, CA 94043-4015
415 691-7036
-Ethernet Devices
SYSTECH CORPORATION
6465 Nancy Ridge Drive
San Diego, CA 92121
619 453-8970
-Multiplexers

## SYSTEM

DYNAMICS CORPORATION
151 Esna Park Drive
Markham, Ontario,
Canada L3R 3B1
416 475-5155
-Specialized Systems
SYSTEM INDUSTRIES
560 Cottonwood Drive
P.O. Box 789

Milpitas, CA 95035-7403
408 432-1212
$\bullet$ Disk Drives $\bullet$ Disk Subsystems •Tape
Drives ${ }^{\circ}$ Tape Controllers ${ }^{\circ}$ Solid State
Storage oServices

## SYSTEM

TECHNOLOGY ASSOCIATES
15111 Mintz Lane
Houston, TX 77014
713 440-8340
$\bullet$ Disk Drives $\bullet$ Tape Drives $\bullet$ Distributors
\& Resellers

SYSTEMS CONCEPTS, INC.
55 Francisco Street
San Francisco, CA 94133
415 984-1000

- Specialized Systems $\bullet$ Terminal Servers
-Disk Subsystems ${ }^{-S p e c i a l}$ Function Boards

SYSTERM, INC.
3608 Poirier
St-Laurent, Quebec,
Canada H4R $2 J 5$
514 332-5581
-Graphics Terminals

## T

TAB PRODUCTS COMPANY
1400 Page Mill Road
Palo Alto, CA 94304
415 852-2400
-Graphics Terminals
TALARIS SYSTEMS INC.
6059 Cornerstone Court
P.O. Box 261580

San Diego, CA 92126
619 587-0787
-Ethernet Devices •Disk Drives
-Graphics Terminals $\bullet$ Laser Printers
-Printer Controllers

## TALON

TECHNOLOGY CORPORATION
1819 Firman Drive
Suite 137
Richardson, TX 75081
214 680-9913
-Communication Processors eSpecial
Function Boards

## TANEUM COMPUTER PRODUCTS

1123 Maple Avenue SW
Renton, WA 98055
206 228-5956
-Dot Matrix Printers
TARTAN TECHNICAL, INC.
321 Billerica Road
Chelmsford, MA 01824
508 250-9341
$\bullet$ Printer Controllers $\bullet^{-D i s t r i b u t o r s ~ \& ~}$
Resellers oSupplies

## TATUNG COMPANY OF AMERICA

2850 El Presidio
Long Beach, CA 90810
213 637-2105
-Display Terminals
TCL, INC.
47621 Westinghouse Drive
Fremont, CA 94539
415 657-3800
-Ethernet Devices
TD SYSTEMS, INC.
24 Payton Street
Lowell, MA 01853
508 937-9465

- Host Adapters

TEAM SYSTEMS, INC.
2934 Corvin Drive
Santa Clara, CA 95051
408 739-7913

- Monitoring \& Test Devices


## TECEX

1061 S Melrose Avenue
Placentia, CA 92670
714 632-6672 • 800 854-5112
$\bullet$-Optical Drives ${ }^{\circ}$ Tape Subsystems

TECH LABS
500 Tenth Street
Palisades Park, NJ 07650
201 944-2221
$\bullet$ Disk Drives $\bullet$ Disk Subsystems
TECHNIC COMPUTER SERVICE
3021 S Shannon Street
Santa Ana, CA 92704-6374
714 751-0315
$\bullet$ Distributors \& Resellers
TECHNOLOGY CONCEPTS INC.
A Bell Atlantic Company
40 Tall Pine Drive
Sudbury, MA 01776
508 443-7311

- Services


## TECNIMAT

180 S Van Brunt Street
Englewood, NJ 07631 800 524-0646 • 201 569-4200
-Distributors \& Resellers •VARs
-System Integrators
TECO AMERICAN
853 E Sandhill Avenue
Carson, CA 90746
714 670-2722
-Display Terminals
TEKTRONIX, INC.
P.O. Box 500

Beaverton, OR 97077
503 627-7111 • 800 225-5434
-Workstations ${ }^{\circ}$ Graphics Terminals

- Hard Copy Units •Ink Jet Printers
$\bullet$ Miscellaneous Printers $\bullet$ Pen Plotters
$\bullet$ Analog-to-Digital Conversion •Digital
I/O -Digital-to-Analog Conversion
TELCOR SYSTEMS CORPORATION
12 Michigan Drive
Natick, MA 01760
617 653-3995
$\bullet$-Modems
TELEBIT CORPORATION
1345 Shorebird Way
Mountain View, CA 94043-1329
415 969-3800 • 800 835-3248 $\bullet$-Modems

TELEBYTE TECHNOLOGY, INC.
270 E. Pulaski Road
Greenlawn, NY 11740
516 423-3232 • 800 835-3298

- Multiplexers $\bullet$ Tape Drives ${ }^{-T a p e}$ Controllers

TELEFILE COMPUTER PRODUCTS
17131 Daimler Street
Irvine, CA 92714
714 250-1830
-Display Terminals

## TELEMATICS

1201 Cypress Creek R
Fort Lauderdale, FL 33309
$305772-3070$ • $305772-2117$
-Ethernet Devices
TELENETICS CORPORATION
5109 East La Palma A
Anaheim, CA 92807
714 779-2766
$\bullet$ Modems
TELERAY
Box 24064
Minneapolis, MN 55424
612 941-3300
$\bullet$ Graphics Terminals $\bullet$ Display Terminals

TELEVIDEO SYSTEMS, INC.
1170 Morse Avenue
P.O. Box 3568

Sunnyvale, CA 94088-3568
408 745-7760
-Display Terminals
TELTONE CORPORATION
10801 120th Avenue N.
Kirkland, WA 98033
800 426-3926 • 206 827-9626
$\bullet$ Multiplexers $\bullet$ Modems $\bullet$ Networking Interfaces

TELXON CORPORATION
3330 W. Market Street
Akron, OH 44313
800 321-2424 • 216 867-3700

- Specialized Systems

TEMPEST TECHNOLOGIES, INC.
460 Herndon Parkway
Herndon, VA 22070
703 471-0157
-Dot Matrix Printers
TERADATA
12945 Jefferson Blvd
Los Angeles, CA 90066
213 827-8777
-Specialized Systems •Database Processors

TEXAS INSTRUMENTS, INC.
Data Systems Group
P.O. Box 181153

Austin, TX 78718
800 527-3500
$\bullet$ Display Terminals $\bullet$ Dot Matrix Printers
TEXWIPE
650 East Crescent Avenue
P.O. Box 308

Upper Saddle River, NJ 07458
201 327-9100

- Supplies

THE CYLIX CORPORATION
2637 Townsgate Roa Suite 200
Westlake Village, CA 91361
805 379-3155
-Supplies
THE HOLOSCAN CORPORATION
4 Olsen Avenue
Edison, NJ 08820
201 549-9000
-Laser Printers
THE LASER CONNECTION
7852 Schillinger Park
Mobile, AL 36608
800 523-2696 • 205 633-7223

- Laser Printers

THE LOGICAL COMPANY
31225 Lorraine Road
P.O. Box 549

Cottage Grove, OR 97424
503 942-3610
-Communication Controllers •Printer Controllers eSpecial Function Boards

THE PRINTER SOURCE
575 Broad Street Street
Bridgeport, CT 06604
203 368-0629
-Distributors \& Resellers
THE SUPERIOR
ELECTRIC COMPANY
383 Middle Street
Bristol, CT 06010
203 582-9561
$\bullet$ UPS Systems •Power Distribution
Controllers •Power Conditioners

THOMAS
BUSINESS SYSTEMS, INC.
4301 Oak Circle \#11
Boca Raton, FL 33431
407 392-2005
-System Integrators
THOMAS ENGINEERING COMPANY
2440 Stanwell Drive
Concord, CA 94520
415 680-8640 • 800 832-8649
-Display Terminals
TIEX COMPUTER
COMM PRODUCTS
13748 Neutron Road
Dallas, TX 75244-9699
800 533-TIEX
-Wiring Systems \& Cables
TIME MOTION TOOLS
410 S. Douglas Street
El Segundo, CA 90425
213 772-8170

- Supplies

TLC S.E., INC.
3034 Scott Blvd.
Santa Clara, CA 95054
408 986-8300
-Monitoring \& Test Devices
TOSHIBA AMERICA
Disk Products Division
9740 Irvine Blvd.
Irvine, CA 92718
714 583-3108
-Disk Drives •Optical Drives
TOSHIBA/HOUSTON
13131 W Little York
Houston, TX 77041
800 231-1412 • 713 466-0277
-UPS Systems
TOTAL TEC SYSTEMS, INC.
2 Gourmet Lane
Edison, NJ 08837
201 906-6500
$\bullet$-Tape Subsystems •Distributors \&
Resellers ©System Integrators
TOYO SPECTRUM CORPORATION
2934 Corvin Drive
Santa Clara, CA 95051
408 739-7913
-Thermal Transfer Printers
TPS ELECTRONICS
4047 Transport Street
Palo Alto, CA 94303
415 856-6833

- Magnetic Strip Readers •Bar Code Readers

TRANSIAC CORPORATION
48500 Kato Road
Fremont, CA 94303
415 657-7555
-Graphics Terminals
TRANSITIONAL
TECHNOLOGY, INC.
1411 N Batavia Suite 203
Orange, CA 92667
714 744-1030
-Tape Subsystems
TRANSTECH INTERNATIONAL
CORPORATION
16A Tech Circle
Natick, MA 01760
617 237-7715
-Graphics Terminals

TRANSTECTOR SYSTEMS, INC.
P.O. Box 300

Hayden Lake, ID 83835
800 635-2537
$\bullet$ UPS Systems $\bullet$ Power Conditioners
TRENDCOM, INC.
46309 Warm Springs B
Fremont, CA 94539
415 490-1291
-Display Terminals
TRI-DATA SYSTEMS, INC.
1450 Kifer Road
Sunnyvale, CA 94086
408 746-2900
-Communication Processors
TRILLIUM CORPORATION
55 Harristown Road
Glen Rock, NJ 07452
201 445-9660
-Graphics Terminals
TRILOGIC
R.D. \#2 Box 203A

Old Route 519
Canonsburg, PA 15317
800 346-2933 • 412 745-0200
$\bullet$ Distributors \& Resellers
TRIMARCHI, INC.
P.O. Box 560

State College, PA 16804
814 234-5659
-Disk Subsystems •Tape Subsystems
TRIMM INDUSTRIES
11949 Sherman Road
North Hollywood, CA 91605-9990
818 983-1833
-Enclosures
TRISTAR TECHNOLOGY
10 Reuten Drive
Closter, NJ 07624
201 784-1557
-Disk Subsystems •Optical Subsystems
-Display Terminals
TRW CUSTOMER
SERVICE DIVISION
420 Hudgins Drive
Fredricksburg, VA 22401
703 898-7555
-Maintenance

U

U. S. COMPUTER SOURCES

2647 Grand Avenue
Bellmore, NY 11710
800 526-2667 • 516 783-4144
-Distributors \& Resellers
U. S. DESIGN CORPORATION

4311 Forbes Blvd.
Lanham, MD 20706
301 577-2880
$\bullet$ Host Adapters $\bullet$ Disk Drives $\bullet$ Disk
Subsystems •Optical Drives •Optical
Subsystems $\bullet$ Tape Controllers
-Peripheral Controllers
U. S. LEASING

733 Front Street
San Francisco, CA 94111
415 627-9825
-Leasing/Rental
U. S. PROFESSIONAL

DEVELOPMENT INSTITUTE
1734 Elton Road Suite 221
Silver Spring, MD 20903-1733
301 445-4400

- Services
U. S. RESALE CORPORATION

3073 Lawrence Expressway Santa Clara, CA 95051
408 739-9800
-Distributors \& Resellers ©Maintenance
U. S. ROBOTICS, INC.

8100 N McCormick Blvd.
Skokie, IL 60076
312 982-5010
$\bullet$-Modems
UNBOUND, INC.
15235 Springdale Street
Huntington Beach, CA 92649
800 862-6863 • 714 895-6205
$\bullet$-CPU Systems ${ }^{-D i s k}$ Subsystems
-Optical Drives
UNICOM ELECTRIC
12020 Mora Drive
Santa Fe Springs, CA 90670
213 946-9650 • 800 346-6668

- System Integrators

UNISYS CORPORATION
P.O. Box 500

Blue Bell, PA 19424
215 542-2240
-Display Terminals
UNIVERSAL COMPUTING
5055 Viewridge Avenue
San Diego, CA 92123
619 576-0592
-Image Processors eSystem Integrators
UNIVERSAL DATA SYSTEMS
5000 Bradford Drive
Huntsville, AL 35805-1953
205 721-8000
$\bullet$ Multiplexers $\bullet$ Modems

## UP TIME

DISASTER RECOVERY, INC.
643 W Stadium Lane
Sacramento, CA 95834
916 648-1282

- Services

UR ASSOCIATES, INC.
9454 Renton Avenue
Seattle, WA 98118
206 723-6622
-Distributors \& Resellers
US DIGITAL
1116 W. Collins
Orange, CA 92668
714 771-7770
-Distributors \& Resellers


## VARITYPER

11 Mt. Pleasant Avenue
East Hanover, NJ 07936
201 887-8000

- Laser Printers


## VERSATEC

2710 Walsh Avenue
Santa Clara, CA 95051
800 538-6477 • 800 341-6060 (CA) $\bullet$ Electrostatic Plotters ${ }^{\bullet}$ Graphics Controllers

## VERSITRON

9005-8 Junction Drive Annapolis Junction, MD 20701 800 537-2296 • 301 497-8600 $\bullet$-Modems ${ }^{\circ}$ Ethernet Devices

VERTEX INDUSTRIES
23 Carol Street
P.O. Box 996

Clifton, NJ 07014-0996
201 472-1331

- Bar Code Readers


## VERTICOM, INC.

545 Weddell Drive
Sunnyvale, CA 94089
800 433-5760 • 408 747-1222
-Graphics Terminals
VG SYSTEMS, INC.
21300 Oxnard Street
Woodland Hills, CA 91367
818 346-3410
-Graphics Terminals
VICOM SYSTEMS, INC.
2520 Junction Avenue
San Jose, CA 95134
408 946-5660
-Image Processors
VIDEX, INC.
1105 NE Circle Blvd. Corvallis, OR 97330-4285
503 758-0521
-Bar Code Readers
VIRTUAL IMAGING
165 San Gabriel Drive
Sunnyvale, CA 94086
408 737-3700
-Workstations ${ }^{\circ}$ Graphics Controllers
VIRTUAL MICROSYSTEMS, INC.
1825 S Grant Street Suite 700
San Mateo, CA 94402
415 573-9596

- Specialized Systems

VISENTECH SYSTEMS, INC.
11500 North Stemmons
Dallas, TX 75229
800 248-5931 • 214 247-5931
-Display Terminals
VISUAL TECHNOLOGY, INC.
1703 Middlesex Street
Lowell, MA 01851
800 847-8252 • 617 459-4903
$\bullet$ Graphics Terminals $\bullet$ X Window Terminals

VITALINK COMMUNICATIONS
CORPORATION
6607 Kaiser Drive
Fremont, CA 94555
415 794-1100
-Communication Processors ${ }^{\circ}$ Ethernet Devices

VITEQ CORPORATION
10000 Aerospace Road
Lanham, MD 20706
301 731-0400 • 800 678-4877
-UPS Systems
VOLKER-CRAIG LTD.
695 Rupert Street
Waterloo, Ontario,Canada N2V 125
800 265-8883 • 519 884-9300
-Display Terminals
VYKOR TECHNOLOGY, INC.
5775 Dawson Street
Goleta, CA 93117
805 964-3535
-Specialized Systems

w


XYCOM, INC.
750 North Maple Road
Saline, MI 48176
313 429-4971
-Display Terminals
XYLOGICS, INC.
53 3rd Avenue
Burlington, MA 01803
617 272-8140
-Multiplexers
XYPLEX, INC.
100 Domino Drive
Concord, MA 01742
508 264-9900
-Communication Processors
-Communication Servers
-Communication Controllers $\bullet$ Terminal Servers ${ }^{\circ}$ Ethernet Devices $\bullet$ Printer Controllers

## Z



## ZENITH DATA SYSTEMS

Subsidiary of Zenith Electronics
Corporation
1000 Milwaukee Avenue
Glenview, IL 60025
312 391-8860 • 312 699-4800
-Display Terminals
ZOLTECH CORPORATION
7023 Valjean Avenue
Van Nuys, CA 91406
818 780-1800
-Enclosures
ZONIC CORPORATION
2000 Ford Circle
Milford, OH 45150
513 248-1911
-Analog I/O

# MUST Reading <br> Computing Books From Professional Press 



## Introduction to VAX/VMS, Second Edition

Introduction to VAX/VMS is a guide for beginners and a reference for the experienced user. From the basics to systems and programming, Introduction to VAX/VMS gives easy to follow instructions about the VAX computer family, DCL command language, command procedures, mail, backup and help features and more. Through pictures, examples and programs, you get explicit instructions for everyday use of VAX/VMS and tips for problems. Plus 8 Appendices and a Glossary for added reference.
Order Introduction to VAX/VMS now. Complete the form below or call Trish at (215) 957-1500 (9-4 eastern time) with credit card information.


## Let's C Now

Let's C Now is a self teaching guide to the C language in two volumes. It has all the information you need to learn C language, from the basics to expert use and understanding. Twenty-six informative chapters with tested examples, author's tips and suggestions make it easy to learn, even if you're not a computing expert. Use "C" on any operating system with DEC hardware (primarily for VAX and PDP).

Order one or both volumes of Let's C Now on the order form below, or call Trish at (215) 957-1500 (9-4 eastern time).

> Complete and mail the form below with payment to order 1,2 or all 3 of these important computer handhooks NOW!


## NEW . . . VMS Advanced Device Driver Techniques

By Experts Lee Leahy of Digital Equipment Corporation and Jamie Hanrahan of Simpact Associates VMS Advanced Device Driver Techniques describes how to design, implement and debug device drivers for the VMS Version 5 operating system. Learn more about simple VMS device drivers, full duplex and state machinebased drivers, VAX BI Drivers, advanced strategies and techniques you can use for debugging VMS device drivers and much more. From the lowlevel "building blocks" to high-level design issues, it's everything you need to become a proficient user of VMS device drivers.

Order now. Fill out the order form below or call Trish at (215) 957-1500 (9-4 eastern time).

YES! I want to complete my computing library with one or more of these important computing handbooks from Professional Press!


[^20]ACS Equipment Corp ..... 266
Allied Telesis ..... 69
BGL Technology Corporation ..... 203
C.D. Smith \& Associates ..... 266
Calcomp ..... 191
Chrislin Industries, Inc ..... 137
Computer Power Inc. ..... 231
Contemporary Cybernetics Group ..... 123
Datability Software Systems ..... F. Cover
Datability Software Systems ..... B. Cover
Dataram ..... 145
Deltec ..... 234
Digi-Data Corp ..... 133
Emulex Corporation ..... I.F. Cover
ESS ..... 262
Laserdrive ..... 93
Logicraft, Inc. .....  1
Maintech, A Divison of
Volt Delta Resources ..... 264
MCG Electronics, Inc. ..... 226
MDB Systems ..... 115
MegaTape Corp ..... 126
Mesa Technology ..... 111
Mesa Technology ..... 117
Mesa Technology ..... 119
Mesa Technology ..... 131
Mesa Technology ..... 194
Mesa Technology ..... 200
Net/ComDesign ..... 47
Net/ComDesign ..... 65
Nissho Electronics ..... 15
Perceptics Corp. ..... 104
Peritek Corporation ..... 253
Persoft, Inc. ..... 157
Pulizzi Engineering ..... 228
Raxco, Inc. .....  89
Scherers Communications ..... 153
See First Technology ..... 120
See First Technology ..... 143
SST ..... 197
Summus Computer Systems ..... I.B. Cover
Synctronics ..... 165
System Industries ..... 107
Talaris Systems Inc. ..... 187
Toyo Spectrum Corp. ..... 175
TriLogic Corp ..... 20
TriLogic Corp. ..... 267
Trimm Industries ..... 237
Walker Richer \& Quinn ..... 9

More information about these advertisers is available electronically on our Automated Reader Information Service Bulletin Board (ARIS/BB). Dial (215) 957-1000; Southern California (818) 577-9100; Northern California (415) 873-2135; Massachusetts (617) 863-5010.

## DP LAB SEALS...continued

| Chapter | Issue | Chapter | Issue |
| :---: | :---: | :---: | :---: |
| Cipher Data Products |  | OUTPUT DEVICES |  |
| M990 Series | October 1988 | QMS |  |
|  |  | ImageServer XP Series | July 1988 |
| Megatape Corporation |  |  |  |
| MT-750 | March 1989 | NBS Southern |  |
|  |  | 3840 | January 1989 |
| TERMINALS AND WORKSTATIONS |  |  |  |
| Esprit Systems |  | C.Itoh Electronics |  |
| Opus 3n1 | November 1988 | MegaServe | May 1989 |
| Link Technologies |  | POWER DEVICES |  |
| MC3 | April 1988 | Pulizzi Engineering |  |
|  |  | PC 300 Series | February 1987 |
| Northern Telecom |  |  |  |
| Displayphone220 | May 1987 | ENCLOSURES |  |
|  |  | Trimm Industries |  |
| Random Corporation |  | DA 23 | November 1987 |
| Colleague | February 1988 |  |  |
|  |  | SPECIALIZED PRODUCTS |  |
| Texas Instruments |  | Intra Computer |  |
| TravelMate 1200 | June 1987 | SAM | August 1986 |
| Texas Instruments |  | Precision Standard Time |  |
| TravelMate LT220 | May 1989 | 1021 | January 1988 |
| Lanpar Technologies |  | Network General |  |
| MAX 331 | December 1988 | The Sniffer | June 1988 |
| Northwest Digital Systems |  | Percon |  |
| GP-220Z | March 1989 | E-Z Reader | June 1987 |
| Pericom |  |  |  |
| MX7100 | March 1988 |  |  |

# ADVERTISING SALES OFFICE 

Jeffery Berman, Associate Publisher (215) 957-1500

Mark Durrick, Eastern Regional Manager David Beardslee, Southwest Regional Manager A.G. Germano, Northwest Regional Manager

## MID-ATLANTIC

(215) 957-1500

Mark Durrick, Eastern Regional Manager
Dan Mainieri Jr., Senior Account Executive
Connie Mahon, Account Executive
101 Witmer Road
Horsham, PA 19044
FAX (215) 957-1050

## NEW ENGLAND

(617) 861-1994

Trish McCauley, Regional Sales Manager
Kristi Wesslen, Account Executive
238 Bedford St., Ste. 3
Lexington, MA 02173
FAX (617) 861-7707

## MIDWEST \& SOUTH

(312) 747-0600

Richard E. Julius, Regional Sales Manager
20180 Governors Hwy., Ste. 201
Olympia Fields, IL 60461
FAX (312) 747-0707

## NORTHERN CALIFORNIA \& NORTHWEST

 (415) 873-3368A.G. Germano, Northwest Regional Manager Alonna Doucette, Senior Account Executive Judy Courtney, Account Executive
903 Sneath Ln., Ste. 220
San Bruno, CA 94066
FAX (415) 873-6608
SOUTHERN CALIFORNIA \& SOUTHWEST (818) 577-5970

David Beardslee, Southwest Regional Manager
Karin Altonaga, District Sales Manager
Mary Marbach, Account Executive
1010 E. Union St., Ste. 101
Pasadena, CA 91106
FAX (818) 577-0073

## CANADA/INTERNATIONAL

(215) 957-1500

Helen B. Marbach, Regional Sales Manager 101 Witmer Road
Horsham, PA 19044 FAX (215) 957-1050
(215) 957-1500

Phyllis Chandler, Advertising Services Manager Mary Browarek, Classified Ad Manager Cathy Dodies, List Rental Manager Jane L. Hope, List Rental Sales
Steve Maher, Associate Publisher, Buyer's Guide

# Unattended back-up and data interchange for Apple, DEC, IBM, and Sun by the gigabyte. 



- Hungry? Satisfy your system's appetite for gigabytes of high-performance helicalscan tape, optical, or disk storage with a SUMMUS subsystem and guarantee connectivity and data interchange between different systems.
Taste the winning recipe for unattended back-up of the largest LAN. Our GigaTape ${ }^{\text {TM }}$ 8 mm helical-scan drives provide capacity in abundance. A single 8 mm data cartridge, with 2.3 gigabytes of capacity, replaces 15 150-megabyte tape cartridges, and costs less than two cents per megabyte. Hungry for more than 2.3 gigabytes? We have multiple drive subsystems which are easily daisy-chained, or order-up our 125 to 1,000-gigabyte JukeBoxLibrary. ${ }^{\text {TM }}$
- With the GigaTape, and our feature-rich GigaSafe ${ }^{\text {TM }}$ software, you'll finally be able to do truly unattended back-ups and interchange data with other computer systems. Novell ${ }^{\text {TM }}$ NetWare ${ }^{\text {TM }}$ compatible, it saves hundreds of hours and thousands of dollars in operating and equipment expenses.

Plug \& Play Data Storage and Interchange


SUMMUS compact data storage subsystems.

## The GigaTape - priced from $\$ 4,995$. Lease for only \$180 per month!

- There's more on the menu. Choose from our new 650-megabyte rewritable magnetooptical LightDisk ${ }^{\text {TM }}$ or a smorgasbord of fast, reliable disk drives in our GigaBox ${ }^{\text {TM }}$ with 170 megabytes to 20 gigabytes on-line.

Icing on the cake. SUMMUS' commitment to your needs means a single source of compatible data storage subsystems for DEC, IBM PC, Apple Macintosh, and Sun computers, with programs underway for others. And our GigaSafe ${ }^{T \mathrm{M}}$ software allows you to read and write ANSI standard data among all of them today, tomorrow, or ten years from now. Finally, we serve up our first-rate support, flexible service options, progressive upgrade plans, and years of experience with every purchase. We've cooked up compact, high-capacity data storage solutions for Georgia-Pacific, Lockheed, GE, Chevron, NASA and other hungry outfits. Call us toll-free today to see what's on the menu for you.
1-800-255-9638


## COMPUTER SYSTEMS

17171 PARK ROW • SUITE 300 • HOUSTON, TX 77084 713/422-6611 • FAX 713/422-0092


## 10 FACTS BEHIND VISTA'S SUPERIORITY.

Presenting VISTA, a revolutionary new communications server that provides unparalleled capabilities for today with the options you'll need tomorrow. Before you purchase another DECserver consider these 10 facts:

## 1. 100\% LAT COMPATIBLE

VISTA is $100 \%$ LAT compatible providing a transparent network interface to all your DEC systems without the need for host setup or installation!

## 2. EXPANDABLE TO 128 USERS

Start with an 8 , 16 , or 32 port unit and instead of adding additional DECservers, add VISTA line cards as your needs grow. A single VISTA Server can support up to an unprecedented 128 users in a single $5^{1 / 4} 4^{\prime \prime}$ high unit.

## 3. UNEOUALED PROCESSING SPEED

With nine times the thruput of a DECserver-200, a VISTA 128 port server can support port speeds of 38.4 K BPS and an aggregate character thruput of 100,000 CPS, far exceeding the bandwidth of DECserver products.

## 4. Cost EfFICIENT

Whether configuring an 8 port VISTA Server or a fully loaded 128 port VISTA unit, VISTA offers per port costs that are among the lowest in the industry. A VISTA Server configured with 128 ports is priced at $\$ 14,996$ under \$118 per port!

## 5. no end user retraining

Users familiar with the DECserver command interface will find VISTA easy to use, requiring no end user retraining.

## 6. CUSTOMIZE VISTA TO MEET YOUR SPECIFIC NEEDS

Choose now from a number of user connectivity strategies such as 8 port RS232, 16 port RS232, 32 port RS423 and later this fall add a single slide in

Hayes compatible modem card featuring 8 on-board dial in/out modems or a full function X. 25 Line Card.

## 7. COMPLETE FRONT PANEL CAPABILITIES

Unlike DECserver products VISTA's front panel incorporates complete management and diagnostic capabilities providing your operations staff with direct access to server functions.

## 8. CABLE READY FOR ALL ENVIRONMENTS

VISTA's Network interface Card is cable ready for all environments featuring standard, thin wire and SynOptics unshielded twisted pair connections.

## 9. PROTOCOL INDEPENDENT

VISTA will not become obsolete as your network strategy changes. Start with our LAT compatible NIC card and in the future switch to TCP/IP, OSI or a combination of protocols.

## 10. OUR 30 DAY NO-RISK CUSTOMER SATISFACTION PROGRAM

VISTA is guaranteed to satisfy. Buy a VISTA Server and try it for 30 days. If it is not everything we've said it was. return it without any further obligation.



[^0]:    Logicraft is a registered trademark of Logicraft, Inc. DEC is a registered trademark of Digital Equipment Corporation. IBM is a registered trademark of International Business Machines Corporation. 386Ware is a trademark of Logicraft, Inc VAX, VAXstation, and VT are trademarks of Digital Equipment Corporation. MS-DOS is a trademark of Microsoft Corporation.

[^1]:[^2]:    $$
    6
    $$

[^3]:    

[^4]:    II

[^5]:    $\qquad$

[^6]:    

[^7]:    - 

[^8]:    $\qquad$

[^9]:    *PS/2 AND IBM ARE REGISTERED TRADEMARKS OF INTERNATIONAL BUSINESS MACHINES. BA23, QBUS, MICROVAX II, MICROVAX ARE TRADEMARKS OF DIGITAL EQUIPMENT CORPORATION. MULtibus is a trademark of intel machines.

[^10]:    $\qquad$

[^11]:    

[^12]:    $$
    8
    $$

[^13]:    

[^14]:[^15]:[^16]:    
    

[^17]:    $\qquad$
    $\qquad$
    ,

[^18]:    

[^19]:    

[^20]:    $\square$ Call me about multiple copy discounts

