

Commodore VIC 20 Video Interface Computer



The Commodore VIC 20 shown above is designed to be the most "user friendly" computer on the market. Standard features include color, sound, programmable function keys, 5KB memory, full-size typewriter keyboard, and VICBASIC for \$299.95.

BACKGROUND INFORMATION

Commodore Business Machines, Inc., Computer Systems Division, 681 Moore Road, King of Prussia, PA 19406. Telephone (215) 337-7100.

Commodore Business Machines, Inc. was formed in 1976 following acquisition by Commodore of MOS Technology, Inc., developers of the industry standard 6502 microprocessor chip. Commodore pioneered the personal computing industry with a 4KB version of the PET computer introduced in 1977.

Until the end of 1979, all of CBM's computers were referred to by the firm as PETs. Then the CBM systems were introduced. These systems are 16KB and 32KB versions of the PET with an optional 11-key numeric pad and both upper- and lower-case alphabetic characters supported on the keyboard. They are targeted at the business system market while the PET remains targeted at the home, hobby and educational markets.

The VIC incorporates many of the features and innovations of the PET and CBM systems. It utilizes the VIC (Video Interface Chip) and 6502A microprocessor chips, both developed by MOS Technology.

The VIC is marketed in the USA by a dealer network of approximately 450 computer store dealers as well as better department stores, and mail order houses.

Current models: VIC 20 (USA), VIC 1001 (Japan), VC 20 (Europe).
Memory: 3.5KB-32KB RAM; 170KB-1MB diskette.
Workstations: one local only.
Base list price: \$299.95—VIC 20, \$374.90—VIC 20 and tape cassette recorder.
Typical list prices: \$499.95—telecomputing system including VIC 20 and modem; \$549.95—home user system including VIC 20 and color TV.
Primary uses: data communications, education and entertainment.
Popular options: from Commodore—tape cassette recorder, 3K memory expansion cartridge, master control panel (6 slot cartridge multiplexor), IEEE interface, telephone modem, single disk drive, printer.
Principal programming languages: Basic (in ROM).
Principal application software: recreation, education, home utility and small business programs available in plug-in program cartridges, cassette tapes, and diskette media.
First shipment: 1980 (Japan).
Number installed to date: about 17,000.
Current shipment rate: 5000-10,000 per month.
Available through: worldwide dealer network, department stores, mail order houses.

SYSTEM CHARACTERISTICS

Commodore's VIC 20 personal computer system is the industry's first full-featured color computer selling for under \$300. The basic system includes 5KB RAM (3.5 user-accessible) expandable to 32KB RAM, color, sound, self-teaching materials, programmable function keys and VICBASIC.

Commodore has introduced a number of low priced peripherals for the VIC. These include a single 5¼" floppy diskette drive, dot matrix printer, master control panel modem, and a full range of application programs.

Commodore feels that the VIC has a strong market among first-time users who want to learn computing in a self-teaching fashion. Other markets include the home/hobby environment for entertainment and education and small businesses wanting to access telecomputing services such as Dow Jones and The Source.

The VIC's memory can be expanded using simple plug-in ROM cartridges. Special application programs and games are available in plug-in ROM form as well as on tape and disk media. Some of these programs and games are designed by Commodore programmers, but the majority come from outside software developers, both individuals and software houses. Commodore is actively encouraging ROM-based program development, with excellent results.

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HARDWARE/PACKAGING

PROCESSOR/MEMORY

Model: 6502A
RAM: 5KB-32KB
ROM: 20KB; 16KB external cartridge
System prices: \$299.95—CPU only; approximately \$350—3KB;
\$369—8KB; \$520—16KB (includes expansion interface)

DISPLAY

Model: user-supplied color TV or monitor
Number: one
Chars./screen: 506 characters; 22 columns x 23 lines
Char. type: upper/lower case, 8 x 8 dot matrix
Features: reverse characters, graphics symbols
Graphics: dot resolution 176 x 184; 32384 pixels
Interface: RF modulator (included with system)

KEYBOARD

Type: full-size typewriter style
No. of Keys: 66 total includes 4 programmable function keys
Interface: integral

DIRECT ACCESS STORAGE

Model: 1540
Type: 5¼" floppy diskette
Capacity/drive: 170KB per drive
Drives/system: 14 drives max. with IEEE interface
Avg. access time: information not available
Transfer rate: 62.5 KBS
Interface: serial bus. or IEEE interface
Price: \$595

PRINTER

Model: 1515
Type: dot matrix
Paper: tractor feed
Char. set: ASCII set and VIC graphics
Chars./line: 80
Speed: 30 cps
Interface: serial bus
Price: \$395
PET printers also available with IEEE interface

DATA COMMUNICATIONS

Model: VICMODEM
Trans. mode: half or full duplex
Protocol: asynchronous
Lines: one
Speed: 300 baud
Interface: —
Price: \$109.95

OTHER I/O

Magnetic tape: Commodore CAN tape cassette (\$74.95)

I/O ELECTRONICS

Structure: serial bus; RS-232 parallel port, game port, expansion port

SOFTWARE

LANGUAGES:

Basic: VICBASIC—version of Microsoft Basic Assembler: 6502 Assembler

OPERATING SYSTEM

Name: included in base system
System requirements: base system or expanded
Other functions: screen editor, cassette data and program I/O, RS-232 communications, floating math routines, "kernel" routines which facilitate I/O programming

UTILITIES

Others: Programmers Aid Cartridge, Super Expander Cartridge, Memory Expander Cartridges (3K, 8K, 16K)

DATABASE MANAGEMENT SYSTEMS: none specified

COMMUNICATIONS SUPPORT

Name: Terminal emulator available from independent vendors

APPLICATIONS PROGRAMS

6-Pack #1: Car Chase, Blue Meanies from Outer Space, VIC 21 (Blackjack), Spacemath, Slither/Super Slither, Biorythem (\$59.95)
Home Calculation Program Pack A: Personal Finance, VIC Typewriter, Expense Calendar, Loan and Mortgage Calculator, Home Inventory (\$59.95)
Games Cartridges: VIC Avengers, Superslot, Super Alien, Jupiter Lander, Draw Poker, Midnight Drive (\$29.95 each)

SUPPORT SERVICES

DOCUMENTATION

Range: 5-10 books/manuals available (\$5.95—15.00 each); User's Manual (\$5.95) free with CPU; VIC Programmers Reference Guide (\$15.00)

SUPPORT

Training & education: self-teaching materials provided through the VIC Learning Series (book and tape/cassette sets)
Maintenance: through authorized Commodore dealer network and Commodore Regional Dealer Support Centers

TERMS AND CONDITIONS

Lease terms: none available
Discounts: none available
Warranties: 90 days
Software terms: software on tape, plug-in cartridge and disk for outright sale ■