Atari 400 and 800

The Atari 800 shown here consists of a 16KB RAM, cassette program recorder, 40-cps 4-inch roll printer, 5¼-inch 88KB mini-diskette drive, and a user-supplied color TV set or monitor. Programs can be loaded either via plug-in ROM cartridges, cassette tapes, or diskettes. The 800 is programmable in Basic or Assembly language.

BACKGROUND INFORMATION

Atari Computer Division, a Warner Communications Company, 1265 Borregas Ave., P.O. Box 427, Sunnyvale, CA 94086. Telephone (408) 942-6500.

When Atari entered the personal computer marketplace in 1979, it came as no great surprise to the industry. With revenues of about $200 million per year and a highly successful track record in manufacturing and marketing high technology consumer electronic games, it was natural for Atari to turn its attention to personal computers.

Atari sells two personal computers: the Atari 400 and Atari 800. The 400 is a limited size (16K bytes), low-end system intended for home use. The 800 has more RAM capacity and is capable of handling small business and professional applications, as well as sophisticated home processing applications.

Atari has entered into a license agreement with Control Data Corporation for servicing the Atari computers. Under this agreement, CDC service centers nationwide have established Atari repair facilities, and can fix most problems in a 48-hour period. Atari has also entered into an agreement with CDC whereby Atari is marketing four CDC CYBERWARE investment programs that run on the Atari 800.

In addition to relying on its strong distribution network, Atari stresses that a major selling point of the 400 and 800 systems is the use of plug-in ROM cartridges. These cartridges provide low-cost, easy-to-use program availability.

Current models: Atari 400; Atari 800.
Memory: 16KB-48KB RAM, 88KB-352KB mini diskette.
Workstations: not applicable.
Base list price: Atari 400—$399 including processor, 16KB RAM, keyboard, built-in RF modulator, internal speaker. Atari 800—$899 including same as Atari 400 plus Basic cartridge, different keyboard, monitor jack.
Typical list prices: Atari 400 (student)—$565 including same as base configuration plus educator kit; Atari 800—$1,675 including processor 48KB RAM, disk drive, 80 column printer, interface module, cables.
Primary uses: accounting, personal finance, communications, education, entertainment, math/statistics, word processing.
Popular options: from Atari—joystick, paddles, printers, mini disk drive, add-on memory, modems; from independents—home controller, graphic I/O tablet, plotter.
Principal programming languages: Basic, Assembly, PILOT.
Principal applications software: personal finance, music, education systems, statistics, games.
First shipment: 1979.
Number installed to date: information not available.
Current shipment rate: information not available.
Available through: about 875 direct and indirect vendors, computer dealers and electronics specialty shops, Sears Roebuck and Penney's.

SYSTEM CHARACTERISTICS

The Atari computers are compact units consisting of a keyboard chassis which holds the plug-in ROM and provides a serial I/O port for external peripherals and four controller jacks for joystick and paddle controllers. Four independent sound synthesizers are incorporated into the console along with an internal speaker.

Each system contains an RF modulator which enables it to connect to any TV. Text is displayed in three modes and graphics in nine modes. The keyboard provides 57 alphanumeric keys plus four special function keys.

The differences between the two systems are as follows: 1) RAM capacity: 16K bytes on the 400, 16K bytes expandable to 48K bytes on the 800; 2) keyboard: monopanel, touch sensitive on the 400, regular typewriter-style on the 800; 3) a jack on the 800 enabling the system to be used with a monitor instead of a TV if desired; 4) ROM cartridge slots: one on the 400, two on the 800.

The Atari 400 is capable of attaching game controls, a cassette recorder, and a 40-column printer as external peripherals in addition to a TV set display monitor. An acoustic modem with an interface module is also available.

The 800 can use all of the Atari controllers and peripherals as well as support all of the 400's programs. Additionally, up to four 88K byte diskette drives can be attached to the Atari 800. It can utilize 40 or 100 cps printers, as well as several packages not available on the Atari 400.

Atari 400 and 800

HARDWARE/PACKAGING

PROCESSOR/MEMORY
Model: 6502 microprocessor; 8 bits
RAM: Atari 400—16KB; Atari 800—16KB-48KB in 8KB ($49.95) or 16KB ($99.95) increments
ROM: Atari 400—10KB internal, 2KB-16KB cartridge; Atari 800—10KB internal, 2KB-16KB cartridge

DISPLAY
Model: color or B/W TV set (or monitor with Atari 800)
Number: none provided; maximum of one furnished by user
Screen size: any size
Chars./screen: 960 (40 chars./line, 24 lines); 480 (20 chars./line, 24 lines); 240 (20 chars./line, 12 lines)
Char. type: upper/lower case; 8 x 8 matrix
Features: up to 5 of 16 colors in 8 luminance levels; normal or inverse characters
Graphics: nine modes, from 40 x 24 up to 320 x 192
Interface: integral cable plug; RF modulator included

KEYBOARD
Type: Atari 400—typewriter style, non-tactile, fixed; Atari 800—typewriter style, tactile, fixed
No. of keys: 57, ASCII character set
Interface: integral connection

DIRECT ACCESS STORAGE
Model: Atari 810
Type: 5¼" mini diskette drive
Capacity/drive: 88KB
Drives/system: 1-4; 4/controller
Avg. access time: 74 milliseconds
Transfer rate: 19.2KBS
Interface: 1 port
Price: $599.95 with controller

PRINTERS

Model:	820	822	825
Type:	matrix, impact	matrix, thermal	matrix, impact
Paper:	plain paper, roll, 4"	thermal, roll, 4"	fanfold, tractor, 9.5" single sheets
Char. set:	96	96	96
Chars./line:	40	40	80
Speed:	40 cps	37 cps	100 cps
Interface:	cable ($49.95)	cable ($49.95)	Interface Module ($219.95)
Price:	$299.95	$249.95	$799.95

DATA COMMUNICATIONS
Model: Atari 830 Modem, ($199.95)
Trans. mode: half/full-duplex
Protocol: asynchronous
Lines: one
Speed, 300 bps
Interface: Interface module, ($219.95)

OTHER I/O
Magnetic tape: Atari 410 program recorder, ($99.95)
Game controls: 2 handheld paddles ($21.95), 2 joysticks ($21.95)
Loudspeaker: built-in; 4-channel audio channel through TV set

I/O ELECTRONICS
Structure: 4 controller input jacks; Atari 400—1 external and 1 internal cartridge slot, Atari 800—2 external and 3 internal cartridge slots, 1 high speed serial I/O port, can connect Model 850 Interface Module to provide 4 RS-232 serial ports and 1 parallel port

SOFTWARE

LANGUAGES
Basic: Atari Basic (ROM cartridge—$59.95; included with Atari 800); Microsoft Basic (diskette—$89.95)
Assembler: Assembler Editor (ROM cartridge—$59.95); Macro Assembler and program text editor (diskette—$89.95)
PILOT: home package ($79.95); educator's package ($129.95)

OPERATING SYSTEM
Name: Atari Operating System
System requirements: 10KB ROM included with system
Concurrent tasks: one
Other functions: I/O device handling, keyboard and screen editing

UTILITIES
Sort: no
Text editor: no

DATABASE MANAGEMENT SYSTEMS
Name: none specified

COMMUNICATIONS SUPPORT
Name: Telelink I ($29.95)
System requirements: modem and interface module
Functions: allows access to databases and communications with other type of computers

APPLICATIONS PROGRAMS
Accounting: Bookkeeper
Education: education system master cartridge ($24.95), 16 education system cassettes (set of 4 for each subject—$29.95), educational game cassettes ($14.95); energy czar, hangman, kingdom, states & capitals, European countries and capitals; invitation to programming ($24.95-$29.95), biorhythm ($14.95), conversational French, German, Spanish and Italian ($59.95 each), music composer ($59.95), touch typing ($24.95)
Entertainment: ROM cartridges ($34.95-$54.95): basketball, computer chess, star raiders, super breakout, 3-D tic-tac-toe, video easel; space invaders, asteroids, missile command, pac-man, centipede; cassettes: blackjack ($14.95)
Finance: bond analysis ($24.95), Dow Jones investment evaluation ($129.95); graph it ($19.95), mortgage & loan analysis ($19.95), personal financial management ($74.95) stock analysis ($24.95), stock charting ($29.95)
Math/Statistics: calculator ($39.95), statistics ($19.95)
Word Processing: Atari Word Processor ($149.95)
Others: Mailing List ($24.95), Home Filing Manager

SUPPORT SERVICES

DOCUMENTATION
Range: about 14 manuals available from $3.95 to $29.95 apiece

SUPPORT
Training & education: none from Atari; available at discretion of dealer
Maintenance: available through Control Data Corporation Service Centers by agreement with Atari and some vendors

TERMS AND CONDITIONS
Lease terms: none
Discounts: none officially; available at retail level; some dealers and mail-order houses will offer up to 15% off list
Warranties: 90-days—parts and labor
Software terms: none specified ■