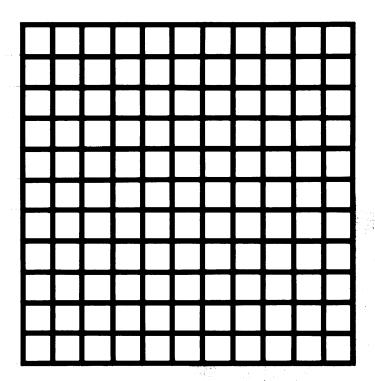
Apple /// Computer Technical Information

Apple III

System Data Sheet





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"A3INFO DATASHEET 1 01.PICT" 145 KB 1999-02-09 dpi: 360h x 367v pix: 2683h x 3894v

The Apple III

The Most Powerful Personal Computer In Its Class

Too much information? Not enough time? The Apple III was created to meet the information-handling needs of decision makers at all levels, in every size and kind of company. And the Apple III can grow with you, so as your responsibilities increase, your ability to handle them stays one step ahead.

You can use the power of your Apple III to create financial forecasts, budgets, and reports; for accounting, resource management, and project scheduling; in electronic communications, software development, and computer-assisted training. Over 400 business programs are available today for the Apple III — plus the extensive library of CP/M® business software (with the Apple SoftCard™ III). And most Apple II Plus programs will run in the Apple III's "emulation" mode.

The Apple III: the personal computer for business.



Powerful features for professional needs.

The Apple III is ready to go as soon as you unpack it, connect a monitor, and provide power. No interface cards are required, and you don't have to open the computer. The Apple III already has a built-in disk drive, video outputs for color and monochromatic displays, and a numeric keypad.

Other built-in features include:

Large User Memory. The Apple III's 256K of internal memory means you can work with sophisticated programs and large financial and text documents, quickly and efficiently.

Color Graphics. The 16-color graphics capability of the Apple III allows you to grasp the meaning of charts and graphs quickly. If you're not using a color monitor, your information is displayed in 16 shades, so the facts still stand out clearly.

High-Resolution Video. The Apple III displays 107, 520 points of information on the screen (560 horizontal x 192 vertical) in text and monochromatic graphics modes. While text is normally presented in an 80-column by 24-line monochromatic format, it can be switched to 40-column monochromatic or color-on-color.

Accessory Connectors. The most common accessories plug right into the Apple III. Connectors and interfacing hardware are already built in for the Apple Daisy Wheel Printer (or other serial printer), the Apple Silentype Printer, external floppy disk drives, color and monochromatic video displays (NTSC, RGB, and composite), a modem, and hand controls. The Apple III also has four inside expansion slots for additional accessories.

Apple *III* Sophisticated Operating System: it does it all for you.

Today...you can bring financial models into reports, insert names into form letters automatically, and turn numbers into charts, because the Apple III's Sophisticated Operating System (SOS) treats all your files identically. And, since applications programs written for the Apple III are all based on this common SOS formatting, you can combine them on a ProFile™ mass storage system and move freely from one to another. The uniformity of SOS also provides an ideal environment for software development.



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Tomorrow . . . you can expand your Apple III elegantly. Because SOS controls all communications with accessories, you don't have to figure out how to make the computer work with a new printer, disk drive, or modem. SOS does this for you by using special files known as "device drivers." Apple III programs come with the most commonly-used device drivers, and you can make programs compatible with new equipment by copying a driver file for the new device onto a program disk. Your software can just as easily be revised to take advantage of SOS upgrades, and of hardware enhancements to the computer itself.

Installation's easy. Learning is, too.

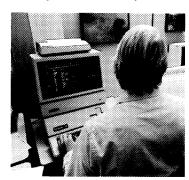
Because the Apple III already has a built-in disk drive and video connector, the computer is ready to work as soon as you connect a monitor and provide power. Then, Apple makes it just as easy to learn how to use it. A comprehensive Owner's Guide gets you started, and a System Demonstration disk introduces you to the computer's text editing and graphics capabilities. Reference manuals and SOS utilities disks are included for more advanced needs, and additional tutorials on the computer and its programs are also available.



Durable. Dependable. Reliable.

The Apple III is dependable, inside and out. Outside, it has a rugged diecast aluminum chassis. Inside, electronics based on advanced microprocessor circuitry assure reliable operation. The system also meets UL and CSA standards.

Every time the computer is powered up, it performs a brief self-diagnostic routine. Should problems arise, help is close at hand, because of Apple's extensive dealer/service network. Average turnaround time on Apple III servicing is less than one day.



Standard Features

- 256K internal memory (RAM)
- Built-in disk drive
- Custom microprocessor circuitry
- High-resolution color graphics (16 colors)
- 80-column, 24-line text display, upper and lower case
- Contoured typewriter-style keyboard; 61 keys; all 128 ASCII codes; auto-repeat on all keys
- Numeric keypad (13 keys)
- Special-purpose keys: Up-Arrow, Down-Arrow, Left-Arrow, Right-Arrow; programmable Open-Apple and Solid-Apple; TAB; SHIFT; ALPHA LOCK; CONTROL; RETURN; ENTER; ESCAPE
- Quick-connect plugs for disk drives, video and audio devices, serial printers, modems, and hand controls
- Four expansion slots for accessory interface cards
- Apple // Plus emulation mode
- High-quality sound generation
- Lockable case
- Self-testing diagnostics on powerup

Optional Accessories

- Monitor /// or color monitor
- Apple Daisy Wheel Printer
- Apple Dot Matrix Printer
- Apple Silentype PrinterDisk /// floppy-disk drives
- ProFile hard-disk systems
- Apple SoftCard III System (for CP/M capability)
- Parallel Card III
- Serial Card III
- Programming languages (Business BASIC, Pascal, COBOL)
- Cursor III joysticks

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Technical Specifications

■ Video Display:

Text and graphics may be displayed simultaneously. Graphics modes:

- -280 x 192, 16 colors (with some limitations);
- -280 x 192, monochromatic;
- -140 x 192, 16 colors;
- -560 x 192, monochromatic;

—All Apple II modes (in emulation) Graphics commands allow either of two screen buffers to be displayed. Text modes:

- —80-column, 24-line monochromatic;
- -40-column, 24-line, 16-color foreground and background;
- —40-column, 24-line monochromatic.

All text modes have a softwaredefinable, 128-character set (upperand lower-case), with normal or inverse display

■ Central Processing Unit (CPU):
The custom-designed microprocessor circuitry of the Apple III utilizes the
6502B as one of its major components.

Other circuitry provides extended addressing capability, relocatable stack, zero page, and memory mapping.

mapping. Type:

6502B. Clock Speed:

1.4 MHz average; 1.8 MHz maximum.
Operations Per Second (8-bit):
Up to 750,000.

Data Bus:

Two 8-bit formats, combined for extended addressing.

Address Bus:

19 bits.

Address Range:

262,144 bytes (256K).

Registers:

Accumulator (A); Index Registers (X,Y); Stack Pointer (S); Program Counter (PC); Environmental Register (E); Bank (B); Zero Page (Z); Processor Status (P).

■ Memory:

256K dynamic RAM; 4K ROM (initialization and self-test diagnostics). ■ SOS (Sophisticated Operating System):

Handles all system I/O;

Can be configured to handle standard or custom I/O devices and peripherals by adding or deleting "device drivers":

All languages and application programs access data through the SOS file system.

■ Inputs and Outputs:

Keyboard:

- —61 keys on main keyboard;
- -13 keys on numeric keypad;
- —Full 128-character, ASCII encoded;
- —All keys have automatic repeat;—Four directional-arrow keys with
- two-speed repeat;

 —Two user-definable Apple keys;
- —Seven other special keys: SHIFT, CONTROL, ALPHA LOCK, TAB, ESCAPE, RETURN, ENTER.

Storage Devices:

- One 5.25-inch floppy disk drive built in, 140K (143, 360) bytes per diskette;
- Three additional drives can be connected by daisy-chain cable (Total: 560K bytes on-line storage);
- Up to four ProFile hard-disk drives (5 megabytes each) may be added with plug-in interface cards.

Video Output:

- RCA phono connector for NTSC monochromatic composite video;
- -DB-15 connector for:

NTSC color composite video; NTSC monochromatic composite video:

RGB color video;

Composite sync signal;

Power supply voltages.

 Color signals appear as 16-level grey scale on monochromatic displays.

Audio Output:

- Built-in two-inch speaker; miniature phono jack on back panel;
- Driven by 6-bit D/A converter or fixed-frequency "beep" generator.
 Serial (Printer/Modem) Port:
- —RS-232C compatible, DB-25 female connector;
- —Software-selectable baud rate and duplex mode.

One port may be used for the Silentype printer.

One port may be used for the Silentype printer.

Expansion:

 Four 50-pin expansion slots (fully buffered, with interrupt and DMA priority structure).

Joystick/Silentype Ports:

-Two DB-9 connectors.

■ Languages Available: Apple Business BASIC, Apple III Pascal, Apple III COBOL.

■ Emulation Mode:

Provides hardware emulation of 48K byte Apple // Plus. Allows most Apple // programs, with the exception of Pascal and FORTRAN, to run without modification.

■ Electrical Specifications:

The Apple III's power cord should be plugged into a three-wire 110-120 volt outlet.

Physical Specifications:
 Height: 4.8 inches (12.20 cm)
 Depth: 18.2 inches (46.22 cm)
 Width: 17.5 inches (44.45 cm)

Weight: 26 lbs. (11.8 kg) The Apple III meets the following

agency regulations:
UL 114 — Office Appliances and
Business Equipment.

CSA 22.2, No. 154—Data Processing Equipment.

The Apple III Personal Computer System Package

U.S. Order Number A3S0256

With your order for an Apple III System you will receive:

256K Apple III; Power cord;

Monitor cable;

System Demonstration disk;

System Utilities disk;

System Utilities Data disk (contains device driver files, character sets, and keyboard layouts);

Apple // Plus Emulation disk;

Owner's Guide;

Standard Device Drivers Manual; Warranty and service information.

Specifications or products may change without notice.

Apple, the Apple logo, ProFile, and Silentype are trademarks of Apple Computer, Inc. SoftCard is a trademark of MicroSoft Corporation.

CP/M is a trademark of Digital Research, Inc.



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