Apple III: Specifications (Discontinued 9/85)

Article Created: 14 March 1991

Video Display

Text and graphics may be displayed simultaneously. Using graphics commands you can display either of two screen buffers.

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)

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 software-definable 128-character set (uppercase and lowercase) with normal or inverse display.

Central Processing Unit (CPU)

The custom-designed microprocessor circuitry of the Apple III uses the 6502B as its major component. Other circuitry provides extended addressing capability, relocatable stack, zero page, and memory mapping.
• Type: 6502B
• Clock Speed: 1.4 MHz average; 1.8 MHz max
• 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)

SOS handles all system I/0 and can be configured to handle standard or custom I/0 devices and peripherals by adding or deleting "device drivers." All languages and application programs access data through the SOS file system.

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 built-in 5.25-inch, floppy-disk drive, 140K (143,360 bytes) per diskette
• You can connect three additional drives by daisy-chain cable (total: 560K on-line storage)
• You can add up to four ProFile hard-disk drives (5MB each) 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
• You can use one port for the Silentype printer.

Expansion Ports

• 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

This mode provides hardware emulation of 48K Apple II Plus. It can run most
Apple II programs, with the exception of Pascal and FORTRAN, without
modification.

Electrical Specifications

Plug the Apple III's power cord into a three-wire 110-120 VAC outlet. The
Apple III meets the following agency regulations:
• UL 114, Office Appliances and Business Equipment
• CSA 22.2, No. 154-Data Processing Equipment

Physical Specifications

• Height: 4.8 in. (12.20 cm)
• Depth: 18.2 in. (46.22 cm)
• Width: 17.5 in. (44.45 cm)
• Weight: 26 lb. (11.8 kg)

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