Power Macintosh 8100/100 &110: Technical Specifications (4/95)

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TOPIC --

This article gives the technical specifications for the Power Macintosh 8100/100 and 8100/110 computer.

DISCUSSION --

Microprocessor

• PowerPC 601 RISC microprocessor running at 110 MHz (8100/110 only)
• PowerPC 601 RISC microprocessor running at 100 MHz (8100/100 and 8100/100AV)
• Integrated floating-point unit and 32K cache
• 256K level-2 cache

Memory

• 4 MB ROM
• 256 bytes of non-volatile parameter memory
• 8 MB of RAM standard, expandable to 264 MB
• 8 SIMM slots (4 pairs)
• SIMMs can be 4 MB, 8 MB, 16 MB or 32 MB, but must be installed in pairs of the same size. For example, you should install two 8 MB SIMMs in first two adjoining slots, and two 4 MB SIMMs in the remaining two slots for a 32 MB machine.
• Possible RAM configurations are 8 MB, 16 MB, 24 MB, 32 MB, 40 MB, 48 MB, 56 MB, 64 MB, 72 MB, 80 MB, 96 MB, 104 MB, 120 MB, 136 MB, 168 MB, 200 MB, 216 MB and 264 MB.
• 80 ns non-composite SIMMs or faster
• L2 Cache Slot for Optional Macintosh Cache Card

 RAM note: All 8MB RAM configurations come with 8MB of RAM soldered onto the logic board

Form Factor

• Desktop Mini Tower (similiar to Quadra 800, Quadra 840 case)

Disk Drives

- Includes one built-in Apple SuperDrive 1.4MB floppy disk drive that uses high-density floppy disks and reads, writes, and formats Macintosh, Windows, MS-DOS, OS/2, and ProDOS disks
- Includes one internal hard disk (700MB, 1GB, and 2GB options available)
- Supports one 5.25-inch, half-height device, such as the AppleCD 300i Plus CD-ROM drive
- Supports one additional 3.5-inch hard disk drive or 3.5-inch removable-media device

Video Display

- All Apple displays
- Third-party displays including VGA and SVGA monitors
- NTSC and PAL monitors (8100/100AV only)

Video support

- 8100/100 and 8100/110: 2MB of VRAM, expandable to 4MB
- 8100/100AV: 2MB of VRAM
- DRAM display support for optional second display

Display resolution	8100/100 8100/100AV 8100/110 DRAM video	8100/100 8100/100AV 8100/110 2MB VRAM	8100/100* 8100/110* 4MB VRAM
640 by 480	32,768 colors	16.7 million colors	16.7 million colors
832 by 624	256 colors	16.7 million colors	16.7 million colors
1,024 by 768	not supported	32,768 colors	16.7 million colors
1,152 by 870	not supported	32,768 colors	16.7 million colors

*With 2MB VRAM upgrade

Interfaces

- Three internal NuBus expansion slots; the 8100/110 also supports higher-performance burst mode between NuBus cards
- One Apple Desktop Bus (ADB) port for a keyboard, mouse, and other device
- AAUI-15 Ethernet connector
- High-density display port supporting Apple AudioVision monitors directly and other displays via the optional Power Macintosh Display Adapter
- Two DMA serial (RS-232/RS-422) ports compatible with LocalTalk and GeoPort cables
- Dual-channel asynchronous SCSI interface: external channel supports up to six SCSI devices; internal channel supports a hard disk array
- 16-bit stereo sound input and output ports
- DB-15 video port for display
- 8100/100AV only: S-video input and output ports (RCA adapters included)
- 8100/100AV only: digital-audio video connector (DAV)

- Energy Star compliant

Audio System

- 16-bit stereo in and out
- Sample rates of 48, 44.1, 24, 22.05 kilohertz (kHz)
- Input line level: 1 volt peak-to-peak
- Output line level: 1 volt peak-to-peak
- Input SNR (signal-to-noise ratio): 82 decibels (dB) with no audible
  discrete tones
- Output SNR: 85 dB with no audible discrete tones
- Bandwidth: 20 Hz-20 kHz (+/- 2 dB) at 44.100 kHz sample rate
- THD+N (Total harmonic distortion plus noise): Less than 0.05 percent;
  measured 20 Hz-20kHz with a 1-Vrms sine wave input.

Networking

- Built-in Ethernet
- Serial port for AppleTalk
- Integrated GeoPort telecommunications architecture for data, fax, and
  voice connectivity.

Keyboard

- Several Apple Desktop Bus keyboards with numeric keypads available.

Mouse

- Apple Desktop Bus Mouse II; mechanical tracking, optical shaft, or
  contact encoding.

Clock/Calendar

- Custom integrated circuit with long-life lithium battery.

Apple PlainTalk Microphone

- The microphone is unidirectional and optimized for use with speech
  recognition. (Microphone bundled with all AV units sold in the USA,
  available as a separate item outside the USA.)

Disability Access

- Easy Access, and visible beep included with system software. These
  built-in features and third-party options provide alternative input and
  output tools for people with disabilities.

Electrical Requirements

- Line voltage: 100 to 240 VAC, RMS single phase, automatically configured
- Frequency: 50 to 60 hertz, single phase
- Power Supply Output Rating (Power available for internal devices)
  - Continuous output   200W

- A/C Line Input (Power drawn by the Power Macintosh 8100/80)
  - Maximum continuous   298W
  - Peak input   453W

ADB Power Requirements

- Maximum current draw for all ADB devices: 500 milliamps (a maximum of three Apple Desktop Bus devices is recommended)
- Mouse draws 10 milliamps.
- Keyboard draws 25 to 80 milliamps, depending on the keyboard model used.

Size and Weight

Main unit

- Height 14.25 inches (46.2 cm)
- Width   7.75 inches. (19.6 cm)
- Depth 16 inches (40.5 cm)
- Weight 24 lb. (16.7 kg) varies with disk drive options installed

Mouse

- Height   1.3 inches (33 mm)
- Width   2.4 inches (61.7 mm)
- Depth   4.2 inches (107.3 mm)
- Weight   4   ounces (0.10 kg)

Operating Environment

- Operating temperature: 50 degrees to 104 degrees F
  (10 degrees to 40 degrees C)
- Storage temperature: -40 degrees to 116.6 degrees F
  (-40 degrees to 47 degrees C)
- Relative humidity: 5% to 95% noncondensing
- Maximum altitude: 10,000 ft. (3,048m)

System Software Requirements

Requires System 7.5.

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