



# Tech Info Library

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

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Security: Everyone

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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

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

Disk Drives

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- 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

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

Video support

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

|              | 8100/100      | 8100/100            | 8100/100*           |
|--------------|---------------|---------------------|---------------------|
| Display      | 8100/100AV    | 8100/100AV          | 8100/110*           |
| resolution   | 8100/110      | 8100/110            | 8100/110*           |
|              | DRAM video    | 2MB VRAM            | 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

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- 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

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- 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

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- 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

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#### 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

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- 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

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Requires System 7.5.

### Article Change History:

26 Apr 1995 - Changed title to more accurately reflect contents of article.  
03 Jan 1995 - Made article public.

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