Power Macintosh 8100/80: Specifications (Discontinued)

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TOPIC ---

This article gives the technical specifications for the Power
Macintosh 8100/80 computer.

DISCUSSION --

Microprocessor

• 80-MHz PowerPC 601 RISC Processor

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 SIMMs or faster
• L2 Cache Slot with Macintosh 256k Cache Card included

 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

• One Built-in Apple SuperDrive 1.4 MB floppy disk drive that uses
  high-density floppy disks and reads, writes, and formats Macintosh,
  MS-DOS, and OS/2 disks.

- Support for three internal SCSI devices, one of which may be used for a one-half height, 5.25-inch removable media drive, such as an internal CD-ROM drive.
- One internal hard disk (xxx MB options available)
- Optional internal Apple CD-ROM drive (see above)
- Optional external SCSI hard disk drive (many capacities available)

Video Display

- DRAM based video: 16 bit on 14-inch monitors, 8 bit on 16-inch monitors
- VRAM based video: 2MB: 24 bit on 16-inch monitors, 16 bit on 21-inch monitors. 4MB: 24 bit on 21-inch monitors

Monitor:	Resolution:	2 MB VRAM:	4 MB VRAM:
12-inch Color	512 by 384	millions	millions
12-inch Monochrome	640 by 480	256	256
13-inch or 14-inch Color or VGA	640 by 480	millions	millions
13-inch Color	640 by 400	millions	millions
15-inch Portrait Monochrome	640 by 870	256	256
16-inch Color	832 by 624	thousands	millions
19-inch Color	1024 by 768	thousands	millions
21-inch Color	1152 by 870	thousands	millions
SuperVGA	800 by 600	thousands	millions
NTSC	640 by 480	thousands	millions
NTSC flicker-free	640 by 480	256	256
NTSC	512 by 384	thousands	millions
NTSC flicker-free	512 by 384	256	256
PAL	768 by 576	thousands	millions
PAL flicker-free	768 by 576	256	256
PAL	640 by 480	thousands	millions
PAL flicker-free	640 by 480	256	256

*NOTE- NTSC and PAL video modes supported on AV configurations only.

Interfaces

- Three internal Nubus 90 slots, support block transfers to and from main memory, 2x block transfers card to card.
- One Apple Desktop Bus (ADB) port, supporting a keyboard, mouse, and other devices.
- One AAUI-15 Ethernet connector.
- Two serial (RS-232/RS-422) ports. (Printer & Modem/GeoPort)
- SCSI interface for connecting up to a total of seven SCSI devices.
- Sound-out port for stereo playback from CDs or Macintosh audio applications
- Stereo sound-input port (supports 16-bit stereo audio)
- One AV Display Connector supports the Apple AudioVision 14 Display.
- The available Video Adapter Cable (Part #M2681LL/A) allows you to connect a monitor with a standard DB-15 connector to your Power Macintosh built-in video.
- One internal 601 PDS (processor direct slot)
- One internal L2 (Level 2) cache slot

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)

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     - Maximum continuous          298W
     - Peak input                  453W
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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   8.9 inches (22.5 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 7.1.2 for Power Macintosh or later and the accompanying
System Enabler.

Article Change History:
20 Nov 1995 - Corrected Cache Card information
21 Oct 1994 - Corrected dimension specs.
23 Aug 1994 - Additional power supply ratings documented.

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