

The Mac 512 User Group

Newsletter



Inspired by the Original Macintosh, for all Macintosh lovers.

Power Macintosh 9500 - Wow!

The Power Macintosh 9500 is the last model of Apple's "where you could get a form factor with 6 slots"! This revolutionary Power Macintosh model was a dream come true.

(For more information of what a form factor is, see <http://www.mac512.com/ffactor.htm>)



Photo copyright 1995 MacUser magazine

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Four tips to speed up your Mac (running System software 7.x)

- ◆ Set the disk cache by 32K for each 1MB of RAM you have (in the Memory Control Panel).
- ◆ Turn off Virtual Memory (in the Memory Control Panel).
- ◆ Reduce the number of colors your Mac displays (in the Monitors Control Panel).
- ◆ Make smaller partitions on your hard drive (using Apple's HD SC Setup).

Did you know?

In 1995-

- ◆ 9GB external hard drive was \$2465
- ◆ 17" Radius color display was \$889
- ◆ 16MB SIMM of RAM was \$555

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Updated information- Mac IIVx/IIvi power supplies

A reader (martin.c@swing.be) provided some important information about the Mac IIVx/IIvi computers.

Your newsletter said that the Performa 600 was a rebadged IIVx.

The Performa 600 had these differences:

- ◆ the 68882 coprocessor was optional
- ◆ it didn't featured the 32K cache the IIVx had

The newsletter also said that people who wanted to upgrade their IIVx/vi to Quadra 650 needed to replace the Power Supply unit: this is true only if they had the first Astec PSU.

I've enclosed a picture showing the 3 PSUs used by IIVx/IIci/q700/q800/IIvi/IIvx/P600/C650/Q650/PM7100 models.

There were 2 Astec models and 1 Delta Electronics model. Only the oldest Astec model needs to be replaced if used with Q650 or PM7100.

Thank you martin.c@swing.be for this information!

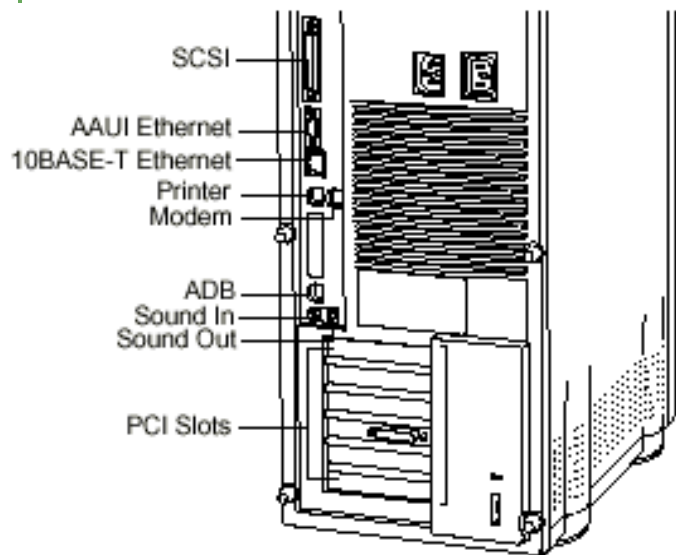
Picture of the three different power supply units:



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One big point MacUser magazine brought to light when the PM 9500 was released was this Mac featured the first CPU from the IBM/Motorola/Apple alliance. It featured the PowerPC 604 CPU. This chip follows the RISC based PowerPC 601 chip series. The internal architecture of the 604 made processing much faster (1.5 times). The 604 originally came in two speeds (120MHz & 132MHz) that came on a daughtercard. This card housed the CPU and clock chips, which made upgrading to a faster CPU easier as you just upgraded the daughtercard. Later versions of the daughtercard included a 150MHz, 180MHz (MultiProcessor version), and the 200MHz CPUs.



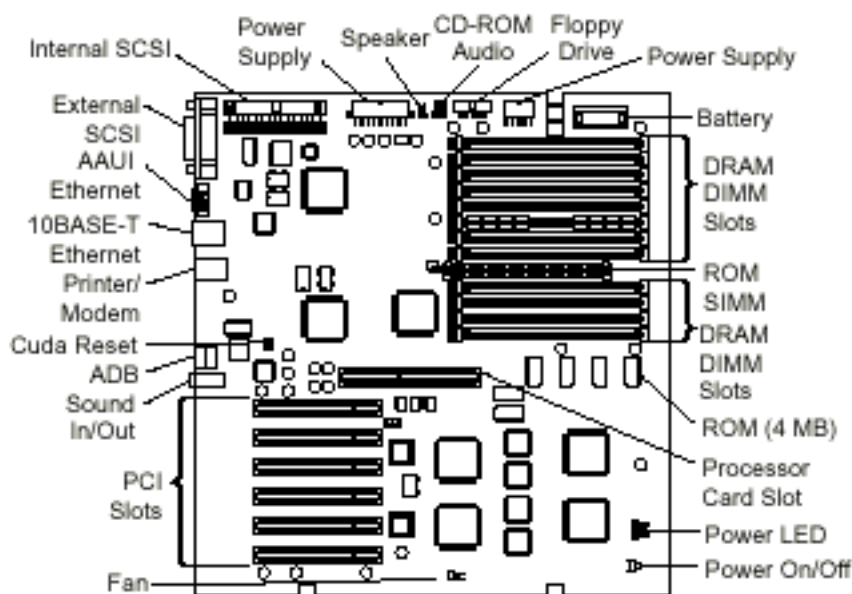
Back of the Power Mac 9500

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Here is a brief explanation on how the 604 CPU gets its speed boost. The 604 CPU reads/writes to memory over a 64-bit bus. A L2 cache is utilized to retain frequently used instructions and is three times faster than standard memory. Installing DIMMs in pairs created an interleaved memory system – making the 64-bit memory bus act double giving 10-15% speed boost. The memory system runs at one-third bus speed. Add in the PCI slots which runs over a 32 bit bus at 33MHz and you have a complete speedy system. Simple right? All that technical stuff means it is very fast for 1995! Your applications pop open and your games run great. Add another 604 CPU (180MHz MP version) and your applications will fly, provided they are written for multiprocessors.



Power Mac 9500 logic board

Expandability

Memory - This was the first Mac to feature DIMM technology. The DIMMs were 168 pins with a 64-bit data path. Older SIMMs featured 72 pins with a 32-bit data path. With a total of 12 DIMM slots you could have a maximum of 1.5GB of memory. The same as in the newest PowerMac G4s!

Ethernet ports -Networking was in full force by 1995 so the PM 9500 had two Ethernet ports, the AAUI port and a 10BaseT port. Only one port could be used at one time, with the 10BaseT port the default. The ability to use your existing AAUI adapters is a nice feature, or if this was a new computer using the standard 10BaseT connector was better. Both ran at 10 megabits.

Upgrade cards - One interesting option was Apple's PC Compatibility Card upgrade. This was a PCI card, which featured an IBM PC clone on it. You had three to choose from – 7" 100MHz, 12" 100MHz, or 12" 166MHz versions. This let you run Microsoft Windows or MS-DOS software.

Serial ports (modem/printer)- The GeoPort was still around! This port would be used as a serial port or add a GeoPort modem and the hardware inside of the PowerMac functioned as a 14.4 data/fax modem. The main benefit is the GeoPort was Asynchronous (used in AppleTalk) and Isochronous (used by real-time video and voice)! If programmers created their applications to use this feature

you could have interactive boxes providing a wide range of new type of software. Maybe there was a data analysis tool out there that used this, I am not aware of any.

SCSI port – The 9500 used a fast SCSI connector internally supporting up to 10MB/sec. The external port is a standard SCSI port.

ADB – The standard way of connecting your keyboard and mouse. If you had a multimedia display you could also plug the monitor into the ADB port in order to control various monitor settings.

Sound ports – There is a sound in and sound out RCA mini-jack connectors. Supports 16-bit stereo.

Video – The 9500's monitor card was on a PCI card. It was a 2MB video card (expandable to 4MB) which supports

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monochrome, color, VGA and SVGA monitors. Giving you 16.7 million colors on a 17" monitor (2MB video RAM) or on a 21" monitor (4MB video RAM).

Floppy drive – The standard Apple SuperDrive (1.44MB).

Software

The original operating system shipped with the 9500 was System Software 7.5.2 with System Enabler 701. Later versions were System Software 7.5.3 Revision 2. This later version also supported the multiprocessors of the 9500/180MP system.

Price

The basic system will set you back only \$4,700! This includes six PCI slots, an AppleCD 600i (4x) CD-ROM, 16MB of memory and a 1GB hard drive. The last

version (200MHz) came with an AppleCD 800i (12x) CD-ROM, 32MB of memory, and a 2GB hard drive. I don't have exact pricing on the 200MHz version.

The Ultimate PowerMac 9500

- ◆ Power Macintosh 9500/200MHz motherboard with G4 PCI processor upgrade card (500MHz G4 with 1MB backside cache)
- ◆ External SCSI removable hard drive (DVD-RAM, Zip, Ditto or SyQuest)
- ◆ Internal AppleCD 800i 12X CD-ROM
- ◆ Internal monitor card with 4MB of video RAM
- ◆ Extra monitor card with at least 4MB of video RAM
- ◆ Two 21" Color monitors for twice as much desktop space
- ◆ 1.5GB of memory
- ◆ Color printer, laser of course
- ◆ Color scanner (SCSI)

The Mac 512 User Group Newsletter

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