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# Power Mac G4



# **Features**

#### Blazing speed

- Dual 1-GHz PowerPC G4 processors or a single processor running at up to 933 MHz
- Integrated Velocity Engine vector processing unit for high-speed parallel processing
- Dedicated L3 cache with throughput up to 4GB per second (933-MHz and dual 1-GHz systems)
- UNIX-based core operating system that increases system stability and responsiveness
- Symmetric multiprocessing to take full advantage of dual processor systems

#### Next-generation graphics

- Ultrafast AGP graphics cards from NVIDIA and ATI for stunning 3D capabilities
- Dual display support for connecting two displays from a single graphics card<sup>1</sup>
- Mac OS X for superior 2D, 3D, and video graphics, plus built-in font management, PDF imaging, and ColorSync

#### Ultimate expansion and connectivity

- Four PCI slots with throughput of up to 215 MBps
- Memory expansion up to 1.5GB<sup>2</sup>
- Support for up to three internal hard drives
- Two FireWire ports and four USB ports for connecting professional digital devices
- Gigabit Ethernet for high-speed networking

#### Power to burn

- SuperDrive (DVD-R/CD-RW) or CD-RW drive
- Data DVD and CD burning for up to 4.7GB of data on a single optical disc
- iDVD and iTunes software for authoring video DVDs and audio CDs quickly and easily<sup>3</sup>

#### **Breakthrough applications**

- Suite of powerful, easy-to-use Apple software for working with your movies, music, and pictures
- Optional Final Cut Pro and DVD Studio Pro software for professional DV editing and DVD authoring
- Thousands of available applications that benefit from the advanced features of Mac OS X

The new Power Mac G4 is a digital powerhouse designed to accelerate your workflow like never before. With more processing power and next-generation graphics capabilities, it's the ultimate tool for fast-thinking creative and scientific professionals who need a computer that keeps pace with their ideas.

Apple has taken the fastest PowerPC G4 processor ever created—and then doubled it—to introduce the phenomenal new dual 1-GHz Power Mac G4. Add Velocity Engine vector processing technology, an ultraefficient system architecture, and the UNIX-based power and stability of Mac OS X, and it's no wonder that the Power Mac G4 outperforms even the fastest Pentium-based systems.<sup>4</sup>

We've raised the bar on graphics performance as well, with powerful all-new graphics processors and dual display support across the line. The ATI Radeon 7500 and NVIDIA GeForce4 MX deliver high-resolution graphics processing capabilities for dazzling 3D images with unprecedented detail; fast, fluid motion; and photorealistic textures.

Massive expandability and easy connectivity let you customize your Power Mac to suit your workflow. Use the four high-performance PCI slots to add video, audio, SCSI, and other specialized capabilities, and the extra drive bays and RAM slots to extend the system's storage and memory. Built-in Gigabit Ethernet, FireWire, and USB provide easy connectivity to high-speed networks and professional devices, including cameras, audio components, and media servers.

Whatever work you do, the SuperDrive and Apple's innovative software make it easy to produce, share, and archive your projects on CDs and DVDs. With Apple iDVD software, you can turn video and pictures into DVD-based sales materials, educational resources, or digital portfolios that play on most consumer players. Or burn data DVDs and CDs right from your Mac OS X desktop to store up to 4.7GB of data on a single optical disc.

All the advanced Power Mac G4 capabilities come together seamlessly in Mac OS X. Thousands of great applications are already available to take full advantage of this powerful new operating system, which delivers bulletproof reliability, improved system performance, and leading-edge technologies for 2D, 3D, and video graphics. Check out Final Cut Pro for professional digital video editing and other leading software titles from Adobe, Macromedia, and Microsoft. No matter what you're working on, the exceptional new Power Mac G4 is designed to help you do more, faster—giving you what you need most: more time.



# Specification Sheet

Power Mac G4

# **Technical Specifications**

#### Processor

- 800- or 933-MHz PowerPC G4 processor or dual 1-GHz PowerPC G4 processors
- Velocity Engine vector processing unit
- Full 128-bit internal memory data paths
- Powerful floating-point unit supporting single-cycle, double-precision calculations
- Data stream prefetching operations supporting four simultaneous 32-bit data streams
- 256K on-chip L2 cache running at processor speed
- 2MB DDR SDRAM L3 cache per processor, with up
- to 4GB per second throughput (933-MHz and dual 1-GHz systems)
- 133-MHz system bus supporting over 1-GBps data throughput

#### Memory

- 256MB or 512MB of PC133 SDRAM
- Three DIMM slots supporting up to 1.5GB of PC133 SDRAM using the following<sup>2</sup>:
- 128MB or 256MB DIMMs (64-bit-wide, 128-Mbit)

#### Storage

- One of the following hard disk drives5:
- 40GB 7200-rpm Ultra ATA
- —60GB 7200-rpm Ultra ATA
- 80GB 7200-rpm Ultra ATA
- One of the following optical drives:
- CD-RW drive (writes CD-R discs at 24x speed, writes CD-RW discs at 10x speed, reads CDs at 32x speed)
- SuperDrive (combination DVD-R/CD-RW drive; writes DVD-R discs at 2x speed, reads DVDs at 6x speed, writes CD-R discs at 8x speed, writes CD-RW discs at 4x speed, reads CDs at 24x speed)
- DVD-ROM/CD-RW Combo drive (build-to-order option; reads DVDs at 8x speed, writes CD-R discs at 12x speed, writes CD-RW discs at 8x speed, reads CDs at 32x speed)
- Three 3.5-inch hard drive expansion bays — One ATA drive preinstalled on standard
- configurations —Support for up to two internal ATA drives
- Support for up to three internal SCSI drives
- -Support for a combination of internal SCSI and ATA drives

#### Graphics support

- One of the following graphics cards, installed in a dedicated AGP 4X graphics slot:
- —ATI Radeon 7500 graphics card with 32MB of DDR SDRAM and ADC and VGA connectors; supports digital resolutions up to 1920 by 1200 pixels and analog resolutions up to 2048 by 1536 pixels
- NVIDIA GeForce4 MX graphics card with 64MB of DDR SDRAM and ADC and VGA connectors; supports digital and analog resolutions up to 1920 by 1200 pixels
- Dual display support for extended desktop and video mirroring modes

#### Expansion

- Four open full-length 64-bit, 33-MHz PCI slots
- One AGP 4X slot with graphics card installed
- Two 400-Mbps FireWire ports (15W total power)<sup>6</sup>
- · Four USB ports (two on system, two on keyboard)

#### Communications

- 10/100/1000BASE-T Ethernet connector (RJ-45)
- Built-in 56K V.90 modem<sup>7</sup>
- Ready for wireless networking: Built-in antennas and card slot for optional 11-Mbps AirPort Card; IEEE 802.11b compliant<sup>®</sup>

#### Audio

- Built-in speaker
- Apple speaker minijack for connection to Apple Pro Speakers
- Optional Apple Pro Speakers
- · Headphone/line out minijack
- Support for external third-party USB digital audio peripherals such as microphones, speakers, and MIDI devices

#### Keyboard and mouse

- Apple Pro Keyboard
- Apple Pro Mouse

#### Electrical requirements and agency approvals

- Line voltage: 115V AC (90V to 132V AC) or 230V AC (180V to 264V AC)
- Frequency: 47 to 63 Hz, single phase
- Maximum continuous power: 360W
- Meets ENERGY STAR requirements

#### **Environmental requirements**

- Operating temperature: 50° to 95° F (10° to 35° C)
- Storage temperature: -40° to 116° F (-40° to 47° C)
- Relative humidity: 5% to 95% noncondensing
- Maximum altitude: 10,000 feet

#### Size and weight

- Height: 17.0 inches (43.2 cm)
- Width: 8.9 inches (22.6 cm)
- Depth: 18.4 inches (46.7 cm)
- Weight: 30 pounds (13.6 kg)<sup>9</sup>

#### **Photoshop Performance**



The Power Mac G4 with dual 1-GHz processors is 72 percent faster than PCs with a 2-GHz Pentium 4 processor in Photoshop tests of 9 commonly used operations.

#### **DVD Video Encoding Performance**



The new dual 1-GHz Power Mac G4 using Apple iDVD 2 software encodes video in MPEG-2 format four times faster than the PC with a 2-GHz Pentium processor using Sony MovieShaker software. It is also more than twice as fast as the original 733-MHz Power Mac G4 with SuperDrive, released in January 2001.

#### **Final Cut Pro 3 Performance**



Final Cut Pro 3 renders video 50 percent faster using a Power Mac G4 with two 1-GHz processors, compared to the Power Mac G4 with a single 933-MHz processor, demonstrating the performance advantage of dual processors.

Longer bars indicate better performance.



# **Configurations**

Order no.	M8705LL/A	M8666LL/A	M8667LL/A
Processor	800-MHz PowerPC G4	933-MHz PowerPC G4	Dual 1-GHz PowerPC G4
On-chip cache	256K L2 at 800 MHz	256K L2 at 933 MHz	256K L2 at 1 GHz per processor
L3 cache (DDR SDRAM)	_	2MB with 3.7-GBps throughput	2MB per processor with 4-GBps throughput
Main memory (PC133 SDRAM)	256MB	256MB	512MB
Hard disk drive <sup>₅</sup>	40GB (7200 rpm)	60GB (7200 rpm)	80GB (7200 rpm)
Graphics support	ATI Radeon 7500 with	NVIDIA GeForce4 MX with	NVIDIA GeForce4 MX with
	32MB of DDR SDRAM	64MB of DDR SDRAM	64MB of DDR SDRAM
Optical drive	CD-RW	SuperDrive (DVD-R/CD-RW)	SuperDrive (DVD-R/CD-RW)
FireWire	Two ports	Two ports	Two ports
USB	Four ports	Four ports	Four ports
PCI	Four slots	Four slots	Four slots
Ethernet	10/100/1000BASE-T	10/100/1000BASE-T	10/100/1000BASE-T
Wireless networking <sup>8</sup>	AirPort ready	AirPort ready	AirPort ready
Modem <sup>7</sup>	56K	56K	56K

All models include Apple Pro Keyboard, Apple Pro Mouse, and modem cable; Mac OS X v10.1 and Mac OS 9.2; QuickTime, iMovie 2, iDVD 2 (requires SuperDrive), iPhoto, iTunes 2, DVD Player, Mac OS X Mail, Microsoft Internet Explorer, EarthLink, Acrobat Reader 5.0, Art Director's Toolkit, FAXstf 10.0 Preview, FileMaker Pro 5.5 Trial, Graphic Converter, OmniGraffle, OmniOutliner, PCalc, PixelNhance, and Snapz Pro X; Apple Hardware Test CD; complete setup, learning, and reference documentation; limited warranty; and 30 days of free Internet service through EarthLink.

Internet access requires an Internet service account; fees may apply. Product contains electronic documentation. Backup copy of software is provided on CD-ROM.

## **Service and Support**

Your Power Mac G4 comes with 90 days of telephone support and a one-year limited warranty. Purchase the AppleCare Protection Plan to extend your service and support to three full years. Only the AppleCare Protection Plan provides you with direct telephone support from Apple technical experts and the assurance that repairs will be handled by Apple-certified technicians using genuine Apple parts. For more information, visit www.apple.com/support/products or call 800-823-2775.

# **For More Information**

For more information about this product or to find out where to buy Apple products, visit www.apple.com/hardware or call 800-538-9696. You can purchase Apple products from your authorized Apple reseller, the online Apple Store (www.apple.com/store or 800-MY-APPLE), or Apple's retail stores.

Visit the Macintosh Products Guide at www.apple.com/guide for the latest information on more than 18,000 hardware and software products for your new computer.

Apple offers iTools, a suite of services that uses the power of the Internet to help you get the most out of your Mac. Visit www.apple.com to sign up.

#### Apple

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# **Build-to-Order Options**

Order a custom-configured computer from your authorized Apple reseller or the online Apple Store. Build-to-order options can include the following. For up-to-date information, visit www.apple.com/store or call 800-MY-APPLE.

- Processor: 800-MHz, 933-MHz, dual 1-GHz PowerPC G4
- Memory: 256MB, 512MB, 1GB, 1.5GB<sup>2</sup>
- Hard disk drives: 40GB Ultra ATA (7200 rpm), 60GB Ultra ATA (7200 rpm), 80GB Ultra ATA (7200 rpm), 36GB Ultra160 SCSI (10,000 rpm), 72GB Ultra160 SCSI (10,000 rpm)<sup>5</sup>
- Optical drives: SuperDrive (DVD-R/CD-RW), DVD-ROM/CD-RW Combo, CD-RW
- Graphics: ATI Radeon 7500 with 32MB of DDR SDRAM, NVIDIA GeForce4 MX with 64MB of DDR SDRAM
- Audio: Apple Pro Speakers, Apple iPod, Harman Kardon iSub, Harman Kardon SoundSticks
- Other: AirPort Card, AirPort Base Station, Zip 250 drive, Ultra SCSI PCI card, Ultra160 SCSI PCI card

### **Apple Displays**

- Apple Studio Display (15-inch flat panel); M7928ZM/A
- Apple Studio Display (17-inch flat panel); M7649ZM/A
- Apple Cinema Display (22-inch flat panel); M8058ZM/A
- 1 The ATI Radeon 7500 and NVIDIA GeForce4 MX cards support one ADC display and one VGA display simultaneously.
- 2 999MB maximum per application in Mac OS 9.
- 3 iTunes is for legal or rightholder-authorized copying only. Don't steal music.
- 4 Based on Photoshop and MPEG-2 encoding performance.
- <sup>5</sup> 1GB = 1 billion bytes; actual formatted capacity less.

#### 6 Actual rates will vary.

- 7 Actual modem speeds lower; speed depends on connection rate and other factors.
- 8 Wireless Internet access requires AirPort Card, AirPort Base Station, and Internet access (fees may apply). Some ISPs are not currently compatible with AirPort. Range may vary with site conditions.
- 9 Weight varies by configuration and manufacturing process.

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