



PowerBook G4

Technology Overview
January 2005



The PowerBook G4 Family: Thin, Light, and Powerful

Since its auspicious debut, the PowerBook G4 has made waves throughout the industry and set the standard that all other laptop computers aspire to reach. With ongoing enhancements and groundbreaking innovations—like the revolutionary thin and light aluminum enclosure—Apple has kept the PowerBook on the leading edge of performance, design, and ease of use. Today that remarkable evolution continues, as Apple introduces faster processors and hard drives, increased SuperDrive speeds, and enhanced Bluetooth performance. In addition, all of the new PowerBook models come standard with 5400-rpm hard drives, half a gigabyte of memory, and compelling new features such as trackpad scrolling and the Sudden Motion Sensor. With even more power and expanded capabilities, the PowerBook G4 maintains its distinction as one of the most innovative and powerful notebook computers available.

User demands on notebook computers continue to grow with an ever-increasing need for laptops to serve as primary computing systems. Whether it be video files or complex scientific images and calculations, a substantial amount of data must be handled and processed in the office and on the road. The new PowerBook G4 is up to the challenge, enabling everyone from graphic designers and video editors to research scientists and engineers to manipulate, transfer, store, and protect their valuable data with even more speed and ease. Built for mobility while packing considerable power, the PowerBook G4 family provides the best of all worlds and is the perfect choice for anyone who requires a full-featured, completely portable, high-performance notebook.



12-inch PowerBook G4



Ultracompact, Ultradisable

With the most advanced feature set of any ultracompact notebook, the 12-inch PowerBook G4 is an amazingly small yet full-featured laptop. Now with a faster 1.5GHz G4 processor, a larger and faster 80GB 5400-rpm hard drive,¹ twice the RAM with 512MB standard, a faster 8x SuperDrive,² and support for Bluetooth 2.0 + EDR (Enhanced Data Rate), the 12-inch PowerBook G4 is the ultimate travel companion.

With its new performance and technology enhancements, the 12-inch PowerBook G4 is even more capable of getting the job done, and ready for the most grueling tasks. In tests using Halo, the new PowerBook outperformed the 12-inch Dell Inspiron 700m by 73 percent at 1024 by 768 pixels and millions of colors. Its full range of I/O ports includes tremendous video output versatility, with the ability to connect to everything from Apple flat-panel displays to digital projectors to monitors and televisions.³

The 12-inch PowerBook is also an amazingly small and convenient DVD-burning studio. Now supporting an even wider range of formats, its slot-loading SuperDrive² lets you create and burn custom CDs and professional-looking DVDs at a faster 8x speed using the new iLife '05, which includes the latest versions of iTunes, iPhoto, iMovie, iDVD, and GarageBand. This PowerBook also features a brilliant 12.1-inch (diagonal) display. And with built-in 54-Mbps AirPort Extreme,⁴ Ethernet, modem, and the new Bluetooth 2.0 + EDR specification, it allows you to quickly and easily communicate whenever and however you need to, wired or wirelessly.

At lower prices than before, the new 12-inch PowerBook gives users a lot more for less. On top of its improved performance, it provides features like trackpad scrolling, which facilitates navigation up and down or left and right in large documents, web pages, and graphics; and the Sudden Motion Sensor, which helps to minimize the risk of data loss should your PowerBook slip or be dropped. Remarkably compact and incredibly powerful, the notebook weighs a mere 4.6 pounds,⁵ requires a minimal amount of desktop space, and is easily tucked away in a briefcase or backpack. And with up to 5 hours of battery life, time is always on your side.⁶

Whether you're a mobile professional leading the jet-set life or a busy student running around campus, the 12-inch PowerBook is the perfect travel companion.

15-inch PowerBook G4



The Ideal Balance of Power and Portability

For the discerning user who places a premium on portability and performance, the 15-inch PowerBook G4 is the ideal computer. Built for power, speed, and mobility, this PowerBook is one of the thinnest and lightest 15-inch notebooks on the market. Inside its sleek aluminum enclosure is more than enough horsepower to get the job done, whether you're editing video, creating presentations, or crunching spreadsheets. You can choose a 1.5GHz or 1.67GHz PowerPC G4 processor, supercharged by an ATI Mobility Radeon 9700 graphics processor with either 64MB or 128MB of memory. The brand-new, faster 8x SuperDrive lets you burn professional DVDs with ease,² and with an 80GB 5400-rpm hard drive standard in every configuration,¹ you can store and retrieve data more quickly. All configurations of the new 15-inch PowerBook come equipped with a single 512MB SO-DIMM, leaving a memory slot open for future memory upgrades.

Every 15-inch PowerBook is equipped to connect to a wireless network right out of the box. All configurations feature a built-in AirPort Extreme Card, so you can connect to an 802.11g wireless network at speeds up to 54 megabits per second (Mbps).⁴ Integrated 3-Mbps Bluetooth 2.0 + EDR technology extends your wireless capabilities with cable-free connections to existing Bluetooth 1.0 and upcoming 2.0 compatible products, with less drain on your battery. The wired world is also easily accommodated by a suite of high-speed digital connections including Gigabit Ethernet, FireWire 800, USB 2.0, and DVI. The optional graphics configuration with 128MB of memory comes with dual-link DVI functionality, giving you the ability to present your work on a 30-inch Apple Cinema HD Display.

All 15-inch PowerBook G4 models come standard with the revolutionary illuminated keyboard—now 10 times brighter than before. Other new features include trackpad scrolling, which lets you quickly pan through an active window, and the Sudden Motion Sensor, which reduces the chance of hard drive damage and loss of data in the event that the PowerBook slips or is dropped.

With power and capabilities now extended even further, the 15-inch PowerBook gives you the freedom to get your work done anytime, anywhere.

17-inch PowerBook G4



The Ultimate Portable Desktop

With one of the largest displays ever to grace a portable computer, the 17-inch PowerBook G4 is a feat of engineering. No other notebook feels as spacious and as portable at the same time. Built to be a true desktop replacement, this PowerBook features amazing performance—with a faster processor, a high-speed 100GB 5400-rpm hard drive,¹ high-performance graphics, and a faster-burning 8x SuperDrive. For even the most demanding professionals, the 17-inch PowerBook G4 is ready for anything and everything.

The 17-inch (diagonal) megawide display simply must be seen to be believed. With its 1440-by-900-pixel resolution, it provides a viewing area equal to that of a 19-inch CRT monitor. That's plenty of room for the toolbars, palettes, and timelines that are so common in today's professional applications, such as Adobe Photoshop and Final Cut Pro. You might think that a notebook computer with a 17-inch widescreen display must be big and bulky, but thanks to its stunning aluminum case, the PowerBook is just 1 inch thin and weighs only 6.9 pounds.⁵ Another innovative design feature of the 17-inch PowerBook is the brighter-than-ever illuminated keyboard, which is ideal when you are working in a low-light environment like an airplane cabin or a studio.

The performance architecture of the 17-inch PowerBook delivers exceptional speed, featuring a 1.67GHz PowerPC G4, an ATI Mobility Radeon 9700 graphics processor with 128MB of dedicated DDR SDRAM, dual-link DVI functionality, and up to 2GB of DDR memory. Built-in AirPort Extreme and Bluetooth 2.0 + EDR technology deliver the most advanced wireless communications available today,⁴ while Gigabit Ethernet, FireWire 800, USB 2.0, and DVI ensure that you can connect to the most advanced peripherals and networks available. The built-in SuperDrive, with a new burning speed of 8x, is invaluable for exchanging huge files on DVD. The new 17-inch PowerBook also includes built-in optical digital audio input and output, which musicians, audio-philes, and others who require pristine audio will welcome.

Featuring incredible power, expanded capabilities, and native support for the 30-inch Apple Cinema HD Display, the groundbreaking 17-inch PowerBook G4 is the ultimate choice for creative and scientific professionals who need the best performance, the most advanced features across the board, and an extra-large workspace for video editing, audio creation, graphic design, or complex calculations in the office or on the go.

Product Configurations and Options

Standard Configurations

The following standard PowerBook G4 configurations are available through the Apple Store and Apple Authorized Resellers.

12-inch PowerBook G4

Order number	M9690LL/A	M9691LL/A
Processor	1.5GHz PowerPC G4	1.5GHz PowerPC G4
Memory	512MB of PC2700 (333MHz) DDR SDRAM	512MB of PC2700 (333MHz) DDR SDRAM
Hard drive	60GB 5400-rpm Ultra ATA/100 ¹	80GB 5400-rpm Ultra ATA/100 ¹
Optical drive	Slot-loading Combo (DVD-ROM/CD-RW)	Slot-loading 8x SuperDrive (DVD±RW/CD-RW)
Display	12.1-inch (diagonal) TFT XGA; 1024-by-768 resolution	12.1-inch (diagonal) TFT XGA; 1024-by-768 resolution
Graphics support	NVIDIA GeForce FX Go5200 with 64MB of DDR SDRAM	NVIDIA GeForce FX Go5200 with 64MB of DDR SDRAM
Wireless support	Built-in 54-Mbps AirPort Extreme ⁴ Built-in 3-Mbps Bluetooth 2.0 + EDR	Built-in 54-Mbps AirPort Extreme ⁴ Built-in 3-Mbps Bluetooth 2.0 + EDR
Ethernet	10/100BASE-T	10/100BASE-T
Modem	56K V.92 ⁸	56K V.92 ⁸
Also included	Mini-DVI to DVI adapter, mini-DVI to VGA adapter, modem cable, power adapter, AC wall plug, power cord	

15-inch PowerBook G4

Order number	M9676LL/A	M9677LL/A
Processor	1.5GHz PowerPC G4	1.67GHz PowerPC G4
Memory	512MB of PC2700 (333MHz) DDR SDRAM (single SO-DIMM)	512MB of PC2700 (333MHz) DDR SDRAM (single SO-DIMM)
Hard drive	80GB 5400-rpm Ultra ATA/100 ¹	80GB 5400-rpm Ultra ATA/100 ¹
Optical drive	Slot-loading Combo (DVD-ROM/CD-RW)	Slot-loading 8x SuperDrive (DVD±RW/CD-RW)
Display	15.2-inch (diagonal) TFT widescreen; 1280-by-854 resolution	15.2-inch (diagonal) TFT widescreen; 1280-by-854 resolution
Graphics support	ATI Mobility Radeon 9700 with 64MB of DDR SDRAM	ATI Mobility Radeon 9700 with 64MB of DDR SDRAM
Wireless support	Built-in 54-Mbps AirPort Extreme ⁴ Built-in 3-Mbps Bluetooth 2.0 + EDR	Built-in 54-Mbps AirPort Extreme ⁴ Built-in 3-Mbps Bluetooth 2.0 + EDR
Ethernet	10/100/1000BASE-T (Gigabit)	10/100/1000BASE-T (Gigabit)
Modem	56K V.92 ⁸	56K V.92 ⁸
Keyboard	Full size; backlit with ambient light sensor	Full size; backlit with ambient light sensor
Also included	S-video to composite adapter, DVI to VGA adapter, modem cable, power adapter, AC wall plug, power cord	

17-inch PowerBook G4

Order number	M9689LL/A
Processor	1.67GHz PowerPC G4
Memory	512MB of PC2700 (333MHz) DDR SDRAM (single SO-DIMM)
Hard drive	100GB 5400-rpm Ultra ATA/100 ¹
Optical drive	Slot-loading 8x SuperDrive (DVD±RW/CD-RW)
Display	17-inch (diagonal) TFT widescreen; 1440-by-900 resolution
Graphics support	ATI Mobility Radeon 9700 with 128MB of DDR SDRAM and dual-link DVI functionality
Wireless support	Built-in 54-Mbps AirPort Extreme ⁴ Built-in 3-Mbps Bluetooth 2.0 + EDR
Ethernet	10/100/1000BASE-T (Gigabit)
Modem	56K V.92 ⁸
Keyboard	Full size; backlit with ambient light sensor
Also included	S-video to composite adapter, DVI to VGA adapter, modem cable, power adapter, AC wall plug, power cord

Included Software

PowerBook G4 computers come with the following software: Mac OS X, Mail, iChat AV, Safari, Sherlock, Address Book, QuickTime, iLife (includes iTunes, iPhoto, iMovie HD, iDVD, and GarageBand), iSync, iCal, DVD Player, Classic environment, Art Directors Toolkit, EarthLink TotalAccess (includes 30 days of free dial-up Internet service on EarthLink activation), FileMaker Pro Trial, GraphicConverter, Microsoft Office 2004 for Mac Test Drive, OmniGraffle, OmniOutliner, QuickBooks for Mac New User Edition, Zinio Reader, Xcode Developer Tools, and Apple Hardware Test.