

## Technical Specifications

### In the box

- MacBook Pro
- 85W MagSafe Power Adapter, AC wall plug, and power cord
- Lithium-polymer battery
- Apple Remote
- DVI to VGA adapter
- Install/restore DVDs
- Printed and electronic documentation

### Processor and memory

- 15-inch MacBook Pro
  - 2.2GHz or 2.4GHz Intel Core 2 Duo processor, 4MB on-chip shared L2 cache running 1:1 with processor speed
- 17-inch MacBook Pro
  - 2.4GHz Intel Core 2 Duo processor, 4MB on-chip shared L2 cache running 1:1 with processor speed
- 2GB (two SO-DIMMs) of PC2-5300 (667MHz) DDR2 memory; two SO-DIMM slots support up to 4GB
- 800MHz frontside bus



### Expansion

- One FireWire 400 port at up to 400 Mbps
- One FireWire 800 port at up to 800 Mbps
- 15-inch MacBook Pro
  - Two 480-Mbps USB 2.0 ports
- 17-inch MacBook Pro
  - Three 480-Mbps USB 2.0 ports
- ExpressCard/34 slot

### Security

- Kensington cable lock slot

### Battery and power

- 15-inch MacBook Pro
  - 60-watt-hour lithium-polymer battery (with integrated charge indicator LEDs) providing up to 6 hours of battery life <sup>1</sup>
- 17-inch MacBook Pro
  - 68-watt-hour lithium-polymer battery (with integrated charge indicator LEDs) providing up to 5.75 hours of battery life <sup>1</sup>
- 85W MagSafe Power Adapter with cable management system
- MagSafe power adapter port



### Communications

- Built-in AirPort Extreme wireless networking (based on IEEE 802.11n draft specification); IEEE 802.11a/b/g Wi-Fi Certified <sup>2</sup>
- Built-in Bluetooth 2.0+EDR (Enhanced Data Rate)
- Built-in 10/100/1000BASE-T Gigabit Ethernet (RJ-45 connector)

### Audio

- Combined optical digital input/audio line in (minijack)
- Combined optical digital output/headphone out (minijack)
- Built-in stereo speakers
- Internal omnidirectional microphone (located under left



### Display

- 15-inch MacBook Pro
  - 15.4-inch (diagonal) TFT display with support for millions of colours; optional glossy widescreen display
  - Supported resolutions: 1440 by 900 (native), 1280 by 800, 1152 by 720, 1024 by 640, and 800 by 500 at 16:10 aspect ratio; 1024 by 768, 800 by 600, and 640 by 480 at 4:3 aspect ratio; 1024 by 768, 800 by 600, and 640 by 480 at 4:3 aspect ratio stretched; 720 by 480 at 3:2 aspect ratio; 720 by 480 at 3:2 aspect ratio stretched
- 17-inch MacBook Pro
  - 17-inch (diagonal) TFT display with support for millions of colours; optional glossy widescreen display
  - Supported resolutions: 1680 by 1050 (native), 1280 by 800, 1152 by 720, 1024 by 640, and 800 by 500 at 16:10 aspect ratio; 1280 by 1024 at 5:4 aspect ratio; 1280 by 1024 at 5:4 aspect ratio stretched; 1024 by 768, 800 by 600, and 640 by 480 at 4:3 aspect ratio; 1024 by 768, 800 by 600, and 640 by 480 at 4:3 aspect ratio stretched; 720 by 480 at 3:2 aspect ratio; 720 by 480 at 3:2 aspect ratio stretched
  - Optional 17-inch (diagonal) TFT widescreen display with support for millions of colours; optional glossy widescreen display. Supported resolutions: 1920 by 1200 (native), 1680 by 1050, 1280 by 800, 1152 by 720, 1024 by 640, and 800 by 500 at 16:10 aspect ratio; 1280 by 1024 at 5:4 aspect ratio; 1280 by 1024 at 5:4 aspect ratio stretched; 1600 by 1200, 1024 by 768, 800 by 600, and 640 by 480 at 4:3 aspect ratio; 1600 by 1200, 1024 by 768, 800 by 600, and 640 by 480 at 4:3 aspect ratio stretched; 720 by 480 at 3:2 aspect ratio; 720 by 480 at 3:2 aspect ratio stretched

### Video and graphics support

- 15-inch MacBook Pro
  - NVIDIA GeForce 8600M GT graphics processor with dual-link DVI support, 128MB of GDDR3 SDRAM on 2.2GHz configuration; 256MB of GDDR3 SDRAM on 2.4GHz configuration
- 17-inch MacBook Pro
  - NVIDIA GeForce 8600M GT graphics processor with dual-link DVI support and 256MB of GDDR3 SDRAM.
- Dual display and video mirroring: Simultaneously supports full native resolution on the built-in display and up to 2560 by 1600 pixels on an external display, both at millions of colors
- DVI output port
- VGA output using included DVI to VGA adapter
- Built-in iSight camera



### Input

- Built-in full-size keyboard with 78 (U.S.) or 79 (ISO) keys, including 12 function keys, 4 arrow keys (inverted "T" arrangement), and embedded numeric keypad
- Backlit keyboard with ambient light sensors for automatic adjustment of keyboard illumination and screen brightness



- Solid-state scrolling trackpad for precise cursor control; supports two-finger scrolling, tap, double-tap, and drag capabilities
- Apple Remote

### Electrical and environmental requirements

- Meets ENERGY STAR requirements
- Line voltage: 100V to 240V AC
- Frequency: 50Hz to 60Hz
- DC input: 18.5 Vdc, 4.6A maximum.
- Operating temperature: 10° to 35° C (50° to 95° F)
- Storage temperature: -24° to 45° C (-13° to 113° F)
- Relative humidity: 0% to 90% noncondensing
- Maximum operating altitude: 3,000 m (10,000 feet)
- Maximum storage altitude: 4,500 m (15,000 feet)
- Maximum shipping altitude: 10,667 m (35,000 feet)



### Size and weight

- 15-inch MacBook Pro
  - Height: 2.59 cm (1.0 inch)
  - Width: 35.7 cm (14.1 inches)
  - Depth: 24.3 cm (9.6 inches)
  - Weight: 2.45 kg (5.4 pounds) with battery and optical drive installed <sup>4</sup>
- 17-inch MacBook Pro
  - Height: 2.59 cm (1.0 inch)
  - Width: 39.2 cm (15.4 inches)
  - Depth: 26.5 cm (10.4 inches)
  - Weight: 3.08 kg (6.8 pounds) with battery and optical drive installed <sup>4</sup>



### Software

- Mac OS X v10.4 Tiger (includes Spotlight, Dashboard, Mail, iChat AV, Safari, Address Book, QuickTime, iCal, DVD Player, Xcode Developer Tools)
- iLife '06 (includes iTunes, iPhoto, iMovie HD, iDVD, iWeb, GarageBand), Microsoft Office 2004 for Mac Test Drive, iWork '06 (30-day trial), Comic Life, FileMaker Pro Trial, Aperture Trial, OmniOutliner
- Photo Booth
- Front Row



internal omnidirectional microphones (located under the speaker grille)

built-in iSight camera



**Storage**

- 15-inch MacBook Pro
  - 120GB or 160GB 5400-rpm Serial ATA hard drive; optional 160GB 7200-rpm or 200GB 4200-rpm drive<sup>3</sup>
  - 8x slot-loading SuperDrive (DVD±R DL/DVD±RW/CD-RW)
    - Maximum write: 8x DVD-R, DVD+R; 4x DVD-R DL (double layer), DVD+R DL (double layer), DVD-RW, DVD+RW; 24x CD-R; 10x CD-RW
    - Maximum read: 8x DVD-R, DVD+R, DVD-ROM; 6x DVD-ROM (double layer DVD-9), DVD-R DL (double layer), DVD+R DL (double layer), DVD-RW, DVD+RW; 24x CD
  
- 17-inch MacBook Pro
  - 160GB 5400-rpm Serial ATA hard drive; optional 160GB 7200-rpm or 250GB 4200-rpm drive<sup>3</sup>
  - 8x slot-loading SuperDrive (DVD±R DL/DVD±RW/CD-RW)
    - Maximum write: 8x DVD-R, DVD+R, DVD+RW; 6x DVD-RW; 4x DVD-R DL (double layer), DVD+R DL (double layer); 24x CD-R; 16x CD-RW
    - Maximum read: 8x DVD-R, DVD+R, DVD+RW, DVD-ROM; 6x DVD-ROM (double layer DVD-9), DVD-R DL (double layer), DVD+R DL (double layer), DVD-RW; 24x CD

**Configurations**

	<b>15.4-inch: 2.2GHz (MA895X/A)</b>	<b>15.4-inch: 2.4GHz (MA896X/A)</b>	<b>17-inch: 2.4GHz (MA897X/A)</b>
Display	15.4-inch (diagonal), 1440 by 900 resolution, TFT widescreen		17-inch (diagonal), 1680 by 1050 resolution, TFT widescreen
Processor	2.2GHz Intel Core 2 Duo		2.4GHz Intel Core 2 Duo
Memory	2GB (two SO-DIMMs) 667MHz DDR2 SDRAM (PC2-5300)		
PCI Express graphics	NVIDIA GeForce 8600M GT with 128MB of GDDR3 SDRAM and dual-link DVI		NVIDIA GeForce 8600M GT with 256MB of GDDR3 SDRAM and dual-link DVI
Hard disk drive <sup>3</sup>	120GB Serial ATA; 5400 rpm		160GB Serial ATA; 5400 rpm
Slot-loading optical drive	8x SuperDrive (DVD±R DL/DVD±RW/CD-RW)		
Expansion	One FireWire 400, one FireWire 800, two USB 2.0 ports, and ExpressCard/34 slot		One FireWire 400, one FireWire 800, three USB 2.0 ports, and ExpressCard/34 slot
Video	Built-in iSight camera, DVI, VGA (DVI to VGA adapter included)		
Audio	Combined optical digital input/audio line in, combined optical digital output/headphone out, stereo speakers, microphone		
Ethernet	Built-in 10/100/1000BASE-T (Gigabit)		
Wireless <sup>2</sup>	Built-in AirPort Extreme (802.11n); built-in Bluetooth 2.0+EDR		
Modem	Apple USB Modem (sold separately)		
Input	Apple Remote; full-size, illuminated keyboard with ambient light sensor; scrolling trackpad		
Weight	2.45 kg		3.08 kg
Footprint	35.7 x 24.3 cm		39.2 x 26.5 cm
Thickness	2.59 cm		
Video accessories	DVI to VGA adapter included (other adapters sold separately)		

Hardware accessories	85W MagSafe Power Adapter, AC wall plug, power cord, lithium-polymer battery
Limited warranty and service	Your MacBook Pro comes with 90 days of telephone support and a one-year limited warranty. For more information, visit <a href="#">Apple support</a> .

## Options



- Apple Wireless Keyboard (M9270LL/A)
- Apple USB Modem (MA034Z/A)
- Apple Wireless Mighty Mouse (M9269Z/A)
- Apple Keyboard (M9034LL/A)
- .Mac Subscription (MA361Z/A)
- AppleCare Protection Plan (M8853FE/B)
- AirPort Extreme Base Station (MA8799X/A)
- AirPort Express (MA073X/A)
- Apple DVI to Video Adapter (M9267G/A)
- Apple 85W MagSafe Power Adapter (MA357Z/A)
- MagSafe Airline Adapter (MA598Z/A)
- Rechargeable Battery, 15-inch MacBook Pro (MA348G/A)
- Rechargeable Battery, 17-inch MacBook Pro (MA458G/A)
- World Travel Adapter Kit (M8794G/B)
- iWork (MA222Z/A)

### Online store options

- Up to 4GB main memory
- 160GB 7200-rpm, 160GB 5400-rpm, 200GB 4200-rpm hard drive (15-inch only); 250GB 4200-rpm hard drive (17-inch only) <sup>3</sup>



1. **Battery life** depends on configuration and use.
2. Wireless Internet access requires base station or other wireless access point and Internet access (fees may apply). Some ISPs are not currently compatible with AirPort. Range may vary with site conditions.
3. 1GB = 1 billion bytes; actual formatted capacity less.
4. Actual weight varies by configuration and manufacturing process.

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Internet access requires a compatible Internet service provider; fees may apply. Product includes electronic documentation. Backup copy of software is included. Product specifications are subject to change without notice.

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