

MacBook Pro (13-inch, Late 2011) - Technical Specifications

Size and weight

- Height: 0.95 inch (2.41 cm)
- Width: 12.78 inches (32.5 cm)
- Depth: 8.94 inches (22.7 cm)
- Weight: 4.5 pounds (2.04 kg)¹

Connections and expansion



- MagSafe power port
- Gigabit Ethernet port
- FireWire 800 port (up to 800 Mbps)
- Two USB 2.0 ports (up to 480 Mbps)
- Thunderbolt port (up to 10 Gbps)
- Audio in/out
- SDXC card slot

- Kensington lock slot

Communications

- Wi-Fi wireless networking² (based on IEEE 802.11n specification); IEEE 802.11a/b/g compatible
- Bluetooth 2.1 + EDR (Enhanced Data Rate) wireless technology
- 10/100/1000BASE-T Gigabit Ethernet (RJ-45 connector)

Audio

- Stereo speakers with subwoofer
- Omnidirectional microphone
- Combined headphone/line in (supports digital output)
- Support for Apple iPhone headset with microphone

Environmental Status Report

MacBook Pro is designed with the following features to reduce its environmental impact:

- Highly recyclable aluminum and glass enclosure
- Mercury-free LED-backlit display
- Arsenic-free display glass
- BFR-free
- PVC-free³
- Energy Efficient Ethernet
- Reduced packaging volume
- Meets ENERGY STAR Version 5.2 requirements
- Rated EPEAT Gold⁴

Display

- 13.3-inch (diagonal) LED-backlit glossy widescreen display with support for millions of colors

- **Supported resolutions:** 1280 by 800 (native), 1152 by 720, 1024 by 640, and 800 by 500 pixels at 16:10 aspect ratio; 1024 by 768, 800 by 600, and 640 by 480 pixels at 4:3 aspect ratio; 1024 by 768, 800 by 600, and 640 by 480 pixels at 4:3 aspect ratio stretched; 720 by 480 pixels at 3:2 aspect ratio; 720 by 480 pixels at 3:2 aspect ratio stretched

Graphics and video support

- Intel HD Graphics 3000 with 384MB of DDR3 SDRAM shared with main memory⁵
- 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
- FaceTime HD camera
- Thunderbolt port

Thunderbolt digital video output

- Native Mini DisplayPort output
- DVI output using Mini DisplayPort to DVI Adapter (optional)
- VGA output using Mini DisplayPort to VGA Adapter (optional)
- Dual-link DVI output using Mini DisplayPort to Dual-Link DVI Adapter supports 30-inch Apple Cinema HD Display (optional)
- HDMI audio and video output using a third-party Mini DisplayPort to [HDMI Adapter](#)

Input

- Full-size backlit keyboard with 78 (U.S.) or 79 (ISO) keys, including 12 function keys and 4 arrow keys (inverted “T” arrangement)
- Multi-Touch trackpad for precise cursor control; supports inertial scrolling, pinch, rotate, swipe, three-finger swipe, four-finger swipe, tap, double-tap, and drag capabilities

Processor and memory

- 2.4GHz dual-core Intel Core i5 processor with 3MB shared L3 cache or 2.8GHz dual-core Intel Core i7 processor with 4MB shared L3 cache
- 4GB (two 2GB SO-DIMMs) of 1333MHz DDR3 memory; two SO-DIMM slots support up to 8GB

Storage

- 500GB or 750GB 5400-rpm Serial ATA hard drive; optional 750GB 5400-rpm hard drive or 128GB, 256GB, or 512GB solid-state drive⁶
- 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

Battery and power⁷

- up to **7 hrs** wireless web
- Built-in 63.5-watt-hour lithium-polymer battery
- 60W MagSafe Power Adapter with cable management system
- MagSafe power port

Electrical and operating requirements

- Line voltage: 100V to 240V AC
- Frequency: 50Hz to 60Hz
- Operating temperature: 50° to 95° F (10° to 35° C)
- Storage temperature: -13° to 113° F (-24° to 45° C)
- Relative humidity: 0% to 90% noncondensing
- Maximum operating altitude: 10,000 feet
- Maximum storage altitude: 15,000 feet

- Maximum shipping altitude: 35,000 feet

Acoustic Performance

DECLARED NOISE EMISSIONS in accordance with ISO 9296

	Sound Power Level		Sound Pressure Level	
	L_{WAd} (B)		Operator Position	
	1 B = 10 dB		L_{pAm} (dB)	
	2.8 GHz	2.4 GHz	2.8 GHz	2.4 GHz
Idle	3.0	2.8	18	18
Hard drive accessing	3.0	2.8	18	17
CD drive accessing	3.4	3.3	29	28

1. L_{WAd} is the statistical upper-limit A-weighted sound power level (rounded to the nearest 0.1 B).
2. L_{pAm} is the mean A-weighted sound pressure level measured at the operator position (rounded to the nearest dB).
3. 1 B (bel) = 10 dB (decibel).

What's in the box

- MacBook Pro
- Display cleaning cloth
- 60W MagSafe Power Adapter, AC wall plug, and power cord

- Printed and electronic documentation

Software

- OS X Lion (includes Mail, Address Book, iCal, the Mac App Store, iTunes, Safari, Time Machine, FaceTime, Photo Booth, Mission Control, Launchpad, AirDrop, Resume, Auto Save, Versions, Quick Look, Spotlight, QuickTime, and more)
- iLife (includes iPhoto, iMovie, and GarageBand)

13-inch Configurations

	2.4GHz MacBook Pro (MD313LL/A)	2.8GHz MacBook Pro (MD314LL/A)
Enclosure	Precision aluminum unibody	
Processor	2.4GHz dual-core Intel Core i5	2.8GHz dual-core Intel Core i7
L3 cache	3MB shared	4MB shared
Memory	4GB (two 2GB SO-DIMMs) of 1333MHz DDR3 SDRAM; supports up to 8GB	
Hard drive ⁶	500GB Serial ATA; 5400 rpm	750GB Serial ATA; 5400 rpm
Slot-loading optical drive	8x SuperDrive (DVD±R DL/DVD±RW/CD-RW)	
Graphics	Intel HD Graphics 3000 processor with 384MB of DDR3 SDRAM shared with main memory ⁵	

Video	FaceTime HD camera; Thunderbolt port with support for DVI, VGA, dual-link DVI, and HDMI (requires adapters, sold separately)
Display	13.3-inch (diagonal) LED-backlit glossy widescreen display, 1280-by-800 resolution
Expansion	One Thunderbolt port (up to 10 Gbps), one FireWire 800 port (up to 800 Mbps), two USB 2.0 ports (up to 480 Mbps), SDXC card slot
Audio	Stereo speakers with subwoofer, omnidirectional microphone, combined headphone/line in (supports digital output)
Networking	10/100/1000BASE-T (Gigabit) Ethernet
Wireless	Wi-Fi (based on IEEE 802.11n specification) ² ; Bluetooth 2.1 + EDR (Enhanced Data Rate) wireless technology
Hardware accessories	60W MagSafe Power Adapter, AC wall plug, power cord
Limited warranty and service	Your MacBook Pro comes with 90 days of free telephone support and a one-year limited warranty. Purchase the AppleCare Protection Plan to extend your service and support to three years from your computer's purchase date. 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-authorized technicians using genuine Apple parts. For more information, visit Apple support or call 800-823-2775.
Apple and the global	Learn more about Apple's dedication to reducing the environmental impact of our products and processes. Apple Product Environmental Reports detail the

environment environmental attributes of our products.

Recycling Apple takes a holistic view of materials management and waste minimization. [Learn more about how to recycle your Mac.](#)

Options

[Time Capsule](#)

Time Capsule is a full-featured AirPort Extreme base station with a built-in hard drive. Back up wirelessly and create a Wi-Fi network with one device.

- 2TB or 3TB server-grade hard drive
- Wi-Fi Certified for 802.11n 2.0
- USB port for connecting a USB printer or USB external hard drive

Configure to order

- 750GB (5400-rpm) hard drive
- 128GB, 256GB, or 512GB solid-state drive
- Up to 8GB of 1333MHz DDR3 SDRAM
- Apple Remote
- Apple Mini DisplayPort to DVI Adapter
- Apple Mini DisplayPort to Dual-Link DVI Adapter
- Apple Mini DisplayPort to VGA Adapter
- MagSafe Airline Adapter
- AppleCare Protection Plan

Accessories

- Apple Thunderbolt Display

- AirPort Extreme Base Station
- AirPort Express Base Station
- Apple Wireless Keyboard
- Magic Mouse
- Apple Keyboard with Numeric Keypad
- Apple Mouse

1. Actual weight varies by configuration and manufacturing process.
2. Wireless Internet access requires a base station or other wireless access point and Internet access; fees may apply. Some ISPs are not currently compatible with AirPort.
3. PVC-free AC power cord is available in the U.S., Canada, Mexico, Colombia, El Salvador, Guatemala, Panama, Peru, Puerto Rico, U.S. Virgin Islands, and Venezuela.
4. MacBook Pro achieved a Gold rating from EPEAT in the U.S. and Canada.
5. Memory available to OS X may vary depending on graphics needs. Minimum graphics memory usage is 384MB.
6. 1GB=1 billion bytes; actual formatted capacity less.
7. Wireless web testing conducted by Apple in October 2011 using preproduction 2.8GHz dual-core Intel Core i7–based 13-inch MacBook Pro units. The wireless web test measures battery life by wirelessly browsing 25 popular websites with display brightness set to 50%. Battery life varies by use and configuration. See www.apple.com/batteries for more information.

Helpful?	Yes	No
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Support	MacBook Pro (13-inch, Late 2011) - Technical Specifications
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