


## MacBook Pro (13-inch, 2016, Four Thunderbolt 3 ports) – Technical Specifications

Languages English 

### Touch Bar

- Touch Bar with integrated Touch ID sensor

### Finish

- Silver
- Space Gray

### Display

- Retina display
- 13.3-inch (diagonal) LED-backlit display with IPS technology; 2560-by-1600 native resolution at 227 pixels per inch with support for millions of colors
- Supported scaled resolutions:
  - 1680 by 1050
  - 1440 by 900
  - 1024 by 640
- 500 nits brightness
- Wide color gamut (P3)

### Processor

- 2.9GHz dual-core Intel Core i5, Turbo Boost up to 3.3GHz, with 4MB shared L3 cache  
Configurable to 3.1GHz dual-core Intel Core i5, Turbo Boost up to 3.5GHz, with 4MB shared L3 cache; or  
3.3GHz dual-core Intel Core i7, Turbo Boost up to 3.6GHz, with 4MB shared L3 cache

### Storage<sup>1</sup>

- 256GB  
256GB PCIe-based onboard SSD
- 512GB  
512GB PCIe-based onboard SSD  
Configurable to 1TB SSD

### Memory

- 8GB of 2133MHz LPDDR3 onboard memory  
Configurable to 16GB of memory

### Graphics

- Intel Iris Graphics 550

### Charging and Expansion

Four Thunderbolt 3 (USB-C) ports with support for:

- Charging
- DisplayPort
- Thunderbolt (up to 40 Gbps)
- USB 3.1 Gen 2 (up to 10 Gbps)

### Keyboard and Trackpad

- Full-size backlit keyboard with:
  - 64 (U.S.) or 65 (ISO) keys including 4 arrow keys
  - Touch Bar with integrated Touch ID sensor
  - Ambient light sensor
  - Force Touch trackpad for precise cursor control and pressure-sensing capabilities; enables Force clicks, accelerators, pressure-sensitive drawing, and Multi-Touch gestures

### Wireless

- Wi-Fi  
802.11ac Wi-Fi wireless networking; IEEE 802.11a/b/g/n compatible
- Bluetooth  
Bluetooth 4.2 wireless technology

#### Camera

- 720p FaceTime HD camera

#### Video Support

Simultaneously supports full native resolution on the built-in display at millions of colors and:

- One display with 5120-by-2880 resolution at 60Hz at over a billion colors
- Up to two displays with 4096-by-2304 resolution at 60Hz at over a billion colors

#### Thunderbolt 3 digital video output

- Native DisplayPort output over USB-C
- VGA, HDMI, and Thunderbolt 2 output supported using adapters (sold separately)

#### Audio

- Stereo speakers with high dynamic range
- Three microphones
- 3.5 mm headphone jack

#### Battery and Power<sup>2</sup>

- Up to 10 hours wireless web
- Up to 10 hours iTunes movie playback
- Up to 30 days of standby time
- Built-in 49.2-watt-hour lithium-polymer battery
- 61W USB-C Power Adapter

#### 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 (-25° to 45° C)
- Relative humidity: 0% to 90% noncondensing
- Operating altitude: tested up to 10,000 feet
- Maximum storage altitude: 15,000 feet
- Maximum shipping altitude: 35,000 feet

#### Size and Weight

- Height: 0.59 inch (1.49 cm)
- Width: 11.97 inches (30.41 cm)
- Depth: 8.36 inches (21.24 cm)
- Weight: 3.02 pounds (1.37 kg)<sup>3</sup>

#### Operating System

##### macOS Sierra

macOS is the operating system that powers everything you do on a Mac. macOS Sierra introduces Siri to Mac<sup>4</sup> — along with new ways to enjoy your photos, shop more securely online, and work more seamlessly between devices.

[Learn more](#)

##### Accessibility

Accessibility features help people with disabilities get the most out of their new MacBook Pro. With built-in support for vision, hearing, physical and motor skills, and learning and literacy, you can create and do amazing things.

[Learn more](#)

##### Features include:

- VoiceOver
- Zoom
- Increase Contrast
- Reduce Motion
- Siri and Dictation
- Switch Control
- Closed Captions
- Text to Speech

##### Built-in Apps<sup>5</sup>

- Photos
- iMovie
- GarageBand

- Pages
- Numbers
- Keynote
- Siri
- Safari
- Mail
- FaceTime
- Messages
- Maps
- Notes
- Calendar
- Contacts
- Reminders
- Photo Booth
- Preview
- iTunes
- iBooks
- App Store
- Time Machine

#### What's in the Box

- 13-inch MacBook Pro
- 61W USB-C Power Adapter
- USB-C Charge Cable (2 m)

#### Configure to Order

Configure your MacBook Pro with these options, only at [apple.com](http://apple.com):

- 3.1GHz dual-core Intel Core i5, Turbo Boost up to 3.5GHz, with 4MB shared L3 cache; or 3.3GHz dual-core Intel Core i7, Turbo Boost up to 3.6GHz, with 4MB shared L3 cache
- 16GB of 2133MHz LPDDR3 onboard memory
- 1TB PCIe-based onboard SSD

#### MacBook Pro and the Environment

Apple takes a complete product life cycle approach to determining our environmental impact. [Learn more](#)

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

- Mercury-free LED-backlit display
- Arsenic-free display glass
- BFR-free
- PVC-free<sup>6</sup>
- Beryllium-free
- Highly recyclable aluminum enclosure
- Meets ENERGY STAR 6.1 requirements
- Rated EPEAT Gold<sup>7</sup>

#### Apple and the Environment

Learn more about Apple's dedication to reducing the environmental impact of our products and process. Or read our Product Environmental Reports for detailed information on the environmental performance of every Apple product.

#### Recycling

Apple takes a holistic view of materials management and waste minimization.

[Learn more about how to recycle your Mac](#)

#### Accessories

##### Mac Software

- Final Cut Pro X
- Logic Pro X

##### Displays and Adapters

- LG UltraFine 4K Display
- LG UltraFine 5K Display
- Thunderbolt 3 (USB-C) to Thunderbolt 2 Adapter
- USB-C to USB Adapter
- USB-C Digital AV Multiport Adapter
- USB-C VGA Multiport Adapter
- USB-C to Gigabit Ethernet Adapter

##### AirPort and Wireless

- AirPort Express
- AirPort Extreme
- AirPort Time Capsule

#### Other Accessories

- USB-C to Lightning Cable
- USB-C Charge Cable
- 61W USB-C Power Adapter
- Magic Keyboard
- Magic Trackpad 2
- Magic Mouse 2

#### Acoustic Performance

Declared noise emission values in accordance with ECMA-109

	Sound Power Level $L_{W A,m}$ (B)	Sound Pressure Level Operator Position $L_{p A,m}$ (dB)
Idle	1.25 ( $K_v=0.25$ )	3.5
Wireless web	1.25 ( $K_v=0.25$ )	4.0

1.  $L_{W A,m}$  is the mean A-weighted sound power level, rounded to the nearest 0.05 B.
2.  $L_{p A,m}$  is the mean A-weighted sound pressure level measured at operator position (rounded to the nearest 0.5 dB).
3. 1 B (bel) = 10 dB (decibel)
4.  $K_v$  is the statistical adder for computing upper-limit of A-weighted sound power level.
5. The quantity,  $L_{W A,c}$  (formerly called  $L_{W Ad}$ ) may be computed from the sum of  $L_{W A,m}$  and  $K_v$ .
6. The Wireless web test browses 25 popular websites.
7. Configuration tested: 2.9GHz dual-core Intel Core i5 processor, 8GB memory, 256GB storage, Intel Iris Graphics 550 1536 MB.

1. 1GB = 1 billion bytes and 1TB = 1 trillion bytes; actual formatted capacity less.
2. Testing conducted by Apple in October 2016 using preproduction 2.0GHz dual-core Intel Core i5-based 13-inch MacBook Pro systems with a 256GB SSD and 8GB of RAM (wireless web test, iTunes movie playback test, and standby test). Testing conducted by Apple in October 2016 using preproduction 2.9GHz dual-core Intel Core i5-based 13-inch MacBook Pro systems with a 512GB SSD and 8GB of RAM (wireless web test and iTunes movie playback test) and preproduction 2.9GHz dual-core Intel Core i5-based 13-inch MacBook Pro systems with a 256GB SSD and 8GB of RAM (standby test). The wireless web test measures battery life by wirelessly browsing 25 popular websites with display brightness set to 12 clicks from bottom or 75%. The iTunes movie playback test measures battery life by playing back HD 1080p content with display brightness set to 12 clicks from bottom or 75%. The standby test measures battery life by allowing a system, connected to a wireless network and signed in to an iCloud account, to enter standby mode with Safari and Mail applications launched and all system settings left at default. Battery life varies by use and configuration. See [www.apple.com/batteries](http://www.apple.com/batteries) for more information.
3. Weight varies by configuration and manufacturing process.
4. Siri may not be available in all languages or in all areas, and features may vary by area.
5. iMovie, GarageBand, Pages, Numbers, and Keynote are available on the Mac App Store. Downloading apps requires an Apple ID and a device that is compatible with the OS version required for each app.
6. PVC-free AC power cord available in all regions except India and South Korea.
7. MacBook Pro achieved a Gold rating from EPEAT in the U.S. and Canada.

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Support