

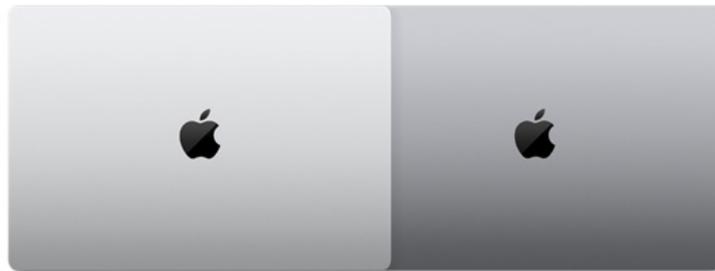
# MacBook Pro

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16-inch



## Finish



Silver

Space Gray

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## Chip



### Apple M1 Pro chip

10-core CPU with 8 performance cores and 2 efficiency cores

16-core GPU

16-core Neural Engine

200GB/s memory bandwidth

### Media engine

Hardware-accelerated H.264, HEVC, ProRes, and ProRes RAW

Video decode engine

Video encode engine



### Apple M1 Pro chip

10-core CPU with 8 performance cores and 2 efficiency cores

16-core GPU

16-core Neural Engine

200GB/s memory bandwidth

### Media engine

Hardware-accelerated H.264, HEVC, ProRes, and ProRes RAW

Video decode engine

Video encode engine



### Apple M1 Max chip

10-core CPU with 8 performance cores and 2 efficiency cores

32-core GPU

16-core Neural Engine

400GB/s memory bandwidth

### Media engine

Hardware-accelerated H.264, HEVC, ProRes, and ProRes RAW

Video decode engine

Two video encode engines

ProRes encode and  
decode engine

ProRes encode and  
decode engine

Two ProRes encode and  
decode engines

**Configurable to:**

M1 Max with 10-core CPU  
and 24-core GPU or  
M1 Max with 10-core CPU  
and 32-core GPU

**Configurable to:**

M1 Max with 10-core CPU  
and 24-core GPU or  
M1 Max with 10-core CPU  
and 32-core GPU

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## Display

### Liquid Retina XDR display

16.2-inch (diagonal) Liquid Retina XDR display; 3456-by-2234 native resolution at 254 pixels per inch



#### XDR (Extreme Dynamic Range)

Up to 1000 nits sustained (full-screen) brightness, 1600 nits peak brightness  
1,000,000:1 contrast ratio

#### Color

1 billion colors  
Wide color (P3)  
True Tone technology

#### Refresh rates

ProMotion technology for adaptive refresh rates up to 120Hz  
Fixed refresh rates: 47.95Hz, 48.00Hz, 50.00Hz, 59.94Hz, 60.00Hz

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## Memory

**16GB**

16GB unified memory

**16GB**

16GB unified memory

**32GB**

32GB unified memory

**Configurable to:**

32GB (M1 Pro or M1 Max) or  
64GB (M1 Max)

**Configurable to:**

32GB (M1 Pro or M1 Max) or  
64GB (M1 Max)

**Configurable to:**

64GB

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## Battery and Power

Up to 21 hours Apple TV app movie playback

Up to 14 hours wireless web

100-watt-hour lithium-polymer battery

140W USB-C Power Adapter

USB-C to MagSafe 3 Cable

Fast-charge capable with included 140W USB-C Power Adapter

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## Storage

**512GB**

512GB SSD

**1TB**

1TB SSD

**1TB**

1TB SSD

**Configurable to:**

1TB, 2TB, 4TB, or 8TB

**Configurable to:**

2TB, 4TB, or 8TB

**Configurable to:**

2TB, 4TB, or 8TB

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## Charging and Expansion

SDXC card slot

HDMI port

3.5 mm headphone jack

MagSafe 3 port

**Three Thunderbolt 4 (USB-C) ports with support for:**

Charging

DisplayPort

Thunderbolt 4 (up to 40Gb/s)

USB 4 (up to 40Gb/s)



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## Video Support

**Simultaneously supports full native resolution on the built-in display at 1 billion colors and:**

Up to two external displays with up to 6K resolution at 60Hz at over a billion colors (M1 Pro) or  
Up to three external displays with up to 6K resolution and one external display with up to 4K resolution at 60Hz at over a billion colors (M1 Max)

### Thunderbolt 4 digital video output

Native DisplayPort output over USB-C

VGA, HDMI, DVI, and Thunderbolt 2 output supported using adapters (sold separately)

### HDMI digital video output

Support for one display with up to 4K resolution at 60Hz

DVI output using HDMI to DVI Adapter (sold separately)

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## Keyboard and Trackpad

**Backlit Magic Keyboard with:**

78 (U.S.) or 79 (ISO) keys including 12 full-height function keys and 4 arrow keys in an inverted-T arrangement

Touch ID

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



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## Wireless

### Wi-Fi

802.11ax Wi-Fi 6 wireless networking  
IEEE 802.11a/b/g/n/ac compatible

### Bluetooth

Bluetooth 5.0 wireless technology

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## Camera

1080p FaceTime HD camera  
Advanced image signal processor with computational video

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## Audio

High-fidelity six-speaker sound system with force-cancelling woofers

Wide stereo sound

Support for spatial audio when playing music or video with Dolby Atmos on built-in speakers

Spatial audio with dynamic head tracking when using AirPods (3rd generation), AirPods Pro, and AirPods Max

Studio-quality three-mic array with high signal-to-noise ratio and directional beamforming

3.5 mm headphone jack with advanced support for high-impedance headphones

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## 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

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## Size and Weight

**Height:** 0.66 inch (1.68 cm)

**Width:** 14.01 inches (35.57 cm)

**Depth:** 9.77 inches (24.81 cm)

**Weight (M1 Pro):** 4.7 pounds (2.1 kg)

**Weight (M1 Max):** 4.8 pounds (2.2 kg)



## Operating System

macOS

macOS is the most advanced desktop operating system in the world. macOS Monterey introduces powerful new features to help you connect, share, and create like never before.

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## Accessibility

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

**Features include:**

Voice Control

Zoom

Reduce Motion

VoiceOver

Increase Contrast

Siri and Dictation

Switch Control

Closed Captions

Text to Speech

**In the Box**

16-inch MacBook Pro

140W USB-C Power Adapter

USB-C to MagSafe 3 Cable (2 m)

