

MacBook Pro (16-inch PROLED XDR, M5 Pro or M5 Max) - Tech Specs

Year introduced: 2026

Finish

Space Black

Silver

Chip

Apple M5 Pro chip

18-core CPU with:

6 super cores

12 performance cores

20-core GPU

Neural Accelerators

Hardware-accelerated ray tracing

16-core Neural Engine

307GB/s memory bandwidth

Media Engine

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

Video decode engine

Video encode engine

ProRes encode and decode engine

AV1 decode

Apple M5 Max chip

18-core CPU with:

6 super cores

12 performance cores

32-core GPU

Neural Accelerators

Hardware-accelerated ray tracing

16-core Neural Engine

460GB/s memory bandwidth

18-core CPU with:

6 super cores

12 performance cores

40-core GPU

Neural Accelerators

Hardware-accelerated ray tracing

16-core Neural Engine

614GB/s memory bandwidth

Media Engine

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

Video decode engine

Two video encode engines

Two ProRes encode and decode engines

AV1 decode

Memory

M5 Pro with 20-core GPU

24GB, 48GB or 64GB unified memory

M5 Max with 32-core GPU

36GB unified memory

M5 Max with 40-core GPU

48GB, 64GB or 128GB unified memory

Storage[1]

M5 Pro with 20-core GPU

1TB, 2TB or 4TB SSD

M5 Max with 32-core GPU

2TB, 4TB, 8TB or 16TB SSD

M5 Max with 40-core GPU

2TB, 4TB, 8TB or 16TB SSD

Display

PROLED XDR display

16.3-inch (diagonal) tandem OLED display;[2] 3472x2266 native resolution at 254 pixels per inch

XDR (Extreme Dynamic Range)

10,000,000:1 contrast ratio

XDR brightness: up to 1,000 nits sustained full-screen,[3] 2,000 nits peak (HDR content only)

SDR brightness: up to 1,000 nits sustained full-screen,[3] 2,000 nits peak (outdoor)

1 nit minimum brightness

Colour

1 billion colours

P3 + Adobe RGB wide colour gamuts

True Tone technology

Refresh rates

ProMotion technology with adaptive refresh rates from 10Hz to 120Hz

Fixed refresh rates: 47.95Hz, 48.00Hz, 50.00Hz, 59.94Hz, 60.00Hz

Touch

Multi-Touch gesture support

Dynamic Island

Display glass

Anti-reflective coating

Fingerprint-resistant oleophobic coating

Nano-texture glass option

Battery and Power[4]

M5 Pro

Up to 24 hours video streaming

Up to 17 hours wireless web

100-watt-hour lithium-polymer battery[4]

Supports charging via a USB-C power adapter or other USB PD power source

Minimum wattage recommended to charge the device: 94W

Fast-charge capable with 140W or higher USB PD power source

M5 Max

Up to 22 hours video streaming

Up to 16 hours wireless web

100-watt-hour lithium-polymer battery[4]

Supports charging via a USB-C power adapter or other USB PD power source

Minimum wattage recommended to charge the device: 94W

Fast-charge capable with 140W or higher USB PD power source

Charging and Expansion

SDXC card slot

HDMI port

3.5mm headphone jack

MagSafe 3 port

Three Thunderbolt 5 (USB-C) ports with support for:

Charging

DisplayPort

Thunderbolt 5 (up to 120Gb/s)

USB 4 (up to 120Gb/s)

Genlock[5]

External Display Support

M5 Pro

Supports up to three external displays over any combination of Thunderbolt and HDMI ports:

Three displays up to a native resolution of 6K at 60Hz or 4K at 165Hz, or

One display up to a native resolution of 8K at 60Hz or 5K at 120Hz or 4K at 240Hz, plus a second display up to a native resolution of 5K at 120Hz or 4K at 200Hz

Supports up to three external displays over a single Thunderbolt port

Simultaneously supports the built-in display at full native resolution

M5 Max

Supports up to four external displays over any combination of Thunderbolt and HDMI ports:

Four displays up to a native resolution of 6K at 60Hz or 4K at 165Hz, or

Two displays up to a native resolution of 8K at 60Hz or 5K at 120Hz or 4K at 240Hz

Supports up to four external displays over a single Thunderbolt port

Simultaneously supports the built-in display at full native resolution

Thunderbolt 5 (USB-C) ports support native DisplayPort 2.1 speeds

Learn more about connecting a display to your Mac

Reference Modes

Available reference modes:

Apple XDR Display (P3-2,000 nits)

Apple XDR Display (P3 + Adobe RGB-2,000 nits)

HDR Video (P3-ST 2084)

HDTV Video (BT.709–BT.1886)

NTSC Video (BT.601 SMPTE-C)

PAL and SECAM Video (BT.601 EBU)

Digital Cinema (P3-DCI)

Digital Cinema (P3-D65)

Design and Print (P3-D50)

Design and Print (Adobe RGB-D50)

Photography (P3-D65)

Photography (Adobe RGB-D65)

HDR Photography (P3-D65)

Internet and Web (sRGB)

Medical Imaging (DICOM-350 nits)[6]

Medical Imaging (DICOM-600 nits)[6]

Video Playback

Supported formats include HEVC, H.264, AV1 and ProRes

HDR with Dolby Vision, HDR10+/HDR10 and HLG

Audio Playback

Supported formats include AAC, MP3, Apple Lossless, FLAC, Dolby Digital, Dolby Digital Plus and Dolby Atmos

Keyboard and Trackpad

Backlit Magic Keyboard with:

78 (ANSI) or 79 (ISO) keys including 12 full-height function keys

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

Wireless

Apple N1 wireless networking chip

Wi-Fi 7 (802.11be)[7]

Bluetooth 6

Thread networking technology

Camera

12MP Center Stage camera with support for Desk View

1080p HD video recording

Advanced image signal processor with computational video

Advanced video stabilisation

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 supported models of AirPods, AirPods Pro and AirPods Max[8]

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

Voice Isolation and Wide Spectrum microphone modes for enhanced voice clarity in audio and video calls

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

HDMI port supports multi-channel audio output

Operating Requirements

Line voltage: 100V to 240V AC

Frequency: 50Hz to 60Hz

Operating temperature: 10° to 35° C (50° to 95° F)

Storage temperature: –25° to 45° C (–13° to 113° F)

Relative humidity: 0% to 90% non-condensing

Operating altitude: tested up to 3,000 metres (10,000 feet)

Maximum storage altitude: 4,500 metres (15,000 feet)

Maximum shipping altitude: 10,500 metres (35,000 feet)

Size and Weight

Height: 1.60 cm (0.63 inches)

Width: 35.55 cm (14.0 inches)

Depth: 24.42 cm (9.62 inches)

Weight (M5 Pro): 1.82 kg (4.0 pounds)[9]

Weight (M5 Max): 1.84 kg (4.1 pounds)[9]

Operating System

macOS

macOS is the most advanced desktop operating system in the world. Siri AI is a powerful and capable assistant with personal context understanding, broad world knowledge and onscreen awareness. Express yourself through photos and images, save time with Safari, and get more done with Apple Intelligence seamlessly integrated into your everyday apps and experiences. And iPhone Mirroring,[10] window tiling, Sidecar and more help you stay productive.

Apple Intelligence and Siri AI[11]

The next generation of Apple Intelligence is centred around you, integrated into your apps and built with privacy. Apple Intelligence powers Siri AI — an entirely new version of Siri that's more personal, conversational and powerful, along with helpful features across apps.

Learn more about Apple Intelligence and Siri AI

Accessibility

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

Learn more about Accessibility

Features include:

VoiceOver

Zoom

Motion, display and text settings

Accessibility Reader

Voice Control

Switch Control

AssistiveTouch

Touch Accommodations

Closed Captions

Live Captions

Live Speech

Built-in Apps[12]

App Store
Books
Calendar
Contacts
FaceTime
Find My
Freeform
Games
GarageBand
Home
iMovie
iPhone Mirroring
Journal
Keynote
Mail
Maps
Messages
Music
News
Notes
Numbers
Pages

Documentation

Podcasts

Preview
QuickTime Player
Reminders
Safari
Shortcuts
Stocks
Time Machine
Tips
TV
Voice Memos
Weather

In the Box

16-inch MacBook Pro with PROLED XDR Display

USB-C to MagSafe 3 Cable (2m)

Polishing cloth (only with nano-texture glass option)

Power adapter sold separately

MacBook Pro and the Environment

Progress towards Apple 2030

Apple 2030 is our goal to be carbon neutral across our value chain. We design our products to be less carbon intensive by prioritising the use of recycled and renewable content and low-carbon materials while focusing on the energy efficiency of our software and hardware.

See Apple's commitment

See the 16-inch MacBook Pro with PROLED XDR Display Product Environmental Report (PDF)

Materials

The 16-inch MacBook Pro with PROLED XDR Display is made with 55% recycled content,[13] including:

100% recycled aluminium in the enclosure

100% recycled cobalt and 95% recycled lithium in the battery

100% recycled copper in multiple thermal module components

100% recycled gold plating and tin solder in all Apple-designed printed circuit boards

100% recycled rare earth elements in all magnets

80% recycled steel in multiple components including the keyboard feature plate

Packaging

100% fibre-based packaging[14]

Energy

ENERGY STAR® certified[15]

Smarter chemistry[16]

All the materials used in Apple products, accessories and packaging are covered by the requirements of our Regulated Substances Specification (PDF), which was one of the first in industry to restrict the use of key substances of concern. See the latest Environmental Progress Report (PDF) to understand Apple's recent efforts in phasing out these chemistries.

Acoustic Performance

Declared noise emission values in accordance with ECMA-109
Acoustic Performance

	Sound Power Level	Sound Pressure Level

	$L_{WA,m}$ (B)	Operator Position $L_{pA,m}$ (dB)
Idle	1.2 (K_V = 0.3)	4
Wireless web	1.3 (K_V = 0.3)	4

1. $L_{WA,m}$ is the mean A-weighted sound power level, rounded to the nearest 0.1 B.
2. $L_{pA,m}$ is the mean A-weighted sound pressure level measured at operator position (rounded to the nearest 1 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, $L_{WA,c}$ (formerly called L_{WAd}) may be computed from the sum of $L_{WA,m}$ and K_v.
6. The wireless web test browses 6 tabs with a mix of content including media.
7. Configuration tested: M5 Max, 18-core CPU, 40-core GPU, 64GB unified memory, 4TB storage.

1. Actual formatted capacity of SSD storage is less.
2. Screen size is 14.2 inches (14-inch MacBook Pro with PROLED XDR Display) and 16.3 inches (16-inch MacBook Pro with PROLED XDR Display). Measured diagonally as a standard rectangular shape. Actual viewable area is less due to rounded corners.
3. In temperatures less than 25° C.
4. Testing conducted by Apple in September 2026 using pre-production 16-inch MacBook Pro with PROLED XDR Display systems with Apple M5 Max, 18-core CPU, 40-core GPU, 48GB of unified memory and 8TB SSD, and pre-production 16-inch MacBook Pro with PROLED XDR Display systems with Apple M5 Pro, 18-core CPU, 20-core GPU, 48GB of unified memory and 2TB SSD. Wireless web battery life tested by browsing 25 popular websites while connected to Wi-Fi. Video streaming battery life tested with 1080p content in Safari while connected to Wi-Fi. Display brightness set to 8 clicks from the bottom and keyboard backlight was off. Battery life varies by use, configuration and environmental factors. See apple.com/uk/batteries for more information.
5. Enabled by compatible third-party hardware and software.
6. The medical imaging presets are intended only for research and educational purposes.
7. Wi-Fi 7 availability varies by country. For more information, visit support.apple.com/en-gb/148165.
8. See support.apple.com/en-gb/102596 for supported models.
9. Weight varies by configuration and manufacturing process.
10. iPhone Mirroring is not available in all countries and regions. Some iPhone features (e.g. camera and microphone) are not compatible with iPhone Mirroring.
11. Apple Intelligence is available with Siri and device language set to Chinese (Simplified), Chinese (Traditional), Danish, Dutch, English, French, German, Italian, Japanese, Korean, Norwegian, Portuguese, Spanish, Swedish, Turkish or Vietnamese. Some features may not be available in all regions or languages. Some devices may not be available in all regions. Siri AI is available in beta in macOS 27 and requires an Apple Intelligence–enabled device set to a supported language. Available in English, French, Japanese, Korean, Portuguese and Spanish to start. Siri AI will not be initially available in the EU on iOS, iPadOS and watchOS. Siri AI is not available for users under 13. Certain Apple Intelligence features that rely on server-side models are subject to daily usage limits, including but not limited to Siri AI, Intelligent Photo Editing Tools, Image Playground, and AFM 3 Cloud models in Shortcuts. Daily limits may vary by feature, request complexity, system demand, system policies and other factors. Expanded access to such features will be available for a fee in the future. Use of these features is subject to the Apple Intelligence Terms and Conditions. Learn more at support.apple.com/en-gb/148587.
12. iMovie, GarageBand, Pages, Numbers and Keynote are available on the Mac App Store. Downloading apps requires an Apple Account and a device that is compatible with the OS version required for each app.
13. Product recycled or renewable content is the mass of certified recycled material relative to the overall mass of the device, not including packaging or in-box accessories. Recycled and renewable plastic content calculation includes mass balance allocation.
14. Breakdown of US retail packaging by weight. Adhesives, inks and coatings are excluded from our calculations.
15. ENERGY STAR and the ENERGY STAR mark are registered trademarks owned by the US Environmental Protection Agency.
16. Apple's Regulated Substances Specification describes Apple's restrictions on the use of certain chemical substances in materials in Apple products, accessories, manufacturing processes and packaging used for shipping products to Apple's end-customers. Restrictions are derived from international laws or directives, regulatory agencies, eco-label requirements, environmental standards and Apple policies. Every Apple product is free of PVC and phthalates except for AC power leads in India, Thailand (for two-prong AC power leads) and South Korea, where we continue to seek government approval for our PVC and phthalates replacement. Apple products comply with the European Union Directive 2011/65/EU and its amendments, including exemptions for the use of lead such as high-temperature solder. Apple is working to phase out the use of these exempted substances for new products where technically possible.

Helpful? Yes No

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