



MacBook Pro M4 Pro (2024)

Full Technical Specifications

Introduction Date: • October 30, 2024

Discontinued Date: • N/A

This model was introduced and made available for order on October 30, 2024. Orders started to arrive, and it first were available in stores on November 8, 2024.

Processors: • 1 (12 Cores)

Architecture: • 64-Bit

Processor Speed: • 4.5 GHz

Processor Type: • Apple M4 Pro

This model is powered by a 3 nm, 64-bit Apple M4 Pro processor (SoC) with twelve cores (8 performance cores, 4 efficiency cores). Third-party software reports that it has a clockspeed of 4.5 GHz. This model also has a 16-core GPU, a 16-core Neural Engine, and 273 GB/s of memory bandwidth.

RAM Type: • Unified

RAM Capacity: • 24GB

There are no RAM slots. 24 GB of "unified" RAM is onboard by default. The RAM cannot be upgraded.

Video Card: • 16-Core

VRAM Type: • Integrated

Built-in Display: • 14.2" 16:10

Native Resolution: • 3024x1964

14.2" color widescreen LED-backlit "Liquid Retina XDR" display. It has a 3024 by 1964 native resolution at 254 ppi, up to 1000 nits of sustained brightness, 1600 nits peak brightness (HDR content only), (outdoor) SDR brightness of 1000 nits, and a 1,000,000:1 contrast ratio. It also has support for 1 billion colors, Wide color (P3), True Tone, ProMotion (for adaptive refresh rates up to 120 Hz) as well as fixed refresh rates of 47.95 Hz, 48.00 Hz, 50.00 Hz, 59.94 Hz, and 60.00 Hz. It has a roughly 16:10 aspect ratio; there is a "notch" at the top of the display that holds the webcam and related sensors.

This display has a 12 megapixel "Center Stage" camera with support for "Desk View" and 1080p recording capability built-in to the "notch" at the top, as well.

Display Support: • 2 Displays

Resolution Support: • 6016x3384 (6K)

This model can simultaneously support the internal display at full native resolution and "up to" two 6016x3384 (6K) external displays at 60Hz. Alternately, it can support one external display "up to" 6016x3384 (6K) at 60 Hz over Thunderbolt and one external display "up to"

3840x2160 (4K) at 144 MHz over HDMI. Or, finally, it can support one external display at 7680x4320 (8K) at 60 Hz or one external display at 3840x2160 (4K) at 240 Hz over HDMI.

Storage: • 512GB SSD

The storage is built-in to the computer and cannot be upgraded after system purchase.

Standard Ethernet: • None

Standard AirPort: • 802.11ax Wi-Fi 6E

Standard Bluetooth: • 5.3

Ports:

- [3] Thunderbolt 5
- [1] HDMI 2.1
- [1] MagSafe 3
- [1] 3.5 mm Headphone Jack
- [1] SDXC

This model has three Thunderbolt 5 (USB-C) ports and one HDMI 2.1 port. The Thunderbolt 5 ports support charging, DisplayPort 2.1, Thunderbolt 5 (up to 120 Gb/s), Thunderbolt 4 (up to 40 Gb/s), and USB 4 (up to 40 Gb/s).

Single 3.5 mm analog audio output/headphone jack "with advanced support for high-impedance headphones."

This model does not have an external "expansion slot" in the traditional sense, but it does have an SDXC-capable SD card slot that supports up to 250 MB/s data transfer with UHS-II SD cards.

MagSafe 3 power connector port. 100V-240V AC, Default 70W USB-C power adapter.

Keyboard: • Full-size (Magic Keyboard) with Trackpad (Force Touch)

Apple reports that the keyboard in this model is a "Backlit Magic Keyboard." It has 78 (US) or 79 (ISO) keys "including 12 full-height function keys and 4 arrow keys in an inverted-T arrangement." It supports Touch ID and has an ambient light sensor. It does *not* have a "Touch Bar."

The "Force Touch" trackpad offers "precise cursor control and pressure-sensing capabilities; enables Force clicks, accelerators, pressure-sensitive drawing, and Multi-Touch gestures."

Battery Type: • 72.4Wh Li-Poly (14-22 Hours)

Apple reports that this model can provide up to 14 hours of "wireless web" and up to 22 hours of "video streaming." The notebook is bundled by default with a 70W USB-C Power Adapter.

Apple Order #: • MX2E3LL/A

Apple Subfamily: • 14-Inch, M4 Pro, 2024

Apple Model #: • A3401 (EMC 8894)

Model ID: • Mac16,8

Pre-Installed macOS: • macOS 15.0 (Sequoia)

Maximum macOS: • Current

This model is fully compatible with macOS Sequoia (macOS 15) as well as the current version of the macOS -- macOS Tahoe (macOS 26).

Windows Support: • Virtualization

Apple Boot Camp is not compatible with this notebook, so it cannot boot Windows. It is capable of running Windows via a third-party virtualization app, though.

Dimensions:

- 0.61 x 12.31 x 8.71 (in)
- 1.55 x 31.26 x 22.12 (cm)

In inches while closed - height by width by depth.

Weight:

- 3.5 lbs.
- 1.60 kg