



Mac mini (2024) - Tech Specs

Year introduced: 2024

[Identify your Mac mini model](#)

Finish

Silver

Chip

Apple M4 chip

10-core CPU with 4 performance cores and 6 efficiency cores

10-core GPU

Hardware-accelerated ray tracing

16-core Neural Engine

120GB/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 M4 Pro chip

12-core CPU with 8 performance cores and 4 efficiency cores
16-core GPU
Hardware-accelerated ray tracing
16-core Neural Engine
273GB/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

Configurable to:

M4 Pro with 14-core CPU and 20-core GPU

Apple Intelligence¹

Apple Intelligence is the personal intelligence system that helps you write, express yourself, and get things done effortlessly. With groundbreaking privacy protections, it gives you peace of mind that no one else can access your data — not even Apple.

[Learn more about Apple Intelligence](#)

Memory

Apple M4 chip

16GB unified memory

Configurable to:

24GB or 32GB

Apple M4 Pro chip

24GB unified memory

Configurable to:

48GB or 64GB

Storage²

Apple M4 chip

256GB SSD

Configurable to:

512GB, 1TB, or 2TB

Apple M4 Pro chip

512GB SSD

Configurable to:

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

Display Support

Apple M4 chip

Simultaneously supports up to three displays:

Up to three displays: Two displays with up to 6K resolution at 60Hz over Thunderbolt and one display with up to 5K resolution at 60Hz over Thunderbolt or 4K resolution at 60Hz over HDMI

Up to two displays: One display with up to 5K resolution at 60Hz over Thunderbolt and one display with up to 8K resolution at 60Hz or 4K resolution at 240Hz over Thunderbolt or HDMI

Thunderbolt 4 digital video output

Support for native DisplayPort 1.4 output over USB-C

Apple M4 Pro chip

Simultaneously supports up to three displays:

Up to three displays: Three displays with up to 6K resolution at 60Hz over Thunderbolt or HDMI

Up to two displays: One display with up to 6K resolution at 60Hz over Thunderbolt and one display with up to 8K resolution at 60Hz or 4K resolution at 240Hz over Thunderbolt or HDMI

Thunderbolt 5 digital video output

Support for native DisplayPort 2.1 output over USB-C

HDMI display video output

Support for one display with up to 8K resolution at 60Hz or 4K resolution at 240Hz (M4 and M4 Pro)

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

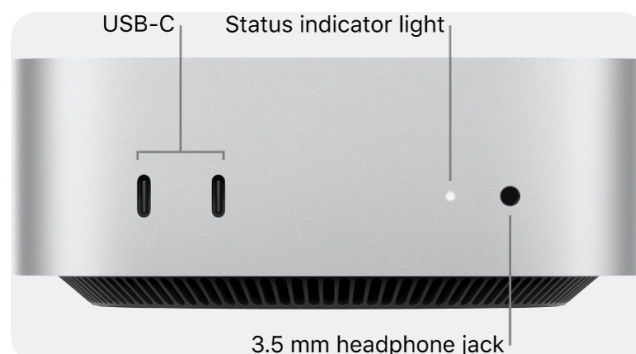
Audio

Built-in speaker

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

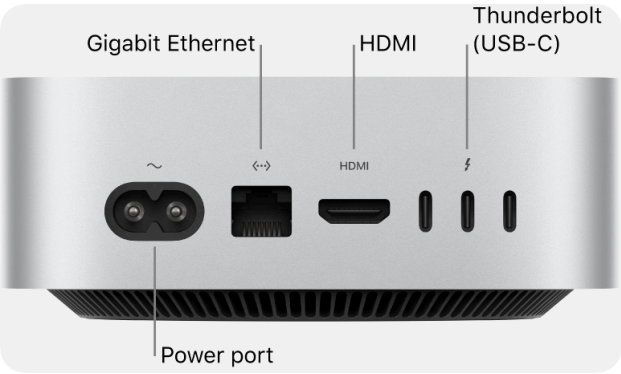
HDMI port supports multichannel audio output

Connections and Expansion



On front:

Two USB-C ports with support for USB 3 (up to 10Gb/s)
3.5 mm headphone jack



On back (M4):

Gigabit Ethernet port
(configurable to 10Gb Ethernet)

HDMI port

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

Thunderbolt 4 (up to 40Gb/s)

USB 4 (up to 40Gb/s)

DisplayPort

On back (M4 Pro):

Gigabit Ethernet port
(configurable to 10Gb Ethernet)

HDMI port

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

Thunderbolt 5 (up to 120Gb/s)

USB 4 (up to 120Gb/s)

DisplayPort

Communications

Wi-Fi

Wi-Fi 6E (802.11ax)³

Bluetooth

Bluetooth 5.3

Ethernet

10/100/1000BASE-T Gigabit Ethernet (RJ-45 connector)
Configurable to 10Gb Ethernet (Nbase-T Ethernet with support for 1Gb, 2.5Gb, 5Gb, and 10Gb Ethernet using RJ-45 connector)

Size and Weight

Height: 2.0 inches (5.0 cm)

Width: 5.0 inches (12.7 cm)

Depth: 5.0 inches (12.7 cm)

Weight (M4): 1.5 pounds (0.67 kg)⁴

Weight (M4 Pro): 1.6 pounds (0.73 kg)⁴

Electrical and Operating Requirements

Line voltage: 100–240V AC

Frequency: 50Hz to 60Hz, single phase

Maximum continuous power: 155W

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

Storage temperature: –40° to 116° F (–40° to 47° C)

Relative humidity: 5% to 90% noncondensing

Operating altitude: tested up to 16,400 feet (5000 meters)

Typical acoustical performance: Sound pressure level (operator position): 5 dBA at idle⁵

In the Box

Mac mini

Power cord (1.8 m)

Operating System

macOS

macOS is the most advanced desktop operating system in the world. macOS Sequoia helps you be productive and creative in new ways — with Apple Intelligence,¹ iPhone Mirroring, window tiling, major updates to Safari, and more.

[Learn more about latest operating system](#)

Accessibility

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

[Learn more about Accessibility](#)

Features include:

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

Built-in Apps⁶

App Store	Mail	Preview
Books	Maps	QuickTime Player
Calendar	Messages	Reminders
Contacts	Music	Safari
FaceTime	News	Shortcuts
Find My	Notes	Stocks
Freeform	Numbers	Time Machine
GarageBand	Pages	Tips
Home	Passwords	TV
iMovie	Photo Booth	Voice Memos
iPhone Mirroring	Photos	Weather
Keynote	Podcasts	

Configure to Order

Configure your Mac mini with these options at [apple.com](#):

Apple M4 chip

24GB or 32GB unified memory

512GB, 1TB, or 2TB SSD

10Gb Ethernet

Apple M4 Pro chip

M4 Pro with 14-core CPU, 20-core GPU, and 16-core Neural Engine

48GB or 64GB unified memory

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

Mac mini and the Environment

Environmental impact

Mac mini is designed to reduce environmental impact:⁷

[See the Mac mini Product Environmental Report \(PDF\)](#)

Progress toward Apple 2030

Mac mini is one of Apple's carbon neutral products:

More than 50% recycled content⁸

Manufacturing electricity sourced from 100% renewable electricity⁹

50% or more non-air shipping¹⁰

More than 80% emissions reduction against business-as-usual scenario as modeled by Apple¹¹

121 kg CO₂e or less total remaining emissions covered by high-quality carbon credits¹²

[See Apple's commitment](#)

Materials

100% recycled aluminum in the enclosure and thermal module stage¹³

100% recycled copper in multiple printed circuit boards, multiple thermal module components,¹⁴ AC inlet prongs, and multiple small parts

100% recycled gold in the plating of all Apple-designed printed circuit boards

100% recycled tin in the solder of multiple printed circuit boards

100% recycled rare earth elements in all magnets

100% recycled zinc in the AC inlet prongs and multiple small parts

80% recycled steel in multiple components

20% or more recycled plastic in 25 components

100% fiber-based packaging¹⁵

42% recycled content in fiber packaging

Energy

100% of manufacturing electricity for Mac mini is sourced from renewable electricity

100% of expected customer use electricity matched with low-carbon electricity

ENERGY STAR® certified¹⁶

Waste

No established final assembly sites generate waste sent to landfill as part of Apple's Zero Waste Program

Smarter chemistry¹⁷

Mercury-, BFR-, and PVC-free

Acoustic Performance

Declared noise emission values in accordance with ECMA-109

	Sound Power Level	Sound Pressure Level
	$L_{WA,m}$ (B)	Operator Position $L_{pA,m}$ (dB)
Idle	1.3 ($K_v = 0.3$)	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 the 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 $L_{WA,d}$) 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: Mac mini with Apple M4 chip, 10-core CPU, 10-core GPU, 16GB unified memory, 512GB storage and Mac mini with Apple M4 Pro chip, 12-core CPU, 16-core GPU, 24GB unified memory, 512GB storage.

1. Apple Intelligence is available in beta on all Mac models with M1 and later, with Siri and device language set to Chinese (Simplified), English (Australia, Canada, India, Ireland, New Zealand, Singapore, South Africa, UK, or U.S.), French, German, Italian, Japanese, Korean, Portuguese (Brazil), or Spanish, as a macOS Sequoia update, with more languages coming over the course of the year, including Vietnamese. Some features may not be available in all regions or languages.
2. 1GB = 1 billion bytes and 1TB = 1 trillion bytes; actual formatted capacity less.
3. Wi-Fi 6E available in countries and regions where supported.
4. Weight varies by configuration and manufacturing process.
5. Acoustics measured from typical operator position sitting in front of standard Mac mini system. Acoustics may vary by configuration.
6. 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. iPhone Mirroring is not available in all countries and regions. Some iPhone features (e.g., camera and microphone) are not compatible with iPhone Mirroring.
7. Data accurate as of product launch.
8. 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.
9. Manufacturing electricity for Mac mini is sourced from renewable electricity, including a mix of supplier and Apple clean energy projects. Renewable electricity refers to fossil fuel-free sources of energy, like wind, solar, and low-impact hydroelectricity projects.
10. 50% of Mac mini by weight is shipped by non-air modes of transportation, like ocean freight, from the factory to their next destination.
11. Carbon reductions are calculated against a business-as-usual scenario as modeled by Apple: 1) No use of clean electricity for manufacturing or product use, beyond what is already available on the latest modeled grid (based on regional emissions factors). 2) Apple's carbon intensity of key materials as of 2015 (our baseline year for our 2030 product carbon neutrality goal). Carbon intensity of materials reflects use of recycled content and production technology. 3) Apple's average mix of transportation modes (air, rail, ocean, ground) by product line across three years (fiscal years 2017 to 2019) to best capture the baseline transportation emissions of our products.
12. We will balance remaining residual emissions for Mac mini with high-quality carbon credits. For more information about our approach to carbon removal, please see our Carbon Removal Strategy white paper: [Apple's Carbon Removal Strategy](#).
13. Recycled aluminum in the thermal module applies to Mac mini with M4 chip only.

- 14. Recycled copper in the thermal module applies to Mac mini with M4 Pro chip only.
- 15. Based on retail packaging as shipped by Apple. Breakdown of U.S. retail packaging by weight. Adhesives, inks, and coatings are excluded from our calculations of plastic content and packaging weight.
- 16. ENERGY STAR and the ENERGY STAR mark are registered trademarks owned by the U.S. Environmental Protection Agency.
- 17. 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 cords in India, Thailand (for two-prong AC power cords), 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