



Mac mini (2024) - Tech Specs

Year introduced: 2024

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
3.5mm headphone jack with advanced support for high-impedance headphones
HDMI port supports multi-channel audio output

Connections and Expansion

On front:

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

	<p>Thunderbolt 5 (up to 120Gb/s)</p> <p>USB 4 (up to 40Gb/s)</p> <p>DisplayPort</p>
Communications	<p>Wi-Fi</p> <p>Wi-Fi 6E (802.11ax)³</p> <p>Bluetooth</p> <p>Bluetooth 5.3</p> <p>Ethernet</p> <p>10/100/1000BASE-T Gigabit Ethernet (RJ-45 connector)</p> <p>Configurable to 10Gb Ethernet (Nbase-T Ethernet with support for 1Gb, 2.5Gb, 5Gb and 10Gb Ethernet using RJ-45 connector)</p>
Size and Weight	<p>Height: 5.0 cm (2.0 inches)</p> <p>Width: 12.7 cm (5.0 inches)</p> <p>Depth: 12.7 cm (5.0 inches)</p> <p>Weight (M4): 0.67 kg (1.5 pounds)⁴</p> <p>Weight (M4 Pro): 0.73 kg (1.6 pounds)⁴</p>
Electrical and Operating Requirements	<p>Line voltage: 100–240V AC</p> <p>Frequency: 50Hz to 60Hz, single phase</p> <p>Maximum continuous power: 155W</p> <p>Operating temperature: 10° to 35° C (50° to 95° F)</p> <p>Storage temperature: –40° to 47° C (–40° to 116° F)</p> <p>Relative humidity: 5% to 90% non-condensing</p> <p>Operating altitude: tested up to 5,000 metres (16,400 feet)</p> <p>Typical acoustical performance: sound pressure level (operator position): 5 dBA at idle⁵</p>
In the Box	<p>Mac mini</p> <p>Power lead (1.8m)</p>
Operating System	<p>macOS</p> <p>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.</p> <p>Learn more about latest operating system</p>
Accessibility	<p>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.</p> <p>Learn more about Accessibility</p>

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

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

10Gb Ethernet

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 towards 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 modelled by Apple¹¹

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

[See Apple's commitment](#)

Materials

100% recycled aluminium in the enclosure and thermal module stage¹³

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

80% recycled steel in multiple components

20% or more recycled plastic in 25 components

100% fibre-based packaging¹⁵

42% recycled content in fibre 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 Programme

Smarter chemistry¹⁷

Mercury-, BFR- and PVC-free

Declared noise emission values in accordance with ECMA-109

Acoustic Performance

	Sound Power Level $L_{WA,m}$ (B)	Sound Pressure Level Operator Position $L_{pA,m}$ (dB)
Idle	1.3 ($K_v = 0.3$)	4
Wireless web	1.3 ($K_v = 0.3$)	4

- $L_{WA,m}$ is the mean A-weighted sound power level, rounded to the nearest 0.1 B.
- $L_{pA,m}$ is the mean A-weighted sound pressure level measured at operator position (rounded to the nearest 1 dB).
- 1 B (bel) = 10 dB (decibel).
- K_v is the statistical adder for computing upper-limit of A-weighted sound power level.
- The quantity, $L_{WA,c}$ (formerly called $L_{WA,d}$) may be computed from the sum of $L_{WA,m}$ and K_v .
- The wireless web test browses 6 tabs with a mix of content including media.
- 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 US English, as a macOS Sequoia update. English (Australia, Canada, Ireland, New Zealand, South Africa, UK) language support available this December. Some features and support for additional languages, like Chinese, English (India, Singapore), French, German, Italian, Japanese, Korean, Portuguese, Spanish, Vietnamese and others, will be coming over the course of the next year.

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 computers by weight are planned, as of product launch, to be shipped via non-air modes of transport from our final assembly sites to their next destination over the lifetime of the products.
11. Carbon reductions are calculated against a business-as-usual scenario as modelled by Apple: 1) No use of clean electricity for manufacturing or product use, beyond what is already available on the latest modelled 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 transport modes (air, rail, sea, land) by product line across three years (fiscal years 2017 to 2019) to best capture the baseline transport 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 aluminium 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 sold by Apple. Fibre content is based on a breakdown of US 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 US 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 leads in India, Thailand (for two-pin AC power leads) and the Republic of 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

Support Mac mini (2024) - Tech Specs