

Documentation

# MacBook Air (13-inch, M3, 2024) - Technical Specifications

Year introduced: 2024

## Finish

Silver  
Starlight  
Space Gray  
Midnight

## Chip

**Apple M3 chip**  
8-core CPU with 4 performance cores and 4 efficiency cores  
8-core GPU, 10-core GPU  
Hardware-accelerated ray tracing  
16-core Neural Engine  
100GB/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 engine

**Configurable to:**

- M3 with 8-core CPU and 10-core GPU

## Display

**Liquid Retina display**  
13.6-inch (diagonal) LED-backlit display with IPS technology;<sup>1</sup>2560-by-1664 native resolution at 224 pixels per inch  
500 nits brightness  
**Color**  
Support for 1 billion colors  
Wide color (P3)  
True Tone technology

## Memory

8GB unified memory

- Configurable to 16GB or 24GB

Battery and Power <sup>2</sup>	Up to 18 hours Apple TV app movie playback
	Up to 15 hours wireless web
Storage <sup>3</sup>	52.6-watt-hour lithium-polymer battery
	30W USB-C Power Adapter (included with M2 and M3 with 8-core GPU)
	35W Dual USB-C Port Compact Power Adapter (included with M2 and M3 with 10-core GPU and 512GB storage, configurable with M2 and M3 with 8-core GPU)
	USB-C to MagSafe 3 Cable
	Fast-charge capable with 70W USB-C Power Adapter
Charging and Expansion	256GB SSD
	<ul style="list-style-type: none"><li>◦ Configurable to 512GB, 1TB, or 2TB</li></ul>
Display Support	MagSafe 3 charging port
	3.5 mm headphone jack
	Two Thunderbolt / USB 4 ports with support for:
	<ul style="list-style-type: none"><li>◦ Charging</li><li>◦ DisplayPort</li><li>◦ Thunderbolt 3 (up to 40Gb/s)</li><li>◦ USB 4 (up to 40Gb/s)</li></ul>
	M3
Video Playback	Simultaneously supports full native resolution on the built-in display at 1 billion colors and:
	One external display with up to 6K resolution at 60Hz
Audio Playback	Close the MacBook Air lid to use a second external display with up to 5K resolution at 60Hz
	Supported formats include HEVC,H.264, AV1, and ProRes
Keyboard and Trackpad	HDR with Dolby Vision, HDR10, and HLG
	Supported formats include AAC, MP3, Apple Lossless, FLAC,Dolby Digital, Dolby Digital Plus, and Dolby Atmos
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

	<b>M3</b>
<b>Wireless</b>	Wi-Fi 6E (802.11ax) <sup>4</sup> Bluetooth 5.3
<b>Camera</b>	1080p FaceTime HD camera Advanced image signal processor with computational video
<b>Audio</b>	Four-speaker sound system 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 Three-mic array with directional beamforming Voice Isolation and Wide Spectrum microphone modes Enhanced voice clarity in audio and video calls (M3) 3.5 mm headphone jack with advanced support for high-impedance headphones
<b>Operating Requirements</b>	<b>Line voltage:</b> 100V to 240V AC <b>Frequency:</b> 50Hz to 60Hz <b>Operating temperature:</b> 50° to 95° F (10° to 35° C) <b>Storage temperature:</b> –13° to 113° F (–25° to 45° C) <b>Relative humidity:</b> 0% to 90% noncondensing <b>Operating altitude:</b> tested up to 10,000 feet <b>Maximum storage altitude:</b> 15,000 feet <b>Maximum shipping altitude:</b> 35,000 feet
<b>Size and Weight</b>	<b>Height:</b> 0.44 inch (1.13 cm) <b>Width:</b> 11.97 inches (30.41 cm) <b>Depth:</b> 8.46 inches (21.5 cm) <b>Weight:</b> 2.7 pounds (1.24 kg) <sup>5</sup>
<b>Operating System</b>	<b>macOS</b>  macOS is the most advanced desktop operating system in the world. And with macOS Sonoma, work and play on your Mac are even more powerful — with new ways to elevate your video presentations, boost your gaming performance, and personalize your device.  <a href="#">Learn more about latest operating system</a>
<b>Accessibility</b>	Accessibility features help people with disabilities get the most out of their new MacBook Air. With built-in support for vision, hearing, mobility, and learning, you can create and do amazing things.  <a href="#">Learn more about Accessibility</a>

	<p><b>Features include:</b></p> <table><tr><td>Voice Control</td><td>Increase Contrast</td><td>Switch Control</td></tr><tr><td>VoiceOver</td><td>Reduce Motion</td><td>Zoom</td></tr><tr><td>Siri and Dictation</td><td>Live Captions</td><td></td></tr></table>	Voice Control	Increase Contrast	Switch Control	VoiceOver	Reduce Motion	Zoom	Siri and Dictation	Live Captions																									
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<b>Built-in Apps<sup>6</sup></b>	<table><tr><td>App Store</td><td>Mail</td><td>Preview</td></tr><tr><td>Books</td><td>Maps</td><td>QuickTime Player</td></tr><tr><td>Calendar</td><td>Messages</td><td>Reminders</td></tr><tr><td>Contacts</td><td>Music</td><td>Safari</td></tr><tr><td>FaceTime</td><td>News</td><td>Shortcuts</td></tr><tr><td>Find My</td><td>Notes</td><td>Siri</td></tr><tr><td>Freeform</td><td>Numbers</td><td>Stocks</td></tr><tr><td>GarageBand</td><td>Pages</td><td>Time Machine</td></tr><tr><td>Home</td><td>Photo Booth</td><td>TV</td></tr><tr><td>iMovie</td><td>Photos</td><td>Voice Memos</td></tr><tr><td>Keynote</td><td>Podcasts</td><td></td></tr></table>	App Store	Mail	Preview	Books	Maps	QuickTime Player	Calendar	Messages	Reminders	Contacts	Music	Safari	FaceTime	News	Shortcuts	Find My	Notes	Siri	Freeform	Numbers	Stocks	GarageBand	Pages	Time Machine	Home	Photo Booth	TV	iMovie	Photos	Voice Memos	Keynote	Podcasts	
App Store	Mail	Preview																																
Books	Maps	QuickTime Player																																
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FaceTime	News	Shortcuts																																
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<b>Configure to Order</b>	<p>Configure your MacBook Air with these options at <a href="#">apple.com</a>:</p> <ul style="list-style-type: none"><li>◦ M2 with 10-core GPU (M2 model)</li><li>◦ M3 with 10-core GPU (M3 model)</li><li>◦ 16GB or 24GB unified memory</li><li>◦ 512GB, 1TB, or 2TB SSD</li><li>◦ 35W Dual USB-C Port Compact Power Adapter</li><li>◦ 70W USB-C Power Adapter</li></ul>																																	
<b>MacBook Air and the Environment</b>	<p>MacBook Air is designed with the following features to reduce its environmental impact:<sup>7</sup></p> <p><a href="#">See the 13-inch MacBook Air with M3 chip Product Environmental Report (PDF)</a></p> <p><b>Made with better materials</b></p>																																	

**13-inch MacBook Air with M3 chip**

- Made with 50% recycled content, including:
  - 100% recycled aluminum in the enclosure
  - 100% recycled tin in the solder and gold in the plating of multiple printed circuit boards
  - 100% recycled rare earth elements in all magnets, representing 99% of the rare earth elements in the device
  - 100% recycled cobalt in the battery<sup>8</sup> and magnets of the MagSafe connector
  - 100% recycled copper in the main logic board — an Apple first
  - 90% recycled steel in the battery tray, keyboard feature plate, and trackpad beam plate
  - 35% or more recycled plastic in multiple components

**Energy efficient**

ENERGY STAR® certified<sup>9</sup>

**Smarter chemistry<sup>10</sup>**

Arsenic-free display glass

Mercury-, BFR-, and PVC-free

**Green manufacturing**

No established final assembly supplier sites generate any waste sent to landfill<sup>11</sup>

Over 20% of manufacturing electricity sourced from supplier clean energy projects<sup>12</sup>

**Responsible packaging**

100% of virgin wood fiber comes from responsibly managed forests

The 13-inch MacBook Air with M3 chip uses 99% fiber-based packaging, and the 13-inch MacBook Air with M2 chip uses 96% fiber-based packaging, due to our work to remove plastic from packaging<sup>13</sup>

**Progress toward our 2030 goal**

Reduced emissions for MacBook Air with M3 chip by over 40% against our baseline<sup>14</sup>

**Apple and the Environment**

Today, Apple is carbon neutral for global corporate operations, and we are focused on our Apple 2030 goal to make every product carbon neutral.

[See Apple's commitment](#)

**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 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: M3, 8-core CPU / 10-core GPU, 8GB unified memory, 512GB storage.

1. Screen size is measured diagonally. The displays on the 13-inch and 15-inch MacBook Air have rounded corners at the top. When measured as a standard rectangular shape, the screens are 13.6 inches and 15.3 inches diagonally (actual viewable area is less).
2. Testing conducted by Apple in January 2024 using preproduction 15-inch MacBook Air systems with Apple M3, 8-core CPU, and 10-core GPU, and preproduction 13-inch MacBook Air systems with Apple M3, 8-core CPU, and 8-core GPU, all configured with 8GB of RAM and 256GB SSD. Testing conducted by Apple in May 2022 using preproduction 13-inch MacBook Air systems with Apple M2, 8-core CPU, 8-core GPU, 8GB of RAM, and 256GB SSD. The wireless web test measures battery life by wirelessly browsing 25 popular websites with display brightness set to 8 clicks from bottom. The Apple TV app movie playback test measures battery life by playing back HD 1080p content with display brightness set to 8 clicks from bottom. Battery life varies by use and configuration. See [apple.com/batteries](https://apple.com/batteries) for more information.
3. 1GB = 1 billion bytes and 1TB = 1 trillion bytes; actual formatted capacity less.
4. Wi-Fi 6E available in countries and regions where supported.
5. Weight varies by configuration and manufacturing process.
6. iMovie, GarageBand, Pages, Numbers, and Keynote are available on the Mac App Store. Downloading apps requires an Apple ID and a device that is compatible with the OS version required for each app.
7. Data accurate as of product launch.
8. Recycled cobalt in the battery uses mass balance allocation.
9. ENERGY STAR and the ENERGY STAR mark are registered trademarks owned by the U.S. Environmental Protection Agency.
10. 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.
11. All established final assembly supplier sites — those that have been Apple suppliers for more than one year — for MacBook Air are third-party verified as Zero Waste by UL LLC (UL 2799 Standard). UL requires at least 90 percent diversion through methods other than waste to energy to achieve Zero Waste to Landfill (Silver 90–94 percent, Gold 95–99 percent, and Platinum 100 percent) designations.
12. We estimate the percentage of electricity-related emissions in our manufacturing that is sourced from clean electricity by attributing to our carbon model clean energy procured by our suppliers in the prior fiscal year, based on the supplier manufacturing allocations at time of product launch. Included in this number is only clean electricity that Apple or its suppliers have procured as part of Apple's Supplier Clean Energy Program.
13. Breakdown of U.S. retail packaging by weight. Adhesives, inks, and coatings are excluded from our calculations of plastic content and packaging weight.
14. Carbon reductions are calculated against a baseline scenario: 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.

Helpful?

Yes

No

Support

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