

Documentation



MacBook Air (15-inch, M2, 2023) - Technical Specifications

Year introduced: 2023

[Identify your MacBook Air](#)

Finish

- Silver
- Starlight
- Space Gray
- Midnight

Chip

Apple M2 chip

- 8-core CPU with 4 performance cores and 4 efficiency cores
- 10-core GPU
- 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

Display

Liquid Retina display

- 15.3-inch (diagonal) LED-backlit display with IPS technology;¹ 2880-by-1864 native resolution at 224 pixels per inch 500 nits brightness

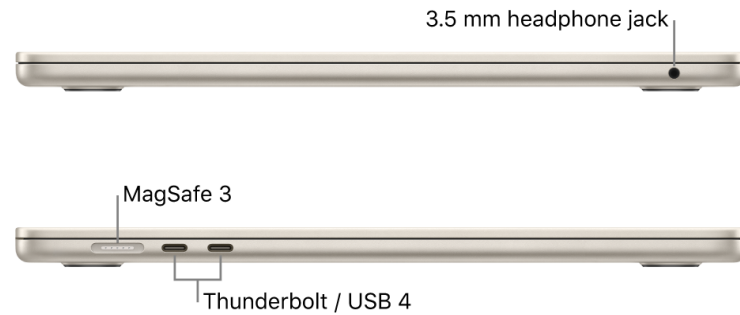
Color

- Support for 1 billion colors
- Wide color (P3)
- True Tone technology

Battery and Power¹²

- Up to 18 hours Apple TV app movie playback
- Up to 15 hours wireless web
- 66.5-watt-hour lithium-polymer battery
- 35W Dual USB-C Port Compact Power Adapter
- USB-C to MagSafe 3 Cable
- Fast-charge capable with 70W USB-C Power Adapter

Charging and Expansion



- MagSafe 3 charging port
- 3.5 mm headphone jack
- Two Thunderbolt / USB 4 ports with support for:
 - Charging
 - DisplayPort
 - Thunderbolt 3 (up to 40Gb/s)
 - USB 4 (up to 40Gb/s)
 - USB 3.1 Gen 2 (up to 10Gb/s)

Memory

- 8GB unified memory
 - *Configurable to 16GB or 24GB*

Storage²

- 256GB SSD
 - *Configurable to 512GB, 1TB, or 2TB*

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

Wireless

Wi-Fi

- Wi-Fi 6 (802.11ax)

Bluetooth

	<ul style="list-style-type: none">• Bluetooth 5.3
Camera	<ul style="list-style-type: none">• 1080p FaceTime HD camera• Advanced image signal processor with computational video
Audio	<ul style="list-style-type: none">• 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 AirPods (3rd generation), AirPods Pro, and AirPods Max• Three-mic array with directional beamforming• 3.5 mm headphone jack with advanced support for high-impedance headphones
Display Support	<p>Simultaneously supports full native resolution on the built-in display at 1 billion colors and:</p> <ul style="list-style-type: none">• One external display with up to 6K resolution at 60Hz <p>Thunderbolt 3 digital video output</p> <ul style="list-style-type: none">• Native DisplayPort output over USB-C• VGA, HDMI, DVI, and Thunderbolt 2 output supported using adapters (sold separately)
Video Playback	<ul style="list-style-type: none">• Supported formats include HEVC, H.264, and ProRes• HDR with Dolby Vision, HDR10, and HLG
Audio Playback	<ul style="list-style-type: none">• Supported formats include AAC, MP3, Apple Lossless, FLAC, Dolby Digital, Dolby Digital Plus, and Dolby Atmos
Operating Requirements	<ul style="list-style-type: none">• Line voltage: 100V to 240V AC• Frequency: 50Hz to 60Hz• Operating temperature: 50° to 95° F (10° to 35° C)• Storage temperature: –13° to 113° F (–25° to 45° C)• Relative humidity: 0% to 90% noncondensing• Operating altitude: tested up to 10,000 feet• Maximum storage altitude: 15,000 feet• Maximum shipping altitude: 35,000 feet
Size and Weight	<ul style="list-style-type: none">• Height: 0.45 inch (1.15 cm)• Width: 13.40 inches (34.04 cm)• Depth: 9.35 inches (23.76 cm)• Weight: 3.3 pounds (1.51 kg)³

Operating System

macOS

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.

[Learn more about latest operating system](#)

[macOS User Guide](#)

Accessibility

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.

[Learn more about Accessibility](#)

Features include:

- Voice Control
- Increase Contrast
- Switch Control
- VoiceOver
- Reduce Motion
- Zoom
- Siri and Dictation
- Live Captions

	<ul style="list-style-type: none">• App Store• Books• Calendar• Contacts• FaceTime• Find My• Freeform• GarageBand• Home• iMovie• Keynote• Mail• Maps• Messages• Music• News• Notes• Numbers• Pages• Photo Booth• Photos• Podcasts• Preview• QuickTime Player• Reminders• Safari• Shortcuts• Siri• Stocks• Time Machine• TV• Voice Memos
Built-in Apps⁴	
	<ul style="list-style-type: none">• 15-inch MacBook Air• 35W Dual USB-C Port Compact Power Adapter• USB-C to MagSafe 3 Cable (2 m)
In the Box	
	<ul style="list-style-type: none">• Configure your MacBook Air with these options at apple.com:<ul style="list-style-type: none">◦ 16GB or 24GB unified memory◦ 512GB, 1TB, or 2TB SSD◦ 70W USB-C Power Adapter
Configure to Order	
MacBook Air and the Environment	15-inch MacBook Air with M2 chip is designed with the following features to reduce its environmental impact: ⁵

[See the 15-inch MacBook Air with M2 chip Product Environmental Report \(PDF\)](#)

Made with better materials

- 100% recycled aluminum in the enclosure
- 100% recycled cobalt in the magnets of the MagSafe connector — a first for Apple
- 100% recycled rare earth elements in all magnets, representing 99% of the rare earth elements in the device
- 100% recycled tin in the solder of multiple printed circuit boards
- 100% recycled gold in the plating of multiple printed circuit boards
- 90% recycled steel in the battery tray
- 35% or more recycled plastic in multiple components

Energy efficient

- ENERGY STAR® certified⁷

Smarter chemistry⁸

- Arsenic-free display glass
- Mercury-, BFR-, PVC-, and beryllium-free

Green manufacturing

- Over 30% of manufacturing electricity sourced from supplier clean energy projects⁹
- No established final assembly supplier sites generate any waste sent to landfill¹³

Responsible packaging

- 100% of the virgin wood fiber in the packaging comes from responsibly managed forests¹⁰
- 99% or more fiber-based, due to our work to eliminate plastic in packaging¹¹

Progress toward our 2030 goal

- Reduced emissions for 15-inch MacBook Air with M2 chip by 48% against our baseline¹⁴

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 ($K_v = 0.3$)	3
Wireless web	1.3 ($K_v = 0.3$)	3

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 $L_{WA,d}$) 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: M2, 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 with M2 chip 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. 1GB = 1 billion bytes and 1TB = 1 trillion bytes; actual formatted capacity less.
 3. Weight varies by configuration and manufacturing process.
 4. 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.
 5. Data accurate as of product launch.
 6. Recycled material claim applies to the enclosure and is based on auditing done by UL LLC.
 7. ENERGY STAR and the ENERGY STAR mark are registered trademarks owned by the U.S. Environmental Protection Agency.
 8. 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 2-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.
 9. 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.
 10. Responsible sourcing of wood fiber is defined in Apple's [Sustainable Fiber Specification](#). We consider wood fibers to include bamboo.
 11. Breakdown of U.S. retail packaging by weight. Adhesives, inks, and coatings are excluded from our calculations of plastic content and packaging weight.
 12. Testing conducted by Apple in April and May 2023 using preproduction 15-inch MacBook Air systems with Apple M2, 8-core CPU, 10-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](#) for more information.
 13. All established final assembly supplier sites—those that have been Apple suppliers for more than one year—for 15-inch MacBook Air with M2 chip 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.
 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 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 MacBook Air (15-inch, M2, 2023) - Technical Specifications

