

iPhone-12 Datasheet

Overview

iPhone 12, 5G Phone. A14 Bionic Chip; 6.1-inch all-screen OLED display; 2532-by-1170-pixel resolution at 460 ppi; Super Retina XDR display; Ceramic Shield; Night mode on every camera.

Quick Specs

Table 1 shows the Quick Specs.

| | |
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| Product Code | iPhone 12 |
| Finish | Black, White, RED , Green, Blue |
| Capacity | 64GB 128GB 256GB |
| Size and Weight | Width: 2.82 inches (71.5 mm) Height: 5.78 inches (146.7 mm) Depth: 0.29 inch (7.4 mm) Weight: 5.78 ounces (164 grams) |
| Splash, Water, and Dust Resistant | Rated IP68 (maximum depth of 6 meters up to 30 minutes) under IEC standard 60529 |
| Chip | A14 Bionic chip |
| Operating System | iOS 14 |

Product Details

iPhone 12 provides these features and benefits:



iPhone 12, Blast past fast.

5G speed. A14 Bionic, the fastest chip in a smartphone.

An edge-to-edge OLED display. Ceramic Shield with four times better drop performance. And Night mode on every camera. iPhone 12 has it all — in two perfect sizes.

Big news.



11%
thinner

15%
smaller

16%
lighter

Big news.

iPhone 12
6.1" Super Retina
XDR display²



Mini news.

iPhone 12 mini
5.4" Super Retina
XDR display²



The world's smallest,
thinnest, lightest 5G phone.



Ceramic Shield.
Clearly tougher
than any
smartphone
glass.

4x better drop performance³



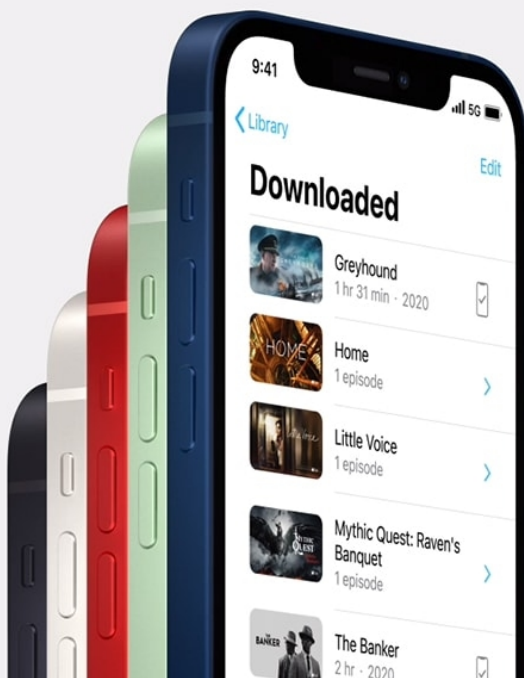
Aerospace-grade



aluminum edges.

H₂OK

Even better spill and splash resistance⁴



5G speed OMGGGGG.

5G on iPhone is superfast. So you can download movies on the fly. Stream higher-quality video. Or FaceTime in HD over cellular. With lots less lag. And you can do it in more places, because iPhone 12 has the broadest 5G coverage worldwide.⁵

iPhone makes the most of 5G

A14

A14 Bionic is the fastest chip in a smartphone. And it pushes what's possible. Like crunching trillions of operations on the Neural Engine. Or shooting in Dolby Vision — even pro movie cameras can't do that. It's superefficient for great battery life. And it's ahead of its time, prepared to power pretty much anything that comes next.

Same chip as iPhone 12 Pro

Super Retina XDR display Behold OLED.



Vastly more contrast. Incredible color accuracy. A huge jump in pixel density.⁶

Wow. Just wow. OLED delivers brighter brights, darker blacks, and higher resolution for everything you look at. This is the best iPhone display we've ever made, and it goes all the way to the edge.

Dual-camera system Welcome to the dark side.



Both the Wide and Ultra Wide cameras now have Night mode — and it's better than ever at capturing incredible low-light shots. The new Wide camera brings in 27 percent more light. So whether you take photos by day or by moonlight, you'll get a level of detail and color that wasn't possible before.

Video Low lights. Camera.

Video. Low lights. Camera. Action

How do you improve on the highest-quality video in a smartphone? Make it even better in low light — a full 27 percent better. That means no hour is off limits for more beautifully detailed video. Then there's Night mode Time-lapse. Just prop up your iPhone and let the light trails begin.

And boom. You own a film studio.

Now you can record 4K HDR video with Dolby Vision. Edit in Photos or iMovie. Then zap it to your TV using AirPlay ⁷ to see all that color and detail. It's a start-to-finish cinematic experience — found only on iPhone. Which comes in handy when your dog does something adorable.

Night mode selfies You look amazing in the dark.

Nighttime is the right time for a selfie. Because Night mode and a slew of other great features are now on the front camera. Like Deep Fusion, Smart HDR 3, Dolby Vision recording, and more. You lucky duck face.



MagSafe
accessories
**Everything
just clicks.**



Beautifully
stackable.

Snap on a new MagSafe case, wallet,
or both. (Fear not, the wallet is
shielded so it's safe for credit cards.)





**Turbo
chargeable.**

Magnets align themselves
perfectly every time for faster
wireless charging.

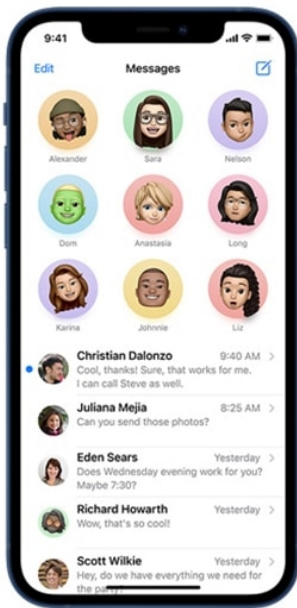
Mix



14

Get right to the good stuff.

iOS 14 is packed with shortcuts that get you just what you want, right when you want it.



Pinned conversations in Messages put the people you talk to most right at the top of the list.



Widgets have been redesigned to serve up info you want at a glance — right on your Home Screen.



App Clips let you use a small part of an app to quickly do things like pay for parking or order takeout.



Privacy is built in.

iPhone is designed to protect your information. Face ID data doesn't leave your iPhone and is never backed up to iCloud or anywhere else. iOS shows you an app's privacy practices before you download it. When you use Apple Pay, your card number isn't shared with merchants. And the list goes on.

Even the little things are a big deal.



Best worldwide coverage

iPhone 12 has up to 20 5G bands and up to 32 LTE bands — more than any other smartphone — for the most extensive coverage around the world.⁵



Augmented reality

The power of A14 Bionic brings the latest AR experiences to life. Explore ancient relics, dissect a frog — even try out a new couch with AR Quick Look.



More shots, less lag

Snapping shots quickly? iPhone intelligently adapts, speeding up processing so you can capture all the action.



Have two numbers

Dual SIM with eSIM lets you have both a personal number and a business number on the same iPhone.⁸



Spatial audio with Dolby Atmos

Sound moves around you in 3D space, so you feel like you're inside the action.



Recycled rare earth in magnets

iPhone 12 uses 100% recycled rare earth elements in all magnets, including those in our MagSafe accessories.



Use AR to see it from every angle.

Open this page using Safari on your iPhone or iPad.



Compare to Similar Items

Table 2 shows the comparison.

| Product code | iPhone 12 mini | iPhone 12 | iPhone 12 Pro | iPhone 12 Pro Max |
|--------------|---------------------------------|---------------------------------|--------------------------------------|--------------------------------------|
| Finish | Black, White, RED , Green, Blue | Black, White, RED , Green, Blue | Silver, Graphite, Gold, Pacific Blue | Silver, Graphite, Gold, Pacific Blue |
| Capacity | 64GB 128GB 256GB | 64GB 128GB 256GB | 128GB 256GB 512GB | 128GB 256GB 512GB |

| | | | | |
|-------------------------|---|---|---|---|
| Size and Weight | Width: 2.53 inches (64.2 mm) Height: 5.18 inches (131.5 mm) Depth: 0.29 inch (7.4 mm) Weight: 4.76 ounces (135 grams) | Width: 2.82 inches (71.5 mm) Height: 5.78 inches (146.7 mm) Depth: 0.29 inch (7.4 mm) Weight: 5.78 ounces (164 grams) | Width: 2.82 inches (71.5 mm) Height: 5.78 inches (146.7 mm) Depth: 0.29 inch (7.4 mm) Weight: 6.66 ounces (189 grams) | Width: 3.07 inches (78.1 mm) Height: 6.33 inches (160.8 mm) Depth: 0.29 inch (7.4 mm) Weight: 8.03 ounces (228 grams) |
| Display | 5.4-inch (diagonal) all-screen OLED display 2340-by-1080-pixel resolution at 476 ppi | 6.1-inch (diagonal) all-screen OLED display 2532-by-1170-pixel resolution at 460 ppi | 6.1-inch (diagonal) all-screen OLED display 2532-by-1170-pixel resolution at 460 ppi | 6.7-inch (diagonal) all-screen OLED display 2778-by-1284-pixel resolution at 458 ppi |
| Chip | A14 Bionic chip | A14 Bionic chip | A14 Bionic chip | A14 Bionic chip |
| Operating System | iOS 14 | iOS 14 | iOS 14 | iOS 14 |
| Battery | Video playback: Up to 15 hours Video playback (streamed): Up to 10 hours Audio playback: Up to 50 hours | Video playback: Up to 17 hours Video playback (streamed): Up to 11 hours Audio playback: Up to 65 hours | Video playback: Up to 17 hours Video playback (streamed): Up to 11 hours Audio playback: Up to 65 hours | Video playback: Up to 20 hours Video playback (streamed): Up to 12 hours Audio playback: Up to 80 hours |

Note:

- Price includes a \$30 AT&T or Verizon discount. Requires activation with carrier. Monthly pricing: Available to qualified customers and requires 0% APR, 24-month installment loan with Citizens One or Apple Card Monthly Installments and iPhone activation with AT&T, Sprint, T-Mobile, or Verizon for purchases in an Apple Store. Taxes and shipping not included. Additional Apple Card Monthly Installments and iPhone Payments terms apply.
- The displays have rounded corners. When measured as a rectangle, the screen is 5.42 inches (iPhone 12 mini), 6.06 inches (iPhone 12, iPhone 12 Pro), or 6.68 inches (iPhone 12 Pro Max) diagonally. Actual viewable area is less.
- Claim based on iPhone 12 Ceramic Shield front compared with previous-generation iPhone.
- iPhone 12 and iPhone 12 mini are splash, water, and dust resistant and were tested under controlled laboratory conditions with a rating of IP68 under IEC standard 60529 (maximum depth of 6 meters up to 30 minutes). Splash, water, and dust resistance are not permanent conditions and resistance might decrease as a result of normal wear. Do not attempt to charge a wet iPhone; refer to the user guide for cleaning and drying instructions. Liquid damage not covered under warranty.
- Data plan required. 5G and LTE are available in select markets and through select carriers. Speeds vary by site conditions and carrier.
- iPhone 12 compared with iPhone 11.
- Requires an Apple TV or AirPlay-enabled TV.
- Use of eSIM requires a wireless service plan (which may include restrictions on switching service providers and roaming, even after contract expiration). Not all carriers support eSIM. Use of eSIM in iPhone may be disabled when purchased from some carriers.
- Trade-in values vary based on the condition, year, and configuration of your trade-in device, and may also vary between online and in-store trade-in. You must be at least 18 years old. Apple or its trade-in partners reserve the right to refuse or limit any trade-in transaction for any reason. In-store trade-in requires presentation of a valid, government-issued photo ID (local law may require saving this information). Additional terms from Apple or Apple's trade-in partners may apply.
- Program available for iPhone 12 and iPhone 12 Pro. Available to qualified customers with a credit check and eligible U.S. credit or debit card. Requires a 24-month installment loan with a 0% APR from Citizens Bank, N.A. (subject to any interest, fees, or other costs payable to the card issuer), purchase of AppleCare+ for iPhone, and iPhone activation with one of these national carriers: AT&T, Sprint, Verizon, or T-Mobile. Sales tax and any applicable fees due at time of purchase. Full terms apply.

Get More Information

Do you have any question about the iPhone 12?

Contact us now via [Live Chat](#) or sales@router-switch.com.

Specification

iPhone 12 Specification

| | |
|--|---|
| Finish | Black, White, RED , Green, Blue Ceramic Shield front, Glass back and aluminum design |
| Capacity¹ | 64GB 128GB 256GB |
| Size and Weight² | Width: 2.82 inches (71.5 mm) Height: 5.78 inches (146.7 mm) Depth: 0.29 inch (7.4 mm) Weight: 5.78 ounces (164 grams) |
| Display | Super Retina XDR display 6.1-inch (diagonal) all-screen OLED display 2532-by-1170-pixel resolution at 460 ppi HDR display True Tone Wide color (P3) Haptic Touch 2,000,000:1 contrast ratio (typical) 625 nits max brightness (typical); 1200 nits max brightness (HDR) Fingerprint-resistant oleophobic coating Support for display of multiple languages and characters simultaneously |
| Splash, Water, and Dust Resistant³ | Rated IP68 (maximum depth of 6 meters up to 30 minutes) under IEC standard 60529 |
| Chip | A14 Bionic chip Next-generation Neural Engine |
| Camera | Dual 12MP camera system: Ultra Wide and Wide cameras Ultra Wide: f/2.4 aperture and 120° field of view Wide: f/1.6 aperture 2x optical zoom out Digital zoom up to 5x Portrait mode with advanced bokeh and Depth Control Portrait Lighting with six effects (Natural, Studio, Contour, Stage, Stage Mono, High-Key Mono) Optical image stabilization (Wide) Five-element lens (Ultra Wide); seven-element lens (Wide) Brighter True Tone flash with Slow Sync Panorama (up to 63MP) Sapphire crystal lens cover 100% Focus Pixels (Wide) Night mode (Ultra Wide, Wide) Deep Fusion (Ultra Wide, Wide) Smart HDR 3 with Scene Detection Wide color capture for photos and Live Photos Lens correction (Ultra Wide) Advanced red-eye correction Auto image stabilization Burst mode Photo geotagging Image formats captured: HEIF and JPEG |
| Video Recording | HDR video recording with Dolby Vision up to 30 fps 4K video recording at 24 fps, 30 fps, or 60 fps 1080p HD video recording at 30 fps or 60 fps 720p HD video recording at 30 fps Optical image stabilization for video (Wide) 2x optical zoom out Digital zoom up to 3x Audio zoom Brighter True Tone flash QuickTake video Slo-mo video support for 1080p at 120 fps or 240 fps Time-lapse video with stabilization Night mode Time-lapse Extended dynamic range for video up to 60 fps Cinematic video stabilization (4K, 1080p, and 720p) Continuous autofocus video Take 8MP still photos while recording 4K video Playback zoom Video formats recorded: HEVC and H.264 Stereo recording |

| | |
|-------------------------------------|---|
| <p>TrueDepth Camera</p> | <p>12MP camera f/2.2 aperture Portrait mode with advanced bokeh and Depth Control Portrait Lighting with six effects (Natural, Studio, Contour, Stage, Stage Mono, High-Key Mono) Animoji and Memoji Night mode Deep Fusion Smart HDR 3 with Scene Detection HDR video recording with Dolby Vision up to 30 fps 4K video recording at 24 fps, 30 fps, or 60 fps 1080p HD video recording at 30 fps or 60 fps Slo-mo video support for 1080p at 120 fps Time-lapse video with stabilization Night mode Time-lapse Extended dynamic range for video up to 30 fps Cinematic video stabilization (4K, 1080p, and 720p) QuickTake video Wide color capture for photos and Live Photos Lens correction Retina Flash Auto image stabilization Burst mode</p> |
| <p>Face ID</p> | <p>Enabled by TrueDepth camera for facial recognition</p> |
| <p>Apple Pay</p> | <p>Pay with your iPhone using Face ID in stores, within apps, and on the web Send and receive money in Messages Complete purchases made with Apple Pay on your Mac Pay for your ride using Express Transit</p> |
| <p>Apple Card</p> | <p>Credit card created by Apple, designed for iPhone Use the Wallet app to apply for, manage, and use Apple Card Pay with Apple Pay using Face ID in stores, within apps, and on the web Titanium, laser-etched physical credit card for use where Apple Pay is not accepted yet</p> |
| <p>Cellular and Wireless</p> | <p>Model A2172 5G NR (Bands n1, n2, n3, n5, n7, n8, n12, n20, n25, n28, n38, n40, n41, n66, n71, n77, n78, n79) 5G NR mmWave (Bands n260, n261) FDD-LTE (Bands 1, 2, 3, 4, 5, 7, 8, 12, 13, 14, 17, 18, 19, 20, 25, 26, 28, 29, 30, 32, 66, 71) TD-LTE (Bands 34, 38, 39, 40, 41, 42, 46, 48) CDMA EV-DO Rev. A (800, 1900 MHz) UMTS/HSPA+/DC-HSDPA (850, 900, 1700/2100, 1900, 2100 MHz) GSM/EDGE (850, 900, 1800, 1900 MHz)</p> <p>Model A2176 5G NR (Bands n1, n2, n3, n5, n7, n8, n12, n20, n25, n28, n38, n40, n41, n66, n71, n77, n78, n79) 5G NR mmWave (Bands n260, n261) FDD-LTE (Bands 1, 2, 3, 4, 5, 7, 8, 12, 13, 14, 17, 18, 19, 20, 25, 26, 28, 29, 30, 32, 66, 71) TD-LTE (Bands 34, 38, 39, 40, 41, 42, 46, 48) CDMA EV-DO Rev. A (800, 1900 MHz) UMTS/HSPA+/DC-HSDPA (850, 900, 1700/2100, 1900, 2100 MHz) GSM/EDGE (850, 900, 1800, 1900 MHz)</p> <p>All models 5G (sub6 GHz and mmWave) Gigabit LTE with 4x4 MIMO and LAA⁴ Wi-Fi 6 (802.11ax) with 2x2 MIMO Bluetooth 5.0 wireless technology Ultra Wideband chip for spatial awareness⁵ NFC with reader mode Express Cards with power reserve</p> |
| <p>Location</p> | <p>Built-in GPS, GLONASS, Galileo, QZSS, and BeiDou Digital compass Wi-Fi Cellular iBeacon microlocation</p> |

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| Video Calling⁶ | FaceTime video calling over cellular or Wi-Fi FaceTime HD (1080p) video calling over 5G or Wi-Fi |
| Audio Calling⁶ | FaceTime audio Voice over LTE (VoLTE) ⁴ Wi-Fi calling ⁴ |
| Audio Playback | Audio formats supported: AAC-LC, HE-AAC, HE-AAC v2, Protected AAC, MP3, Linear PCM, Apple Lossless, FLAC, Dolby Digital (AC-3), Dolby Digital Plus (E-AC-3), Dolby Atmos, and Audible (formats 2, 3, 4, Audible Enhanced Audio, AAX, and AAX+) Spatial audio playback User-configurable maximum volume limit |
| Video Playback | Video formats supported: HEVC, H.264, MPEG-4 Part 2, and Motion JPEG HDR with Dolby Vision, HDR10, and HLG Up to 4K HDR AirPlay for mirroring, photos, and video out to Apple TV (2nd generation or later) or AirPlay 2-enabled smart TV Video mirroring and video out support: Up to 1080p through Lightning Digital AV Adapter and Lightning to VGA Adapter (adapters sold separately) ⁷ |
| Siri⁸ | Use your voice to send messages, set reminders, and more Get intelligent suggestions on your Lock Screen and in Messages, Mail, QuickType, and more Activate hands-free with only your voice using “Hey Siri” Use your voice to run shortcuts from your favorite apps |
| Power and Battery⁹ | Video playback: Up to 17 hours Video playback (streamed): Up to 11 hours Audio playback: Up to 65 hours Built-in rechargeable lithium-ion battery MagSafe wireless charging up to 15W ¹⁰ Qi wireless charging up to 7.5W ¹⁰ Charging via USB to computer system or power adapter Fast-charge capable: Up to 50% charge in 30 minutes ¹¹ with 20W adapter or higher (sold separately) |
| MagSafe | Wireless charging up to 15W ¹⁰ Magnet array Alignment magnet Accessory Identification NFC Magnetometer |
| Sensors | Face ID Barometer Three-axis gyro Accelerometer Proximity sensor Ambient light sensor |
| Operating System | iOS 14 |
| Accessibility | <ul style="list-style-type: none"> • Voice Control • VoiceOver • Zoom • Magnifier • RTT and TTY support • Siri and Dictation • Type to Siri • Switch Control • Closed Captions • AssistiveTouch • Speak Screen • Back Tap |
| SIM Card | Dual SIM (nano-SIM and eSIM) ¹² iPhone 12 and iPhone 12 mini are not compatible with existing micro-SIM cards. |

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| Rating for Hearing Aids | M3, T4 |
| Mail Attachment Support | Viewable document types .jpg, .tiff, .gif (images); .doc and .docx (Microsoft Word); .htm and .html (web pages); .key (Keynote); .numbers (Numbers); .pages (Pages); .pdf (Preview and Adobe Acrobat); .ppt and .pptx (Microsoft PowerPoint); .txt (text); .rtf (rich text format); .vcf (contact information); .xls and .xlsx (Microsoft Excel); .zip; .ics; .usdz (USDZ Universal) |
| System Requirements | Apple ID (required for some features) Internet access ¹³ Syncing to a Mac or PC requires: <ul style="list-style-type: none"> • macOS Catalina 10.15 or later using the Finder • macOS El Capitan 10.11.6 through macOS Mojave 10.14.6 using iTunes 12.8 or later • Windows 7 or later using iTunes 12.10.10 or later |
| Environmental Requirements | Operating ambient temperature: 32° to 95° F (0° to 35° C) Nonoperating temperature: -4° to 113° F (-20° to 45° C) Relative humidity: 5% to 95% noncondensing Operating altitude: tested up to 10,000 feet (3000 m) |
| In the Box | iPhone with iOS 14 USB-C to Lightning Cable Documentation |

Note:

1. Available space is less and varies due to many factors. A standard configuration uses approximately 11GB to 14GB of space (including iOS and preinstalled apps) depending on the model and settings. Preinstalled apps use about 4GB, and you can delete these apps and restore them. Storage capacity subject to change based on software version and may vary by device.
2. Size and weight vary by configuration and manufacturing process.
3. iPhone 12 and iPhone 12 mini are splash, water, and dust resistant and were tested under controlled laboratory conditions with a rating of IP68 under IEC standard 60529 (maximum depth of 6 meters up to 30 minutes). Splash, water, and dust resistance are not permanent conditions and resistance might decrease as a result of normal wear. Do not attempt to charge a wet iPhone; refer to the user guide for cleaning and drying instructions. Liquid damage not covered under warranty.
4. Data plan required. 5G, Gigabit LTE, VoLTE, and Wi-Fi calling are available in select markets and through select carriers. Speeds are based on theoretical throughput and vary based on site conditions and carrier.
5. Ultra Wideband availability varies by region.
6. FaceTime calling requires a FaceTime-enabled device for the caller and recipient and a Wi-Fi connection. Availability over a cellular network depends on carrier policies; data charges may apply.
7. Standard dynamic range video content only.
8. Siri may not be available in all languages or in all areas, and features may vary by area. Internet access required. Cellular data charges may apply.
9. All battery claims depend on network configuration and many other factors; actual results will vary. Battery has limited recharge cycles and may eventually need to be replaced by Apple service provider. Battery life and charge cycles vary by use and settings.
10. Wireless chargers sold separately.
11. Testing conducted by Apple in September 2020 using preproduction iPhone 12 mini and iPhone 12 units and software and accessory Apple USB-C Power Adapter (20W Model A2305). Fast-charge testing conducted with drained iPhone units. Charge time varies with settings and environmental factors; actual results will vary.
12. Use of eSIM requires a wireless service plan (which may include restrictions on switching service providers and roaming, even after contract expiration). Not all carriers support eSIM. Use of eSIM in iPhone may be disabled when purchased from some carriers.
13. Wireless broadband recommended; fees may apply.

