iPhone-12-Pro Datasheet

Overview

Note: Pre-sale on October 16 and delivery is expected on October 28.

iPhone 12 Pro, 5G Phone. A14 Bionic Chip; 6.1-inch all-screen OLED display; 2532-by-1170-pixel resolution at 460 ppi; Ceramic Shield; Pro camera system; LiDAR Scanner; Night mode portraits; Dolby Vision recording.

Quick Specs

Table 1 shows the Quick Specs.

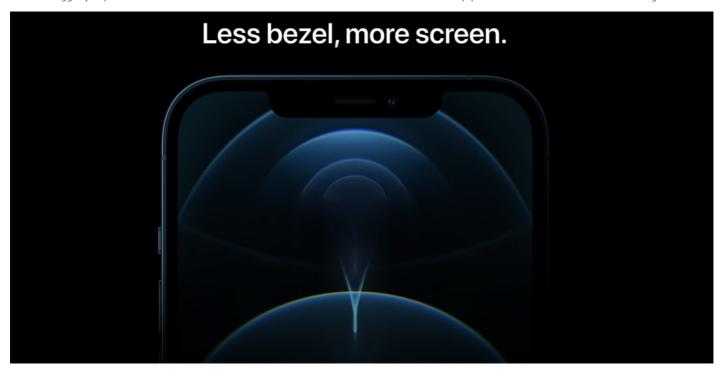
Product Code	iPhone 12 Pro
Finish	Silver, Graphite, Gold, Pacific Blue
Capacity	128GB 256GB 512GB
Size and Weight	Width: 2.82 inches (71.5 mm) Height: 5.78 inches (146.7 mm) Depth: 0.29 inch (7.4 mm) Weight: 6.66 ounces (189 grams)
Splash, Water, and Dust Resistant	Rated IP68 (maximum depth of 6 meters up to 30 minutes) under IEC standard 60529
Chip	A14 Bionic chip
Operating System	iOS 14

Product Details

iPhone 12 Pro provides these features and benefits:

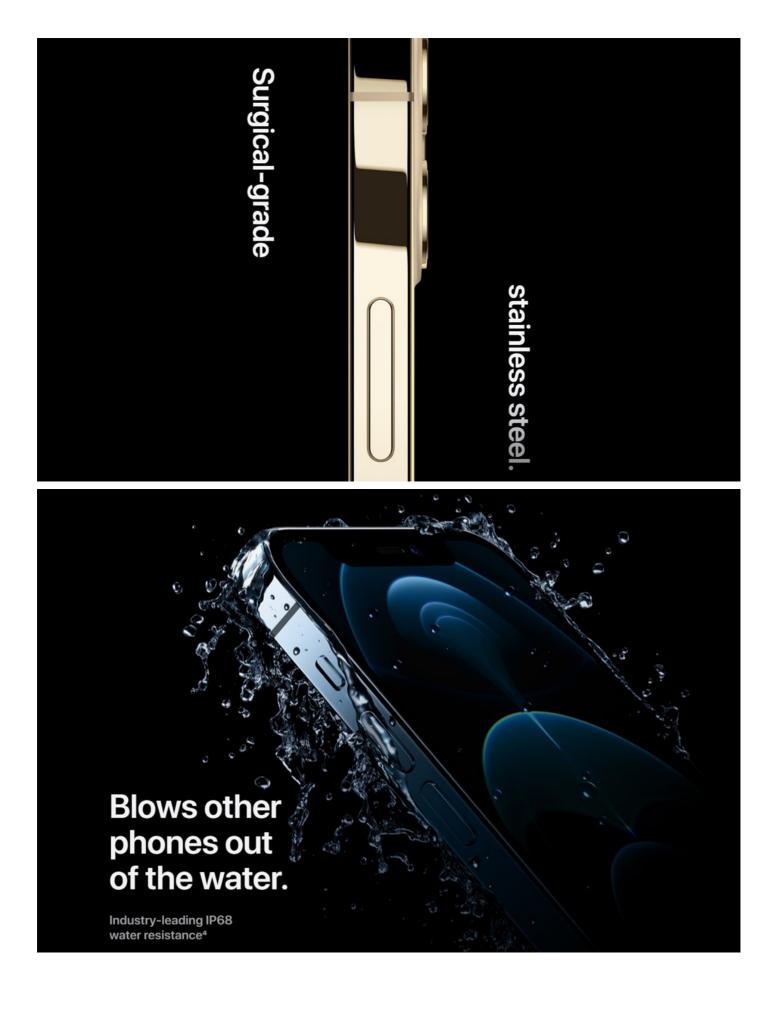


5G goes Pro. A14 Bionic rockets past every other smartphone chip. The Pro camera system takes low-light photography to the next level — with an even bigger jump on iPhone 12 Pro Max. And Ceramic Shield delivers four times better drop performance. Let's see what this thing can do.











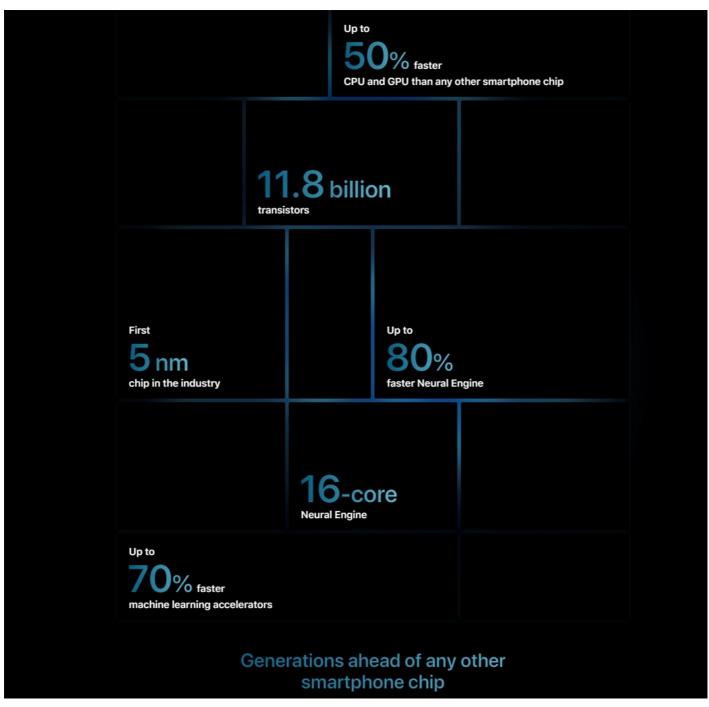


5G transforms iPhone with accelerated wireless speeds and better performance on congested networks.5 Now you can download huge files on the go or stream high-quality HDR movies. Without. All. The. Lag. iPhone also has the most 5G bands of any smartphone so you get 5G in more places. And all that speed opens up amazing possibilities for the future of apps.

A14 Bionic

The only thing even close was our last chip.

A14 Bionic is the first 5-nanometer chip in the industry, with advanced components literally atoms wide. Forty percent more transistors rev up speeds while increasing efficiency for great battery life. And a new ISP powers Dolby Vision recording — something no pro movie camera, let alone any other phone, can do.



LiDAR technology Scans the surface of Mars. And now your living room.

NASA is using LiDAR technology for its next Mars landing. iPhone 12 Pro uses a LiDAR Scanner to measure how long it takes light to reflect back from objects. So it can create a depth map of whatever space you're in. Because it's ultrafast and accurate, AR apps can now transform a room into a realistic rainforest or show you how a new sneaker will fit.

Pro camera system A new day for Night mode.



Night mode comes to both the Wide and Ultra Wide cameras, and it's better than ever at capturing incredible low-light shots. LiDAR makes Night mode portraits possible. And the Wide camera lets in 27 percent more light, for greater detail and sharper focus day or night.

- \bullet Wide camera with f/1.6 aperture captures 27% more light
- New 7-element Wide lens for edge-to-edge sharpness
- New OIS makes 5000 adjustments per second
- LiDAR delivers up to 6x faster autofocus in low light

12 Pro Max. Camerus maximus.



The bigger iPhone maxes out the Pro camera system. A 47 percent larger sensor and larger pixels dramatically increase the amount of light gathered on the Wide camera. A new OIS stabilizes the sensor instead of the lens so your shots are steady — even when you're not. And the new 65 mm Telephoto camera lets you zoom in tighter on portraits.

- 87% better low-light photos
- 5x optical, zoom range
- Bigger 1.7 μm pixels
- New sensor-shift optical image stabilization

A snapshot of each camera.

A snapshot of each camera.



iPhone 12 Pro

26 mm focal length

1.4 um pixels

f/1.6 aperture 100% Focus Pixels

7-element lens

iPhone 12 Pro Max

26 mm focal length

.7 um pixels

f/1.6 aperture

100% Focus Pixels

7-element lens

Sensor-shift OIS

Apple ProRAW. For an absurd amount of creative control.

ProRAW gives you all the standard RAW information, along with the Apple image pipeline data. So you can get a head start on editing, with noise reduction and multiframe exposure adjustments already in place — and have more time to tweak color and white balance.

Dolby Vision recording

60 times more colors. Infinitely more spectacular.

iPhone 12 Pro jumps from 8- to 10-bit HDR recording, capturing 700 million colors for much more lifelike video. Then it goes one better, recording in Dolby Vision — the format used by film studios. You can even edit Dolby Vision video and use AirPlay to see every last bit of the difference on the big screen.



AirPlay streams your 4K Dolby Vision video to Apple TV and smart TVs.⁶

Now every night is movie night.

The Wide camera's larger sensor brings way more detail out of the shadows. And for the first time, you can take Night mode Time-lapse videos with a tripod to capture scenes with dramatic motion. Now even your movies can pull an all-nighter.

87% better low-light video with iPhone 12 Pro Max

New ISP with improved noise reduction for more detail

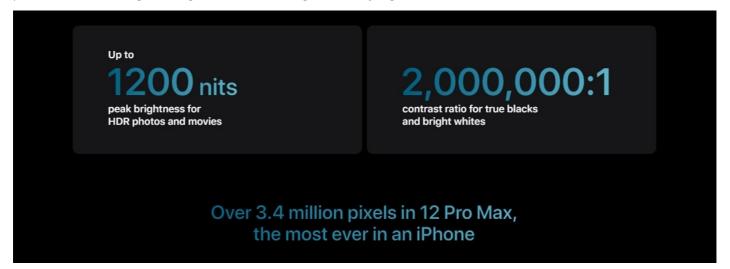
TrueDepth camera

It's never too late to take another Night mode selfie.

Night mode comes to the front camera, bringing all that low-light detail and natural color to your favorite subject. Deep Fusion, Smart HDR 3, and Dolby Vision recording are now on the TrueDepth camera, too. So you'll look your best in any light.



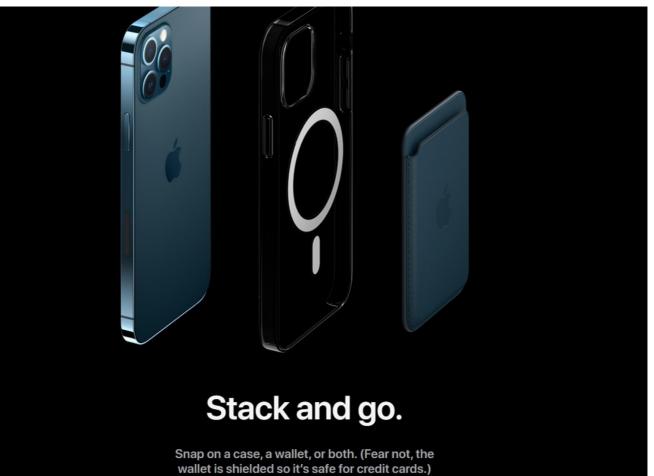
How do you make our brightest display even better? Make it bigger. A new design with flat edges and our flexible custom OLED allowed us to push the screen's amazing color, brightness, and contrast right to the very edge.



MagSafe accessories Everything just clicks.









Turbo chargeable.

Magnets align themselves perfectly every time for faster wireless charging.

iOS 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.



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



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



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



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 Pro 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



Twice the starting storage

iPhone 12 Pro starts at 128GB of storage, doubling the space for things like photos and videos.



More shots, less lag

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



Spatial audio with Dolby Atmos

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



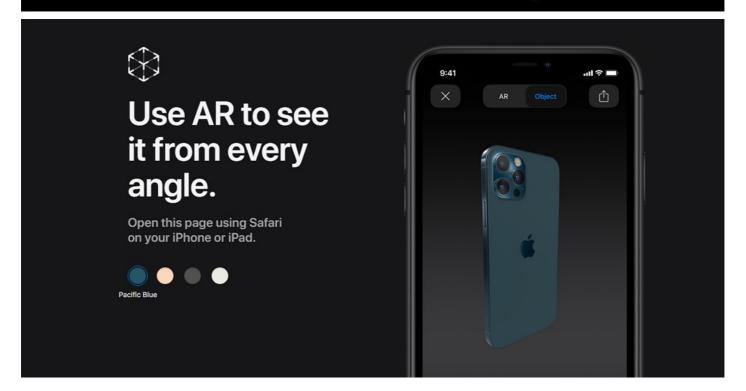
Have two numbers

Dual SIM with eSIM lets you have both a personal number and a business number on the same iPhone.⁷



Recycled rare earth in magnets

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



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,	Black, White, RED , Green,	Silver, Graphite, Gold, Pacific	Silver, Graphite, Gold, Pacific
	Blue	Blue	Blue	Blue
Capacity	64GB	64GB	128GB	128GB
	128GB	128GB	256GB	256GB
	256GB	256GB	512GB	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-screer 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:

- 1.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.
- 2.The displays have rounded corners. When measured as a rectangle, the screen is 5.85 inches (iPhone 11 Pro), 6.06 inches (iPhone 12 Pro), 6.46 inches (iPhone 11 Pro Max), or 6.68 inches (iPhone 12 Pro Max) diagonally. Actual viewable area is less.
- 3.Claim based on iPhone 12 Pro Ceramic Shield front compared with previous-generation iPhone.
- 4.iPhone 12 Pro and iPhone 12 Pro Max 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.
- 5.Data plan required. 5G and LTE are available in select markets and through select carriers. Speeds vary by site conditions and carrier.
- 6. Requires an Apple TV or AirPlay-enabled TV.
- 7.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. See your carrier for details.
- 8.Trade-in values may vary, and are based on the condition and model of your trade-in device. Additional trade-in values require purchase of a new iPhone, subject to availability and limits. Must be at least 18. Offer may not be available in all stores and not all devices are eligible for credit. 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). Sales tax may be assessed on full value of new iPhone. Value of your current device may be applied toward purchase of a new Apple device. Additional terms from Apple or Apple's trade-in partners may apply.
- 9.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 Pro?

Contact us now via **Live Chat** or **sales@router-switch.com**.

Specification

iPhone 12 Pro Specification

Finish	Silver, Graphite, Gold, Pacific Blue Ceramic Shield front Textured matte glass back and stainless steel design
Capacity ¹	128GB 256GB 512GB
Size and Weight ²	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)
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) 800 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 Resistant ³	Rated IP68 (maximum depth of 6 meters up to 30 minutes) under IEC standard 60529
Chip	A14 Bionic chip Next-generation Neural Engine
Camera	Pro 12MP camera system: Ultra Wide, Wide, and Telephoto cameras Ultra Wide: f/1.4 aperture and 120° field of view Wide: f/1.6 aperture Telephoto: f/2.0 aperture (iPhone 12 Pro); f/2.2 aperture (iPhone 12 Pro Max) 2x optical zoom in, 2x optical zoom out; 4x optical zoom range (iPhone 12 Pro) Digital zoom up to 10x (iPhone 12 Pro) 2.5x optical zoom in, 2x optical zoom out; 5x optical zoom range (iPhone 12 Pro Max) Digital zoom up to 12x (iPhone 12 Pro Max) Night mode portraits enabled by LiDAR Scanner Portrait mode with advanced bokeh and Depth Control Portrait Lighting with six effects (Natural, Studio, Contour, Stage, Stage Mono, High-Key Mono) Dual optical image stabilization (Wide and Telephoto) Sensor-shift optical image stabilization (iPhone 12 Pro Max Wide) Five-element lens (Ultra Wide); six-element lens (Telephoto); 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, Telephoto) Smart HDR 3 with Scene Detection Apple ProRAW* Wide color capture for photos and Live Photos Lens correction (Ultra Wide) Advanced red-eye correction Photo geotagging Auto image stabilization Burst mode Image formats captured: HEIF and JPEG

Video Recording	HDR video recording with Dolby Vision up to 60 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 in, 2x optical zoom out; 4x optical zoom range (iPhone 12 Pro) Digital zoom up to 6x (iPhone 12 Pro) 2.5x optical zoom in, 2x optical zoom out; 5x optical zoom range (iPhone 12 Pro Max) Digital zoom up to 7x (iPhone 12 Pro Max) 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
TrueDepth Camera	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
Face ID	Enabled by TrueDepth camera for facial recognition
Apple Pay	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
Apple Card	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

Cellular and Wireless	Model A2341 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) Model A2342 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) All models 5G (sub-6 GHz and mmWave) Gigabit LTE with 4x4 MIMO and LAA ⁴ Wi-Fi 6 (802.11ax) with 2x2 MIMO Bluetooth 5.0 wireless technology Ultra Wideband chip for spatial awareness ⁵ NFC with reader mode Express Cards with power reserve
Location	Built-in GPS, GLONASS, Galileo, QZSS, and BeiDou Digital compass Wi-Fi Cellular iBeacon microlocation
Video Calling ⁶	FaceTime video calling over cellular or Wi-Fi FaceTime HD (1080p) video calling over 5G or Wi-Fi
Audio Calling ⁶	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
Siri ⁸	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 Battery ⁹	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 around 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 LiDAR Scanner Barometer Three-axis gyro Accelerometer Proximity sensor Ambient light sensor
Operating System	iOS 14
Accessibility	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 Pro and iPhone 12 Pro Max are not compatible with existing micro-SIM cards.
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 access13 Syncing to a Mac or PC requires: • 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 Pro and iPhone 12 Pro Max 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 Pro and iPhone 12 Pro Max 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. See your carrier for details.
- 13. Wireless broadband recommended; fees may apply.