

iPhone 8 - Technical Specifications



Finish

- Gold
- Silver
- Space Gray
- (PRODUCT)RED™

Capacity¹

- 64GB
- 128GB
- 256GB

Size and Weight²

- Height: 5.45 inches (138.4 mm)
- Width: 2.65 inches (67.3 mm)
- Depth: 0.29 inch (7.3 mm)
- Weight: 5.22 ounces (148 grams)

Display

- Retina HD display
- 4.7-inch (diagonal) widescreen LCD Multi-Touch display with IPS technology
- 1334-by-750-pixel resolution at 326 ppi
- 1400:1 contrast ratio (typical)
- True Tone display
- Wide color display (P3)
- 3D Touch
- 625 nits max brightness (typical)
- Dual-domain pixels for wide viewing angles
- Fingerprint-resistant oleophobic coating
- Support for display of multiple languages and characters simultaneously

- Display Zoom
- Reachability

Splash, Water, and Dust Resistant³

- Rated IP67 (maximum depth of 1 meter up to 30 minutes) under IEC standard 60529

Chip

- A11 Bionic chip
- Neural Engine

Camera

- Single 12MP Wide camera
- Wide: $f/1.8$ aperture
- Digital zoom up to 5x
- Optical image stabilization
- Six-element lens
- LED True Tone flash with Slow Sync
- Panorama (up to 63MP)
- Live Photos with stabilization
- Wide color capture for photos and Live Photos
- Auto HDR for photos
- Auto image stabilization
- Burst mode
- Photo geotagging
- Image formats captured: HEIF and JPEG

Video Recording

- 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
- 2x optical zoom in; digital zoom up to 6x (iPhone 8 Plus only)
- LED True Tone flash
- Slo-mo video support for 1080p at 120 fps or 240 fps
- Time-lapse video with stabilization
- Cinematic video stabilization (1080p and 720p)
- Continuous autofocus video
- Take 8MP still photos while recording 4K video
- Playback zoom
- Video formats recorded: HEVC and H.264

FaceTime HD Camera

- 7MP camera
- $f/2.2$ aperture
- 1080p HD video recording at 30 fps

- Retina Flash
- Wide color capture for photos and Live Photos
- Auto HDR for photos
- Auto image stabilization
- Burst mode

Touch ID

- Fingerprint sensor built into the Home button

Apple Pay

- Pay with your iPhone using Touch ID in stores, within apps, and on the web
- Send and receive money in Messages
- Complete purchases made with Apple Pay on your Mac

[Learn more about Apple Pay](#)

Cellular and Wireless

- **Model A1863***
FDD-LTE (Bands 1, 2, 3, 4, 5, 7, 8, 12, 13, 17, 18, 19, 20, 25, 26, 28, 29, 30, 66)
TD-LTE (Bands 34, 38, 39, 40, 41)
TD-SCDMA 1900 (F), 2000 (A)
CDMA EV-DO Rev. A (800, 1900, 2100 MHz)
UMTS/HSPA+/DC-HSDPA (850, 900, 1700/2100, 1900, 2100 MHz)
GSM/EDGE (850, 900, 1800, 1900 MHz)
- **Model A1905***
Models A1905 and A1897 do not support CDMA networks, such as those used by Verizon and Sprint.
FDD-LTE (Bands 1, 2, 3, 4, 5, 7, 8, 12, 13, 17, 18, 19, 20, 25, 26, 28, 29, 30, 66)
TD-LTE (Bands 34, 38, 39, 40, 41)
UMTS/HSPA+/DC-HSDPA (850, 900, 1700/2100, 1900, 2100 MHz)
GSM/EDGE (850, 900, 1800, 1900 MHz)
- **All models**
802.11ac Wi-Fi with MIMO
Bluetooth 5.0 wireless technology
NFC with reader mode
Express Cards

Location

- Built-in GPS/GNSS
- Digital compass
- Wi-Fi
- Cellular
- iBeacon microlocation

Video Calling⁴

- FaceTime video calling over Wi-Fi or cellular

Audio Calling⁴

- FaceTime audio
- Voice over LTE (VoLTE)⁵
- Wi-Fi calling⁵

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), and Audible (formats 2, 3, 4, Audible Enhanced Audio, AAX, and AAX+)
- Stereo playback
- User-configurable maximum volume limit

Video Playback

- Video formats supported: HEVC, H.264, MPEG-4 Part 2, and Motion JPEG
- Supports Dolby Vision and HDR10 content
- AirPlay Mirroring, photos, and video out to Apple TV (2nd generation or later)⁶
- Video mirroring and video out support: Up to 1080p through Lightning Digital AV Adapter and Lightning to VGA Adapter (adapters sold separately)⁶

Siri⁷

- 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

[Learn more about Siri](#)

External Buttons and Connectors

- Home/Touch ID sensor
- Volume up/down
- Ring/Silent
- Side button
- Built-in stereo speaker
- Lightning connector
- Built-in microphone

Power and Battery⁸

Lasts about the same as iPhone 7

- Talk time (wireless): Up to 14 hours
- Internet use: Up to 12 hours

- Video playback (wireless): Up to 13 hours
- Audio playback (wireless): Up to 40 hours
- Fast-charge capable: Up to 50% charge in 30 minutes⁹ with 18W adapter or higher (sold separately)
- Built-in rechargeable lithium-ion battery
- Wireless charging (works with Qi chargers¹⁰)
- Charging via USB to computer system or power adapter

Sensors

- Touch ID fingerprint sensor
- Barometer
- Three-axis gyro
- Accelerometer
- Proximity sensor
- Ambient light sensor

Operating System

iOS 13

iOS is the world's most personal and secure mobile operating system, packed with powerful features and designed to protect your privacy.

[See what's new in iOS](#)

Accessibility

Accessibility features help people with disabilities get the most out of their new iPhone 8. With built-in support for vision, hearing, mobility, and learning, you can fully enjoy the world's most personal device. [Learn more about Accessibility](#)

Features include:

- Voice Control
- VoiceOver
- Zoom
- Magnifier
- RTT and TTY support
- Siri and Dictation
- Type to Siri
- Switch Control
- Closed Captions
- AssistiveTouch
- Speak Screen

Built-in Apps

- Camera
- Photos
- Health
- Messages
- Phone

- FaceTime
- Mail
- Music
- Wallet
- Safari
- Maps
- Siri
- Calendar
- iTunes Store
- App Store
- Notes
- News
- Contacts
- Books
- Home
- Weather
- Reminders
- Clock
- TV
- Stocks
- Calculator
- Voice Memos
- Compass
- Podcasts
- Watch
- Tips
- Find My
- Settings
- Files
- Measure
- Shortcuts

Free Apps from Apple

Pages, Numbers, Keynote, iMovie, GarageBand, iTunes U, Clips, and Apple Store app are preinstalled.

- iMovie
- Pages
- Keynote
- Numbers
- iTunes U
- GarageBand
- Apple Store
- Trailers
- Apple TV Remote
- iTunes Remote
- Music Memos
- Clips
- Support

Headphones

- EarPods with Lightning Connector

SIM Card

- Nano-SIM
- iPhone 8 and iPhone 8 Plus are not compatible with existing micro-SIM cards.

Rating for Hearing Aids

- iPhone 8 (Model A1863, A1905): 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 access¹¹
- Syncing to a Mac or a PC requires:
 - macOS Catalina 10.15 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 12.9 or later (free download from itunes.com/download)

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)

Languages

- **Language support**
English (Australia, UK, U.S.), Chinese (Simplified, Traditional, Traditional Hong Kong), French (Canada, France), German, Italian, Japanese, Korean, Spanish (Latin America, Mexico, Spain), Arabic, Catalan, Croatian, Czech, Danish, Dutch, Finnish, Greek, Hebrew, Hindi, Hungarian, Indonesian, Malay, Norwegian, Polish, Portuguese (Brazil, Portugal), Romanian, Russian, Slovak, Swedish, Thai, Turkish, Ukrainian, Vietnamese

- QuickType keyboard support**
 English (Australia, Canada, India, Singapore, UK, U.S.), Chinese - Simplified (Handwriting, Pinyin QWERTY, Pinyin 10 Key, Shuangpin, Stroke), Chinese - Traditional (Cangjie, Handwriting, Pinyin QWERTY, Pinyin 10 Key, Shuangpin, Stroke, Sucheng, Zhuyin), French (Belgium, Canada, France, Switzerland), German (Austria, Germany, Switzerland), Italian, Japanese (Kana, Romaji), Korean (2-Set, 10 Key), Spanish (Latin America, Mexico, Spain), Albanian, Arabic (Modern Standard, Najdi), Armenian, Assamese, Azerbaijani, Bangla, Belarusian, Bodo, Bulgarian, Burmese, Cantonese - Traditional (Cangjie, Handwriting, Stroke, Sucheng), Catalan, Cherokee, Croatian, Czech, Danish, Dhivehi, Dogri, Dutch, Emoji, Estonian, Faroese, Filipino, Finnish, Flemish, Georgian, Greek, Gujarati, Hawaiian, Hebrew, Hindi (Devanagari, Latin, Transliteration), Hungarian, Icelandic, Indonesian, Irish, Kannada, Kashmiri (Arabic, Devanagari), Kazakh, Khmer, Konkani (Devanagari), Kurdish (Arabic, Latin), Kyrgyz, Lao, Latvian, Lithuanian, Macedonian, Maithili (Bangla), Malay (Arabic, Latin), Malayalam, Maltese, Manipuri (Bangla, Meetei Mayek), Maori, Marathi, Mongolian, Nepali, Norwegian, Odia, Pashto, Persian, Polish, Portuguese (Brazil, Portugal), Punjabi, Romanian, Russian, Sanskrit, Santali (Devanagari, Ol Chiki), Serbian (Cyrillic, Latin), Sindhi (Arabic, Devanagari), Sinhala, Slovak, Slovenian, Swahili, Swedish, Tajik, Tamil (Anjal, Tamil 99), Telugu, Thai, Tibetan, Tongan, Turkish, Turkmen, Ukrainian, Urdu, Uyghur, Uzbek (Arabic, Cyrillic, Latin), Vietnamese, Welsh
- QuickType keyboard support with predictive inputs**
 English (Australia, Canada, India, Singapore, UK, U.S.), Chinese (Simplified, Traditional), French (Belgium, Canada, France, Switzerland), German (Austria, Germany, Switzerland), Italian, Japanese, Korean, Spanish (Latin America, Mexico, Spain), Arabic (Najdi), Cantonese (Traditional), Dutch, Hindi (Devanagari, Latin), Portuguese (Brazil, Portugal), Russian, Swedish, Thai, Turkish, Vietnamese
- Siri languages**
 English (Australia, Canada, India, Ireland, New Zealand, Singapore, South Africa, UK, U.S.), Spanish (Chile, Mexico, Spain, U.S.), French (Belgium, Canada, France, Switzerland), German (Austria, Germany, Switzerland), Italian (Italy, Switzerland), Japanese, Korean, Mandarin (China mainland, Taiwan), Cantonese (China mainland, Hong Kong), Arabic (Saudi Arabia, United Arab Emirates), Danish (Denmark), Dutch (Belgium, Netherlands), Finnish (Finland), Hebrew (Israel), Malay (Malaysia), Norwegian (Norway), Portuguese (Brazil), Russian (Russia), Swedish (Sweden), Thai (Thailand), Turkish (Turkey)
- Dictation languages**
 English (Australia, Canada, India, Indonesia, Ireland, Malaysia, New Zealand, Philippines, Saudi Arabia, Singapore, South Africa, United Arab Emirates, UK, U.S.), Spanish (Argentina, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Panama, Paraguay, Peru, Spain, Uruguay, U.S.), French (Belgium, Canada, France, Luxembourg, Switzerland), German (Austria, Germany, Luxembourg, Switzerland), Italian (Italy, Switzerland), Japanese, Korean, Mandarin (China mainland, Taiwan), Cantonese (China mainland, Hong Kong, Macao), Arabic (Kuwait, Qatar, Saudi Arabia, United Arab Emirates), Catalan, Croatian, Czech, Danish, Dutch (Belgium, Netherlands), Finnish, Greek, Hebrew, Hindi (India), Hungarian, Indonesian, Malaysian, Norwegian, Polish, Portuguese (Brazil, Portugal), Romanian, Russian, Shanghainese (China mainland), Slovakian, Swedish, Thai, Turkish, Ukrainian, Vietnamese
- Definition dictionary support**
 English, Chinese (Simplified, Traditional), Danish, Dutch, French, German, Hebrew,

Hindi, Italian, Japanese, Korean, Norwegian, Portuguese, Russian, Spanish, Swedish, Thai, Turkish

- **Thesaurus**
English (UK, U.S.)
- **Bilingual dictionary support with English**
Arabic, Chinese (Simplified, Traditional), French, German, Italian, Japanese, Spanish, Korean, Dutch, Hindi, Portuguese, Russian, Thai, Vietnamese
- **Spell check**
English, French, German, Italian, Spanish, Danish, Dutch, Finnish, Korean, Norwegian, Polish, Portuguese, Russian, Swedish, Turkish

In the Box

- iPhone with iOS 13
- EarPods with Lightning Connector
- Lightning to USB Cable
- USB Power Adapter
- Documentation

iPhone and the Environment

Apple takes a complete product life cycle approach to determining our environmental impact. [Learn more about iPhone and the Environment](#)

iPhone 8 and iPhone 8 Plus embody Apple's continuing environmental progress. They are designed with the following features to reduce environmental impact:

- Arsenic-free display glass
- Mercury-free LED-backlit display
- Brominated flame retardant-free
- PVC-free
- Beryllium-free
- Highly recyclable aluminum

Apple and the Environment

Read our [Product Environmental Reports](#) for detailed information on the environmental performance of every Apple product.

* To identify your iPhone model number, see support.apple.com/kb/HT3939. For details on LTE support, contact your carrier and see apple.com/iphone/LTE. Cellular technology support is based on iPhone model number and configuration for either CDMA or GSM networks.

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 8 and iPhone 8 Plus are splash, water, and dust resistant and were tested under controlled laboratory conditions with a rating of IP67 under IEC standard 60529 (maximum depth of 1 meter 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. 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.
5. Data plan required. LTE Advanced, 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. For details on LTE support, contact your carrier and see apple.com/iphone/LTE.
6. Standard Dynamic Range video content only.
7. 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.
8. 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. See apple.com/batteries and apple.com/iphone/battery.html for more information.
9. Testing conducted by Apple in August 2017 using preproduction iPhone 8 and iPhone 8 Plus units and software and accessory Apple USB-C Power Adapters (18W Model A1720, 29W Model A1540, 30W Model A1882, 61W Model A1718, 87W Model A1719). Fast-charge testing conducted with drained iPhone units. Charge time varies with environmental factors; actual results will vary.
10. Qi wireless chargers sold separately.
11. Wireless broadband recommended; fees may apply.

Some features may not be available for all countries or all areas. [View complete list.](#)

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