Documentation

iPhone XS - Technical Specifications

Finish	
	• Gold
	• Space Gray
	• Silver

Finish
- Gold
- Space Gray
- Silver

Capacity[1]
- 64GB
- 256GB
- 512GB

Size and Weight[2]
- Width: 2.79 inches (70.9 mm)
- Height: 5.65 inches (143.6 mm)
- Depth: 0.30 inch (7.7 mm)
- Weight: 6.24 ounces (177 grams)

Display
- Super Retina HD display
- 5.8-inch (diagonal) all-screen OLED Multi-Touch display
- HDR display
- 2436-by-1125-pixel resolution at 458 ppi
- 1,000,000:1 contrast ratio (typical)
- True Tone display
- Wide color display (P3)
- 3D Touch
- 625 cd/m2 max brightness (typical)
- Fingerprint-resistant oleophobic coating
- Support for display of multiple languages and characters simultaneously

The iPhone XS display has rounded corners that follow a beautiful curved design, and these corners are within a standard rectangle. When measured as a standard rectangular shape, the screen is 5.85 inches diagonally (actual viewable area is less).

Splash, Water, and Dust Resistant[3]

- Rated IP68 (maximum depth of 2 meters up to 30 minutes) under IEC standard 60529

Chip

- A12 Bionic chip
- Next-generation Neural Engine

Camera

- Dual 12MP wide-angle and telephoto cameras
- Wide-angle: ƒ/1.8 aperture
- Telephoto: ƒ/2.4 aperture
- 2x optical zoom; digital zoom up to 10x
- Portrait mode with advanced bokeh and Depth Control
- Portrait Lighting with five effects (Natural, Studio, Contour, Stage, Stage Mono)
- Dual optical image stabilization
- Six-element lens
- Quad-LED True Tone flash with Slow Sync
- Panorama (up to 63MP)
- Sapphire crystal lens cover
- Backside illumination sensor
- Hybrid IR filter
- Autofocus with Focus Pixels
- Tap to focus with Focus Pixels
- Smart HDR for photos
- Wide color capture for photos and Live Photos
- Local tone mapping
- Advanced red-eye correction
- Exposure control
- Auto image stabilization
- Burst mode
- Timer 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
- Extended dynamic range for video up to 30 fps
- Optical image stabilization for video
- 2x optical zoom; digital zoom up to 6x
- Quad-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 geotagging
- Video formats recorded: HEVC and H.264
- Stereo recording

TrueDepth Camera
- 7MP camera
- f/2.2 aperture
- Portrait mode with advanced bokeh and Depth Control
- Portrait Lighting with five effects (Natural, Studio, Contour, Stage, Stage Mono)
- Animoji and Memoji
- 1080p HD video recording at 30 fps or 60 fps
- Smart HDR for photos
- Extended dynamic range for video at 30 fps
- Cinematic video stabilization (1080p and 720p)
- Wide color capture for photos and Live Photos
- Retina Flash
- Backside illumination sensor
- Auto image stabilization
- Burst mode
- Exposure control
- Timer 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

Learn more about Apple Pay

Cellular and Wireless
- **Model A1920***
  - FDD-LTE (Bands 1, 2, 3, 4, 5, 7, 8, 12, 13, 14, 17, 18, 19, 20, 25, 26, 29, 30, 32, 66, 71)
  - TD-LTE (Bands 34, 38, 39, 40, 41, 46)
  - 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 A1921***
  - FDD-LTE (Bands 1, 2, 3, 4, 5, 7, 8, 12, 13, 14, 17, 18, 19, 20, 25, 26, 29, 30, 32, 66, 71)
  - TD-LTE (Bands 34, 38, 39, 40, 41, 46)
  - 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**
  - Gigabit-class LTE with 4x4 MIMO and LAA[4]
  - 802.11ac Wi-Fi with 2x2 MIMO
  - Bluetooth 5.0 wireless technology
  - NFC with reader mode
  - Express Cards with power reserve

Location	- Assisted GPS, GLONASS, Galileo, and QZSS - Digital compass - Wi-Fi - Cellular - iBeacon microlocation
Video Calling[5]	FaceTime video calling over Wi-Fi or cellular
Audio Calling[5]	- 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+) - Wider stereo playback - User-configurable maximum volume limit
Video Playback	- Video formats supported: HEVC, H.264, MPEG-4 Part 2, and Motion JPEG - High Dynamic Range with 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]
Siri[7]	- 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

- Volume up/down
- Ring/Silent
- Side button
- Built-in stereo speaker
- Lightning connector
- Built-in microphones

Power and Battery[8]

- Lasts up to 30 minutes longer than iPhone X
- Talk time (wireless): Up to 20 hours
- Internet use: Up to 12 hours
- Video playback (wireless): Up to 14 hours
- Audio playback (wireless): Up to 60 hours
- Fast-charge capable: Up to 50% charge in 30 minutes[9] with 18W adapter or higher (available separately)
- Built-in rechargeable lithium-ion battery
- Wireless charging (works with Qi chargers[10])
- Charging via USB to computer system or power adapter

Sensors

- Face ID
- Barometer
- Three-axis gyro
- Accelerometer
- Proximity sensor
- Ambient light sensor

Operating System

iOS 12

iOS is the world's most personal and secure mobile operating system, packed with powerful features that help you get the most out of every day.

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

Accessibility

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

Features include:

- 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 iPhone
- Find My Friends
- Settings
- Files
- Measure

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
- Shortcuts
- Support

Headphones

- EarPods with Lightning Connector

SIM Card

- Dual SIM (nano-SIM and eSIM)[11]
- iPhone XS and iPhone XS Max are not compatible with existing micro-SIM cards.

eSIM not supported in all regions. Learn more about eSIM on iPhone.

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[12]
- Syncing with iTunes on a Mac or PC requires:
  - Mac: OS X 10.11.6 or later
  - PC: Windows 7 or later
  - iTunes 12.8 or later on Mac and iTunes 12.9 or later on PC (free download from www.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, Stroke), Chinese - Traditional (Cangjie, Handwriting, Pinyin, Stroke, Sucheng, Zhuyin), French (Belgium, Canada, France, Switzerland), German (Austria, Germany, Switzerland), Italian, Japanese (Kana, Romaji), Korean, Spanish (Latin America, Mexico, Spain), Arabic (Modern Standard, Najdi), Armenian, Azerbaijani, Belarusian, Bengali, Bulgarian, Catalan, Cherokee, Croatian, Czech, Danish, Dutch, Emoji, Estonian, Filipino, Finnish, Flemish, Georgian, Greek, Gujarati, Hawaiian, Hebrew, Hindi (Devanagari, Transliteration), Hinglish, Hungarian, Icelandic, Indonesian, Irish, Kannada, Latvian, Lithuanian, Macedonian, Malay, Malayalam, Maori, Marathi, Norwegian, Odia, Persian, Polish, Portuguese (Brazil, Portugal), Punjabi, Romanian, Russian, Serbian (Cyrillic, Latin), Slovak, Slovenian, Swahili, Swedish, Tamil (Script, Transliteration), Telugu, Thai, Tibetan, Turkish, Ukrainian, Urdu, Vietnamese, Welsh

- **QuickType keyboard support with predictive input**
  - English (Australia, Canada, India, Singapore, UK, U.S.), Chinese (Simplified, Traditional), French (Belgium, Canada, France, Switzerland), German (Austria, Germany, Switzerland), Italian, Japanese, Korean, Russian, Spanish (Latin America, Mexico, Spain), Portuguese (Brazil, Portugal), Thai, Turkish

- **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 (Türkiye)

- **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), Dutch, French, German, Hindi, Italian, Japanese, Korean, Portuguese, Russian, Spanish

- **Spell check**
  - English, French, German, Italian, Spanish, Danish, Dutch, Finnish, Korean, Norwegian, Polish, Portuguese, Russian, Swedish, Turkish

In the Box

- iPhone with iOS 12
- 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 XS and iPhone XS Max embody Apple's continuing environmental progress. They are designed with the following features to reduce environmental impact:

- Arsenic-free display glass
- Mercury-free display
- Brominated flame retardant–free
- PVC-free
- Beryllium-free
- Recyclable stainless steel

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 https://support.apple.com/en-us/HT3939. For details on LTE support, contact your carrier and see www.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 10GB to 12GB 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.

2. Size and weight vary by configuration and manufacturing process.

3. iPhone XS and iPhone XS 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 2 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. Gigabit-class LTE, 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 www.apple.com/iphone/LTE.

5. 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.

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 www.apple.com/batteries and www.apple.com/iphone/battery.html for more information.

9. Testing conducted by Apple in August 2018 using preproduction iPhone XS and iPhone XS Max 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. 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. To learn more, visit https://support.apple.com/en-us/HT209044.

12. Wireless broadband recommended; fees may apply.

Some features may not be available for all countries or all areas. Click here to see complete list.

Helpful?   Yes   No

Support   iPhone XS - Technical Specifications