

Documentation



iPad (9th generation) - Technical Specifications

Year introduced : 2021

[Identify your iPad model](#)

Finish

- Silver
- Space Gray

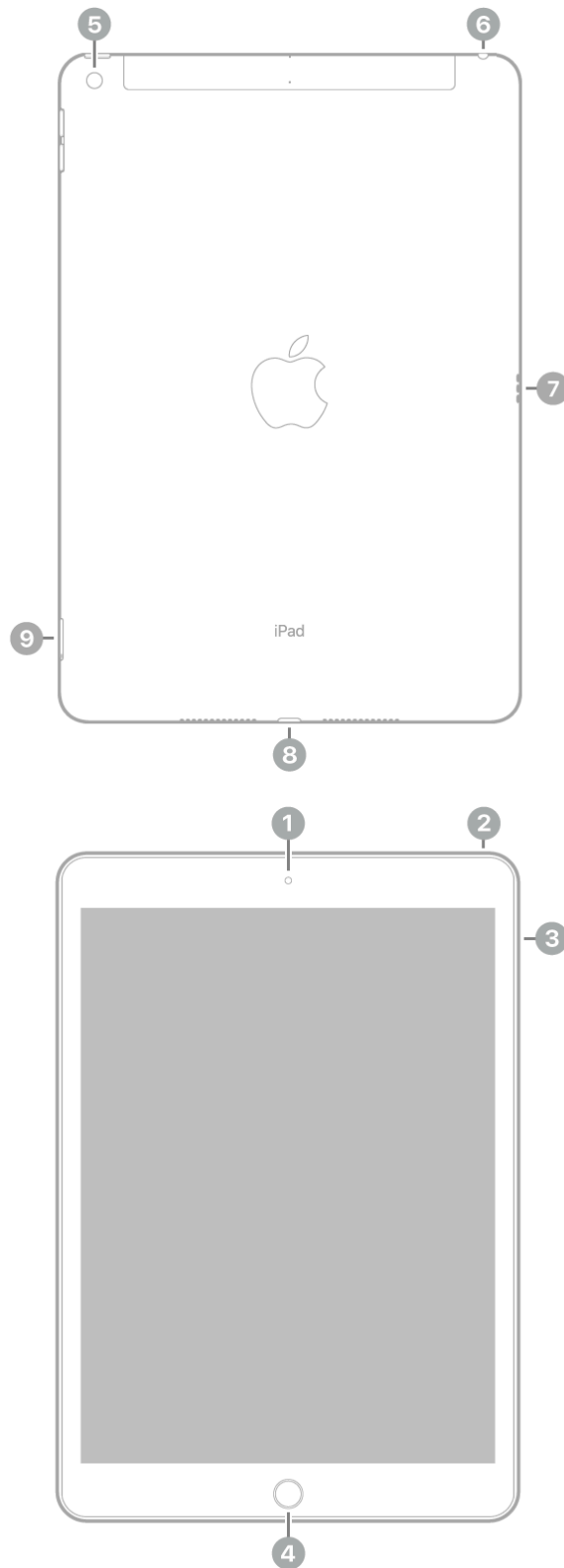
Capacity¹

- 64GB
- 256GB

Size and Weight²

- **Wi-Fi models**
 - Height: 9.8 inches (250.6 mm)
 - Width: 6.8 inches (174.1 mm)
 - Depth: 0.29 inch (7.5 mm)
 - Weight: 1.07 pounds (487 grams)
- **Wi-Fi + Cellular models**
 - Height: 9.8 inches (250.6 mm)
 - Width: 6.8 inches (174.1 mm)
 - Depth: 0.29 inch (7.5 mm)
 - Weight: 1.09 pounds (498 grams)

Buttons and Connectors



1. Front camera
2. Top button
3. Volume buttons
4. Home button/Touch ID
5. Rear camera
6. Headphone jack
7. Smart Connector
8. Lightning connector

9. SIM tray (Wi-Fi + Cellular)

In the Box

- iPad (9th generation)
- Lightning to USB-C Cable
- 20W USB-C Power Adapter

Display

- Retina display
- 10.2-inch (diagonal) LED-backlit Multi-Touch display with IPS technology
- 2160-by-1620-pixel resolution at 264 pixels per inch (ppi)
- True Tone display
- 500 nits brightness
- Fingerprint-resistant oleophobic coating
- Supports Apple Pencil (1st generation)

Chip

- A13 Bionic chip
- Neural Engine

Camera

- 8MP Wide camera
- $f/2.4$ aperture
- Digital zoom up to 5x
- Five-element lens
- Panorama (up to 43MP)
- HDR for photos
- Photo geotagging
- Auto image stabilization
- Burst mode

Video Recording

- 1080p HD video recording at 25 fps and 30 fps
- 720p HD video recording at 30 fps
- 3x video zoom
- Slo-mo video support for 720p at 120 fps
- Time-lapse video with stabilization
- Video image stabilization
- Cinematic video stabilization (1080p and 720p)
- Continuous autofocus video
- Playback zoom
- Video formats recorded: HEVC and H.264

Front Camera

- 12MP Ultra Wide camera, 122° field of view
- $f/2.4$ aperture
- HDR for photos
- 1080p HD video recording at 25 fps, 30 fps, or 60 fps

- Time-lapse video with stabilization
- Extended dynamic range for video up to 30 fps
- Cinematic video stabilization (1080p and 720p)
- Lens correction
- Retina Flash
- Auto image stabilization
- Burst mode

Video Calling³

- FaceTime video
- Center Stage
- iPad to any FaceTime-enabled device over Wi-Fi or cellular

Audio Calling³

- FaceTime audio
- iPad to any FaceTime-enabled device over Wi-Fi or cellular

Speakers

- Stereo speakers

Microphones

- Dual microphones for calls, video recording, and audio recording

Cellular and Wireless

- All models
 - Wi-Fi 5 (802.11ac) with 2x2 MIMO; speeds up to 866 Mbps
 - Bluetooth 4.2
- Wi-Fi + Cellular models
 - Model A2603:
 - UMTS/HSPA/HSPA+/DC-HSDPA (850, 900, 1700/2100, 1900, 2100 MHz)
 - Gigabit-class LTE (Bands 1, 2, 3, 4, 5, 7, 8, 11, 12, 13, 14, 17, 18, 19, 20, 21, 25, 26, 29, 30, 34, 38, 39, 40, 41, 66, 71)⁴
 - Data only⁵
 - Wi-Fi calling⁴
 - eSIM⁶

[Learn more about cellular](#)

SIM Card

- Nano-SIM
- eSIM⁶

Location

- All models
 - Digital compass
 - Wi-Fi
 - iBeacon microlocation

- **Wi-Fi + Cellular models**

- GPS/GNSS
- Cellular

Sensors

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

Touch ID

- Unlock iPad
- Secure personal data within apps
- Make purchases from the iTunes Store, App Store, and Apple Books

Apple Pay

- Pay with your iPad using Touch ID within apps and on the web
- Send and receive money in Messages

[Learn more about Apple Pay.](#)

Siri⁷

- Use your voice to send messages, set reminders, and more
- Get proactive suggestions
- Use hands-free
- Listen and identify songs

[Learn more about Siri](#)

Display Support

- Digital video output
 - VGA, HDMI, and DVI output supported using adapters (sold separately)
- Video mirroring
 - AirPlay mirroring, photos, and video out to Apple TV (2nd generation or later) or AirPlay-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)

Power and Battery⁸

- **All models**
 - Built-in 32.4-watt-hour rechargeable lithium-polymer battery
 - Up to 10 hours of surfing the web on Wi-Fi or watching video
 - Charging via power adapter or USB-C to computer system

- **Wi-Fi + Cellular models**
 - Up to 9 hours of surfing the web using cellular data network

Operating System

iPadOS

iPadOS comes with powerful features and built-in apps designed to take advantage of the unique capabilities of iPad.

[Learn more about iPadOS](#)

[iPad User Guide](#)

Accessibility

Built-in accessibility features supporting vision, mobility, hearing, and cognitive disabilities help you get the most out of your iPad.

[Learn more about Accessibility](#)

Features include:

- VoiceOver
- Zoom
- Magnifier
- Spoken Content
- Voice Control
- Switch Control
- AssistiveTouch
- RTT support
- Siri and Dictation
- Type to Siri
- Real-Time Text
- Audio Descriptions
- Subtitles and Closed Captioning
- Live Captions (beta)

Built-in Apps

- App Store
- Books
- Calendar
- Camera
- Clock
- Contacts
- FaceTime
- Files
- Find My
- Freeform
- Home
- iTunes Store
- Magnifier

- Mail
- Maps
- Measure
- Messages
- Music
- News
- Notes
- Photo Booth
- Photos
- Podcasts
- Reminders
- Safari
- Settings
- Shortcuts
- Siri
- Stocks
- Tips
- Translate
- TV
- Voice Memos
- Weather

Free Apps from Apple

Pages, Numbers, Keynote, iMovie, GarageBand, Clips, and Apple Store app are preinstalled on iPad.

- Pages
- Numbers
- Keynote
- iMovie
- GarageBand
- Apple Store
- Clips
- Swift Playgrounds
- Support

System Requirements

- Apple ID (required for some features)
- Internet access⁹
- 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 10 or later using iTunes 12.12.10 or later (free download from itunes.com/download)

Languages

- Language support

- English (Australia, UK, U.S.), Chinese (Simplified, Traditional, Traditional – Hong Kong), French (Canada, France), German, Italian, Japanese, Korean, Spanish (Latin America, Spain), Arabic, Bulgarian, Catalan, Croatian, Czech, Danish, Dutch, Finnish, Greek, Hebrew, Hindi, Hungarian, Indonesian, Kazakh, Malay, Norwegian, Polish, Portuguese (Brazil, Portugal), Romanian, Russian, Slovak, Swedish, Thai, Turkish, Ukrainian, Vietnamese
- **QuickType keyboard support**
 - English (Australia, Canada, India, Japan, New Zealand, Singapore, South Africa, 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), Ainu, Albanian, Amharic, Apache (Western), Arabic, Arabic (Najdi), Armenian, Assamese, Assyrian, Azerbaijani, Bangla, Belarusian, Bodo, Bulgarian, Burmese, Cantonese – Traditional (Cangjie, Handwriting, Phonetic, Stroke, Sucheng), Catalan, Cherokee, Croatian, Czech, Danish, Dhivehi, Dogri, Dutch, Dzongkha, Emoji, Estonian, Faroese, Filipino, Finnish, Flemish, Fula (Adlam), Georgian, Greek, Gujarati, Hawaiian, Hebrew, Hindi (Devanagari, Latin, Transliteration), Hungarian, Icelandic, Igbo, Indonesian, Irish Gaelic, Kannada, Kashmiri (Arabic, Devanagari), Kazakh, Khmer, Konkani (Devanagari), Kurdish (Arabic, Latin), Kyrgyz, Lao, Latvian, Lithuanian, Macedonian, Maithili, Malay (Arabic, Latin), Malayalam, Maltese, Manipuri (Bengali, Meetei Mayek), Māori, Marathi, Mongolian, Navajo, Nepali, Norwegian (Bokmål, Nynorsk), Odia, Pashto, Persian, Persian (Afghanistan), Polish, Portuguese (Brazil, Portugal), Punjabi, Rohingya, Romanian, Russian, Samoan, 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 (Telex, VIQR, VNI), Welsh, Yiddish
- **QuickType keyboard support with autocorrection**
 - Arabic, Arabic (Najdi), Bangla, Bulgarian, Catalan, Cherokee, Chinese – Simplified (Pinyin QWERTY), Chinese – Traditional (Pinyin QWERTY), Chinese – Traditional (Zhuyin), Croatian, Czech, Danish, Dutch, English (Australia, Canada, India, Japan, New Zealand, Singapore, South Africa, UK, U.S.), Estonian, Filipino, Finnish, Dutch (Belgium), French (Belgium), French (Canada), French (France), French

(Switzerland), German (Austria), German (Germany), German (Switzerland), Greek, Gujarati, Hawaiian, Hebrew, Hindi (Devanagari, Latin, Transliteration), Hungarian, Icelandic, Indonesian, Irish Gaelic, Italian, Japanese (Kana), Japanese (Romaji), Korean (2-Set, 10-Key), Latvian, Lithuanian, Macedonian, Malay, Marathi, Norwegian (Bokmål), Norwegian (Nynorsk), Persian, Persian (Afghanistan), Polish, Portuguese (Brazil), Portuguese (Portugal), Punjabi, Romanian, Russian, Serbian (Cyrillic), Serbian (Latin), Slovak, Slovenian, Spanish (Latin America), Spanish (Mexico), Spanish (Spain), Swedish, Tamil (Anjal), Tamil (Tamil 99), Telugu, Thai, Turkish, Ukrainian, Urdu, Vietnamese (Telex)

- **QuickType keyboard support with predictive typing**

- English (Australia, Canada, India, Japan, Singapore, South Africa, UK, U.S.), Chinese (Simplified, Traditional), French (Belgium, Canada, France, Switzerland), German (Austria, Germany, Switzerland), Italian, Japanese, Korean, Spanish (Latin America, Mexico, Spain), Arabic, Arabic (Najdi), Cantonese (Traditional), Dutch, Hindi (Devanagari, Latin), Portuguese (Brazil, Portugal), Russian, Swedish, Thai, Turkish, Vietnamese

- **QuickType keyboard support with multilingual input**

- English (Australia, Canada, India, Japan, New Zealand, Singapore, South Africa, UK, U.S.), Chinese – Simplified (Pinyin), Chinese – Traditional (Pinyin), French (France), French (Belgium), French (Canada), French (Switzerland), German (Germany), German (Austria), German (Switzerland), Italian, Japanese (Romaji), Portuguese (Brazil), Portuguese (Portugal), Spanish (Spain), Spanish (Latin America), Spanish (Mexico), Dutch (Belgium), Dutch (Netherlands), Hindi (Latin), Vietnamese

- **QuickType keyboard support with contextual suggestions**

- English (Australia, Canada, India, Japan, New Zealand, Singapore, South Africa, UK, U.S.), Chinese (Simplified), French (Belgium), French (Canada), French (France), French (Switzerland), German (Austria), German (Germany), German (Switzerland), Italian, Spanish (Latin America), Spanish (Mexico), Spanish (Spain), Arabic, Arabic (Najdi), Dutch (Belgium), Dutch (Netherlands), Hindi (Devanagari), Hindi (Latin), Russian, Swedish, Portuguese (Brazil), Turkish, Vietnamese

- **QuickPath keyboard support**

- English (Australia, Canada, India, Japan, New Zealand, Singapore, South Africa, UK, U.S.), Chinese (Simplified Pinyin QWERTY), Chinese (Traditional Pinyin QWERTY), French (Canada), French (France), French (Switzerland), German (Austria), German (Germany), German (Switzerland), Italian, Spanish (Latin America), Spanish (Mexico), Spanish (Spain),

Portuguese (Brazil), Portuguese (Portugal), Dutch (Belgium), Dutch (Netherlands), Swedish, 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 (Japan), Korean (Republic of Korea), Mandarin Chinese (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, Ireland, Malaysia, New Zealand, Philippines, Saudi Arabia, Singapore, South Africa, United Arab Emirates, UK, U.S.), Cantonese (China mainland, Hong Kong), Mandarin Chinese (China mainland, Taiwan), French (Belgium, Canada, France, Luxembourg, Switzerland), German (Austria, Germany, Switzerland), Italian (Italy, Switzerland), Japanese, Korean, Spanish (Chile, Colombia, Mexico, Spain, U.S.), Portuguese (Brazil, Portugal), Arabic (Kuwait, Qatar, Saudi Arabia, United Arab Emirates), Catalan, Croatian, Czech, Danish, Dutch (Belgium, Netherlands), Finnish, Greek, Hebrew, Hindi, Hungarian, Indonesian, Malay, Norwegian (Bokmål), Polish, Romanian, Russian, Shanghaiese (China mainland), Slovak, Swedish, Thai, Turkish, Ukrainian, Vietnamese

- **Monolingual dictionary support**

- English (UK, U.S.), Chinese (Simplified, Traditional, Traditional – Hong Kong), Danish, Dutch, French, German, Hebrew, Hindi, Italian, Japanese, Korean, Norwegian, Portuguese, Russian, Spanish, Swedish, Thai, Turkish

- **Idiom dictionary support**

- Simplified Chinese, Traditional Chinese – English, Cantonese – English

- **Bilingual dictionary support**

- Arabic – English, Bangla – English, Chinese (Simplified) – English, Chinese (Traditional) – English, Czech – English, Dutch – English, Finnish – English, French – English, French – German, German – English, Gujarati – English, Hindi – English, Hungarian – English, Indonesian – English, Italian – English, Japanese – English, Japanese – Chinese (Simplified), Korean – English, Polish – English, Portuguese – English, Russian – English, Spanish –

English, Tamil – English, Telugu – English, Thai – English, Urdu – English, Vietnamese – English

- **Thesaurus**
 - English (UK, U.S.), Chinese (Simplified)
- **Spell check**
 - English (Australia, Canada, India, Japan, New Zealand, Singapore, South Africa, UK, U.S.), French (Belgium, Canada, France, Switzerland), German (Austria, Germany, Switzerland), Italian, Spanish (Latin America, Mexico, Spain), Arabic, Arabic (Najdi), Bulgarian, Czech, Danish, Dutch (Netherlands, Belgium), Finnish, Greek, Hindi (Devanagari), Hungarian, Irish Gaelic, Norwegian (Bokmål, Nynorsk), Polish, Portuguese (Brazil, Portugal), Punjabi, Romanian, Russian, Swedish, Telugu, Turkish, Vietnamese
- **Apple Pay supported regions**
 - Argentina, Armenia, Australia, Austria, Azerbaijan, Bahrain, Belarus, Belgium, Brazil, Bulgaria, Canada, China mainland,¹⁰ Colombia, Costa Rica, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Faroe Islands, Finland, France, Georgia, Germany, Greece, Greenland, Guernsey, Hong Kong, Hungary, Iceland, Ireland, Isle of Man, Israel, Italy, Japan, Jersey, Kazakhstan, Latvia, Liechtenstein, Lithuania, Luxembourg, Macao, Malaysia, Malta, Mexico, Moldova, Monaco, Montenegro, Netherlands, New Zealand, Norway, Palestine, Peru, Poland, Portugal, Qatar, Romania, Russia, San Marino, Saudi Arabia, Serbia, Singapore, Slovakia, Slovenia, South Africa, Spain, Sweden, Switzerland, Taiwan, UK, Ukraine, United Arab Emirates, U.S., Vatican City

Video Playback

- Supported formats include HEVC and H.264
- Supports Dolby Vision and HDR10 content

Audio Playback

- Supported formats include AAC, MP3, Apple Lossless, FLAC, Dolby Digital, Dolby Digital Plus, and Dolby Atmos
- User-configurable maximum volume limit

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; .pkpass (Wallet)

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)

iPad and the Environment

iPad is designed with the following features to reduce its environmental impact.¹¹

[Learn more about the iPad Product Environmental Report \(PDF\).](#)

Made with better materials

- 100% recycled aluminum in the enclosure
- 100% recycled rare earth elements in the enclosure magnets
- 100% recycled tin in the solder of the main logic board
- 35% or more recycled plastic in multiple components

Energy efficient

- ENERGY STAR® certified¹²

Smarter chemistry¹³

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

Green manufacturing

- Apple's Zero Waste Program helps suppliers eliminate waste sent to landfill
- All final assembly supplier sites are transitioning to 100% renewable energy for Apple production

Responsible packaging

- 100% of virgin wood fiber comes from responsibly managed forests
- 90% or more fiber-based packaging

Apple and the Environment

We're committed to making our products without taking from the earth, and to become carbon neutral across our entire business, including products, by 2030.

[Learn more about Apple's commitment to the environment](#)

◊ The displays have rounded corners. When measured diagonally as a rectangle, the iPad Pro 12.9-inch screen is 12.9 inches, the iPad Pro 11-inch screen is 11 inches, the iPad Air and iPad (10th generation) screens are 10.86 inches, and the iPad mini screen is 8.3 inches. Actual viewable area is less.

◊◊ Data plan required. 5G and LTE 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 5G and LTE support, contact your carrier and see apple.com/ipad/cellular.

◊◊◊ USB-C to Apple Pencil Adapter required to work with iPad (10th generation).

1. Available space is less and varies due to many factors. Storage capacity subject to change based on software version, settings, and iPad model. 1GB = 1 billion bytes; 1TB = 1 trillion bytes. Actual formatted capacity less.

2. Size and weight vary by configuration and manufacturing process.
 3. 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.
 4. Data plan required. Gigabit-class LTE 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/ipad/cellular.
 5. Cellular data plan is sold separately. The model you purchase is configured to work with a particular cellular network technology. Check with your carrier for compatibility and cellular data plan availability.
 6. Not all carriers support eSIM. See your carrier for details. Not available in China mainland.
 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. Testing conducted by Apple in August 2021 using preproduction iPad (9th generation) units and software. Testing consisted of full battery discharge while performing each of the following tasks: video playback and internet browsing using Wi-Fi or cellular data network (cellular models subscribed to LTE carrier networks). Video content was a repeated 2-hour 23-minute movie purchased from the iTunes Store. Internet over Wi-Fi and cellular data network tests were conducted using dedicated web servers, browsing snapshot versions of 20 popular web pages. All settings were default except: Wi-Fi was associated with a network (except for internet browsing over cellular data network); the Wi-Fi feature Ask to Join Networks and Auto-Brightness were turned off; Brightness was set to 50%; and WPA2 encryption was enabled. Battery life depends on device settings, usage, network, and many other factors. Battery tests are conducted using specific iPad units; actual results may vary.
 9. Wireless broadband recommended; fees may apply.
 10. In China mainland, you can use Apple Pay on the web in Safari only on compatible iPhone and iPad models using iOS 11.2 or later.
 11. Data accurate as of product launch.
 12. ENERGY STAR and the ENERGY STAR mark are registered trademarks owned by the U.S. Environmental Protection Agency.
 13. Apple defines its restrictions on harmful substances, including definitions for what Apple considers to be “free of,” in the [Apple Regulated Substances Specification](#). Every Apple product is free of PVC and phthalates with the exception of AC power cords in India, Thailand (for two-prong AC power cords), and South Korea, where we continue to seek government approval for our PVC and phthalates replacement.
- Apps are available on the App Store. Title availability is subject to change.

Helpful?

☒ Yes☐ No[Support](#)[iPad \(9th generation\) - Technical Specifications](#)