## iPad (10th generation) - Technical Specifications

Year introduced : 2022



#### Finish

- Silver
- Blue
- Pink
- Yellow

## Capacity<sup>1</sup>

- 64GB
- 256GB

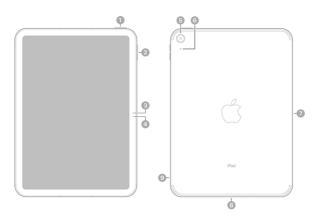
## Size and Weight<sup>2</sup>

- Wi-Fi models
  - Height: 9.79 inches (248.6 mm)
  - Width: 7.07 inches (179.5 mm)
  - Depth: 0.28 inch (7 mm)
  - Weight: 1.05 pounds (477 grams)
- Wi-Fi + Cellular models
  - Height: 9.79 inches (248.6 mm)
  - Width: 7.07 inches (179.5 mm)
  - Depth: 0.28 inch (7 mm)
  - Weight: 1.06 pounds (481 grams)

#### **Buttons and Connectors**

- 1. Top button/Touch ID
- 2. Volume buttons
- 3. Front camera
- 4. Microphone

- 5. Rear camera
- 6. Microphone
- 7. Smart Connector
- 8. USB-C connector
- 9. SIM tray (Wi-Fi + Cellular)



## In the Box

- iPad (10th generation)
- USB-C Charge Cable (1 meter)
- 20W USB-C Power Adapter

## Display

Liquid Retina display

- 10.9-inch (diagonal) LED backlit Multi-Touch display with IPS technology
- 2360-by-1640-pixel resolution at 264 pixels per inch (ppi)
- True Tone display
- 500 nits brightness
- Fingerprint-resistant oleophobic coating
- Supports Apple Pencil (1st generation)

The iPad display has rounded corners. When measured diagonally as a rectangle, the screen is 10.86 inches. Actual viewable area is less. Pair and charge Apple Pencil (1st generation) using USB-C to Apple Pencil Adapter.

## Chip

- A14 Bionic chip
- 6-core CPU
- 4-core graphics
- 16-core Neural Engine

## Camera

- 12MP Wide camera, f/1.8 aperture
- Digital zoom up to 5x

- Five-element lens
- Autofocus with Focus Pixels
- Panorama (up to 63MP)
- Smart HDR 3
- Photo geotagging
- Auto image stabilization
- Burst mode
- Image formats captured: HEIF and JPEG

## **Video Recording**

- 4K video recording at 24 fps, 25 fps, 30 fps, or 60 fps
- 1080p HD video recording at 25 fps, 30 fps, or 60 fps
- 720p HD video recording at 30 fps or 60 fps
- Slo-mo video support for 1080p at 120 fps or 240 fps
- Time-lapse video with stabilization
- Extended dynamic range for video up to 30 fps
- Video image stabilization
- Cinematic video stabilization (1080p and 720p)
- Continuous autofocus video
- Playback zoom
- Video formats captured: HEVC and H.264

## **Front Camera**

- Landscape 12MP Ultra Wide camera, 122° field of view
- *f*/2.4 aperture
- Smart HDR 3
- 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 Calling<sup>3</sup>

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

## Audio Calling<sup>3</sup>

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

Landscape stereo speakers

#### **Microphones**

Dual microphones for calls, video recording, and audio recording

## **Cellular and Wireless**

#### All models

Wi-Fi 6 (802.11ax) with 2x2 MIMO; speeds up to 1.2 Gbps Simultaneous dual band Bluetooth 5.2

• Wi-Fi + Cellular models

Model A2757: 5G NR (Bands n1, n2, n3, n5, n7, n8, n12, n20, n25, n28, n29, n30, n38, n40, n41, n48, n66, n71, n77, n78, n79)<sup>4</sup> FDD-LTE (Bands 1, 2, 3, 4, 5, 7, 8, 11, 12, 13, 14, 17, 18, 19, 20, 21, 25, 26, 28, 29, 30, 32, 66, 71) TD-LTE (Bands 34, 38, 39, 40, 41, 42, 46, 48) UMTS/HSPA/HSPA+/DC-HSDPA (850, 900, 1700/2100, 1900, 2100 MHz) Data only<sup>5</sup> Wi-Fi calling<sup>4</sup>  $eSIM^{6}$ 

For details on 5G and LTE support, contact your carrier and see <u>apple.com/ipad/cellular/networks</u>.

## SIM Card

- Nano-SIM
- eSIM<sup>6</sup>

## 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

### Siri<sup>7</sup>

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

#### Learn more about Siri

#### Charging and Expansion

USB-C port with support for: Charging DisplayPort USB 2.0 (up to 480 Mb/s)

## **Display Support**

- Supports full native resolution on the built-in display at millions of colors Supports one external display with up to 4K resolution at 30Hz or 1080p resolution at 60Hz
- Digital video output Native DisplayPort output over USB-C
  VGA, HDMI, and DVI output supported using adapters (sold separately)

#### • Video mirroring

Up to 4K AirPlay for mirroring, photos, and video out to Apple TV (2nd generation or later) or AirPlay-enabled smart TV

Video mirroring and video out support through USB-C Digital AV Multiport Adapter and USB-C VGA Multiport Adapter (adapters sold separately)

## Power and Battery<sup>8</sup>

• Built-in 28.6-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.

Features include:

- VoiceOver
- Zoom
- Magnifier
- Spoken Content
- Voice Control
- Switch Control
- AssistiveTouch
- 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
- Trailers
- Clips
- Swift Playgrounds
- Support

## **System Requirements**

- Apple ID (required for some features)
- Internet access<sup>9</sup>

#### • 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 and iTunes 12.12 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, Pinvin QWERTY, Pinvin 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 input

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, Shanghainese (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,<sup>10</sup> 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.<sup>11</sup> See the iPad Product Environmental Report

#### Made with better materials

- 100% recycled aluminum in the enclosure
- 100% recycled rare earth elements

- 100% recycled tin in the solder of multiple printed circuit boards
- 100% recycled gold in the plating of multiple printed circuit boards
- 100% recycled copper in the foil of the main logic board
- 35% or more recycled plastic in multiple components

### **Energy efficient**

ENERGY STAR<sup>®</sup> certified<sup>12</sup>

#### Smarter chemistry<sup>13</sup>

- 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
- 97% fiber-based packaging and no outer plastic wrap

## 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. <u>See Apple's commitment</u>

- 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. 5G, Gigabit 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 5G and LTE support, contact your carrier and see <u>apple.com/ipad/cellular</u>.
- 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 September 2022 using preproduction iPad (10th 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 and 5G 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's Regulated Substances Specification describes Apple's restrictions on the use of certain chemical substances in materials in Apple products, accessories, manufacturing processes, and packaging used for shipping products to Apple's end-customers. Restrictions are derived from international laws or directives, regulatory agencies, eco-label requirements, environmental standards, and Apple policies. Every Apple product is free of PVC and phthalates except for 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. Apple products comply with the European Union Directive 2011/65/EU and its amendments, including exemptions for the use of lead such as high-temperature solder. Apple is working to phase out the use of these exempted substances for new products where technically possible.

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