

## Tech Specs

### Processor

- Dual-core Apple A5X custom-designed, high-performance, low-power system-on-a-chip with quad-core graphics

### Display

- Retina display
- 9.7-inch (diagonal) LED-backlit glossy widescreen Multi-Touch display with IPS technology
- 2048-by-1536-pixel resolution at 264 pixels per inch (ppi)
- Fingerprint-resistant oleophobic coating
- Support for display of multiple languages and characters simultaneously

### Power and Battery

- Built-in 42.5-watt-hour rechargeable lithium-polymer battery
- Up to 10 hours of surfing the web on Wi-Fi, watching video or listening to music<sup>1</sup>
- Up to 9 hours of surfing the web using cellular data network<sup>1</sup>
- Charging via power adapter or USB to computer system

### Input and Output

- 30-pin dock connector port
- 3.5-mm stereo headphone minijack
- Built-in speaker
- Microphone

### Audio Playback

- Frequency response: 20Hz to 20,000Hz
- Audio formats supported: HE-AAC (V1 and V2), AAC (8 to 320 Kbps), Protected AAC (from iTunes Store), MP3 (8 to 320 Kbps), MP3 VBR, Audible (formats 2, 3, and 4, Audible Enhanced Audio, AAX, and AAX+), Apple Lossless, AIFF, and WAV
- User-configurable maximum volume limit
- Dolby Digital 5.1 surround sound pass-through with Apple Digital AV Adapter (sold separately)

## Camera, Photos, and Video

- 5-megapixel iSight camera
- Autofocus
- Tap to focus
- Face detection in still images
- Video recording, HD (1080p) up to 30 frames per second with audio
- Video stabilization
- FaceTime camera with VGA-quality photos and video at up to 30 frames per second
- Photo and video geotagging

## Wireless

- Wi-Fi (802.11a/b/g/n)
- Bluetooth 4.0 technology

## TV and Video

- AirPlay Mirroring to Apple TV (2nd and 3rd generation) at 720p
- AirPlay video streaming to Apple TV (3rd generation) at up to 1080p and Apple TV (2nd generation) at up to 720p
- Video mirroring and video out support: Up to 1080p with Apple Digital AV Adapter or Apple VGA Adapter (adapters sold separately)
- Video out support at 576i and 480i with Apple Composite AV Cable (cable sold separately)
- Video formats supported: H.264 video up to 1080p, 30 frames per second, High Profile level 4.1 with AAC-LC audio up to 160 Kbps, 48kHz, stereo audio in .m4v, .mp4, and .mov file formats; MPEG-4 video up to 2.5 Mbps, 640 by 480 pixels, 30 frames per second, Simple Profile with AAC-LC audio up to 160 Kbps per channel, 48kHz, stereo audio in .m4v, .mp4, and .mov file formats; Motion JPEG (M-JPEG) up to 35 Mbps, 1280 by 720 pixels, 30 frames per second, audio in ulaw, PCM stereo audio in .avi file format

### 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)

## Languages

- Language support for English (U.S.), English (UK), Chinese (Simplified), Chinese (Traditional), French, German, Italian, Japanese, Korean, Spanish, Arabic, Catalan, Croatian, Czech, Danish, Dutch, Finnish, Greek, Hebrew, Hungarian, Indonesian, Malay, Norwegian, Polish, Portuguese, Portuguese (Brazil), Romanian, Russian, Slovak, Swedish, Thai, Turkish, Ukrainian, Vietnamese
- Keyboard support for English (U.S.), English (UK), Chinese – Simplified (Handwriting, Pinyin, Stroke), Chinese – Traditional (Handwriting, Pinyin, Zhuyin, Cangjie, Stroke), French, French (Canadian), French (Switzerland), German (Germany), German (Switzerland), Italian, Japanese (Romaji, Kana), Korean, Spanish, Arabic, Bulgarian, Catalan, Cherokee, Croatian, Czech, Danish, Dutch, Emoji, Estonian, Finnish, Flemish, Greek, Hawaiian, Hebrew, Hindi, Hungarian, Icelandic, Indonesian, Latvian, Lithuanian, Macedonian, Malay, Norwegian, Polish, Portuguese, Portuguese (Brazil), Romanian, Russian, Serbian (Cyrillic/Latin), Slovak, Swedish, Thai, Tibetan, Turkish, Ukrainian, Vietnamese
- Dictionary support (enables predictive text and autocorrect) for English (U.S.), English (UK), Chinese (Simplified), Chinese (Traditional), French, French (Canadian), French (Switzerland), German, Italian, Japanese (Romaji, Kana), Korean, Spanish, Arabic, Catalan, Cherokee, Croatian, Czech, Danish, Dutch, Estonian, Finnish, Flemish, Greek, Hawaiian, Hebrew, Hindi, Hungarian, Indonesian, Latvian, Lithuanian, Malay, Norwegian, Polish, Portuguese, Portuguese (Brazil), Romanian, Russian, Slovak, Swedish, Thai, Turkish, Ukrainian, Vietnamese
- Dictation support for English (U.S., UK, and Australian), French, German, Japanese

### Location

- Digital compass
- Wi-Fi

## Accessibility

- VoiceOver screen reader
- Support for playback of closed-captioned content
- AssistiveTouch interface for adaptive accessories
- Full-screen zoom magnification
- White on black display
- Left/right volume adjustment

### Size and weight

- Height: 9.50 inches (241.2 mm)
- Width: 7.31 inches (185.7 mm)
- Depth: 0.37 inch (9.41 mm)
- Weight: Wi-Fi only 1.44 pounds (652 g) / Wi-Fi + Cellular 1.46 pounds (662 g)<sup>2</sup>

## System Requirements

- Apple ID (required for some features)
- Internet access<sup>3</sup>
- Syncing with iTunes on a Mac or PC requires:
  - Mac: OS X v10.5.8 or later
  - PC: Windows 7; Windows Vista; or Windows XP Home or Professional with Service Pack 3 or later
  - iTunes 10.6 or later

## Environmental Requirements

Operating ambient temperature: 0° to 35° C (32° to 95° F), Non-operating temperature: -20° to 45° C (-4° to 113° F), Relative humidity: 5% to 95% non-condensing and Maximum operating altitude: 10,000 feet (3000 m).

iPad embodies Apple's continuing environmental progress. It is designed with the following features to reduce environmental impact:

- Mercury-free LCD display
- Arsenic-free display glass
- BFR-free
- PVC-free
- Recyclable aluminum and glass enclosure



1. Testing conducted by Apple in February 2012 using preproduction iPad units and software. Testing consisted of full battery discharge while performing each of the following tasks: video playback, audio playback, and Internet browsing using Wi-Fi or cellular data network. Video content was a repeated 2-hour 23-minute movie purchased from the iTunes Store. Audio content was a playlist of 358 unique songs, consisting of a combination of songs imported from CDs using iTunes (128-Kbps AAC encoding) and songs purchased from the iTunes Store (256-Kbps AAC encoding). Internet over Wi-Fi and cellular data network tests were conducted using dedicated web and mail servers, browsing snapshot versions of 20 popular web pages, and receiving mail once an hour. 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. Battery life depends on device settings, usage, and many other factors. Battery tests are conducted using specific iPad units; actual results may vary.

2. Actual size and weight vary by configuration and manufacturing process.

3. Wireless broadband recommended; fees may apply.