iPad Pro (2020)



Display

Liquid Retina display 11-inch (diagonal) LED-backlit Multi-Touch display with IPS technology 2388-by-1668-pixel resolution at 264 pixels per inch (ppi) ProMotion technology Wide color display (P3) True Tone display Fingerprint-resistant oleophobic coating Fully laminated display Antireflective coating 1.8% reflectivity 600 nits brightness Liquid Retina display 12.9-inch (diagonal) LED-backlit Multi-Touch display with IPS technology 2732-by-2048-pixel resolution at 264 pixels per inch (ppi) ProMotion technology Wide color display (P3) True Tone display Fingerprint-resistant oleophobic coating Fully laminated display Antireflective coating 1.8% reflectivity 600 nits brightness

Chip

A12Z Bionic chip with 64-bit architecture Neural Engine Embedded M12 coprocessor

Camera

Wide: 12MP, *f*/1.8 aperture Ultra Wide: 10MP, *f*/2.4 aperture, and 125° field of view 2x optical zoom out; digital zoom up to 5x Five-element lens (Wide and Ultra Wide) Brighter True Tone flash Panorama (up to 63MP) Sapphire crystal lens cover Backside illumination sensor Hybrid IR filter Autofocus with Focus Pixels (Wide) Tap to focus with Focus Pixels (Wide) Wide color capture for photos and Live Photos Exposure control Noise reduction Smart HDR for photos Auto image stabilization Burst mode

Timer mode Photo geotagging Image formats captured: HEIF and JPEG

Video Recording4K video recording at 24 fps, 30 fps, or 60 fps (Wide); 60 fps (Ultra Wide)1080p HD video recording at 30 fps or 60 fps720p HD video recording at 30 fpsBrighter True Tone flashSlo-mo video support for 1080p at 120 fps or 240 fps (Wide); 240 fps (Ultra Wide)Time-lapse video with stabilizationCinematic video stabilization (1080p and 720p)Continuous autofocus videoNoise reductionTake 8MP still photos while recording 4K videoPlayback zoomVideo geotaggingVideo formats captured: HEVC and H.264

TrueDepth Camera7MP photosPortrait modePortrait LightingAnimoji and Memoji1080p HD video recording at 30 fps or 60 fpsRetina Flashf/2.2 apertureWide color capture for photos and Live PhotosSmart HDRBackside illumination sensorAuto image stabilizationBurst modeExposure controlTimer mode

Video Calling

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

Speakers	Four speaker audio
Microphones	Five studio-quality microphones for calls, video recording, and audio recording
Cellular and Wireless	All models 802.11ax Wi-Fi 6; simultaneous dual band (2.4GHz and 5GHz); HT80 with MIMO Bluetooth 5.0 technology
	Wi-Fi + Cellular models UMTS/HSPA/HSPA+/DC-HSDPA (850, 900, 1700/2100, 1900, 2100 MHz); GSM/EDGE (850, 900, 1800, 1900 MHz) Gigabit-class LTE (Models A2068 and A2069: 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, 46, 48, 66, 71) Data only Wi-Fi calling eSIM
SIM Card	Nano-SIM (supports Apple SIM) eSIM
Location	All models Digital compass Wi-Fi iBeacon microlocation Wi-Fi + Cellular models Built-in GPS/GNSS Cellular

Face ID LiDAR Scanner Three-axis gyro Accelerometer Barometer Ambient light sensor

Face ID

Enabled by TrueDepth camera for facial recognition 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 Face ID within apps and on the web Send and receive money in Messages

Siri

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

Charging and Expansion

USB-C

Power and Battery

iPad Pro 11-inch Built-in 28.65-watt-hour rechargeable lithium-polymer battery iPad Pro 12.9-inch Built-in 36.71-watt-hour rechargeable lithiumpolymer battery

All models 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.

Accessibility

Accessibility features help people with disabilities get the most out of their new iPad Pro. With built-in support for vision, hearing, mobility, and learning, you can create and do amazing things.

Features include:

- VoiceOverMagnifier
- Voice Control
- Siri and Dictation
- Closed Captions
- AssistiveTouch
- Zoom
- Switch Control
- Speak Screen

System Requirements	Apple ID (required for some features) Internet access
	Syncing to a Mac or 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 12.10 or later

Audio Playback	Audio formats supported: AAC (8 to 320 Kbps), Protected AAC (from iTunes Store), HE-AAC, MP3 (8 to 320 Kbps), MP3 VBR, Dolby Digital (AC-3), Dolby Digital Plus (E-AC-3), Dolby Atmos, Audible (formats 2, 3, 4, Audible Enhanced Audio, AAX, and AAX+), Apple Lossless, AIFF, and WAV	
	User-configurable maximum volume limit	
TV and Video	AirPlay Mirroring, photos, audio, and video out to Apple TV (2nd generation or later)	
	Supports Dolby Vision and HDR10 content	
	Video mirroring and video out support: Up to 4K through USB-C Digital AV Multiport Adapter and USB-C VGA Multiport Adapter (adapters sold separately)	
	Video formats supported: H.264 video up to 4K, 30 frames per second, High Profile level 4.2 with AAC-LC audio up to 160 Kbps, 48kHz, stereo audio or Dolby Audio up to 1008 Kbps,	

with AAC-LC audio up to 160 Kbps, 48kHz, stereo audio or Dolby Audio up to 1008 Kbps, 48kHz, stereo or multichannel 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 or Dolby Audio up to 1008 Kbps, 48kHz, stereo or multichannel 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	Viewable document types
Support	.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

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)