

iPhone 16 Pro

The **iPhone 16 Pro** and **iPhone 16 Pro Max** are smartphones developed and marketed by Apple Inc. Alongside the iPhone 16 and iPhone 16 Plus, they form the eighteenth generation of the iPhone, succeeding the iPhone 15 Pro and iPhone 15 Pro Max, and were announced on September 9, 2024, and released on September 20, 2024. The iPhone 16 Pro and iPhone 16 Pro Max include larger 6.3-inch and 6.9-inch displays, a faster processor, upgraded wide and ultra-wide cameras, support for Wi-Fi 7, larger batteries, and come pre-installed with the iOS 18 operating system.

Specifications

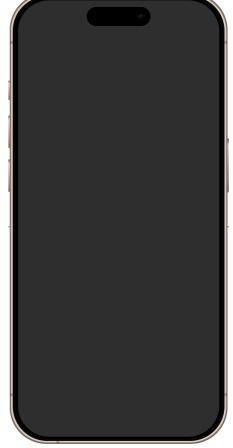
Design and display

The iPhone 16 Pro models continue the edge-to-edge display design but introduce thinner display borders, giving them the thinnest borders of any Apple product to date; iPhone 16 Pro and iPhone 16 Pro Max feature larger 6.3-inch and 6.9-inch Super Retina XDR OLED displays, respectively, with iPhone 16 Pro Max offering the largest iPhone display ever. [4] Both models have always-on 19.5:9 aspect ratio displays, with 460 ppi density from a 2622 × 1206 (Pro) and 2868 × 1320 (Pro Max) resolution. Both are 120 Hz, HDR10, with 1000 nits brightness typical and 2000 nits at peak.

Both Pro models come in four new colors, Desert Titanium, Natural Titanium, White Titanium and Black Titanium, offering a lightweight, scratch-resistant exterior. [5] The Desert Titanium color replaced the Blue Titanium color used on the iPhone 15 Pro and iPhone 15 Pro Max.

iPhone 16 Pro iPhone 16 Pro Max

≰iPhone 16 Pro **≰**iPhone 16 Pro Max



iPhone 16 Pro in Desert Titanium

Developer	Apple
<u>Manufacturer</u>	Foxconr

Type Smartphone
Series iPhone Pro

Compatible 2G GSM/EDGE, 3G

networks UMTS/HSPA+, 4G LTE, 5G

NR

First released September 9, 2024

Predecessor iPhone 15 Pro and 15 Pro

Max

Related iPhone 16 and 16 Plus

Form factor Slate

Color	Name
	Desert Titanium
	Natural Titanium
	White Titanium
	Black Titanium

Hardware

The iPhone 16 Pro models are powered by the Apple A18 Pro chip, built using a second-generation 3-nanometer process (TSMC N3E), significantly enhancing performance, especially in AI-related tasks. This chip includes a 6-core CPU, 6-core GPU, and a 16-core Neural Engine with a speed of 35 trillion-operations-per-second that accelerates machine learning capabilities, allowing for seamless integration of Apple Intelligence features. Both models offer 8 GB of memory and storage options ranging from 128 GB (256 GB for Pro Max) to 1 TB. [6][7][8]

All iPhone 16 models have an improved thermal design. The main logic board has been updated, centralizing chip placement and optimizing the surrounding architecture. The iPhone 16 Pro lineup maximizes thermal capacity with a machined chassis that uses 100 percent recycled aluminum, bonded to the titanium frame using solid state diffusion. This is combined with a graphite clad aluminum substructure. The new thermal architecture enables a 20 percent improvement in sustained gaming performance compared to the A₁₇ Pro. [9]

Every model in the iPhone 16 lineup has support for Wi-Fi 7 (802.11a/b/g/n/ac/ax/be). In a teardown by iFixit, the US model's modem was shown to be a Qualcomm SDX71M-000.

Camera

The iPhone 16 Pro introduces an upgraded camera system, with three rear cameras and a <u>lidar</u> scanner. It features a "wide", "ultrawide" and "telephoto" lens. The wide camera is 48 megapixels, with sensor-shift optical image stabilization (OIS) and dual-pixel <u>phase detection auto focus</u> (PDAF). The ultrawide camera is 48 MP with a 120-degree field of view, optimized for low-light conditions. A 5× optical

Colors	Desert Titanium
	Natural Titanium
	White Titanium
	Black Titanium
Dimensions	16 Pro:
	H: 149.6 mm (5.89 in)
	W: 71.5 mm (2.81 in)
	D: 8.25 mm (0.325 in)
	16 Pro Max:
	H: 163.0 mm (6.42 in)
	W: 77.6 mm (3.06 in)
	D: 8.25 mm (0.325 in)
Weight	16 Pro: 199 g (7.0 oz)
	16 Pro Max: 227 g (8.0 oz)
Operating system	Original: iOS 18.0 Current: iOS 18.1, released
<u> </u>	October 28, 2024 ^[1]
System-on- chip	Apple A18 Pro
Memory	8 GB ^[2]
Storage	128 GB (Pro only), 256 GB, 512 GB, 1 TB NVMe
Removable	No
storage	
SIM	Dual eSIM (US models)
	Dual nano-SIM (mainland China models)
	Dual nano-SIM and eSIM
	(Hong Kong and Macau models)
	nano-SIM and eSIM
	(worldwide except the US and China)
Battery	3582 <u>mAh</u> <u>Li-ion</u> , non-removable
Charging	MagSafe and Qi 2 wireless charging
	USB-C fast-charge capable
Rear camera	48 MP, f/1.8, 24mm (wide)
	12 MP, f/2.8, 120mm
	(periscope telephoto)

zoom telephoto camera, which was previously exclusive to the iPhone 15 Pro Max, now comes standard on both models. In addition, video recording now supports $\underline{4K}$ at 120 frames per second, offering the iPhone's highest resolution and frame rate combination yet and is the only iPhone to record in 4k in slow motion. $\underline{^{[12]}}$

Camera control button

All iPhone 16 models now come with a new button called Camera Control. This button is on the right side of the device, and allows the user to open the camera app, switch between different camera controls and features, and taking photos and videos. The button can distinguish between light and hard presses. By pressing the button once, it opens the camera app. By lightly pressing it twice, it opens a small menu with different camera controls, such as zoom or tone, and if a user press it hard once, it takes a photo. If a user holds it for a few seconds, it starts a video. [13]

Software

One of the iPhone 16 Pro's flagship features is its integration with Apple Intelligence, a suite of AIcapabilities that leverage driven on-device processing for privacy-focused tasks. Apple Intelligence enhances Siri's functionality, improving natural language understanding and introducing generative features such as custom emojis and Visual Intelligence, which can analyze photos and identify objects in real-time. The AI capabilities are designed to run on-device, minimizing data sharing with external servers.

Release and pricing

48 MP, *f*/2.2, 13mm (ultrawide)

TOF 3D LiDAR scanner

Front camera 12 MP, *f*/1.9, 23mm (wide),

1/3.6", PDAF, OIS

SL 3D, (depth/biometrics

sensor)

Display 16 Pro: 6.3-inch

16 Pro Max: 6.9-inch

LTPO Super Retina XDR OLED, 120Hz, HDR10, Dolby Vision, 1000 nits (typ), 2000

nits (HBM)

Sound Dolby Atmos-tuned Spatial

Audio

Connectivity Wi-Fi 7 dual-band

Bluetooth 5.3 (A2DP, LE) Ultra-wideband (UWB)

Thread

NFC (reader mode, Express

Cards)

LEO satellite (Globalstar,

limited)

USB-C: USB 3.2 10Gb/s
Dual-frequency GPS (L1, L5),
GLONASS, Galileo, QZSS,

BeiDou, NavIC

Data inputs List of inputs:

Precision dual-frequency

<u>GNSS</u> (<u>GPS</u>, <u>GLONASS</u>,

<u>Galileo</u>, <u>QZSS</u>, <u>BeiDou</u> and

NaviC)

Multi-touch screen

LiDAR scanner

3-mic configuration

Embedded motion

coprocessor

3-axis gyroscope

3-axis accelerometer

iBeacon

Barometer

Digital compass

Proximity sensor

Ambient light sensor

Pre-orders for iPhone 16 Pro and iPhone 16 Pro Max began on September 13, 2024, and they became available on September 20, 2024. The iPhone 16 Pro model starts at \$999, while the Pro Max model starts at \$1,199. [14]

Availability by region

September 20, 2024

- Australia
- Austria
- Bahrain
- Brazil
- Belgium
- Canada
- China
- Croatia
- Czech Republic
- Denmark
- Finland
- France
- Germany
- Greece
- Hong Kong
- Hungary
- India
- Italy
- Ireland
- Japan
- Luxembourg
- Malaysia
- Mexico
- Netherlands
- New Zealand
- Norway

Oman

- Poland
- Portugal
- Qatar
- Saudi Arabia
- Serbia
- Singapore
- Slovakia
- South Africa
- South Korea
- Spain
- Sweden
- Switzerland
- Taiwan
- Thailand
- Turkey
- United Arab Emirates
- United Kingdom
- United States

September 27, 2024

- Macao
- Vietnam

October 18, 2024

- Bangladesh
- Israel
- Philippines

Face ID Water IP68 dust/water resistant (up resistance to 6 m for 30 mins) Hearing aid M3, T4 compatibility Other Face ID, accelerometer, gyro, proximity, compass, barometer Ultra Wideband (UWB) support (gen2 chip) Emergency SOS, Messages and Find My via satellite Website www.apple.com/iphone-16pro/ (http://www.apple.com/ip hone-16-pro/) [3] References

Indonesian sales ban

On October 20, 2024, the Indonesian Ministry of Industry announced a formal ban on the sale and use of iPhone 16 models in Indonesia, citing that Apple has not fulfilled their promised investments in the country. [15]

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External links

■ iPhone 16 Pro (https://www.apple.com/iphone-16-pro) – official website

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