

# iPhone 6 (Released September 2014)

## Design & Build

- **Materials:** Aluminum unibody with a smooth, rounded finish
- **Dimensions:** 138.1 x 67.0 x 6.9 mm
- **Weight:** 129 grams
- **Finish Options:** Silver, Gold, Space Gray

## Display

- **Type:** LED-backlit IPS LCD (Retina HD)
- **Size:** 4.7 inches
- **Resolution:** 1334 x 750 pixels (~326 ppi)
- **Viewing:** Dual-domain pixels for wider viewing angles, 1400:1 contrast ratio

## Performance

- **Processor:** Apple A8 chip (dual-core, 64-bit architecture)
- **Motion Coprocessor:** M8 for sensor fusion and low-power processing
- **RAM:** Approximately 1 GB

## Storage Options

- **Capacities:** 16 GB, 64 GB, 128 GB (non-expandable)

## Camera System

- **Rear Camera:**
  - 8 MP sensor
  - Aperture: f/2.2
  - Features: Autofocus with Focus Pixels, True Tone flash
  - Video: 1080p HD recording at 30 fps (or 60 fps in some modes), slo-mo at 720p
- **Front Camera:**
  - 1.2 MP FaceTime HD
  - Aperture: f/2.2
  - Video: 720p HD recording

## Battery & Power

- **Type:** Built-in rechargeable lithium-ion battery
- **Capacity:** ~1810 mAh
- **Usage:** Up to 14 hours talk time on 3G; up to 10 days standby
- **Charging:** Standard 5W charging (no fast-charge support)

## Operating System & Connectivity

- **OS:** Shipped with iOS 8; upgradeable up to iOS 12
- **Wireless:** Wi-Fi 802.11a/b/g/n/ac, Bluetooth 4.0, LTE support
- **Other:** Integrated Touch ID fingerprint sensor; Apple Pay (NFC) capabilities

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# iPhone 7 (Released September 2016)

## Design & Build

- **Materials:** Aerospace-grade aluminum unibody with improved water/dust resistance
- **Dimensions:** 138.3 x 67.1 x 7.1 mm
- **Weight:** 138 grams
- **Finish Options:** Jet Black, Black, Silver, Gold, Rose Gold, (PRODUCT)RED
- **Water Resistance:** Rated IP67

## Display

- **Type:** Retina HD IPS LCD
- **Size:** 4.7 inches
- **Resolution:** 1334 x 750 pixels (~326 ppi)
- **Color:** Wide color (P3) support with up to 625 cd/m<sup>2</sup> brightness

## Performance

- **Processor:** Apple A10 Fusion chip (quad-core: 2 high-performance and 2 high-efficiency cores)
- **Motion Coprocessor:** M10
- **RAM:** 2 GB

## Storage Options

- **Capacities:** 32 GB, 128 GB, 256 GB

## Camera System

- **Rear Camera:**
  - 12 MP sensor
  - Aperture: f/1.8
  - Features: Optical image stabilization, Quad-LED True Tone flash
  - Video: 4K recording at 30 fps; 1080p at 30/60 fps; slow-motion at 1080p (120 fps) and 720p (240 fps)
- **Front Camera:**
  - 7 MP FaceTime HD sensor
  - Aperture: f/2.2
  - Video: 1080p recording

## Battery & Power

- **Type:** Built-in lithium-ion battery
- **Usage:** Similar talk and standby performance as its predecessor
- **Charging:** Standard charging; supports fast-charge accessories (adapter sold separately)

## Operating System & Connectivity

- **OS:** Initially released with iOS 10; upgradable to iOS 15
- **Wireless:** Wi-Fi 802.11a/b/g/n/ac, Bluetooth 4.2, LTE Advanced

- **Other:** Stereo speakers; no 3.5 mm headphone jack; Touch ID sensor; Apple Pay support
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# iPhone X (Released November 2017)

## Design & Build

- **Materials:** Glass front and back with a surgical-grade stainless steel frame
- **Dimensions:** 143.6 x 70.9 x 7.7 mm
- **Weight:** 174 grams
- **Finish Options:** Silver and Space Gray
- **Notable:** Introduction of edge-to-edge display and removal of Home button

## Display

- **Type:** Super Retina OLED
- **Size:** 5.8 inches
- **Resolution:** 2436 x 1125 pixels (~458 ppi)
- **Features:** HDR10, Dolby Vision, True Tone technology

## Performance

- **Processor:** Apple A11 Bionic chip (six-core CPU: 2 performance cores + 4 efficiency cores)
- **Graphics:** 3-core GPU
- **RAM:** 3 GB

## Storage Options

- **Capacities:** 64 GB, 256 GB

## Camera System

- **Rear Cameras:**  
Dual-camera system
  - **Wide-angle:** 12 MP sensor, f/1.8 aperture
  - **Telephoto:** 12 MP sensor, f/2.4 aperture
  - **Features:** Dual optical image stabilization; Portrait mode; 2x optical zoom
  - **Video:** 4K recording (24/30/60 fps), 1080p HD, slo-mo video
- **Front Camera:**
  - 7 MP TrueDepth sensor
  - Supports Face ID for secure authentication
  - Video: 1080p recording

## Battery & Power

- **Type:** Built-in rechargeable lithium-ion battery
- **Capacity:** ~2716 mAh (approximate)
- **Charging:** Supports fast charging (up to 50% in ~30 minutes with an 18W adapter) and Qi-wireless charging

## Operating System & Connectivity

- **OS:** Originally shipped with iOS 11; upgradeable to iOS 16
  - **Wireless:** Wi-Fi 802.11ac with MIMO, Bluetooth 5.0, LTE Advanced
  - **Other:** Facial recognition via Face ID; Animoji; Dual SIM (nano-SIM and eSIM)
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# iPhone 12 (Released October 2020)

## Design & Build

- **Materials:** Aerospace-grade aluminum frame with Ceramic Shield front cover, glass back
- **Dimensions:** 146.7 x 71.5 x 7.4 mm
- **Weight:** 162 grams
- **Finish Options:** Multiple colors including Blue, Green, (PRODUCT)RED, White, and Black
- **Water Resistance:** IP68 rating

## Display

- **Type:** Super Retina XDR OLED
- **Size:** 6.1 inches
- **Resolution:** 2532 x 1170 pixels (~460 ppi)
- **Features:** HDR10, Dolby Vision, True Tone, wide-color (P3) gamut

## Performance

- **Processor:** Apple A14 Bionic chip (hexacore with 2 performance and 4 efficiency cores)
- **Neural Engine:** Enhanced machine learning capabilities

- **RAM:** 4 GB

## Storage Options

- **Capacities:** 64 GB, 128 GB, 256 GB

## Camera System

- **Rear Cameras:**  
Dual-camera setup
  - **Wide:** 12 MP sensor, f/1.6 aperture
  - **Ultra-wide:** 12 MP sensor, f/2.4 aperture, 120° field of view
  - **Features:** Night mode, Deep Fusion, Smart HDR 3, 4K Dolby Vision HDR video up to 30 fps
- **Front Camera:**
  - 12 MP TrueDepth sensor
  - Supports Night mode and 4K Dolby Vision HDR recording

## Battery & Power

- **Type:** Built-in lithium-ion battery
- **Capacity:** ~2815 mAh
- **Charging:** Supports fast charging (50% in ~30 minutes with a 20W adapter) and MagSafe wireless charging up to 15W

## Operating System & Connectivity



- **OS:** Launched with iOS 14; upgradeable to iOS 18
  - **Wireless:** 5G capable; Wi-Fi 6; Bluetooth 5.0; Ultra Wideband (UWB) chip
  - **Other:** Dual SIM capability (nano-SIM and eSIM); Face ID
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# iPhone 14 Pro Max (Released September 2022)

## Design & Build

- **Materials:** Stainless steel frame with Ceramic Shield front and textured matte glass back
- **Dimensions:** Approximately 160.7 x 77.6 x 7.85 mm
- **Weight:** ~240 grams
- **Finish Options:** Multiple finishes including Space Black, Silver, Gold, and Deep Purple
- **Notable:** Introduction of the Dynamic Island interface, Always-on display

## Display

- **Type:** Super Retina XDR OLED with ProMotion technology (adaptive refresh up to 120 Hz)
- **Size:** 6.7 inches
- **Resolution:** ~2778 x 1284 pixels (~458 ppi)
- **Features:** HDR10, Dolby Vision, True Tone, high brightness levels

## Performance

- **Processor:** Apple A16 Bionic chip

- **RAM:** 6 GB (optimized for iOS performance)
- **Neural Engine:** Advanced for real-time processing and machine learning

## Storage Options

- **Capacities:** 128 GB, 256 GB, 512 GB, 1 TB

## Camera System

- **Rear Cameras:**  
Triple-camera array
  - **Main (Wide):** 48 MP sensor, f/1.5 aperture
  - **Ultra-wide:** 12 MP sensor, f/1.8–2.2 aperture
  - **Telephoto:** 12 MP sensor, f/2.8 aperture with 3x optical zoom
  - **Features:** Photonic Engine for enhanced low-light performance, ProRAW, ProRes video recording, LiDAR scanner
- **Front Camera:**
  - 12 MP TrueDepth sensor
  - Supports Night mode and 4K video recording

## Battery & Power

- **Type:** Built-in rechargeable lithium-ion battery
- **Capacity:** Estimated around 4320–4400 mAh
- **Charging:** Fast charging support and MagSafe wireless charging

## Operating System & Connectivity

- **OS:** Shipped with iOS 16; upgradeable to iOS 18
  - **Wireless:** 5G, Wi-Fi 6, Bluetooth 5.3
  - **Other:** Dual SIM (nano-SIM and eSIM), Face ID, enhanced spatial audio and stereo speakers
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# iPhone 16 Pro Max (Released September 2024)

## Design & Build

- **Materials:** (Official details pending full disclosure) – Expected to feature a premium build with a titanium frame and refined glass
- **Dimensions & Weight:** Exact measurements remain officially undisclosed, though a slight increase in size is anticipated for the larger display
- **Finish Options:** Rumored to offer new color variants and finishes

## Display

- **Type:** Next-generation Super Retina XDR LTPO OLED with ProMotion technology
- **Size:** 6.9 inches
- **Resolution:** Expected around 2796 x 1290 pixels (optimized for clarity and efficiency)
- **Features:** Adaptive refresh rate up to 120 Hz, enhanced HDR support, improved brightness and power efficiency

## Performance

- **Processor:** Apple A18 Pro chip (expected to feature significant performance and energy-efficiency improvements)

- **RAM:** Likely increased (rumored around 8 GB) to support more demanding tasks and multitasking
- **Neural Engine:** Advanced for real-time AI processing and augmented reality experiences

## Storage Options

- **Capacities:** 256 GB, 512 GB, 1 TB, and a 2 TB variant for high-demand users

## Camera System

- **Rear Cameras:**
  - Triple-camera setup with an upgraded 48 MP main sensor optimized with advanced computational photography
  - Ultra-wide and telephoto sensors with further improvements in low-light performance and optical zoom
  - Additional photography features likely include enhanced Night mode, ProRAW, and next-generation video recording capabilities
- **Front Camera:**
  - 12 MP TrueDepth sensor with improvements in low-light performance and high-resolution video recording

## Battery & Power

- **Type:** Built-in advanced lithium-ion battery
- **Capacity:** Expected to be higher than previous models (rumored in the 5000 mAh range) for extended battery life
- **Charging:** Fast charging, enhanced MagSafe wireless charging, and possibly new power-optimization features

## Operating System & Connectivity

- **OS:** Shipped with iOS 18, featuring new multitasking and privacy features
  - **Wireless:**
    - 5G connectivity with faster data rates
    - Wi-Fi 6E (or newer standard)
    - Bluetooth 5.3
    - Advanced Ultra Wideband (UWB) capabilities
  - **Other:** Expected enhancements to Face ID, spatial audio, and additional sensor integration for AR and fitness tracking
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*Note:* While the iPhone 6, 7, X, 12, and 14 Pro Max have well-documented specifications from their release cycles, details for the iPhone 16 Pro Max are based on the latest announcements and industry expectations as of its September 2024 release. For region-specific details and any software updates beyond iOS 18, please refer to Apple's official documentation and support pages