

## iPhone 16 Pro – Detailed Specifications

### General Information:

- Model Name: iPhone 16 Pro
- Release Date: September 2024
- Price (India): ₹1,19,900 for 128GB variant (source: indianexpress.com)
- Operating System: iOS 18

### Design & Build:

- Material: Grade 5 Titanium frame with textured matte glass back
- Front Protection: Ceramic Shield (2x tougher than previous glass)
- IP Rating: IP68 (water-resistant up to 6 meters for 30 minutes) (source: apple.com)
- Dimensions: 149.6 x 71.5 x 8.25 mm
- Weight: 199 grams
- Color Options: Black Titanium, White Titanium, Natural Titanium, Desert Titanium (source: apple.com)

### Display:

- Type: 6.3-inch Super Retina XDR OLED
- Resolution: 2622 x 1206 pixels (~460 ppi)
- Features: ProMotion (up to 120Hz), Always-On display, HDR10, Dolby Vision, True Tone, Wide color (P3), Haptic Touch
- Brightness: 1000 nits (typical), 1600 nits (HDR), 2000 nits (peak outdoor) (source: apple.com)

### Performance:

- Chipset: A18 Pro
  - CPU: 6-core (2 performance cores, 4 efficiency cores)
  - GPU: 6-core
  - Neural Engine: 16-core
- RAM: 8GB
- Storage Options: 128GB, 256GB, 512GB, 1TB
- Antutu Score: Approximately 1,300,000

### Camera System:

- Rear Cameras:
  - 48MP Fusion (24mm, f/1.78, sensor-shift OIS)
  - 12MP 2x Telephoto (48mm, f/1.78, sensor-shift OIS)
  - 48MP Ultra Wide (13mm, f/2.2, 120° FOV)
  - 12MP 5x Telephoto (120mm, f/2.8, tetraprism design, 3D sensor-shift OIS)
- Zoom Capabilities:
  - Optical Zoom: 5x in, 2x out (10x total)
  - Digital Zoom: Up to 25x
- Video Recording:
  - 4K at 120fps (HDR, Dolby Vision)
  - ProRes video recording
  - Spatial audio recording with four studio-quality microphones (source: apple.com)
- Front Camera:
  - 12MP with Night Mode, Deep Fusion, Smart HDR 5

### Battery & Charging:

- Battery Capacity: 3,355 mAh
- Video Playback: Up to 27 hours
- Charging:
  - Wired: MagSafe and Qi2 wireless charging (up to 25W)
  - Fast Charging: Up to 80% in 25 minutes with 20W adapter or higher

### Connectivity:

- 5G: Sub-6 GHz and mmWave
- Wi-Fi: Wi-Fi 6E

- Bluetooth: Bluetooth 5.3
- Ultra-Wideband: U1 chip
- Ports: USB-C
- Audio: Stereo speakers with spatial audio

Additional Features:

- Face ID: TrueDepth camera system
- Apple Intelligence: AI-powered features for enhanced user experience
- Camera Control: Physical shutter button with tap and slide gestures for zoom, focus, and exposure adjustments (source: apple.com)
- Sensors: LiDAR Scanner, Barometer, Three-axis gyro, Accelerometer, Proximity sensor, Ambient light sensor

Summary Table:

Feature	Specification
Display	6.3" Super Retina XDR OLED, 2622 x 1206, 460 ppi
Processor	A18 Pro (6-core CPU, 6-core GPU, 16-core Neural Engine)
RAM	8GB
Storage Options	128GB, 256GB, 512GB, 1TB
Rear Cameras	48MP Fusion, 12MP 2x Telephoto, 48MP Ultra Wide, 12MP 5x Telephoto
Front Camera	12MP with Night Mode, Deep Fusion, Smart HDR 5
Battery Capacity	3,355 mAh
Video Playback	Up to 27 hours
Charging	MagSafe, Qi2 wireless (up to 25W), Fast Charging (80% in 25 minutes)
Weight	199 grams
IP Rating	IP68 (water-resistant up to 6 meters for 30 minutes)
Operating System	iOS 18
Price (India)	₹1,19,900 (128GB variant) (source: indianexpress.com)

iPhone 16 Pro Max – Detailed Specifications

General Information:

- Model Name: iPhone 16 Pro Max
- Release Date: September 2024
- Price (India): ₹1,45,000 for 256GB variant (source: indianexpress.com)
- Operating System: iOS 18.1

Design & Build:

- Material: Grade 5 Titanium frame with textured matte glass back
- Front Protection: Ceramic Shield (2x tougher than previous glass)
- IP Rating: IP68 (water-resistant up to 6 meters for 30 minutes) (source: apple.com)
- Dimensions: 159.9 x 76.7 x 8.3 mm
- Weight: 227 grams
- Color Options: Black Titanium, White Titanium, Natural Titanium, Desert Titanium (source: apple.com)

Display:

- Type: 6.9-inch LTPO Super Retina XDR OLED
- Resolution: 2868 x 1320 pixels (~460 ppi)
- Features: ProMotion (up to 120Hz), Always-On display, HDR10, Dolby Vision, True Tone, Wide color (P3), Haptic Touch
- Brightness: 1000 nits (typical), 1600 nits (HDR), 2000 nits (peak outdoor) (source: apple.com)

Performance:

- Chipset: A18 Pro

- CPU: 6-core (2 performance cores, 4 efficiency cores)
- GPU: 6-core
- Neural Engine: 16-core
- RAM: 8GB
- Storage Options: 256GB, 512GB, 1TB
- Antutu Score: Approximately 1,300,000

Camera System:

- Rear Cameras:
  - 48MP Fusion (24mm, f/1.78, sensor-shift OIS)
  - 12MP 2x Telephoto (48mm, f/1.78, sensor-shift OIS)
  - 48MP Ultra Wide (13mm, f/2.2, 120° FOV)
  - 12MP 5x Telephoto (120mm, f/2.8, tetraprism design, 3D sensor-shift OIS)
- Zoom Capabilities:
  - Optical Zoom: 5x in, 2x out (10x total)
  - Digital Zoom: Up to 25x
- Video Recording:
  - 4K at 120fps (HDR, Dolby Vision)
  - ProRes video recording
  - Spatial audio recording with four studio-quality microphones (source: apple.com)
- Front Camera:
  - 12MP with Night Mode, Deep Fusion, Smart HDR 5

Battery & Charging:

- Battery Capacity: 4,685 mAh
- Video Playback: Up to 33 hours
- Charging:
  - Wired: MagSafe and Qi2 wireless charging (up to 25W)
  - Fast Charging: Up to 80% in 30 minutes with 20W adapter or higher

Connectivity:

- 5G: Sub-6 GHz and mmWave
- Wi-Fi: Wi-Fi 6E
- Bluetooth: Bluetooth 5.3
- Ultra-Wideband: U1 chip
- Ports: USB-C
- Audio: Stereo speakers with spatial audio

Additional Features:

- Face ID: TrueDepth camera system
- Camera Control: Physical shutter button with tap and slide gestures for zoom, focus, and exposure adjustments (source: apple.com)
- Sensors: LiDAR Scanner, Barometer, Three-axis gyro, Accelerometer, Proximity sensor, Ambient light sensor

Summary Table:

Feature	Specification
Display	6.9" LTPO Super Retina XDR OLED, 2868 x 1320, 460 ppi
Processor	A18 Pro (6-core CPU, 6-core GPU, 16-core Neural Engine)
RAM	8GB
Storage Options	256GB, 512GB, 1TB
Rear Cameras	48MP Fusion, 12MP 2x Telephoto, 48MP Ultra Wide, 12MP 5x Telephoto
Front Camera	12MP with Night Mode, Deep Fusion, Smart HDR 5
Battery Capacity	4,685 mAh
Video Playback	Up to 33 hours
Charging	MagSafe, Qi2 wireless (up to 25W), Fast Charging (80% in 30 minutes)
Weight	227 grams
IP Rating	IP68 (water-resistant up to 6 meters for 30 minutes)
Operating System	iOS 18.1

| Price (India) | ₹1,45,000 (256GB variant) (source: indianexpress.com) |

## iPhone 16 – Detailed Specifications

### General Information:

- Model Name: iPhone 16
- Release Date: September 2024
- Price (India): ₹79,900 for 128GB variant (source: apple.com/in)
- Operating System: iOS 18

### Design & Build:

- Material: Aluminum frame with glass back
- Front Protection: Ceramic Shield (2x tougher than previous glass)
- IP Rating: IP68 (water-resistant up to 6 meters for 30 minutes)
- Dimensions: 147.6 x 71.6 x 7.8 mm
- Weight: 170 grams
- Color Options: Black, White, Pink, Blue, Green

### Display:

- Type: 6.1-inch Super Retina XDR OLED
- Resolution: 2556 x 1179 pixels (~460 ppi)
- Features: Dynamic Island, HDR10, Dolby Vision, True Tone, Wide color (P3), Haptic Touch
- Brightness: 1000 nits (typical), 1600 nits (HDR), 2000 nits (peak outdoor)

### Performance:

- Chipset: A18
  - CPU: 6-core (2 performance cores, 4 efficiency cores)
  - GPU: 4-core
  - Neural Engine: 16-core
- RAM: 6GB
- Storage Options: 128GB, 256GB, 512GB
- Antutu Score: Approximately 1,000,000

### Camera System:

- Rear Cameras:
  - 48MP Fusion (24mm, f/1.78, sensor-shift OIS)
  - 12MP Ultra Wide (13mm, f/2.2, 120° FOV)
- Zoom Capabilities:
  - Optical Zoom: 2x in, 2x out (4x total)
  - Digital Zoom: Up to 10x
- Video Recording:
  - 4K at 60fps (HDR, Dolby Vision)
  - Spatial audio recording with stereo microphones
- Front Camera:
  - 12MP with Night Mode, Deep Fusion, Smart HDR 5

### Battery & Charging:

- Battery Capacity: 3,279 mAh
- Video Playback: Up to 20 hours
- Charging:
  - Wired: USB-C
  - Wireless: MagSafe and Qi2 wireless charging (up to 15W)

### Connectivity:

- 5G: Sub-6 GHz
- Wi-Fi: Wi-Fi 6
- Bluetooth: Bluetooth 5.3

- Ultra-Wideband: U1 chip
- Ports: USB-C
- Audio: Stereo speakers with spatial audio

Additional Features:

- Face ID: TrueDepth camera system
- Camera Control: Physical shutter button with tap and slide gestures for zoom, focus, and exposure adjustments
- Sensors: LiDAR Scanner, Barometer, Three-axis gyro, Accelerometer, Proximity sensor, Ambient light sensor

Summary Table:

Feature	Specification
Display	6.1" Super Retina XDR OLED, 2556 x 1179, 460 ppi
Processor	A18 (6-core CPU, 4-core GPU, 16-core Neural Engine)
RAM	6GB
Storage Options	128GB, 256GB, 512GB
Rear Cameras	48MP Fusion, 12MP Ultra Wide
Front Camera	12MP with Night Mode, Deep Fusion, Smart HDR 5
Battery Capacity	3,279 mAh
Video Playback	Up to 20 hours
Charging	USB-C, MagSafe, Qi2 wireless (up to 15W)
Weight	170 grams
IP Rating	IP68 (water-resistant up to 6 meters for 30 minutes)
Operating System	iOS 18
Price (India)	₹79,900 (128GB variant) (source: apple.com/in)

iPhone 16 Plus – Detailed Specifications

General Information:

- Model Name: iPhone 16 Plus
- Release Date: September 2024
- Price (India): ₹79,900 for 128GB variant (source: apple.com/in)
- Operating System: iOS 18

Design & Build:

- Material: Aluminium frame with color-infused glass back
- Front Protection: Ceramic Shield (2x tougher than previous glass)
- IP Rating: IP68 (water-resistant up to 6 meters for 30 minutes)
- Dimensions: 160.9 x 77.8 x 7.8 mm
- Weight: 199 grams
- Color Options: Black, White, Pink, Teal, Ultramarine

Display:

- Type: 6.7-inch Super Retina XDR OLED
- Resolution: 2796 x 1290 pixels (~460 ppi)
- Features: Dynamic Island, HDR10, Dolby Vision, True Tone, Wide color (P3), Haptic Touch
- Brightness: 1000 nits (typical), 1600 nits (HDR), 2000 nits (peak outdoor)

Performance:

- Chipset: A18
  - CPU: 6-core (2 performance cores, 4 efficiency cores)
  - GPU: 5-core
  - Neural Engine: 16-core
- RAM: 8GB
- Storage Options: 128GB, 256GB, 512GB
- Antutu Score: Approximately 1,000,000

- Camera System:
- Rear Cameras:
    - 48MP Fusion (24mm, f/1.78, sensor-shift OIS)
    - 12MP Ultra Wide (13mm, f/2.2, 120° FOV)
  - Zoom Capabilities:
    - Optical Zoom: 2x in, 2x out (4x total)
    - Digital Zoom: Up to 10x
  - Video Recording:
    - 4K at 60fps (HDR, Dolby Vision)
    - Spatial audio recording with stereo microphones
  - Front Camera:
    - 12MP with Night Mode, Deep Fusion, Smart HDR 5

- Battery & Charging:
- Battery Capacity: 4,323 mAh
  - Video Playback: Up to 33 hours
  - Charging:
    - Wired: USB-C
    - Wireless: MagSafe and Qi2 wireless charging (up to 15W)

- Connectivity:
- 5G: Sub-6 GHz
  - Wi-Fi: Wi-Fi 6
  - Bluetooth: Bluetooth 5.3
  - Ultra-Wideband: U1 chip
  - Ports: USB-C
  - Audio: Stereo speakers with spatial audio

- Additional Features:
- Face ID: TrueDepth camera system
  - Camera Control: Physical shutter button with tap and slide gestures for zoom, focus, and exposure adjustments
  - Sensors: LiDAR Scanner, Barometer, Three-axis gyro, Accelerometer, Proximity sensor, Ambient light sensor

Summary Table:	
Feature	Specification
Display	6.7" Super Retina XDR OLED, 2796 x 1290, 460 ppi
Processor	A18 (6-core CPU, 5-core GPU, 16-core Neural Engine)
RAM	8GB
Storage Options	128GB, 256GB, 512GB
Rear Cameras	48MP Fusion, 12MP Ultra Wide
Front Camera	12MP with Night Mode, Deep Fusion, Smart HDR 5
Battery Capacity	4,323 mAh
Video Playback	Up to 33 hours
Charging	USB-C, MagSafe, Qi2 wireless (up to 15W)
Weight	199 grams
IP Rating	IP68 (water-resistant up to 6 meters for 30 minutes)
Operating System	iOS 18
Price (India)	₹79,900 (128GB variant) (source: apple.com/in)

**General Information:**

- Model Name: iPhone 16e
- Release Date: February 19, 2025
- Price (India): ₹59,900 for 128GB variant (source: timesofindia.indiatimes.com)
- Operating System: iOS 18.3.1

**Design & Build:**

- Material: Aluminum frame with glass back
- Front Protection: Ceramic Shield (2x tougher than previous glass)
- IP Rating: IP68 (water-resistant up to 6 meters for 30 minutes)
- Dimensions: 146.7 x 71.5 x 7.8 mm
- Weight: 172 grams
- Color Options: Black, White

**Display:**

- Type: 6.1-inch Super Retina XDR OLED
- Resolution: 2532 x 1170 pixels (~460 ppi)
- Features: HDR10, Dolby Vision, True Tone, Wide color (P3), Haptic Touch
- Brightness: 800 nits (typical), 1200 nits (HDR peak)
- Contrast Ratio: 2,000,000:1 (typical)
- Fingerprint-resistant oleophobic coating
- Display Zoom and Reachability

**Performance:**

- Chipset: Apple A18
  - CPU: 6-core (2 performance cores, 4 efficiency cores)
  - GPU: 4-core
  - Neural Engine: 16-core
- RAM: 8GB
- Storage Options: 128GB, 256GB, 512GB
- Antutu Score: Approximately 1,000,000

**Camera System:**

- Rear Camera:
  - 48MP Fusion (f/1.6, sensor-shift OIS)
  - 2x Telephoto (digital zoom)
- Video Recording:
  - 4K at 24, 25, 30, or 60 fps
  - 1080p HD at 25, 30, or 60 fps
  - 720p HD at 30 fps
  - HDR with Dolby Vision
- Front Camera:
  - 12MP TrueDepth (f/1.9, autofocus)
  - 4K video recording at 25, 30, or 60 fps
  - Slow-motion video at 120 fps

**Battery & Charging:**

- Battery Capacity: 4,005 mAh
- Video Playback: Up to 26 hours
- Audio Playback: Up to 90 hours
- Charging:
  - Wired: USB-C
  - Wireless: Qi wireless charging (up to 7.5W)
- No MagSafe support

**Connectivity:**

- 5G: Sub-6 GHz (no mmWave support)
- Wi-Fi: Wi-Fi 6
- Bluetooth: Bluetooth 5.3
- Ultra-Wideband: Not supported

- Ports: USB-C
- Audio: Stereo speakers with spatial audio

Additional Features:

- Face ID: TrueDepth camera system
- Action Button: Customizable for various functions
- Sensors: LiDAR Scanner, Barometer, Three-axis gyro, Accelerometer, Proximity sensor, Ambient light sensor
- Apple Intelligence: On-device AI features

Summary Table:

Feature	Specification
Display	6.1" Super Retina XDR OLED, 2532 x 1170, 460 ppi
Processor	Apple A18 (6-core CPU, 4-core GPU, 16-core Neural Engine)
RAM	8GB
Storage Options	128GB, 256GB, 512GB
Rear Camera	48MP Fusion, 2x Telephoto (digital zoom)
Front Camera	12MP TrueDepth, 4K video, 120 fps slow-motion
Battery Capacity	4,005 mAh
Video Playback	Up to 26 hours
Charging	USB-C, Qi wireless (up to 7.5W)
Weight	172 grams
IP Rating	IP68 (water-resistant up to 6 meters for 30 minutes)
Operating System	iOS 18.3.1
Price (India)	₹59,900 (128GB variant) (source: timesofindia.indiatimes.com)

iPhone 15 – Detailed Specifications

General Information:

- Model Name: iPhone 15
- Release Date: September 22, 2023
- Price (India): ₹79,900 for 128GB variant (source: apple.com/in)
- Operating System: iOS 17, upgradable to iOS 18.4

Design & Build:

- Material: Glass front, glass back, aluminum frame
- Front Protection: Ceramic Shield (2x tougher than previous glass)
- IP Rating: IP68 (water-resistant up to 6 meters for 30 minutes)
- Dimensions: 147.6 x 71.6 x 7.8 mm
- Weight: 171 grams
- Color Options: Black, Green, Yellow, Pink, Blue

Display:

- Type: 6.1-inch Super Retina XDR OLED
- Resolution: 2556 x 1179 pixels (~460 ppi)
- Features: Dynamic Island, HDR10, Dolby Vision, True Tone, Wide color (P3), Haptic Touch
- Brightness: 1000 nits (typical), 1600 nits (HDR), 2000 nits (peak outdoor)

Performance:

- Chipset: Apple A16 Bionic
  - CPU: 6-core (2 performance cores, 4 efficiency cores)
  - GPU: 5-core
  - Neural Engine: 16-core
- RAM: 6GB
- Storage Options: 128GB, 256GB, 512GB (no card slot)
- Antutu Score: Approximately 1,000,000



- Camera System:
- Rear Cameras:
    - 48MP Main (f/1.6, 26mm, sensor-shift OIS)
    - 12MP Ultra Wide (f/2.4, 13mm, 120° FOV)
  - Zoom Capabilities:
    - Optical Zoom: 2x in, 2x out (4x total)
    - Digital Zoom: Up to 10x
  - Video Recording:
    - 4K at 24, 25, 30, or 60 fps
    - HDR with Dolby Vision
  - Front Camera:
    - 12MP TrueDepth (f/1.9, 23mm)
    - 4K video recording at 25, 30, or 60 fps
    - Slow-motion video at 120 fps

- Battery & Charging:
- Battery Capacity: 3,349 mAh
  - Video Playback: Up to 20 hours
  - Audio Playback: Up to 80 hours
  - Charging:
    - Wired: USB-C (fast-charge capable: up to 50% charge in 30–35 minutes with 20W adapter or higher)
    - Wireless: MagSafe and Qi2 wireless charging (up to 15W)

- Connectivity:
- 5G: Sub-6 GHz
  - Wi-Fi: Wi-Fi 6
  - Bluetooth: Bluetooth 5.3
  - Ultra-Wideband: U1 chip
  - Ports: USB-C
  - Audio: Stereo speakers with spatial audio

- Additional Features:
- Face ID: TrueDepth camera system
  - Camera Control: Physical shutter button with tap and slide gestures for zoom, focus, and exposure adjustments
  - Sensors: LiDAR Scanner, Barometer, Three-axis gyro, Accelerometer, Proximity sensor, Ambient light sensor

Summary Table:	
Feature	Specification
Display	6.1" Super Retina XDR OLED, 2556 x 1179, 460 ppi
Processor	Apple A16 Bionic (6-core CPU, 5-core GPU, 16-core Neural Engine)
RAM	6GB
Storage Options	128GB, 256GB, 512GB
Rear Cameras	48MP Main, 12MP Ultra Wide
Front Camera	12MP TrueDepth, 4K video, 120 fps slow-motion
Battery Capacity	3,349 mAh
Video Playback	Up to 20 hours
Charging	USB-C, MagSafe, Qi2 wireless (up to 15W)
Weight	171 grams
IP Rating	IP68 (water-resistant up to 6 meters for 30 minutes)
Operating System	iOS 17
Price (India)	₹79,900 (128GB variant) (source: apple.com/in)

#### General Information:

- Model Name: iPhone 15 Plus
- Release Date: September 22, 2023
- Price (India): ₹89,900 for 128GB variant (source: apple.com/in)
- Operating System: iOS 17, upgradable to iOS 18.4

#### Design & Build:

- Material: Glass front (Corning-made glass), glass back (Corning-made glass), aluminum frame
- Front Protection: Ceramic Shield (2x tougher than previous glass)
- IP Rating: IP68 (water-resistant up to 6 meters for 30 minutes)
- Dimensions: 160.9 x 77.8 x 7.8 mm
- Weight: 201 grams
- Color Options: Black, Green, Pink, Yellow, Blue

#### Display:

- Type: 6.7-inch Super Retina XDR OLED
- Resolution: 2796 x 1290 pixels (~460 ppi)
- Features: Dynamic Island, HDR10, Dolby Vision, True Tone, Wide color (P3), Haptic Touch
- Brightness: 1000 nits (typical), 1600 nits (HDR), 2000 nits (peak outdoor)
- Contrast Ratio: 2,000,000:1 (typical)
- Fingerprint-resistant oleophobic coating

#### Performance:

- Chipset: Apple A16 Bionic
  - CPU: 6-core (2 performance cores, 4 efficiency cores)
  - GPU: 5-core
  - Neural Engine: 16-core
- RAM: 6GB
- Storage Options: 128GB, 256GB, 512GB (no card slot)
- Antutu Score: Approximately 1,000,000

#### Camera System:

- Rear Cameras:
  - 48MP Main (f/1.6, 26mm, sensor-shift OIS)
  - 12MP Ultra Wide (f/2.4, 13mm, 120° FOV)
- Zoom Capabilities:
  - Optical Zoom: 2x in, 2x out (4x total)
  - Digital Zoom: Up to 10x
- Video Recording:
  - 4K at 24, 25, 30, or 60 fps
  - HDR with Dolby Vision
- Front Camera:
  - 12MP TrueDepth (f/1.9, 23mm)
  - 4K video recording at 25, 30, or 60 fps
  - Slow-motion video at 120 fps

#### Battery & Charging:

- Battery Capacity: 4,383 mAh
- Video Playback: Up to 26 hours
- Audio Playback: Up to 100 hours
- Charging:
  - Wired: USB-C (fast-charge capable: up to 50% charge in 30–35 minutes with 20W adapter or higher)
  - Wireless: MagSafe and Qi2 wireless charging (up to 15W)

#### Connectivity:

- 5G: Sub-6 GHz
- Wi-Fi: Wi-Fi 6
- Bluetooth: Bluetooth 5.3

- Ultra-Wideband: U1 chip
- Ports: USB-C
- Audio: Stereo speakers with spatial audio

Additional Features:

- Face ID: TrueDepth camera system
- Camera Control: Physical shutter button with tap and slide gestures for zoom, focus, and exposure adjustments
- Sensors: LiDAR Scanner, Barometer, Three-axis gyro, Accelerometer, Proximity sensor, Ambient light sensor

Feature	Specification
Display	6.7" Super Retina XDR OLED, 2796 x 1290, 460 ppi
Processor	Apple A16 Bionic (6-core CPU, 5-core GPU, 16-core Neural Engine)
RAM	6GB
Storage Options	128GB, 256GB, 512GB
Rear Cameras	48MP Main, 12MP Ultra Wide
Front Camera	12MP TrueDepth, 4K video, 120 fps slow-motion
Battery Capacity	4,383 mAh
Video Playback	Up to 26 hours
Charging	USB-C, MagSafe, Qi2 wireless (up to 15W)
Weight	201 grams
IP Rating	IP68 (water-resistant up to 6 meters for 30 minutes)
Operating System	iOS 17
Price (India)	₹89,900 (128GB variant) (source: apple.com/in)

iPhone 15 Pro – Detailed Specifications

General Information:

- Model Name: iPhone 15 Pro
- Release Date: September 22, 2023
- Price (India): ₹1,34,900 for 128GB variant (source: apple.com/in)
- Operating System: iOS 17, upgradable to iOS 18.4

Design & Build:

- Material: Grade 5 Titanium frame
- Front Protection: Ceramic Shield (2x tougher than previous glass)
- IP Rating: IP68 (water-resistant up to 6 meters for 30 minutes)
- Dimensions: 70.6 x 146.6 x 8.3 mm
- Weight: 187 grams
- Color Options: Natural Titanium, White Titanium, Blue Titanium, Black Titanium

Display:

- Type: 6.1-inch Super Retina XDR OLED
- Resolution: 2556 x 1179 pixels (~460 ppi)
- Features: Dynamic Island, Always-On display, ProMotion technology with adaptive refresh rates up to 120Hz, HDR display, True Tone, Wide color (P3), Haptic Touch
- Brightness: 1000 nits (typical), 1600 nits (HDR), 2000 nits (peak outdoor)
- Contrast Ratio: 2,000,000:1 (typical)

Performance:

- Chipset: Apple A17 Pro
  - CPU: Hexa-core (2 performance cores at 3.7 GHz, 4 efficiency cores)

- GPU: Apple-designed GPU with hardware-accelerated ray tracing
- Neural Engine: 35 trillion operations per second
- RAM: 8GB
- Storage Options: 128GB, 256GB, 512GB, 1TB
- Antutu Score: Approximately 1,641,883 (v10) :contentReference[oaicite:1]{index=1}

Camera System:

- Rear Cameras:
  - 48MP Main (f/1.78, 24mm, sensor-shift OIS)
  - 12MP Ultra Wide (f/2.2, 120° FOV)
  - 12MP 3x Telephoto (f/2.8)
- LiDAR Scanner
- Video Recording:
  - 4K at 24, 25, 30, or 60 fps
  - HDR with Dolby Vision
  - ProRes video recording
- Front Camera:
  - 12MP TrueDepth (f/1.9)
  - 4K video recording at 25, 30, or 60 fps
  - Slow-motion video at 120 fps

Battery & Charging:

- Battery Capacity: 3,274 mAh
- Video Playback: Up to 23 hours
- Audio Playback: Up to 75 hours
- Charging:
  - Wired: USB-C (USB 3.2 Gen 2, up to 10 Gbps)
  - Wireless: MagSafe and Qi2 wireless charging (up to 15W)
  - Fast Charging: Up to 50% charge in around 30 minutes with 20W adapter or higher

Connectivity:

- 5G: Sub-6 GHz and mmWave (select models)
- Wi-Fi: Wi-Fi 6E
- Bluetooth: Bluetooth 5.3
- Ultra-Wideband: U1 chip
- Ports: USB-C
- Audio: Stereo speakers with spatial audio

Additional Features:

- Face ID: TrueDepth camera system
- Action Button: Customizable for various functions
- Apple Intelligence: On-device AI features
- Sensors: LiDAR Scanner, Barometer, Three-axis gyro, Accelerometer, Proximity sensor, Ambient light sensor

Summary Table:

Feature	Specification
Display	6.1" Super Retina XDR OLED, 2556 x 1179, 460 ppi
Processor	Apple A17 Pro (6-core CPU, Apple-designed GPU, 35 trillion operations/sec Neural Engine)
RAM	8GB
Storage Options	128GB, 256GB, 512GB, 1TB
Rear Cameras	48MP Main, 12MP Ultra Wide, 12MP 3x Telephoto, LiDAR Scanner
Front Camera	12MP TrueDepth, 4K video, 120 fps slow-motion
Battery Capacity	3,274 mAh
Video Playback	Up to 23 hours
Charging	USB-C, MagSafe, Qi2 wireless (up to 15W), Fast Charging (20W+)
Weight	187 grams
IP Rating	IP68 (water-resistant up to 6 meters for 30 minutes)

Operating System	iOS 17	
Price (India)	₹1,34,900 (128GB variant) (source: apple.com/in)	

## iPhone 15 Pro Max – Detailed Specifications

### General Information:

- Model Name: iPhone 15 Pro Max
- Release Date: September 22, 2023
- Price (India): ₹1,34,899 for 256GB variant (source: amazon.in)
- Operating System: iOS 17, upgradable to iOS 18.4

### Design & Build:

- Material: Grade 5 Titanium frame
- Front Protection: Ceramic Shield (2x tougher than previous glass)
- IP Rating: IP68 (water-resistant up to 6 meters for 30 minutes)
- Dimensions: 77.8 x 160.7 x 8.2 mm
- Weight: 221 grams
- Color Options: Natural Titanium, Black Titanium, White Titanium, Blue Titanium

### Display:

- Type: 6.7-inch LTPO Super Retina XDR OLED
- Resolution: 2796 x 1290 pixels (~460 ppi)
- Features: Dynamic Island, Always-On display, ProMotion technology with adaptive refresh rates up to 120Hz, HDR display, True Tone, Wide color (P3), Haptic Touch
- Brightness: 1000 nits (typical), 1600 nits (HDR), 2000 nits (peak outdoor)
- Contrast Ratio: 2,000,000:1 (typical)

### Performance:

- Chipset: Apple A17 Pro
  - CPU: Hexa-core (2 performance cores at 3.78 GHz, 4 efficiency cores at 2.11 GHz)
  - GPU: Apple-designed GPU with hardware-accelerated ray tracing
  - Neural Engine: 35 trillion operations per second
- RAM: 8GB LPDDR5
- Storage Options: 256GB, 512GB, 1TB (no card slot)
- Antutu Score: Approximately 1,641,883 (v10) (source: kimovil.com)

### Camera System:

- Rear Cameras:
  - 48MP Main (f/1.78, 24mm, sensor-shift OIS)
  - 12MP Ultra Wide (f/2.2, 120° FOV)
  - 12MP 5x Telephoto (f/2.8)
  - LiDAR Scanner
- Video Recording:
  - 4K at 24, 25, 30, or 60 fps
  - HDR with Dolby Vision
  - ProRes video recording
- Front Camera:
  - 12MP TrueDepth (f/1.9)
  - 4K video recording at 25, 30, or 60 fps
  - Slow-motion video at 120 fps

### Battery & Charging:

- Battery Capacity: 4,441 mAh
- Video Playback: Up to 29 hours
- Audio Playback: Up to 95 hours
- Charging:
  - Wired: USB-C (USB 3.2 Gen 2, up to 10 Gbps)

- Wireless: MagSafe and Qi2 wireless charging (up to 15W)
- Fast Charging: Up to 50% charge in around 30 minutes with 20W adapter or higher

Connectivity:

- 5G: Sub-6 GHz and mmWave (select models)
- Wi-Fi: Wi-Fi 6E
- Bluetooth: Bluetooth 5.3
- Ultra-Wideband: U1 chip
- Ports: USB-C
- Audio: Stereo speakers with spatial audio

Additional Features:

- Face ID: TrueDepth camera system
- Action Button: Customizable for various functions
- Apple Intelligence: On-device AI features
- Sensors: LiDAR Scanner, Barometer, Three-axis gyro, Accelerometer, Proximity sensor, Ambient light sensor

Summary Table:

Feature	Specification
Display	6.7" LTPO Super Retina XDR OLED, 2796 x 1290, 460 ppi
Processor	Apple A17 Pro (6-core CPU, Apple-designed GPU, 35 trillion operations/sec Neural Engine)
RAM	8GB
Storage Options	256GB, 512GB, 1TB
Rear Cameras	48MP Main, 12MP Ultra Wide, 12MP 5x Telephoto, LiDAR Scanner
Front Camera	12MP TrueDepth, 4K video, 120 fps slow-motion
Battery Capacity	4,441 mAh
Video Playback	Up to 29 hours
Charging	USB-C, MagSafe, Qi2 wireless (up to 15W), Fast Charging (20W+)
Weight	221 grams
IP Rating	IP68 (water-resistant up to 6 meters for 30 minutes)
Operating System	iOS 17
Price (India)	₹1,34,899 (256GB variant) (source: amazon.in)

iPhone 14 – Detailed Specifications

General Information:

- Model Name: iPhone 14
- Release Date: September 16, 2022
- Price (India): ₹54,999 for 128GB variant (source: flipkart.com)
- Operating System: iOS 16, upgradable to iOS 18.4

Design & Build:

- Material: Ceramic Shield front cover, glass back, aluminum frame
- Front Protection: Ceramic Shield (2x tougher than previous glass)
- IP Rating: IP68 (dust and water-resistant up to 6 meters for 30 minutes)
- Dimensions: 146.7 x 71.5 x 7.8 mm
- Weight: 172 grams
- Color Options: Midnight, Starlight, Blue, Purple, (PRODUCT)RED, Yellow

Display:

- Type: 6.1-inch Super Retina XDR OLED
- Resolution: 2532 x 1170 pixels (~460 ppi)
- Features: HDR10, Dolby Vision, True Tone, Wide color (P3), Haptic Touch
- Brightness: 800 nits (typical), 1200 nits (peak HDR)

- Contrast Ratio: 2,000,000:1 (typical)
- Fingerprint-resistant oleophobic coating

Performance:

- Chipset: Apple A15 Bionic
  - CPU: Hexa-core (2 performance cores at 3.23 GHz, 4 efficiency cores)
  - GPU: 5-core
  - Neural Engine: 16-core
- RAM: 6GB
- Storage Options: 128GB, 256GB, 512GB (no card slot)
- Antutu Score: Approximately 1,000,000

Camera System:

- Rear Cameras:
  - 12MP Main (f/1.5, 26mm, sensor-shift OIS)
  - 12MP Ultra Wide (f/2.4, 120° FOV)
- Front Camera:
  - 12MP TrueDepth (f/1.9, 23mm)
- Video Recording:
  - 4K at 24, 25, 30, or 60 fps
  - HDR with Dolby Vision
  - Cinematic Mode (1080p at 30 fps)
  - Action Mode (1080p at 60 fps)

Battery & Charging:

- Battery Capacity: 3,279 mAh
- Video Playback: Up to 20 hours
- Audio Playback: Up to 80 hours
- Charging:
  - Wired: Lightning connector (fast-charge capable: up to 50% charge in 30 minutes with 20W adapter or higher)
  - Wireless: MagSafe and Qi wireless charging (up to 15W)

Connectivity:

- 5G: Sub-6 GHz
- Wi-Fi: Wi-Fi 6
- Bluetooth: Bluetooth 5.3
- Ultra-Wideband: U1 chip
- Ports: Lightning
- Audio: Stereo speakers with spatial audio

Additional Features:

- Face ID: TrueDepth camera system
- Sensors: LiDAR Scanner, Barometer, Three-axis gyro, Accelerometer, Proximity sensor, Ambient light sensor

Summary Table:

Feature	Specification
Display	6.1" Super Retina XDR OLED, 2532 x 1170, 460 ppi
Processor	Apple A15 Bionic (6-core CPU, 5-core GPU, 16-core Neural Engine)
RAM	6GB
Storage Options	128GB, 256GB, 512GB
Rear Cameras	12MP Main, 12MP Ultra Wide
Front Camera	12MP TrueDepth, 4K video, Cinematic Mode, Action Mode
Battery Capacity	3,279 mAh
Video Playback	Up to 20 hours
Charging	Lightning, MagSafe, Qi wireless (up to 15W), Fast Charging (20W+)
Weight	172 grams
IP Rating	IP68 (dust and water-resistant up to 6 meters for 30 minutes)

Operating System	iOS 16	
Price (India)	₹54,999 (128GB variant) (source: flipkart.com)	

## iPhone 14 Plus – Detailed Specifications

### General Information:

- Model Name: iPhone 14 Plus
- Release Date: October 7, 2022
- Price (India): ₹69,900 for 128GB variant (source: flipkart.com)
- Operating System: iOS 16, upgradable to iOS 18.4

### Design & Build:

- Material: Ceramic Shield front cover, glass back, aluminum frame
- Front Protection: Ceramic Shield (2x tougher than previous glass)
- IP Rating: IP68 (dust and water-resistant up to 6 meters for 30 minutes)
- Dimensions: 160.8 x 78.1 x 7.8 mm
- Weight: 203 grams
- Color Options: Midnight, Starlight, Blue, Purple, (PRODUCT)RED, Yellow

### Display:

- Type: 6.7-inch Super Retina XDR OLED
- Resolution: 2778 x 1284 pixels (~458 ppi)
- Features: HDR10, Dolby Vision, True Tone, Wide color (P3), Haptic Touch
- Brightness: 800 nits (typical), 1200 nits (peak HDR)
- Contrast Ratio: 2,000,000:1 (typical)
- Fingerprint-resistant oleophobic coating

### Performance:

- Chipset: Apple A15 Bionic
  - CPU: Hexa-core (2 performance cores at 3.23 GHz, 4 efficiency cores)
  - GPU: 5-core
  - Neural Engine: 16-core
- RAM: 6GB
- Storage Options: 128GB, 256GB, 512GB (no card slot)
- Antutu Score: Approximately 1,000,000

### Camera System:

- Rear Cameras:
  - 12MP Main (f/1.5, 26mm, sensor-shift OIS)
  - 12MP Ultra Wide (f/2.4, 120° FOV)
- Front Camera:
  - 12MP TrueDepth (f/1.9, 23mm)
- Video Recording:
  - 4K at 24, 25, 30, or 60 fps
  - HDR with Dolby Vision
  - Cinematic Mode (1080p at 30 fps)
  - Action Mode (1080p at 60 fps)

### Battery & Charging:

- Battery Capacity: 4,325 mAh
- Video Playback: Up to 26 hours
- Audio Playback: Up to 100 hours
- Charging:
  - Wired: Lightning connector (fast-charge capable: up to 50% charge in 30 minutes with 20W adapter or higher)
  - Wireless: MagSafe and Qi wireless charging (up to 15W)

### Connectivity:



- 5G: Sub-6 GHz
- Wi-Fi: Wi-Fi 6
- Bluetooth: Bluetooth 5.3
- Ultra-Wideband: U1 chip
- Ports: Lightning
- Audio: Stereo speakers with spatial audio

Additional Features:

- Face ID: TrueDepth camera system
- Sensors: LiDAR Scanner, Barometer, Three-axis gyro, Accelerometer, Proximity sensor, Ambient light sensor

Feature	Specification
Display	6.7" Super Retina XDR OLED, 2778 x 1284, 458 ppi
Processor	Apple A15 Bionic (6-core CPU, 5-core GPU, 16-core Neural Engine)
RAM	6GB
Storage Options	128GB, 256GB, 512GB
Rear Cameras	12MP Main, 12MP Ultra Wide
Front Camera	12MP TrueDepth, 4K video, Cinematic Mode, Action Mode
Battery Capacity	4,325 mAh
Video Playback	Up to 26 hours
Charging	Lightning, MagSafe, Qi wireless (up to 15W), Fast Charging (20W+)
Weight	203 grams
IP Rating	IP68 (dust and water-resistant up to 6 meters for 30 minutes)
Operating System	iOS 16
Price (India)	₹69,900 (128GB variant) (source: flipkart.com)

iPhone 14 Pro – Detailed Specifications

General Information:

- Model Name: iPhone 14 Pro
- Release Date: September 16, 2022
- Price (India): ₹130,999 for 128GB variant (source: flipkart.com)
- Operating System: iOS 16, upgradable to iOS 18.4

Design & Build:

- Material: Ceramic Shield front cover, glass back, stainless steel frame
- Front Protection: Ceramic Shield (2x tougher than previous glass)
- IP Rating: IP68 (dust and water-resistant up to 6 meters for 30 minutes)
- Dimensions: 147.5 x 71.5 x 7.85 mm
- Weight: 206 grams
- Color Options: Deep Purple, Gold, Silver, Space Black

Display:

- Type: 6.1-inch Super Retina XDR OLED
- Resolution: 2556 x 1179 pixels (~460 ppi)
- Features: Dynamic Island, Always-On display, ProMotion technology with adaptive refresh rates up to 120Hz, HDR display, True Tone, Wide color (P3), Haptic Touch
- Brightness: 1000 nits (typical), 1600 nits (HDR), 2000 nits (peak outdoor)
- Contrast Ratio: 2,000,000:1 (typical)

Performance:

- Chipset: Apple A16 Bionic
  - CPU: Hexa-core (2 performance cores at 3.46 GHz, 4 efficiency cores at 2.02 GHz)
  - GPU: 5-core
  - Neural Engine: 16-core
- RAM: 6GB LPDDR5
- Storage Options: 128GB, 256GB, 512GB, 1TB (no card slot)
- Antutu Score: Approximately 1,000,000

Camera System:

- Rear Cameras:
  - 48MP Main (f/1.78, 24mm, sensor-shift OIS)
  - 12MP Ultra Wide (f/2.2, 120° FOV)
  - 12MP 2x Telephoto (f/2.8)
  - LiDAR Scanner
- Video Recording:
  - 4K at 24, 25, 30, or 60 fps
  - HDR with Dolby Vision
  - ProRes video recording
- Front Camera:
  - 12MP TrueDepth (f/1.9)
  - 4K video recording at 25, 30, or 60 fps
  - Slow-motion video at 120 fps

Battery & Charging:

- Battery Capacity: 3,200 mAh
- Video Playback: Up to 23 hours
- Audio Playback: Up to 75 hours
- Charging:
  - Wired: Lightning connector (fast-charge capable: up to 50% charge in 30 minutes with 20W adapter or higher)
  - Wireless: MagSafe and Qi wireless charging (up to 15W)
  - Fast Charging: Up to 50% charge in around 30 minutes with 20W adapter or higher

Connectivity:

- 5G: Sub-6 GHz and mmWave (select models)
- Wi-Fi: Wi-Fi 6
- Bluetooth: Bluetooth 5.3
- Ultra-Wideband: U1 chip
- Ports: Lightning
- Audio: Stereo speakers with spatial audio

Additional Features:

- Face ID: TrueDepth camera system
- Action Button: Customizable for various functions
- Apple Intelligence: On-device AI features
- Sensors: LiDAR Scanner, Barometer, Three-axis gyro, Accelerometer, Proximity sensor, Ambient light sensor

Summary Table:

Feature	Specification
Display	6.1" Super Retina XDR OLED, 2556 x 1179, 460 ppi
Processor	Apple A16 Bionic (6-core CPU, 5-core GPU, 16-core Neural Engine)
RAM	6GB
Storage Options	128GB, 256GB, 512GB, 1TB
Rear Cameras	48MP Main, 12MP Ultra Wide, 12MP 2x Telephoto, LiDAR Scanner
Front Camera	12MP TrueDepth, 4K video, 120 fps slow-motion
Battery Capacity	3,200 mAh
Video Playback	Up to 23 hours
Charging	Lightning, MagSafe, Qi wireless (up to 15W), Fast Charging (20W+)

Weight	206 grams	
IP Rating	IP68 (dust and water-resistant up to 6 meters for 30 minutes)	
Operating System	iOS 16	
Price (India)	₹130,999 (128GB variant) (source: flipkart.com)	

## iPhone 14 Pro Max – Detailed Specifications

### General Information:

- Model Name: iPhone 14 Pro Max
- Release Date: September 16, 2022
- Price (India): ₹127,999 for 128GB variant (source: flipkart.com)
- Operating System: iOS 16, upgradable to iOS 18.4

### Design & Build:

- Material: Ceramic Shield front cover, glass back, stainless steel frame
- Front Protection: Ceramic Shield (2x tougher than previous glass)
- IP Rating: IP68 (dust and water-resistant up to 6 meters for 30 minutes)
- Dimensions: 160.7 x 77.6 x 7.9 mm
- Weight: 240 grams
- Color Options: Deep Purple, Gold, Silver, Space Black

### Display:

- Type: 6.7-inch Super Retina XDR OLED
- Resolution: 2796 x 1290 pixels (~460 ppi)
- Features: Dynamic Island, Always-On display, ProMotion technology with adaptive refresh rates up to 120Hz, HDR display, True Tone, Wide color (P3), Haptic Touch
- Brightness: 1000 nits (typical), 1600 nits (HDR), 2000 nits (peak outdoor)
- Contrast Ratio: 2,000,000:1 (typical)

### Performance:

- Chipset: Apple A16 Bionic
  - CPU: Hexa-core (2 performance cores at 3.46 GHz, 4 efficiency cores at 2.02 GHz)
  - GPU: 5-core
  - Neural Engine: 16-core
- RAM: 6GB LPDDR5
- Storage Options: 128GB, 256GB, 512GB, 1TB (no card slot)
- Antutu Score: Approximately 1,000,000

### Camera System:

- Rear Cameras:
  - 48MP Main (f/1.78, 24mm, sensor-shift OIS)
  - 12MP Ultra Wide (f/2.2, 120° FOV)
  - 12MP 2x Telephoto (f/2.8)
  - LiDAR Scanner
- Video Recording:
  - 4K at 24, 25, 30, or 60 fps
  - HDR with Dolby Vision
  - ProRes video recording
- Front Camera:
  - 12MP TrueDepth (f/1.9)
  - 4K video recording at 25, 30, or 60 fps
  - Slow-motion video at 120 fps

### Battery & Charging:

- Battery Capacity: 4,323 mAh
- Video Playback: Up to 29 hours

- Audio Playback: Up to 95 hours
- Charging:
  - Wired: Lightning connector (fast-charge capable: up to 50% charge in 30 minutes with 20W adapter or higher)
  - Wireless: MagSafe and Qi wireless charging (up to 15W)
  - Fast Charging: Up to 50% charge in around 30 minutes with 20W adapter or higher

Connectivity:

- 5G: Sub-6 GHz and mmWave (select models)
- Wi-Fi: Wi-Fi 6
- Bluetooth: Bluetooth 5.3
- Ultra-Wideband: U1 chip
- Ports: Lightning
- Audio: Stereo speakers with spatial audio

Additional Features:

- Face ID: TrueDepth camera system
- Action Button: Customizable for various functions
- Apple Intelligence: On-device AI features
- Sensors: LiDAR Scanner, Barometer, Three-axis gyro, Accelerometer, Proximity sensor, Ambient light sensor

Summary Table:

Feature	Specification
Display	6.7" Super Retina XDR OLED, 2796 x 1290, 460 ppi
Processor	Apple A16 Bionic (6-core CPU, 5-core GPU, 16-core Neural Engine)
RAM	6GB
Storage Options	128GB, 256GB, 512GB, 1TB
Rear Cameras	48MP Main, 12MP Ultra Wide, 12MP 2x Telephoto, LiDAR Scanner
Front Camera	12MP TrueDepth, 4K video, 120 fps slow-motion
Battery Capacity	4,323 mAh
Video Playback	Up to 29 hours
Charging	Lightning, MagSafe, Qi wireless (up to 15W), Fast Charging (20W+)
Weight	240 grams
IP Rating	IP68 (dust and water-resistant up to 6 meters for 30 minutes)
Operating System	iOS 16
Price (India)	₹127,999 (128GB variant) (source: flipkart.com)

iPhone 13 – Detailed Specifications

General Information:

- Model Name: iPhone 13
- Release Date: September 24, 2021
- Operating System: iOS 15, upgradable to iOS 18.4

Design & Build:

- Material: Ceramic Shield front cover, glass back, aluminum frame
- Dimensions: 146.7 x 71.5 x 7.65 mm
- Weight: 174 grams
- Color Options: Blue, Green, Midnight, Pink, (PRODUCT)RED, Starlight

Display:

- Type: 6.1-inch Super Retina XDR OLED
- Resolution: 2532 x 1170 pixels (~460 ppi)
- Features: HDR10, Dolby Vision, True Tone, Wide color (P3), Haptic Touch
- Brightness: 800 nits (typical), 1200 nits (peak HDR)

- Contrast Ratio: 2,000,000:1 (typical)

Performance:

- Chipset: Apple A15 Bionic
  - CPU: Hexa-core (2 performance cores at 3.23 GHz, 4 efficiency cores at 2.02 GHz)
  - GPU: 4-core
  - Neural Engine: 16-core
- RAM: 4GB LPDDR4X
- Storage Options: 128GB, 256GB, 512GB (no card slot)
- Antutu Score: Approximately 1,000,000

Camera System:

- Rear Cameras:
  - 12MP Main (f/1.6, 26mm, sensor-shift OIS)
  - 12MP Ultra Wide (f/2.4, 120° FOV)
- Front Camera:
  - 12MP TrueDepth (f/2.2, 23mm)
- Video Recording:
  - 4K at 24, 25, 30, or 60 fps
  - HDR with Dolby Vision
  - Cinematic Mode (1080p at 30 fps)
  - Action Mode (1080p at 60 fps)

Battery & Charging:

- Battery Capacity: 3,240 mAh
- Video Playback: Up to 19 hours
- Audio Playback: Up to 75 hours
- Charging:
  - Wired: Lightning connector (fast-charge capable: up to 50% charge in 30 minutes with 20W adapter or higher)
  - Wireless: MagSafe and Qi wireless charging (up to 15W)
  - Fast Charging: Up to 50% charge in around 30 minutes with 20W adapter or higher

Connectivity:

- 5G: Sub-6 GHz
- Wi-Fi: Wi-Fi 6
- Bluetooth: Bluetooth 5.0
- Ultra-Wideband: U1 chip
- Ports: Lightning
- Audio: Stereo speakers with spatial audio

Additional Features:

- Face ID: TrueDepth camera system
- Sensors: LiDAR Scanner, Barometer, Three-axis gyro, Accelerometer, Proximity sensor, Ambient light sensor

Summary Table:

Feature	Specification
Display	6.1" Super Retina XDR OLED, 2532 x 1170, 460 ppi
Processor	Apple A15 Bionic (6-core CPU, 4-core GPU, 16-core Neural Engine)
RAM	4GB
Storage Options	128GB, 256GB, 512GB
Rear Cameras	12MP Main, 12MP Ultra Wide
Front Camera	12MP TrueDepth
Battery Capacity	3,240 mAh
Video Playback	Up to 19 hours
Charging	Lightning, MagSafe, Qi wireless (up to 15W), Fast Charging (20W+)
Weight	174 grams
IP Rating	IP68 (dust and water-resistant up to 6 meters for 30 minutes)

Operating System	iOS 15	
Price (India)	₹43,999 (128GB variant), ₹59,900 (256GB variant), ₹69,900 (512GB variant)	

## iPhone 13 Plus – Detailed Specifications

### General Information:

- Model Name: iPhone 13 Plus
- Release Date: September 24, 2021
- Operating System: iOS 15, upgradable to iOS 18.4

### Design & Build:

- Material: Ceramic Shield front cover, glass back, aluminum frame
- Dimensions: 160.8 x 78.1 x 7.65 mm
- Weight: 203 grams
- Color Options: Blue, Green, Midnight, Pink, (PRODUCT)RED, Starlight

### Display:

- Type: 6.7-inch Super Retina XDR OLED
- Resolution: 2778 x 1284 pixels (~458 ppi)
- Features: HDR10, Dolby Vision, True Tone, Wide color (P3), Haptic Touch
- Brightness: 800 nits (typical), 1200 nits (peak HDR)
- Contrast Ratio: 2,000,000:1 (typical)

### Performance:

- Chipset: Apple A15 Bionic
  - CPU: Hexa-core (2 performance cores at 3.23 GHz, 4 efficiency cores at 2.02 GHz)
  - GPU: 4-core
  - Neural Engine: 16-core
- RAM: 4GB
- Storage Options: 128GB, 256GB, 512GB (no card slot)
- Antutu Score: Approximately 1,000,000

### Camera System:

- Rear Cameras:
  - 12MP Main (f/1.6, 26mm, sensor-shift OIS)
  - 12MP Ultra Wide (f/2.4, 120° FOV)
- Front Camera:
  - 12MP TrueDepth (f/2.2, 23mm)
- Video Recording:
  - 4K at 24, 25, 30, or 60 fps
  - HDR with Dolby Vision
  - Cinematic Mode (1080p at 30 fps)
  - Action Mode (1080p at 60 fps)

### Battery & Charging:

- Battery Capacity: 3,285 mAh
- Video Playback: Up to 26 hours
- Audio Playback: Up to 75 hours
- Charging:
  - Wired: Lightning connector (fast-charge capable: up to 50% charge in 30 minutes with 20W adapter or higher)
  - Wireless: MagSafe and Qi wireless charging (up to 15W)
  - Fast Charging: Up to 50% charge in around 30 minutes with 20W adapter or higher

### Connectivity:

- 5G: Sub-6 GHz

- Wi-Fi: Wi-Fi 6
- Bluetooth: Bluetooth 5.0
- Ultra-Wideband: U1 chip
- Ports: Lightning
- Audio: Stereo speakers with spatial audio

#### Additional Features:

- Face ID: TrueDepth camera system
- Sensors: LiDAR Scanner, Barometer, Three-axis gyro, Accelerometer, Proximity sensor, Ambient light sensor

#### Summary Table:

Feature	Specification
Display	6.7" Super Retina XDR OLED, 2778 x 1284, 458 ppi
Processor	Apple A15 Bionic (6-core CPU, 4-core GPU, 16-core Neural Engine)
RAM	4GB
Storage Options	128GB, 256GB, 512GB
Rear Cameras	12MP Main, 12MP Ultra Wide
Front Camera	12MP TrueDepth
Battery Capacity	3,285 mAh
Video Playback	Up to 26 hours
Charging	Lightning, MagSafe, Qi wireless (up to 15W), Fast Charging (20W+)
Weight	203 grams
IP Rating	IP68 (dust and water-resistant up to 6 meters for 30 minutes)
Operating System	iOS 15

### iPhone 13 Pro – Detailed Specifications

#### General Information:

- Model Name: iPhone 13 Pro
- Release Date: September 24, 2021
- Operating System: iOS 15, upgradable to iOS 18.4

#### Design & Build:

- Material: Ceramic Shield front cover, glass back, surgical-grade stainless steel frame
- Dimensions: 146.7 x 71.5 x 7.65 mm
- Weight: 204 grams
- Color Options: Graphite, Gold, Silver, Sierra Blue, Alpine Green

#### Display:

- Type: 6.1-inch Super Retina XDR OLED with ProMotion
- Resolution: 2532 x 1170 pixels (~460 ppi)
- Features: HDR10, Dolby Vision, True Tone, Wide color (P3), Haptic Touch
- Brightness: 1000 nits (typical), 1200 nits (peak HDR)
- Contrast Ratio: 2,000,000:1 (typical)

#### Performance:

- Chipset: Apple A15 Bionic
  - CPU: Hexa-core (2 performance cores at 3.23 GHz, 4 efficiency cores at 2.02 GHz)
  - GPU: 5-core
  - Neural Engine: 16-core
- RAM: 6GB
- Storage Options: 128GB, 256GB, 512GB, 1TB (no card slot)
- Antutu Score: Approximately 846,433

#### Camera System:

- Rear Cameras:
  - 12MP Main (f/1.5, 26mm, sensor-shift OIS)
  - 12MP Ultra Wide (f/1.8, 120° FOV)
  - 12MP Telephoto (f/2.8, 77mm, 3x optical zoom)
- Front Camera:
  - 12MP TrueDepth (f/2.2, 23mm)
- Video Recording:
  - 4K at 24, 25, 30, or 60 fps
  - HDR with Dolby Vision
  - Cinematic Mode (1080p at 30 fps)
  - ProRes Video (up to 4K at 30 fps for models with at least 256GB storage)

Battery & Charging:

- Battery Capacity: 3,095 mAh
- Video Playback: Up to 22 hours
- Audio Playback: Up to 75 hours
- Charging:
  - Wired: Lightning connector (fast-charge capable: up to 50% charge in 30 minutes with 20W adapter or higher)
  - Wireless: MagSafe and Qi wireless charging (up to 15W)
  - Fast Charging: Up to 50% charge in around 30 minutes with 20W adapter or higher

Connectivity:

- 5G: Sub-6 GHz and mmWave
- Wi-Fi: Wi-Fi 6
- Bluetooth: Bluetooth 5.0
- Ultra-Wideband: U1 chip
- Ports: Lightning
- Audio: Stereo speakers with spatial audio

Additional Features:

- Face ID: TrueDepth camera system
- Sensors: LiDAR Scanner, Barometer, Three-axis gyro, Accelerometer, Proximity sensor, Ambient light sensor

Summary Table:

Feature	Specification
Display	6.1" Super Retina XDR OLED, 2532 x 1170, 460 ppi
Processor	Apple A15 Bionic (6-core CPU, 5-core GPU, 16-core Neural Engine)
RAM	6GB
Storage Options	128GB, 256GB, 512GB, 1TB
Rear Cameras	12MP Main, 12MP Ultra Wide, 12MP Telephoto
Front Camera	12MP TrueDepth
Battery Capacity	3,095 mAh
Video Playback	Up to 22 hours
Charging	Lightning, MagSafe, Qi wireless (up to 15W), Fast Charging (20W+)
Weight	204 grams
IP Rating	IP68 (dust and water-resistant up to 6 meters for 30 minutes)
Operating System	iOS 15



## iPhone 13 Pro Max – Detailed Specifications

### General Information:

- Model Name: iPhone 13 Pro Max
- Release Date: September 24, 2021
- Operating System: iOS 15, upgradable to iOS 18.4

### Design & Build:

- Material: Ceramic Shield front cover, glass back, surgical-grade stainless steel frame
- Dimensions: 160.8 x 78.1 x 7.65 mm
- Weight: 240 grams
- Color Options: Graphite, Gold, Silver, Sierra Blue, Alpine Green

### Display:

- Type: 6.7-inch Super Retina XDR OLED with ProMotion
- Resolution: 2778 x 1284 pixels (~458 ppi)
- Features: HDR10, Dolby Vision, True Tone, Wide color (P3), Haptic Touch
- Brightness: 1000 nits (typical), 1200 nits (peak HDR)
- Contrast Ratio: 2,000,000:1 (typical)

### Performance:

- Chipset: Apple A15 Bionic
  - CPU: Hexa-core (2 performance cores at 3.23 GHz, 4 efficiency cores at 1.82 GHz)
  - GPU: 5-core
  - Neural Engine: 16-core
- RAM: 6GB LPDDR4X
- Storage Options: 128GB, 256GB, 512GB, 1TB (no card slot)
- Antutu Score: Approximately 846,433

### Camera System:

- Rear Cameras:
  - 12MP Main (f/1.5, 26mm, sensor-shift OIS)
  - 12MP Ultra Wide (f/1.8, 120° FOV)
  - 12MP Telephoto (f/2.8, 77mm, 3x optical zoom)
- Front Camera:
  - 12MP TrueDepth (f/2.2, 23mm)
- Video Recording:
  - 4K at 24, 25, 30, or 60 fps
  - HDR with Dolby Vision
  - Cinematic Mode (1080p at 30 fps)
  - ProRes Video (up to 4K at 30 fps for models with at least 256GB storage)

### Battery & Charging:

- Battery Capacity: 4,352 mAh
- Video Playback: Up to 28 hours
- Audio Playback: Up to 95 hours
- Charging:
  - Wired: Lightning connector (fast-charge capable: up to 50% charge in 30 minutes with 20W adapter or higher)
  - Wireless: MagSafe and Qi wireless charging (up to 15W)
  - Fast Charging: Up to 50% charge in around 30 minutes with 20W adapter or higher

### Connectivity:

- 5G: Sub-6 GHz and mmWave
- Wi-Fi: Wi-Fi 6
- Bluetooth: Bluetooth 5.0
- Ultra-Wideband: U1 chip
- Ports: Lightning
- Audio: Stereo speakers with spatial audio

- Additional Features:
- Face ID: TrueDepth camera system
  - Sensors: LiDAR Scanner, Barometer, Three-axis gyro, Accelerometer, Proximity sensor, Ambient light sensor

Summary Table:

Feature	Specification
Display	6.7" Super Retina XDR OLED, 2778 x 1284, 458 ppi
Processor	Apple A15 Bionic (6-core CPU, 5-core GPU, 16-core Neural Engine)
RAM	6GB
Storage Options	128GB, 256GB, 512GB, 1TB
Rear Cameras	12MP Main, 12MP Ultra Wide, 12MP Telephoto
Front Camera	12MP TrueDepth
Battery Capacity	4,352 mAh
Video Playback	Up to 28 hours
Charging	Lightning, MagSafe, Qi wireless (up to 15W), Fast Charging (20W+)
Weight	240 grams
IP Rating	IP68 (dust and water-resistant up to 6 meters for 30 minutes)
Operating System	iOS 15

13-inch MacBook Air with M4 Chip – Detailed Specifications

General Information:

- Model Name: MacBook Air (13-inch, M4, 2025)
- Release Date: March 12, 2025
- Operating System: macOS Sonoma

Design & Build:

- Material: 100% recycled aluminum
- Dimensions: 30.41 x 21.24 x 1.13 cm
- Weight: 1.24 kg
- Color Options: Sky Blue, Midnight, Starlight, Silver

Display:

- Type: 13.6-inch Liquid Retina display
- Resolution: 2560 x 1664 pixels (~224 ppi)
- Brightness: 500 nits (sustained), 600 nits (full-screen brightness)
- Features: Wide color (P3), True Tone, 1 billion colors

Performance:

- Chipset: Apple M4
  - CPU: 10-core (4 performance cores, 6 efficiency cores)
  - GPU: 8-core or 10-core
  - Neural Engine: 16-core
  - Memory Bandwidth: 120GB/s
- RAM: 16GB unified memory (configurable to 24GB or 32GB)
- Storage Options: 256GB, 512GB, 1TB, or 2TB SSD
- Ports: Two Thunderbolt 4 (USB-C) ports, MagSafe 3 charging port, 3.5mm headphone jack

Camera & Audio:

- Front Camera: 12MP with Center Stage
- Audio: Stereo speakers with Spatial Audio, three-microphone array with directional beamforming

- Battery & Charging:
- Battery Life: Up to 18 hours of video playback
  - Charging:
    - Wired: MagSafe 3 connector
    - Wireless: Qi-compatible charging (up to 15W)

- Connectivity:
- Wi-Fi: Wi-Fi 6E
  - Bluetooth: Bluetooth 5.3

- Additional Features:
- Touch ID: Integrated into the power button
  - Keyboard: Magic Keyboard with 1mm key travel
  - Trackpad: Force Touch trackpad
  - Operating System: macOS Sonoma with Apple Intelligence features

Summary Table:	
Feature	Specification
Display	13.6" Liquid Retina, 2560 x 1664, 500 nits
Processor	Apple M4 (10-core CPU, 8/10-core GPU, 16-core Neural Engine)
RAM	16GB (configurable to 24GB or 32GB)
Storage Options	256GB, 512GB, 1TB, 2TB SSD
Ports	2x Thunderbolt 4, MagSafe 3, 3.5mm headphone jack
Front Camera	12MP with Center Stage
Audio	Stereo speakers, Spatial Audio, 3-microphone array
Battery Life	Up to 18 hours video playback
Charging	MagSafe 3, Qi-compatible wireless (up to 15W)
Connectivity	Wi-Fi 6E, Bluetooth 5.3
Operating System	macOS Sonoma

15-inch MacBook Air with M4 Chip – Detailed Specifications

- General Information:
- Model Name: MacBook Air (15-inch, M4, 2025)
  - Release Date: March 12, 2025
  - Operating System: macOS Sonoma

- Design & Build:
- Material: 100% recycled aluminum
  - Dimensions: 34.04 x 23.76 x 1.13 cm
  - Weight: 1.51 kg
  - Color Options: Sky Blue, Midnight, Starlight, Silver

- Display:
- Type: 15.3-inch Liquid Retina display
  - Resolution: 2880 x 1864 pixels (~224 ppi)
  - Brightness: 500 nits (sustained), 600 nits (full-screen brightness)
  - Features: Wide color (P3), True Tone, 1 billion colors

- Performance:
- Chipset: Apple M4
    - CPU: 10-core (4 performance cores, 6 efficiency cores)
    - GPU: 10-core
    - Neural Engine: 16-core
    - Memory Bandwidth: 120GB/s

- RAM: 16GB unified memory (configurable to 24GB or 32GB)
- Storage Options: 256GB, 512GB, 1TB, or 2TB SSD
- Ports: Two Thunderbolt 4 (USB-C) ports, MagSafe 3 charging port, 3.5mm headphone jack

Camera & Audio:

- Front Camera: 12MP with Center Stage
- Audio: Stereo speakers with Spatial Audio, three-microphone array with directional beamforming

Battery & Charging:

- Battery Life: Up to 18 hours of video playback
- Charging:
  - Wired: MagSafe 3 connector
  - Wireless: Qi-compatible charging (up to 15W)

Connectivity:

- Wi-Fi: Wi-Fi 6E
- Bluetooth: Bluetooth 5.3

Additional Features:

- Touch ID: Integrated into the power button
- Keyboard: Magic Keyboard with 1mm key travel
- Trackpad: Force Touch trackpad
- Operating System: macOS Sonoma with Apple Intelligence features

Summary Table:

Feature	Specification
Display	15.3" Liquid Retina, 2880 x 1864, 500 nits
Processor	Apple M4 (10-core CPU, 10-core GPU, 16-core Neural Engine)
RAM	16GB (configurable to 24GB or 32GB)
Storage Options	256GB, 512GB, 1TB, 2TB SSD
Ports	2x Thunderbolt 4, MagSafe 3, 3.5mm headphone jack
Front Camera	12MP with Center Stage
Audio	Stereo speakers, Spatial Audio, 3-microphone array
Battery Life	Up to 18 hours video playback
Charging	MagSafe 3, Qi-compatible wireless (up to 15W)
Connectivity	Wi-Fi 6E, Bluetooth 5.3
Operating System	macOS Sonoma

14-inch MacBook Pro with M4 Chip – Detailed Specifications

General Information:

- Model Name: MacBook Pro (14-inch, M4, 2024)
- Release Date: November 8, 2024
- Operating System: macOS Sequoia

Design & Build:

- Material: 100% recycled aluminum
- Dimensions: 31.26 x 22.12 x 1.55 cm
- Weight: 1.61 kg
- Color Options: Space Black, Silver

Display:

- Type: 14.2-inch Liquid Retina XDR display

- Resolution: 3024 x 1964 pixels (~254 ppi)
- Brightness: 1000 nits (sustained), 1600 nits (peak HDR)
- Features: ProMotion (120Hz), True Tone, Wide color (P3), 1 billion colors

Performance:

- Chipset: Apple M4
  - CPU: 10-core (4 performance cores, 6 efficiency cores)
  - GPU: 10-core
  - Neural Engine: 16-core
  - Memory Bandwidth: 120GB/s
- RAM: 16GB unified memory (configurable to 24GB or 32GB)
- Storage Options: 512GB, 1TB, 2TB, or 4TB SSD
- Ports: Three Thunderbolt 4 (USB-C) ports, HDMI port, SDXC card slot, headphone jack, MagSafe 3 charging port

Camera & Audio:

- Front Camera: 12MP with Center Stage
- Audio: Six-speaker system with Spatial Audio, three-microphone array with directional beamforming

Battery & Charging:

- Battery Life: Up to 22 hours of video playback
- Charging:
  - Wired: MagSafe 3 connector
  - Wireless: Qi-compatible charging (up to 15W)

Connectivity:

- Wi-Fi: Wi-Fi 6E
- Bluetooth: Bluetooth 5.3

Additional Features:

- Touch ID: Integrated into the power button
- Keyboard: Magic Keyboard with 1mm key travel
- Trackpad: Force Touch trackpad
- Operating System: macOS Sequoia with Apple Intelligence features

Summary Table:

Feature	Specification
Display (peak HDR)	14.2" Liquid Retina XDR, 3024 x 1964, 1000 nits (sustained), 1600 nits
Processor	Apple M4 (10-core CPU, 10-core GPU, 16-core Neural Engine)
RAM	16GB (configurable to 24GB or 32GB)
Storage Options	512GB, 1TB, 2TB, 4TB SSD
Ports	3x Thunderbolt 4, HDMI, SDXC card slot, MagSafe 3, headphone jack
Front Camera	12MP with Center Stage
Audio	Six-speaker system, Spatial Audio, 3-microphone array
Battery Life	Up to 22 hours video playback
Charging	MagSafe 3, Qi-compatible wireless (up to 15W)
Connectivity	Wi-Fi 6E, Bluetooth 5.3
Operating System	macOS Sequoia

- General Information:
- Model Name: MacBook Pro (16-inch, M4 Max, 2024)
  - Release Date: November 8, 2024
  - Operating System: macOS Sequoia

- Design & Build:
- Material: 100% recycled aluminum
  - Dimensions: 35.57 x 24.81 x 1.68 cm
  - Weight: 2.16 kg
  - Color Options: Space Black, Silver

- Display:
- Type: 16.2-inch Liquid Retina XDR display
  - Resolution: 3456 x 2234 pixels (~254 ppi)
  - Brightness: 1000 nits (sustained), 1600 nits (peak HDR)
  - Features: ProMotion (120Hz), True Tone, Wide color (P3), 1 billion colors

- Performance:
- Chipset: Apple M4 Max
    - CPU: 16-core (12 performance cores, 4 efficiency cores)
    - GPU: 40-core
    - Neural Engine: 16-core
    - Memory Bandwidth: 546GB/s
  - RAM: 36GB unified memory (configurable to 48GB, 64GB, or 128GB)
  - Storage Options: 1TB, 2TB, 4TB, or 8TB SSD
  - Ports: Three Thunderbolt 5 (USB-C) ports, HDMI 2.1 port, SDXC card slot, headphone jack, MagSafe 3 charging port

- Camera & Audio:
- Front Camera: 12MP with Center Stage
  - Audio: Six-speaker system with Spatial Audio, three-microphone array with directional beamforming

- Battery & Charging:
- Battery Life: Up to 24 hours of video playback
  - Charging:
    - Wired: MagSafe 3 connector
    - Wireless: Qi-compatible charging (up to 15W)

- Connectivity:
- Wi-Fi: Wi-Fi 6E
  - Bluetooth: Bluetooth 5.3

- Additional Features:
- Touch ID: Integrated into the power button
  - Keyboard: Magic Keyboard with 1mm key travel
  - Trackpad: Force Touch trackpad
  - Operating System: macOS Sequoia with Apple Intelligence features

Summary Table:

Feature	Specification
Display (peak HDR)	16.2" Liquid Retina XDR, 3456 x 2234, 1000 nits (sustained), 1600 nits
Processor	Apple M4 Max (16-core CPU, 40-core GPU, 16-core Neural Engine)
RAM	36GB (configurable to 48GB, 64GB, or 128GB)
Storage Options	1TB, 2TB, 4TB, 8TB SSD
Ports	3x Thunderbolt 5, HDMI 2.1, SDXC card slot, MagSafe 3, headphone jack

Front Camera	12MP with Center Stage	
Audio	Six-speaker system, Spatial Audio, 3-microphone array	
Battery Life	Up to 24 hours video playback	
Charging	MagSafe 3, Qi-compatible wireless (up to 15W)	
Connectivity	Wi-Fi 6E, Bluetooth 5.3	
Operating System	macOS Sequoia	

13-inch MacBook Air with M3 Chip – Detailed Specifications

General Information:

- Model Name: MacBook Air (13-inch, M3, 2024)
- Release Date: March 2024
- Operating System: macOS Sonoma

Design & Build:

- Material: 100% recycled aluminum
- Dimensions: 11.97 x 8.46 x 0.44 inches (30.41 x 21.5 x 1.13 cm)
- Weight: 2.7 pounds (1.24 kg)
- Color Options: Midnight, Starlight, Space Gray, Silver

Display:

- Type: 13.6-inch Liquid Retina display
- Resolution: 2560 x 1664 pixels (~224 ppi)
- Brightness: 500 nits
- Features: Wide color (P3), True Tone, Support for 1 billion colors

Performance:

- Chipset: Apple M3
  - CPU: 8-core (4 performance cores, 4 efficiency cores)
  - GPU: 8-core or 10-core
  - Neural Engine: 16-core
  - Memory Bandwidth: 100GB/s
- RAM: 8GB unified memory (configurable to 16GB or 24GB)
- Storage Options: 256GB, 512GB, 1TB, or 2TB SSD
- Ports: Two Thunderbolt / USB 4 ports, 3.5mm headphone jack

Camera & Audio:

- Front Camera: 1080p FaceTime HD camera
- Audio: Four-speaker sound system with Spatial Audio, three-microphone array with directional beamforming

Battery & Charging:

- Battery Life: Up to 18 hours of video playback
- Charging:
  - Wired: MagSafe 3 connector
  - Wireless: Not supported

Connectivity:

- Wi-Fi: Wi-Fi 6E
- Bluetooth: Bluetooth 5.3

Additional Features:

- Touch ID: Integrated into the power button
- Keyboard: Magic Keyboard with 1mm key travel
- Trackpad: Force Touch trackpad

- Operating System: macOS Sonoma with Apple Intelligence features

Summary Table:

Feature	Specification
Display	13.6" Liquid Retina, 2560 x 1664, 500 nits
Processor	Apple M3 (8-core CPU, 8/10-core GPU, 16-core Neural Engine)
RAM	8GB (configurable to 16GB or 24GB)
Storage Options	256GB, 512GB, 1TB, 2TB SSD
Ports	2x Thunderbolt / USB 4, 3.5mm headphone jack
Front Camera	1080p FaceTime HD camera
Audio	Four-speaker system, Spatial Audio, 3-microphone array
Battery Life	Up to 18 hours video playback
Charging	MagSafe 3
Connectivity	Wi-Fi 6E, Bluetooth 5.3
Operating System	macOS Sonoma

15-inch MacBook Air with M3 Chip – Detailed Specifications

General Information:

- Model Name: MacBook Air (15-inch, M3, 2024)
- Release Date: March 8, 2024
- Operating System: macOS Sonoma

Design & Build:

- Material: 100% recycled aluminum
- Dimensions: 13.40 x 9.35 x 0.45 inches (34.04 x 23.75 x 1.15 cm)
- Weight: 3.3 pounds (1.51 kg)
- Color Options: Midnight, Starlight, Space Gray, Silver

Display:

- Type: 15.3-inch Liquid Retina display
- Resolution: 2880 x 1864 pixels (~224 ppi)
- Brightness: 500 nits
- Features: Wide color (P3), True Tone, Support for 1 billion colors

Performance:

- Chipset: Apple M3
  - CPU: 8-core (4 performance cores, 4 efficiency cores)
  - GPU: 10-core
  - Neural Engine: 16-core
  - Memory Bandwidth: 100GB/s
- RAM: 8GB unified memory (configurable to 16GB or 24GB)
- Storage Options: 256GB, 512GB, 1TB, or 2TB SSD
- Ports: Two Thunderbolt / USB 4 ports, 3.5mm headphone jack

Camera & Audio:

- Front Camera: 1080p FaceTime HD camera
- Audio: Six-speaker sound system with Spatial Audio, three-microphone array with directional beamforming

Battery & Charging:

- Battery Life: Up to 18 hours of video playback



- Charging:
  - Wired: MagSafe 3 connector
  - Wireless: Not supported

Connectivity:

- Wi-Fi: Wi-Fi 6E
- Bluetooth: Bluetooth 5.3

Additional Features:

- Touch ID: Integrated into the power button
- Keyboard: Magic Keyboard with 1mm key travel
- Trackpad: Force Touch trackpad
- Operating System: macOS Sonoma with Apple Intelligence features

Summary Table:

Feature	Specification
Display	15.3" Liquid Retina, 2880 x 1864, 500 nits
Processor	Apple M3 (8-core CPU, 10-core GPU, 16-core Neural Engine)
RAM	8GB (configurable to 16GB or 24GB)
Storage Options	256GB, 512GB, 1TB, 2TB SSD
Ports	2x Thunderbolt / USB 4, 3.5mm headphone jack
Front Camera	1080p FaceTime HD camera
Audio	Six-speaker system, Spatial Audio, 3-microphone array
Battery Life	Up to 18 hours video playback
Charging	MagSafe 3
Connectivity	Wi-Fi 6E, Bluetooth 5.3
Operating System	macOS Sonoma

14-inch MacBook Pro with M3 Chip – Detailed Specifications

General Information:

- Model Name: MacBook Pro (14-inch, M3, 2023)
- Release Date: November 2023
- Operating System: macOS Sonoma

Design & Build:

- Material: 100% recycled aluminum
- Dimensions: 12.3 x 8.7 x 0.6 inches (31.3 x 22.1 x 1.6 cm)
- Weight: 3.5 pounds (1.6 kg)
- Color Options: Space Gray, Silver

Display:

- Type: 14.2-inch Liquid Retina XDR display
- Resolution: 3024 x 1964 pixels (~254 ppi)
- Brightness: 1000 nits (sustained), 1600 nits (peak HDR)
- Features: ProMotion (120Hz), True Tone, Wide color (P3), 1 billion colors

Performance:

- Chipset: Apple M3
  - CPU: 8-core (4 performance cores, 4 efficiency cores)
  - GPU: 10-core
  - Neural Engine: 16-core
  - Memory Bandwidth: 100GB/s

- RAM: 8GB unified memory (configurable to 16GB or 24GB)
- Storage Options: 512GB, 1TB, or 2TB SSD
- Ports: Two Thunderbolt / USB 4 ports, HDMI port, SDXC card slot, headphone jack, MagSafe 3 charging port

Camera & Audio:

- Front Camera: 1080p FaceTime HD camera
- Audio: Six-speaker system with Spatial Audio, three-microphone array with directional beamforming

Battery & Charging:

- Battery Life: Up to 18 hours of video playback
- Charging:
  - Wired: MagSafe 3 connector
  - Wireless: Not supported

Connectivity:

- Wi-Fi: Wi-Fi 6E
- Bluetooth: Bluetooth 5.3

Additional Features:

- Touch ID: Integrated into the power button
- Keyboard: Magic Keyboard with 1mm key travel
- Trackpad: Force Touch trackpad
- Operating System: macOS Sonoma with Apple Intelligence features

Summary Table:

Feature	Specification
Display (peak HDR)	14.2" Liquid Retina XDR, 3024 x 1964, 1000 nits (sustained), 1600 nits
Processor	Apple M3 (8-core CPU, 10-core GPU, 16-core Neural Engine)
RAM	8GB (configurable to 16GB or 24GB)
Storage Options	512GB, 1TB, 2TB SSD
Ports jack	2x Thunderbolt / USB 4, HDMI, SDXC card slot, MagSafe 3, headphone
Front Camera	1080p FaceTime HD camera
Audio	Six-speaker system, Spatial Audio, 3-microphone array
Battery Life	Up to 18 hours video playback
Charging	MagSafe 3
Connectivity	Wi-Fi 6E, Bluetooth 5.3
Operating System	macOS Sonoma

16-inch MacBook Pro with M3 Pro and M3 Max Chips – Detailed Specifications

General Information:

- Model Name: MacBook Pro (16-inch, M3 Pro/M3 Max, 2023)
- Release Date: November 2023
- Operating System: macOS Sonoma

Design & Build:

- Material: 100% recycled aluminum
- Dimensions: 14.01 x 9.77 x 0.66 inches (35.57 x 24.81 x 1.68 cm)
- Weight: 4.7 pounds (2.15 kg)

- Color Options: Space Black, Silver

Display:

- Type: 16.2-inch Liquid Retina XDR display
- Resolution: 3456 x 2234 pixels (~254 ppi)
- Brightness: 1000 nits (sustained), 1600 nits (peak HDR)
- Features: ProMotion (120Hz), True Tone, Wide color (P3), 1 billion colors

Performance Options:

1. M3 Pro Configuration:
  - CPU: 12-core (6 performance cores, 6 efficiency cores)
  - GPU: 18-core
  - Neural Engine: 16-core
  - Memory Bandwidth: 150GB/s
  - RAM: 18GB or 36GB unified memory
  - Storage Options: 512GB, 1TB, 2TB, or 4TB SSD
2. M3 Max Configuration:
  - CPU: Up to 16-core (12 performance cores, 4 efficiency cores)
  - GPU: Up to 40-core
  - Neural Engine: 16-core
  - Memory Bandwidth: Up to 400GB/s
  - RAM: 36GB, 48GB, 64GB, 96GB, or 128GB unified memory
  - Storage Options: 1TB, 2TB, 4TB, or 8TB SSD

Ports:

- Three Thunderbolt 4 (USB-C) ports
- HDMI port
- SDXC card slot
- 3.5mm headphone jack
- MagSafe 3 charging port

Camera & Audio:

- Front Camera: 1080p FaceTime HD camera
- Audio: Six-speaker system with Spatial Audio, studio-quality three-microphone array

Battery & Charging:

- Battery Life: Up to 22 hours of video playback
- Charging:
  - Wired: MagSafe 3 connector
  - Wireless: Not supported

Connectivity:

- Wi-Fi: Wi-Fi 6E
- Bluetooth: Bluetooth 5.3

Additional Features:

- Touch ID: Integrated into the power button
- Keyboard: Magic Keyboard with 1mm key travel
- Trackpad: Force Touch trackpad
- Operating System: macOS Sonoma with Apple Intelligence features

Summary Table:

Feature	Specification
Display	16.2" Liquid Retina XDR, 3456 x 2234, 1000 nits (sustained), 1600 nits (peak HDR)
Processor Options	M3 Pro (12-core CPU, 18-core GPU) or M3 Max (up to 16-core CPU, up to 40-core GPU)

RAM Options	M3 Pro: 18GB or 36GB; M3 Max: 36GB to 128GB unified memory	
Storage Options	512GB to 8TB SSD	
Ports	3x Thunderbolt 4, HDMI, SDXC card slot, MagSafe 3, headphone jack	
Front Camera	1080p FaceTime HD camera	
Audio	Six-speaker system, Spatial Audio, studio-quality 3-microphone array	
Battery Life	Up to 22 hours video playback	
Charging	MagSafe 3	
Connectivity	Wi-Fi 6E, Bluetooth 5.3	
Operating System	macOS Sonoma	

### 13-inch MacBook Air with M2 Chip – Detailed Specifications

#### General Information:

- Model Name: MacBook Air (13-inch, M2, 2022)
- Release Date: July 15, 2022
- Operating System: macOS Ventura (upgradable to macOS Sonoma)

#### Design & Build:

- Material: 100% recycled aluminum
- Dimensions: 11.97 x 8.46 x 0.44 inches (30.41 x 21.5 x 1.13 cm)
- Weight: 2.7 pounds (1.24 kg)
- Color Options: Midnight, Starlight, Space Gray, Silver

#### Display:

- Type: 13.6-inch Liquid Retina display
- Resolution: 2560 x 1664 pixels (~224 ppi)
- Brightness: 500 nits
- Features: Wide color (P3), True Tone, Support for 1 billion colors

#### Performance:

- Chipset: Apple M2
  - CPU: 8-core (4 performance cores, 4 efficiency cores)
  - GPU: 8-core (configurable to 10-core)
  - Neural Engine: 16-core
  - Memory Bandwidth: 100GB/s
- RAM: 8GB unified memory (configurable to 16GB or 24GB)
- Storage Options: 256GB, 512GB, 1TB, or 2TB SSD
- Ports: Two Thunderbolt / USB 4 ports, 3.5mm headphone jack

#### Camera & Audio:

- Front Camera: 1080p FaceTime HD camera
- Audio: Four-speaker sound system with Spatial Audio, three-microphone array with directional beamforming

#### Battery & Charging:

- Battery Life: Up to 18 hours of video playback
- Charging:
  - Wired: MagSafe 3 connector
  - Wireless: Not supported

#### Connectivity:

- Wi-Fi: Wi-Fi 6 (802.11ax)
- Bluetooth: Bluetooth 5.0

#### Additional Features:

- Touch ID: Integrated into the power button

- Keyboard: Magic Keyboard with 1mm key travel
- Trackpad: Force Touch trackpad
- Operating System: macOS Ventura (upgradable to macOS Sonoma)

Summary Table:

Feature	Specification
Display	13.6" Liquid Retina, 2560 x 1664, 500 nits
Processor	Apple M2 (8-core CPU, 8/10-core GPU, 16-core Neural Engine)
RAM	8GB (configurable to 16GB or 24GB)
Storage Options	256GB, 512GB, 1TB, 2TB SSD
Ports	2x Thunderbolt / USB 4, 3.5mm headphone jack
Front Camera	1080p FaceTime HD camera
Audio	Four-speaker system, Spatial Audio, 3-microphone array
Battery Life	Up to 18 hours video playback
Charging	MagSafe 3
Connectivity	Wi-Fi 6, Bluetooth 5.0
Operating System	macOS Ventura (upgradable to macOS Sonoma)

15-inch MacBook Air with M2 Chip – Detailed Specifications

General Information:

- Model Name: MacBook Air (15-inch, M2, 2023)
- Release Date: June 13, 2023
- Operating System: macOS Ventura (upgradable to macOS Sonoma and macOS Sequoia)

Design & Build:

- Material: 100% recycled aluminum
- Dimensions: 13.40 x 9.35 x 0.45 inches (34.04 x 23.76 x 1.15 cm)
- Weight: 3.3 pounds (1.51 kg)
- Color Options: Midnight, Starlight, Space Gray, Silver

Display:

- Type: 15.3-inch Liquid Retina display
- Resolution: 2880 x 1864 pixels (~224 ppi)
- Brightness: 500 nits
- Features: Wide color (P3), True Tone, Support for 1 billion colors

Performance:

- Chipset: Apple M2
  - CPU: 8-core (4 performance cores, 4 efficiency cores)
  - GPU: 10-core
  - Neural Engine: 16-core
  - Memory Bandwidth: 100GB/s
- RAM: 8GB unified memory (configurable to 16GB or 24GB)
- Storage Options: 256GB, 512GB, 1TB, or 2TB SSD
- Ports: Two Thunderbolt / USB 4 ports, 3.5mm headphone jack

Camera & Audio:

- Front Camera: 1080p FaceTime HD camera
- Audio: Six-speaker sound system with Spatial Audio, three-microphone array with directional

beamforming

- Battery & Charging:
- Battery Life: Up to 18 hours of video playback
  - Charging:
    - Wired: MagSafe 3 connector
    - Wireless: Not supported

- Connectivity:
- Wi-Fi: Wi-Fi 6 (802.11ax)
  - Bluetooth: Bluetooth 5.3

- Additional Features:
- Touch ID: Integrated into the power button
  - Keyboard: Magic Keyboard with 1mm key travel
  - Trackpad: Force Touch trackpad
  - Operating System: macOS Ventura (upgradable to macOS Sonoma and macOS Sequoia)

Summary Table:

Feature	Specification
Display	15.3" Liquid Retina, 2880 x 1864, 500 nits
Processor	Apple M2 (8-core CPU, 10-core GPU, 16-core Neural Engine)
RAM	8GB (configurable to 16GB or 24GB)
Storage Options	256GB, 512GB, 1TB, 2TB SSD
Ports	2x Thunderbolt / USB 4, 3.5mm headphone jack
Front Camera	1080p FaceTime HD camera
Audio	Six-speaker system, Spatial Audio, 3-microphone array
Battery Life	Up to 18 hours video playback
Charging	MagSafe 3
Connectivity	Wi-Fi 6, Bluetooth 5.3
Operating System	macOS Ventura (upgradable to macOS Sonoma and macOS Sequoia)

14-inch MacBook Pro with M2 Pro Chip – Detailed Specifications

- General Information:
- Model Name: MacBook Pro (14-inch, M2 Pro, 2023)
  - Release Date: January 24, 2023
  - Operating System: macOS Ventura (upgradable to macOS Sonoma and macOS Sequoia)

- Design & Build:
- Material: 100% recycled aluminum
  - Dimensions: 12.31 x 8.71 x 0.61 inches (31.26 x 22.12 x 1.55 cm)
  - Weight: 3.5 pounds (1.6 kg)
  - Color Options: Silver, Space Gray

- Display:
- Type: 14.2-inch Liquid Retina XDR display
  - Resolution: 3024 x 1964 pixels (~254 ppi)
  - Brightness: 1000 nits (sustained), 1600 nits (peak HDR)
  - Features: ProMotion (120Hz), True Tone, Wide color (P3), 1 billion colors

- Performance:
- Chipset: Apple M2 Pro

- CPU Options:
  - 10-core (6 performance cores, 4 efficiency cores)
  - 12-core (8 performance cores, 4 efficiency cores)
- GPU Options:
  - 16-core
  - 19-core
- Neural Engine: 16-core
- Memory Bandwidth: 200GB/s
- RAM: 16GB unified memory (configurable to 32GB)
- Storage Options: 512GB, 1TB, 2TB, 4TB, or 8TB SSD
- Ports:
  - Three Thunderbolt 4 (USB-C) ports
  - HDMI port
  - SDXC card slot
  - 3.5mm headphone jack
  - MagSafe 3 charging port

Camera & Audio:

- Front Camera: 1080p FaceTime HD camera
- Audio: Six-speaker system with Spatial Audio, studio-quality three-microphone array

Battery & Charging:

- Battery Life: Up to 18 hours of video playback
- Charging:
  - Wired: MagSafe 3 connector
  - Wireless: Not supported

Connectivity:

- Wi-Fi: Wi-Fi 6E
- Bluetooth: Bluetooth 5.3

Additional Features:

- Touch ID: Integrated into the power button
- Keyboard: Magic Keyboard with 1mm key travel
- Trackpad: Force Touch trackpad
- Operating System: macOS Ventura (upgradable to macOS Sonoma and macOS Sequoia)

Summary Table:

Feature	Specification
Display	14.2" Liquid Retina XDR, 3024 x 1964, 1000 nits (sustained), 1600 nits (peak HDR)
Processor Options	Apple M2 Pro (10-core or 12-core CPU, 16-core or 19-core GPU, 16-core Neural Engine)
RAM	16GB (configurable to 32GB)
Storage Options	512GB, 1TB, 2TB, 4TB, 8TB SSD
Ports	3x Thunderbolt 4, HDMI, SDXC card slot, MagSafe 3, headphone jack
Front Camera	1080p FaceTime HD camera
Audio	Six-speaker system, Spatial Audio, studio-quality 3-microphone array
Battery Life	Up to 18 hours video playback
Charging	MagSafe 3
Connectivity	Wi-Fi 6E, Bluetooth 5.3
Operating System	macOS Ventura (upgradable to macOS Sonoma and macOS Sequoia)

**General Information:**

- Model Name: MacBook Pro (16-inch, M2 Pro/M2 Max, 2023)
- Release Date: January 24, 2023
- Operating System: macOS Ventura (upgradable to macOS Sonoma and macOS Sequoia)

**Design & Build:**

- Material: 100% recycled aluminum
- Dimensions: 14.01 x 9.77 x 0.66 inches (35.57 x 24.81 x 1.68 cm)
- Weight:
  - M2 Pro: 4.7 pounds (2.15 kg)
  - M2 Max: 4.8 pounds (2.16 kg)
- Color Options: Silver, Space Gray

**Display:**

- Type: 16.2-inch Liquid Retina XDR display
- Resolution: 3456 x 2234 pixels (~254 ppi)
- Brightness:
  - SDR: 500 nits
  - HDR: 1000 nits sustained, 1600 nits peak
- Contrast Ratio: 1,000,000:1
- Features: ProMotion (adaptive refresh rates up to 120Hz), True Tone, Wide color (P3), Support for 1 billion colors

**Performance Options:****1. M2 Pro Configuration:**

- CPU: 12-core (8 performance cores, 4 efficiency cores)
- GPU: 19-core
- Neural Engine: 16-core
- Memory Bandwidth: 200GB/s
- RAM: 16GB unified memory (configurable to 32GB)
- Storage Options: 512GB, 1TB, 2TB, 4TB, or 8TB SSD

**2. M2 Max Configuration:**

- CPU: 12-core (8 performance cores, 4 efficiency cores)
- GPU: 30-core or 38-core
- Neural Engine: 16-core
- Memory Bandwidth: 400GB/s
- RAM: 32GB unified memory (configurable to 64GB or 96GB)
- Storage Options: 512GB, 1TB, 2TB, 4TB, or 8TB SSD

**Ports:**

- Three Thunderbolt 4 (USB-C) ports
- HDMI 2.1 port (supports up to 8K at 60Hz and 4K at 240Hz)
- SDXC card slot
- 3.5mm headphone jack
- MagSafe 3 charging port

**Camera & Audio:**

- Front Camera: 1080p FaceTime HD camera
- Audio: Six-speaker sound system with Spatial Audio, studio-quality three-microphone array

**Battery & Charging:**

- Battery Life: Up to 22 hours of video playback
- Charging:
  - Wired: MagSafe 3 connector with 140W USB-C Power Adapter
  - Wireless: Not supported

**Connectivity:**

- Wi-Fi: Wi-Fi 6E



- Bluetooth: Bluetooth 5.3

Additional Features:

- Touch ID: Integrated into the power button
- Keyboard: Magic Keyboard with 1mm key travel
- Trackpad: Force Touch trackpad
- Operating System: macOS Ventura (upgradable to macOS Sonoma and macOS Sequoia)

Summary Table:

Feature	Specification
Display	16.2" Liquid Retina XDR, 3456 x 2234, 500 nits (SDR), 1000 nits sustained (HDR), 1600 nits peak (HDR)
Processor Options	M2 Pro (12-core CPU, 19-core GPU) or M2 Max (12-core CPU, 30-core or 38-core GPU)
RAM Options	M2 Pro: 16GB (configurable to 32GB); M2 Max: 32GB (configurable to 64GB or 96GB)
Storage Options	512GB, 1TB, 2TB, 4TB, or 8TB SSD
Ports	3x Thunderbolt 4, HDMI 2.1, SDXC card slot, MagSafe 3, headphone jack
Front Camera	1080p FaceTime HD camera
Audio	Six-speaker system, Spatial Audio, studio-quality 3-microphone array
Battery Life	Up to 22 hours video playback
Charging	MagSafe 3 with 140W USB-C Power Adapter
Connectivity	Wi-Fi 6E, Bluetooth 5.3
Operating System	macOS Ventura (upgradable to macOS Sonoma and macOS Sequoia)