



Qualcomm®
Snapdragon™

712

Mobile Platform

The new architectures of the Qualcomm® Snapdragon™ 712 Mobile Platform are engineered to optimize key experiences including AI, gaming, performance, and power for some of the most in-demand mobile devices.



Faster performance, better battery life¹

Now you can do more on a single charge. With a 10 nm processor, architecture enhancements and core improvements, you'll experience a 10% performance uplift across gaming, web browsing and more¹. When it's time to recharge, rely on Qualcomm® Quick Charge™ 4+ technology to take your phone from 0% to 50% in 15 minutes!²

- Qualcomm Spectra™ 250 ISP and Qualcomm® Adreno™ 616 GPU enable significant power improvements
- Architectural improvements across the CPU, GPU, DSP, and more help bring performance to a new level



AI helps your device work smarter, not harder

Our 3rd generation multi-core Qualcomm® AI Engine delivers improvements for mobile AI applications. Devices powered by the Snapdragon 712 can better manage battery usage, auto-adjust settings for pictures, and understand your voice cues more naturally.

- Supports highly-advanced on-device AI
- Qualcomm® Hexagon™ Vector architecture designed to execute neural networks more efficiently
- Optimizations for fixed and floating-point networks on Qualcomm® Kryo™ CPU and Adreno DSP



Rich on-device experiences

Let your entertainment take you places. The Adreno 616 GPU is designed for exceptional console-like gaming and cinematic movie experiences on your smartphone. With 10% faster graphics rendering¹ and 4K HDR playback, you'll be immersed in over 1 billion shades of color—delivered with an incredible audio experience.

- Wi-Fi latency manager for responsive gaming
- Qualcomm® aptX™ Adaptive Audio and Qualcomm Aqstic™ Audio Technologies deliver smooth, crystal-clear audio



More stunning photos and videos per charge

Capture vibrant, high-quality photos and videos thanks to new architectures in the 2nd generation Qualcomm Spectra ISP. Shoot 4K Ultra HD video using less power¹ so you can document every moment with less battery drain. Your footage will even show greater texture and sharper, more colorful photos in low light.

- Ultra HD 4K (3840x2160) video capture at 30fps
- Native display support for 2K HDR-capable (QHD+ @60fps, 10 bit)
- Multi-Frame processing engine for Noise Reduction (MFNR) and Super Resolution (MFSR)



Keeping you connected faster³, worldwide

Connect quickly with the Snapdragon X15 LTE Modem, providing download speeds over twice as fast as typical LTE Advanced capability³. Enjoy lightning-fast connectivity—even in some of the most crowded places or remote locations. Download an HD movie or your favorite band's latest album with confidence.

- Capable of data speeds of up to 800 Mbps DL and 150 Mbps UL
- LAA and 4x4 MIMO
- Improved Wi-Fi coverage (2x2) results in a stronger signal, especially in homes and offices with hard to penetrate brick and concrete walls

To learn more visit
[snapdragon.com](https://www.qualcomm.com/snapdragon)

¹ Compared to Snapdragon 710.

² Quick Charge is designed to allow devices to charge from 0% to 50% in 15 minutes. Actual results may vary depending on device design.

³ Compared to Cat 7 LTE; actual results may vary depending on device design.

Qualcomm Snapdragon, Qualcomm Adreno, Qualcomm AI Engine, Qualcomm Aqstic, Qualcomm aptX, Qualcomm Kryo, Qualcomm Quick Charge, Qualcomm Spectra, and Qualcomm Hexagon are products of Qualcomm Technologies, Inc. and/or its subsidiaries.

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SPECIFICATIONS & FEATURES

Qualcomm AI Engine

- Adreno 616 GPU
- Kryo 360 CPU
- Qualcomm All-Ways Aware™ Hub
- Hexagon 685 DSP
- 3rd Gen Hexagon Vector Extensions (HVX)
- Qualcomm® Neural Processing SDK
- Caffe, Caffe2, Tensorflow, Tensorflow Lite and other framework support

Modem

- Snapdragon X15 LTE Modem
- Support for 800 Mbps LTE
- Downlink: LTE Cat 15 up to 800 Mbps, 3x20 MHz carrier aggregation, up to 256-QAM, up to 4x4 MIMO on two aggregated carriers
- Uplink: LTE Cat 13 up to 150 Mbps, Snapdragon Upload+ (2x20 MHz carrier aggregation, up to 64-QAM)
- License Assisted Access (LAA)
- Citizens Broadband Radio Service (CBRS) shared radio spectrum
- Dual SIM Dual VoLTE (DSDV)
- All Mode with support for all major cellular modes plus LAA. Support for:
 - VoLTE with SRVCC to 3G and 2G, HD and Ultra HD Voice (EVS), CSFB to 3G and 2G
 - Voice over Wi-Fi (VoWiFi) with LTE call Continuity

Connectivity

- Qualcomm® Wi-Fi Solutions
- Wi-Fi integrated 802.11ac 2x2 with MU-MIMO
- Wi-Fi: 2.4 GHz and 5 GHz with Dual Band Simultaneous (DBS)

- 11k/r/v: Enhanced mobility, fast acquisition and congestion mitigation for carrier Wi-Fi
- Qualcomm TrueWireless™ Stereo Plus
- Qualcomm® Broadcast Audio
- Bluetooth 5.0
- RF Front End
- Qualcomm® Signal Boost adaptive antenna tuning
- High-power transmit (HPUE)

Camera

- Qualcomm Spectra 250 Image Signal Processor
- 2nd Generation Qualcomm Spectra architecture for 14-bit image signal processing, with support up to:
 - Up to 32 megapixel single camera
 - Up to 20 megapixel dual camera
 - Can connect up to 6 different cameras (many configurations possible)
 - Multi-Frame Noise Reduction (MFNR) with accelerated image stabilization
 - Hybrid Autofocus with support for dual phase detection (2PD) sensors
 - Ultra HD video capture (4K at 30 fps) with Motion Compensated Temporal Filtering (MCTF)
 - 3D structured light and time of flight active depth sensing

Audio

- Qualcomm Aqstic audio codec and Qualcomm Aqstic smart speaker amplifier
- Native DSD support, PCM up to 384 kHz/32-bit
- aptX audio playback with support for aptX Classic and HD

CPU

- 8x Kryo 360 CPU
- Up to 2.3 GHz
- 10nm process technology

Visual Subsystem

- Adreno 616 Visual Processing Subsystem
- Open GL ES 3.2, Open CL 2.0, Vulkan, DirectX 12
- 4K HDR video playback (10-bit color depth, Rec. 2020 color gamut)
- H.264 (AVC), H.265 (HEVC) and VP9 playback
- DisplayPort over USB Type-C support

Security

- Qualcomm® Processor Security
- Qualcomm® Mobile Security
- Qualcomm® Content Protection

Memory

- LPDDR4x, 2x16-bit
- Up to 1866 MHz, 8 GB RAM

Location

- GPS, GLONASS, BEIDOU, GALILEO, QZSS, and SBAS
- Low power geofencing and tracking, sensor assisted navigation

Charging

- Quick Charge 4+ technology

Certain optional features available subject to Carrier and OEM selection for an additional fee.

Qualcomm All-Ways Aware, Qualcomm Processor Security, Qualcomm Mobile Security, Qualcomm Content Protection, Qualcomm Signal Boost, Qualcomm Wi-Fi, Qualcomm Neural Processing SDK, Qualcomm Snapdragon Upload+, Qualcomm Broadcast Audio and Qualcomm TrueWireless are products of Qualcomm Technologies Inc. and/or its subsidiaries.

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