QUALCOMM SNAPDRAGON MOBILE PLATFORM

Snapdragon 636 mobile platform advancements:

- + Qualcomm Spectra™ 160 Camera ISP: Dual 14-bit ISPs support up to 24MP single or dual 16MP cameras for the ultimate photography and videography experience
- + Qualcomm[®] Adreno[™] 509 GPU: Better graphics and enhanced gaming performance¹ for lifelike visuals and more efficient rendering of advanced 3D graphics
- + Qualcomm® Hexagon™ DSP designed to provide battery-efficient enhancements to audio and video use cases, and more
- + Snapdragon X12 LTE modem: Industry leading connectivity with LTE download speeds up to 600 Mbps and integrated 802.11ac Wi-Fi with MU-MIMO
- + Qualcomm[®] Kryo[™] 260 CPU: Up to 40% higher CPU performance* optimized across 4 performance and 4 efficiency
- + Qualcomm® Quick Charge™ 4 technology: 20% faster, 30% more efficient than previous generation, charge from zero to 50% in 15 minutes³
- + Pin and software compatible with Snapdragon 660 and 630
- + Snapdragon Neural Processing Engine (NPE) helps developers determine where best to run their deep neural networks on device for optimal performance and power consumption.

To learn more visit: snapdragon.com

User Experiences



Outstanding image quality

The 14-bit Qualcomm Spectra 160 ISP supports capture of up to 24 megapixels with zero shutter lag, and offers smooth zoom, fast autofocus and true-to-life colors for outstanding image quality.



Enhanced graphics and 3D gaming

With improved performance¹, Adreno 509 GPU supports lifelike visuals and more efficient rendering of advanced 3D graphics. Developers gain access to the latest graphics APIs.



Faster, consistent connection²

With LTE downlink speeds up to 2X faster², the Snapdragon X12 modem is engineered to quickly download a favorite TV show or an entire album worth of songs in more locations, with greater consistency.



On device Artificial Intelligence

Qualcomm® Artificial Intelligence Platform supports high performance, intelligent, on-device processes, utilizing heterogenous compute capabilities to power immersive and engaging experiences.

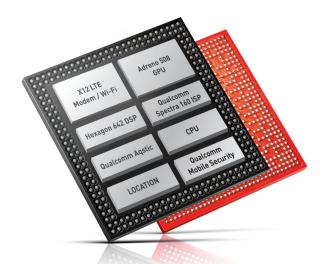


Power when it's needed most

Do more throughout the day: stream music and videos, play games, talk, all while getting extended battery life. When it's time to recharge, Quick Charge 4 gets it done super-fast.



Qualcomm Artificial Intelligence platform and Qualcomm Quick Charge are products of Qualcomm Technologies, Inc.



The Snapdragon 636 mobile platform supports a leap in performance, engineered to allow enhanced user experiences and mobile industry-leading battery performance

FEATURES & SPECIFICATIONS¹

GPU

- + Adreno 509 GPU
- + OpenGL ES 3.2, OpenCL 2.0 full, Vulkan. DX12
- + Caffe and Tensorflow are supported via Snapdragon Neural Processing Engine (NPE)

DSP

+ Hexagon DSP with Qualcomm All-Ways Aware™ Technology

Display

- + FHD+ resolution
- + External display support via DisplayPort over Type-C
- + Qualcomm® TruPalette™ pixel processing technologies
- + Qualcomm® Low-Power Picture Enhancement power saving features

Audio

- + Qualcomm Aqstic™ audio codec and speaker amplifier
- + Qualcomm[®] aptX[™] audio playback with support for aptX Classic and HD

CPU

- + 8x Kryo 260 CPU
- + Up to 1.8 GHz
- + 14nm process technology
- + Caffe and Tensorflow are supported via Snapdragon Neural Processing Engine (NPE)

Camera

- + Qualcomm Spectra 160 ISP
- + Dual 14-bit ISPs
- + Up to 16 MP dual camera
- + Up to 24 MP single camera
- + Qualcomm® Clear Sight™ camera features, Hybrid Autofocus, Optical Zoom, Zero Shutter Lag

Video

- + Up to 4K UltraHD capture @ 30 fps
- + Up to 4K UltraHD playback @ 30 fps
- + H.264 (AVC), H.265 (HEVC), VP9

Memory

- + LPDDR4/4x, dual channel
- + Up to 1333MHz, 8GB RAM
- + eMMC and UFS

Charging

+ Quick Charge 4 technology

Security

- + Qualcomm® Mobile Security
 - Qualcomm® Processor Security
 - Application Security
 - Camera Security

RF Front End

- + Qualcomm® Signal Boost adaptive antenna tuning
- + High-power transmit (HPUE)
- + Envelope tracking technology

Modem

- + Snapdragon X12 LTE modem
- + Downlink: LTE Cat 12 up to 600 Mbps, 3x20 MHz carrier aggregation, up to 256-QAM
- Uplink: LTE Cat 13 up to 150 Mbps, Snapdragon Upload+ (2x20 MHz carrier aggregation, up to 64-QAM)
- + All Mode features with support for all seven cellular modes, and 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

- + Wi-Fi integrated 802.11ac 1x1 with MU-MIMO
- + 2.4 GHz, 5 GHz
- + Bluetooth 5

Location

- + GPS, Glonass, BeiDou, Galileo, QZSS, and SBAS
- + Low Power Geofencing and Tracking, Sensor-assisted Navigation



Qualcomm aptX is a product of Qualcomm Technologies International, Ltd. Qualcomm Aqstic, Qualcomm All-ways Aware, Qualcomm TruPalette, Qualcomm Mobile Security, Qualcomm Low-Power Picture Enhancement, Qualcomm Clear Sight, Qualcomm Signal Boost and Qualcomm Processor Security are products of Qualcomm Technologies, Inc.

¹ Certain optional features available subject to Carrier and OEM selection for an additional fee.