QUALCOMM **SNAPDRAGON**



The First 14nm 400-tier **Snapdragon Processor**

The Snapdragon 450 Mobile Platform offers many advantages:

+ Integrated X9 LTE

- Cat 7 downlink, up to 300 Mbps
- Cat 13 uplink, up to 150 Mbps
- 2x20Mz carrier aggregation with up to 64-QAM
- Snapdragon All Mode
- Ultra HD Voice with EVS codec
- + Qualcomm[®] TruSignal[™] Antenna Boost
- + Professional camera features and DSLR-like image quality with dual image signal processors
- + Qualcomm[®] Hexagon[™] 546 DSP provides battery-efficient enhancements to audio, video, and computer vision use cases
- + Qualcomm[®] Adreno[™] 506 PC-class graphics with support for advanced APIs and Hardware Tessellation
- + Snapdragon sensor core is designed to support new always-on use cases at reduced power levels and cost
- + Software can be utilized across other Snapdragon 400 series processors

To learn more visit: snapdragon.com

USER EXPERIENCES



Long Battery Life

Up to 4 hours more battery at the end of the day¹ with the first 14nm Snapdragon 400 tier processor

Enhanced

Photography Dual image signal processors (ISPs) support

superior mobile camera experiences, real time Bokeh, improved dynamic range, enhanced AutoFocus performance and computational photography

Advanced Graphics and 3D Gaming

Adreno 506 GPU supports avid mobile gamers with realistic 3D imagery and developers with support for the latest graphics APIs

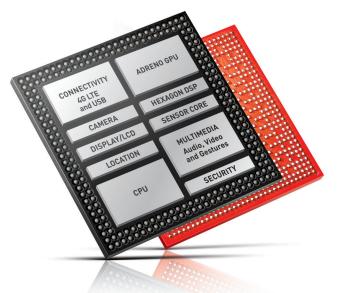
Exceptional Performance

Up to 25% higher CPU and GPU performance so users can do more, faster than ever before in the 400 tier*

Integrated X9 LTE

Download speeds up to 300 Mbps and advanced Wi-Fi with MU-MIMO for super-fast sharing of high res photos and videos





Snapdragon 400 tier processors bring high-value features to mid-tier devices, designed to support all-day battery life, fast LTE connectivity, enhanced camera, advanced graphics, and more.

FEATURES & SPECIFICATIONS¹

CPU

- + 8x ARM Cortex A53
- + Up to 1.8 GHz
- + 14nm process technology

GPU

+ Adreno 506 GPU: OpenGL ES 3.1, OpenCL 2.0 Full, DirectX 12, GPU Tessellation, Geometry Shading

DSP

+ Hexagon 546 DSP

Memory

+ LPDDR3

Display

- + Primary Full HD 1080p 60fps UI
- + Qualcomm[®] Low-Picture
 Enhancement & Qualcomm[®]
 TruPalette[™] camera features
 support
- + Qualcomm[®] improveTouch[™] technology support

Qualcomm Aqstic[™] Audio

- + Crystal clear VoLTE w/ Ultra HD Voice (EVS)
- + High fidelity music playback 24bit/192kHz
- + Dolby 5.1 support

RF Front-End

- + Snapdragon All Mode global/ regional solutions with Qualcomm[®] RF360[™] front-end solution
- + QFE2550 antenna impedance tuner for TruSignal Antenna Boost
- + Aperture tuning
- + 3rd generation 28nm RF Transceiver

Snapdragon X9 LTE Modem

- + X9 LTE with 2x20Mz carrier aggregation
- + Cat 7 downlink, up to 300 Mbps; up to 4x 75Mbps LTE streams
- + Cat 13 uplink, up to 150 Mbps; up to 2x 75Mbps LTE streams
- + Snapdragon Upload+
- + Up to 64-QAM
- + Snapdragon All Mode LTE FDD, LTE TDD, WCDMA (DB-DC-HSDPA, DC-HSUPA), TD-SCDMA, EV-DO, CDMA1x, and GSM/EDGE
- + Qualcomm RF360 front end solution
- + Support for LTE Broadcast, LTE multimode dual SIM and VoLTE with HD Voice and SRVCC

Connectivity

- + Integrated 802.11ac Multi-User MIMO (MU-MIMO)
- + Qualcomm[®] Location technology Gen8C Lite
- + USB 3.0
- + BT4.1 + BLE

Camera

- + Dual Camera up to 13MP
- + Single Camera up to 21MP @ 30fps, 24MP @ 24fps
- + Real-time Bokeh, Qualcomm[®] Clear Sight[™] camera features

Video

+ FHD+@60fps HEVC capture and playback

Security

+ Qualcomm[®] Mobile Security

Fast Charging

+ Qualcomm[®] Quick Charge[™] 3.0 technology



Qualcomm RF360, Qualcomm Low-Picture Enhancement, Qualcomm TruPalette, Qualcomm improveTouch, Qualcomm Haven, Qualcomm Aqstic, Qualcomm Location, Qualcomm Mobile Security, Qualcomm Clear Sight, and Qualcomm Quick Charge are products of Qualcomm Technologies, Inc.

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