The Snapdragon 810 processor offers many advantages:

+ Integrated X10 LTE
  - LTE Advanced Carrier Aggregation up to 3x20 MHz in the downlink
  - Support for Category 9 speeds of up to 450 Mbps download, 50 Mbps upload

+ Two clusters of 64-bit quad core ARM® Cortex®-A57 and quad Cortex®-A53 CPUs are designed to support an improved user experience

+ New ARMv8-A ISA supports improved instruction set efficiency

+ Combined 14-bit dual image signal processors (ISPs) support 1.2GP/s throughput and image sensors up to 55 MP

+ HEVC H.265 Video with hardware decoding and encoding for bandwidth and power efficiency

+ Tight system integration and optimization for superior performance and power efficiency

+ Integrated sensor core for advanced application support and sensor management

To learn more visit:
snapdragon.com or mydragonboard.org

USER EXPERIENCES SUPPORTED

Streaming 4K Ultra HD video at home and on the go
3x20MHz fully integrated Carrier Aggregation supports connection intensive use cases like 4K streaming

Capture and share sharper camera images faster
Dual image signal processors and enhanced camera software supports higher quality photos

Immersive 3D gaming on your device and 4K TV
New Qualcomm® Adreno™ 430 GPU and display engine enable 3D gaming on 4K displays

Stream higher quality video using less bandwidth
Support for hardware based HEVC playback and capture at 4K resolution supports power efficient 4K streaming and uploads

All day battery life and easier, faster charging
Tight integration and support for Qualcomm® Quick Charge™ 2.0 technology and Qualcomm® WiPower™ technology
When you need premium tier mobile computing capability, the Snapdragon 810 processor offers highly advanced features, performance and power-efficient design.

FEATURES & SPECIFICATIONS

**CPU**
- Quad ARM® Cortex®-A57 and quad Cortex-A53 cores with 64-bit and ARMv8-A ISA support

**GPU**
- Adreno 430 GPU: OpenGL ES 3.1 + AEP, OpenCL 1.2, DX11.2, content security, plus hardware tessellation, geometry shaders, programmable blending and decreased power consumption

**DSP**
- Qualcomm® Hexagon™ QDSP V56 DSP

**Display**
- 4Kx2K@60fps primary display + 4Kx2K@30fps external display with HDMI 1.4a or wireless 1080p@60fps with Miracast
- 3:1 Frame Buffer Compression ratio

**Memory**
- LPDDR4 2x32@1600MHz
- eMMC 5.0

**Modem**
- Integrated X10 LTE, with Global Mode supporting LTE FDD, LTE TDD, WCDMA (DC-HSPA+, DC-HSUPA), CDMA1x, EV-DO, TD-SCDMA and GSM/EDGE
- Cat 9 speeds of up to 450 Mbps with support for up to 3x20 MHz carrier aggregation on LTE FDD and LTE TDD
- Support for LTE Broadcast, LTE multimode dual SIM (DSDS and DSDA) and VoLTE with HD Voice and SRVCC

**RF**
- 4th gen power efficient LTE multimode transceiver (WTR3925) with Qualcomm Technologies, Inc.’s integrated and system optimized Qualcomm RF360™ front end solution for world mode bands and lower power

**Security**
- Qualcomm® Snapdragon StudioAccess™ technology and Qualcomm® SecureMSM™ digital rights management platform

**Multimedia**
- 4Kx2K@30fps, 1080p@120fps
- Hardware HEVC encode and decode
- DASH support
- Next Gen codec (WCD9330) support for Low Power Snapdragon Voice Activation
- 11.1 surround sound with Dolby and DTS

**Camera**
- Combined 14-bit dual ISPs can support 1.2GP/s throughput and image sensors up to 55MP

**Connectivity**
- Qualcomm® VIVE™ 2-stream 802.11ac w/MU-MIMO technology
- Multi-Gigabit speeds with Qualcomm® 802.11ad technology
- Qualcomm® IZat™ location services Gen8C
- USB 3.0/2.0
- BT4.1

**Sensor Core**
- Supports more accurate, low-power, always on sensors

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1 Product is based on a published Khronos specification and is expected to pass the Khronos Conformance Testing Process when available. Current conformance status can be found at www.khronos.org/conformance.
2 Product is based on a published Khronos Specification, and is expected to pass the Khronos Conformance Testing Process. Current conformance status can be found at www.khronos.org/conformance.
3 As compared to its predecessor, the Adreno 420 GPU in the Snapdragon 805 processor
4 Certain optional features available subject to Carrier and OEM selection for an additional fee.