

INTRODUCING THE SNAPDRAGON 820

HEXAGON 680 DSP

Extra horsepower and efficiency for sensor and imaging use cases.



PROCESSING

IMAGING

CONNECTIVITY

GRAPHICS

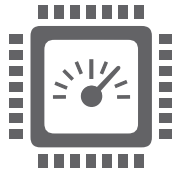
SECURITY

FAST CHARGING

DISPLAY

VIDEO

AUDIO



SPECIALIZED PROCESSING

DSPs speed up multimedia, computer vision, and context processing while saving power.

- Snapdragon 820 includes two DSPs:
 - Hexagon 680
 - Snapdragon Sensor Core



NEXT GENERATION ARCHITECTURE

Addition of wide vector support offers increased support and higher performance.

- HVX (Hexagon Vector Extensions) add support for advanced programmable use cases in imaging and computer vision when paired with the Snapdragon Spectra camera ISP.
- Can be used to adaptively brighten areas of videos faster and at 10% the power required of previous generations.



DEDICATED SENSOR PROCESSOR

Snapdragon Sensor Core is directly integrated into the 820 chip.

- Built on the Hexagon architecture.
- Lower power island for always on use cases.
- Benefits step/activity counters as well as sensor-assisted positioning, where a phone's sensors provide accurate location in the absence of as strong GPS signal.



THE QUALCOMM® SNAPDRAGON™ 820 PROCESSOR IMMERSIVE AND INTELLIGENT.

Introducing the new all-in-one Snapdragon 820—the most powerful mobile processor Qualcomm Technologies has ever created. And with Hexagon 680 DSP built in, you get our most advanced and efficient photography and sensor-based experiences. Purpose-built to redefine efficiency, innovation and the user experience, the Snapdragon 820 offers a whole new level of mobile intelligence.