

QUALCOMM®  
SNAPDRAGON™

410

PROCESSOR

## Model APQ8016 for Embedded Computing

From the DragonBoard™ Community Board to production-ready system-on-modules (SoM) for commercialization, the Snapdragon 410 processor is designed to meet the demanding requirements of embedded computing applications with its high performance, energy efficiency, multimedia features and integrated connectivity.

- + 1.4GHz 64/32-bit quad ARM® Cortex®-A53 CPUs
- + New ARM v8-A ISA offers an efficient instruction set
- + Qualcomm® Adreno™ 306 Graphics with support for multiple APIs including OpenGL ES 3.0, DirectX, and OpenCL
- + Qualcomm® Snapdragon StudioAccess™ technology and Qualcomm® SecureMSM™ platform for content and platform security
- + 13MP camera support with Wavelet Noise Reduction and JPEG Decoder done in hardware
- + Worldwide ecosystem of Snapdragon vendors, customers, developers and embedded device OEMs

To learn more visit:

[snapdragon.com](http://snapdragon.com) or [mydragonboard.org](http://mydragonboard.org)

The Snapdragon processor platform is ideal for Internet of Everything use cases in smart homes, industrial automation, digital media players, smart surveillance and home appliances.



## Smart Home: Integrated connectivity

Integrated WiFi/WLAN, Bluetooth® and GPS for portable applications without sacrificing a USB port



## Industrial and home appliances: Powerful processing

Superior CPU architecture is capable of both 32-bit and 64-bit processing — designed for an improved user experience



## Smart surveillance cameras: HD video encode and decode

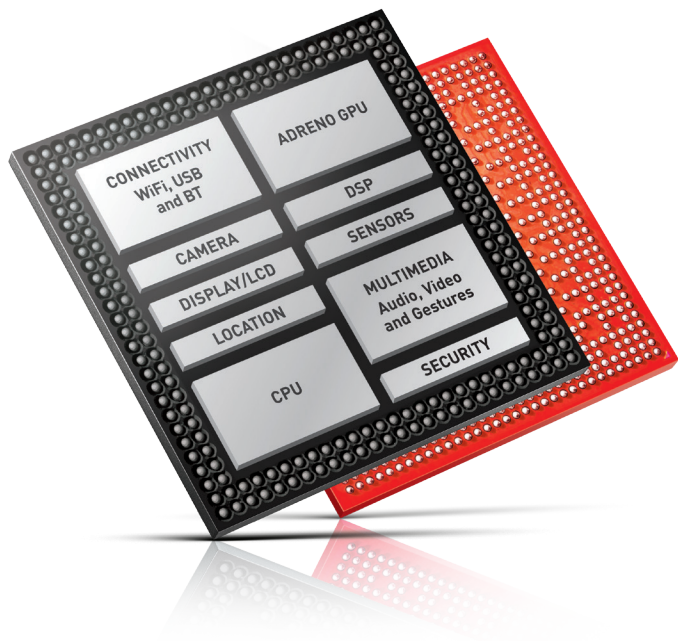
Snapdragon 410 video core supports popular codecs including H.264, MPEG4, MPEG2 and VC1 for better software compatibility



## Digital media and TV dongles: 3D graphics and multimedia

Adreno 306 GPU supports DX11 FL9.3 for next-generation media players

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The Snapdragon 410 processor offers high performance, rich multimedia, low power consumption and support for multiple operating systems (Windows 10, Linux, Android).

Snapdragon supports a clear deployment path for embedded device OEMs and developers – starting with single-board computers and development kits and scaling up to customer solutions, integration services and production-ready, customizable SOMs.

## FEATURES & SPECIFICATIONS

### CPU

- + Quad ARM® Cortex® A53 up to 1.4GHz with both 32-bit and 64-bit support — Commercialized in millions of mobile devices worldwide

### GPU

- + Adreno 306 GPU: OpenGL ES 3.0, OpenCL, DirectX, content security, and decreased power consumption<sup>1</sup>

### Display

- + 1920x1200
- + 1080p external displays supported
- + 720p Miracast™ Support

### Memory & Storage

- + LPDDR2/LPDDR3@533MHz
- + SDIO 3.0 (UHS-I)
- + eMMC 4.5 — For faster access to code than SDIO

### Security

- + Snapdragon StudioAccess

### Camera

- + Integrated ISP can support 1.5GP/s throughput and image sensors up to 13MP

### Multimedia

- + 1080p HD @ 30fps
- + FHD HEVC playback
- + FHD H.264 capture
- + Qualcomm® Snapdragon™ Voice Activation
- + 5.1 surround sound with Dolby and DTS

### Connectivity

- + 802.11n 2.4GHz WiFi
- + BT4.1 — For wirelessly connecting keyboard, mouse and audio
- + Qualcomm® IZat™ location technology Gen8C
- + 2x USB2.0 Type A Host ports
- + 1x USB2.0 host port on High-Speed Expansion connector
- + 1x USB2.0 micro-USB Device port — For rapid download of code from host device

### DSP

- + QDSP6 DSP



<sup>1</sup> As compared to its predecessor, the Adreno 305 GPU in the Snapdragon 400 processor.