QUALCOMM® SNAPDRAGON™

600

PROCESSOR

Model APQ8064T for Embedded Computing

Snapdragon 600 processors deliver high-performance computing, low power consumption and a rich multimedia experience for embedded products.

+ 1.7GHz quad-core Qualcomm® Krait™ 300 CPU for advanced multitasking and multithreaded application support

+ Optimized computational units, including double-precision calculations for greater speed on demanding applications

+ Asynchronous SMP (aSMP) technology with dedicated power management processor for optimal battery life

+ Qualcomm® Adreno™ 320 Graphics with support for APIs including OpenGL ES, DirectX and OpenCL

+ Qualcomm® Hexagon™ QDSP6 V4 (up to 500MHz) for differentiated signal processing

+ 1080p video encode/decode with multi-screen HD support and integrated HDMI

+ Advanced Dolby 7.1 surround sound, voice codecs and audio codecs

+ Worldwide ecosystem of Snapdragon customers, developers and embedded device OEMs

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

Build advanced embedded systems with multi-core performance and immersive 3D graphics on the energy-efficient Snapdragon 600 platform for exceptionally long battery life and smaller industrial designs.

Robotics: Powerful processing

Robot Operating System (ROS) support for integrated, low-power solution for advanced robotics applications

Industrial and home appliances: Attached connectivity

Companion WiFi/WLAN, Bluetooth and precision GNSS (GPS + GLONASS) for portable applications

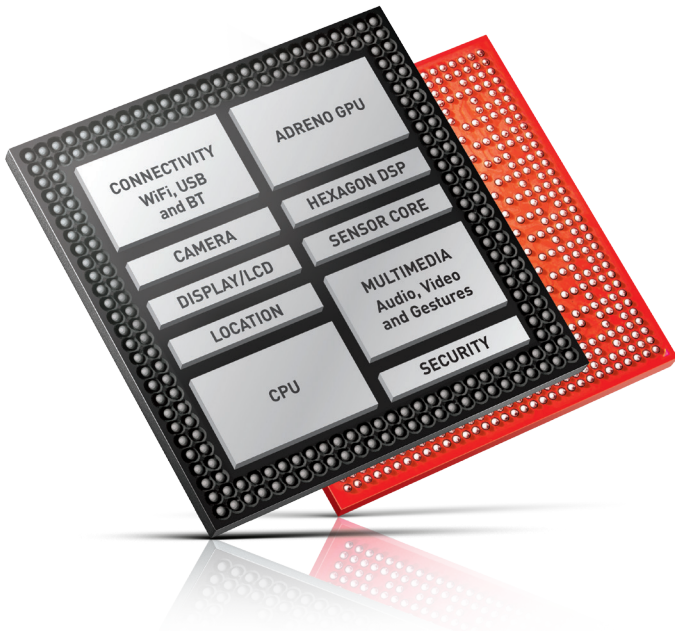## Smart surveillance cameras: HD video encode and decode

Up to 3 cameras – with support for 21MP, image stabilization, zero shutter lag and High Dynamic Range for combining different exposures

Digital media and TV dongles: 3D graphics and multimedia

Adreno 320 GPU supports OpenGL ES 1.1/2.0 and DirectX9.3 for next-generation media players

Qualcomm® snapdragon

The Snapdragon 600 processor is designed to run 1080p HD video, handle up to 20MP images and render intensive 3D on dedicated components, freeing the quad-core Krait CPU for the main embedded application.

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-core Krait 300 CPU at up to 1.7GHz per core — For improved, sustained performance with low energy consumption
+ Performance-enhanced floating-point and SIMD functional unit with 128-bit data path, designed to use the ARM instruction set architecture (ISA), software and ecosystem

GPU
+ Adreno 320 GPU with OpenGL ES 1.1/2.0, Open CL 1.1, WebGL 1.0, OpenVG 1.1, Renderscript Compute, FlexRender™[1] technology and DirectX9.3. Console-quality 3D graphics with lower power consumption[2]

Display
+ Up to 2048x1536 display via 4-lane primary display serial interface
+ 1080p external display and integrated high-definition multimedia interface (HDMI)
+ 720p Miracast Support

Operating System
+ Android and Linux

Camera
+ Integrated ISP supports up to 21 megapixels and stereoscopic 3D
+ Support for up to 4 simultaneous cameras via 4-lane primary MIPI-CSI, 2-lane secondary MIPI-CSI, and 1-lane 3D MIPI-CSI

Multimedia
+ High-definition 1080p video encode/decode (MPEG-4, MPEG-2, H.264, DivX, VC-1, WMV-9)
+ Video playback and capture with H.264 (AVC)
+ Dolby 7.1 surround sound with Digital Plus audio

DSP
+ Hexagon QDSP6 v4 up to 500MHz

Memory and Storage
+ Support for both LPDDR3 and PCDDR3 at 533MHz Dual-channel 32-bit
+ eMMC 4.51, SDIO 3.0 (UHS-I), and SATA

Connectivity
+ 802.11a/b/g/n 2x2 Dual-Band 2.4GHz/5GHz
+ Bluetooth 4.0
+ PCIe 2.0, I2S, I2C, HSIC, General Serial Bus Interfaces, and GPIOs
+ USB 2.0 (3 ports including OTG support

Security
+ Qualcomm® SecureMSM™ foundation, with secure boot process and Qualcomm® Secure Execution Environment with ARM Trust Zone technology
+ Compatibility with Qualcomm® Snapdragon Sense™ ID 3D fingerprint technology

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snapdragon™