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 multicore 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
FlexRender is designed to help the Adreno GPU boost speed and save power by dynamically switching between drawing pixels in direct or deferred rendering mode. As compared to its predecessor, Adreno 305.

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™ technology and DirectX9.3. Console-quality 3D graphics with lower power consumption

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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2 As compared to its predecessor, Adreno 305.

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