Model APQ8084 for Embedded Computing

The Snapdragon 805 processor supports superior performance and rich multimedia capabilities with low power consumption. It brings a long list of high-end features to the most demanding embedded computing applications:

- Faster performance and more multitasking with quad-core Qualcomm® Krait™ 450 CPU at up to 2.7 GHz per core
- 4K Ultra HD video with HEVC (H.265) playback and H.264 capture for bandwidth and power efficiency
- Dual image signal processors (ISPs) with ~1G/s throughput and image sensors up to 55 MP
- New Qualcomm® Adreno™ 420 GPU with up to 40% increase in graphics and compute performance compared against the previous generation¹
- Tight system integration and optimization for superior performance and power efficiency
- Worldwide ecosystem of Snapdragon embedded device OEMs and developers

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

¹ As compared to its predecessor, the Adreno 330 GPU in the Snapdragon 800 processor
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As compared to its predecessor, the Adreno 330 GPU in the Snapdragon 800 processor Qualcomm SecureMSM, Qualcomm Snapdragon StudioAccess and Hollywood Quality Video are products of Qualcomm Technologies, Inc. Qualcomm VIVE and Qualcomm IZat are products of Qualcomm Atheros, Inc. ©2014-2015 Qualcomm Technologies, Inc. All rights reserved. Qualcomm, Snapdragon, Adreno, Hexagon, SecureMSM, Snapdragon StudioAccess, and VIVE are trademarks of Qualcomm Incorporated, registered in the United States and other countries. Krait, Hollywood Quality Video and IZat are trademarks of Qualcomm Incorporated. Other products and brand names may be trademarks or registered trademarks of their respective owners.

The Snapdragon 805 processor offers rich multimedia capabilities, energy efficiency, integrated connectivity and heterogeneous computing for high-end mobile computing in embedded products.

Additionally, Snapdragon offers a clear product release path for embedded device OEMs and developers – starting with single-board computers and development kits and scaling up to larger solutions, integration services and production-ready, customizable system-on-modules (SOM).

FEATURES & SPECIFICATIONS

CPU
+ 28nm HPm quad-core Krait 450 CPU at up to 2.7GHz per core

GPU
+ Adreno 420 GPU: OpenGL ES 3.1, OpenCL 1.2 Full Profile, DX11.2, content security, plus hardware tessellation, geometry shaders, programmable blending and decreased power consumption

DSP
+ Qualcomm® Hexagon™ DSP V50 (up to 8000MHz)

Display
+ Support for 4096x2160 primary DSI display + concurrent 4Kx2K@24Hz external with HDMI 1.4a or wireless 1080p@30fps with Miracast
+ Display Frame Buffer Compression

Memory
+ LPDDR3 2x64@800MHz
+ eMMC 5.0 ratio
+ SD 3.0 (UHS-I)
+ SATA3

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

Security
+ Qualcomm® SecureMSM™ and Qualcomm® Snapdragon StudioAccess™ technologies

Camera
+ Dual image signal processors (ISPs) support ~1GP/s throughput and image sensors up to 55 MP

Multimedia
+ 4K playback with H.264 (AVC) and H.265 (HEVC) formats
+ 4K capture with H.264 (AVC) format
+ Hardware-based Hollywood Quality Video™ (HQV) for post processing
+ DASH support
+ Hi-Fi audio with 24bit/192kHz playback support
+ Qualcomm® Snapdragon™ Voice Activation tool
+ 11.1 surround sound with Dolby and DTS

Connectivity
+ Qualcomm® VIVE™ 2-stream 802.11n/ac with MU-MIMO
+ Qualcomm® IZat™ location services Gen8B
+ USB 3.0/2.0
+ BT4.1

1 As compared to its predecessor, the Adreno 330 GPU in the Snapdragon 800 processor