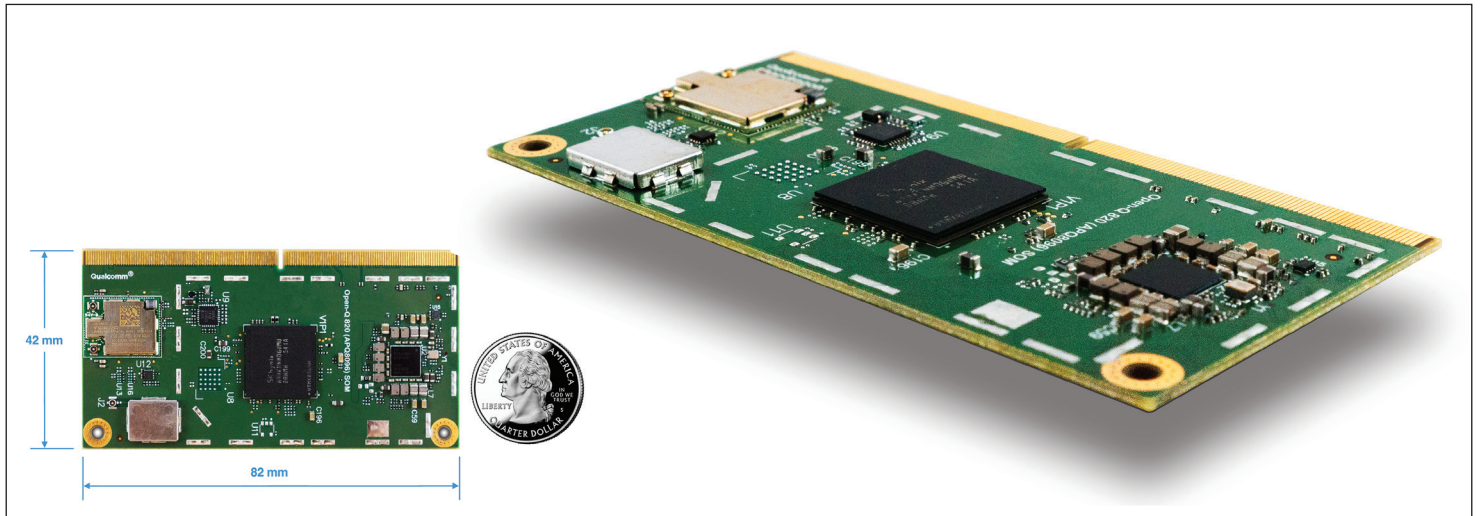


Open-Q™ 820 SOM (System on Module)

Based on the Qualcomm® APQ8096 SoC



Lantronix's Open-Q™ 820 System on Module (SOM) is our production ready SOM based on the Qualcomm® cutting edge APQ8096 SoC. The SOM's advanced technology, and extensive range of supported peripherals provide the perfect platform for creating high performance embedded and mobile devices. Leverage the highly integrated, class leading SOM to fast track your new product development.

Key Features

- Qualcomm® APQ8096 SoC
- 3GB LPDDR4 RAM 1866MHz (POP)
- 32GB UFS 2.0 FLASH
- Qualcomm® PMICs (PM8996 & PMI8996)
- Qualcomm® Wi-Fi/BT (QCA6174)
- Qualcomm® GPS RF front end (WGR7640)
- Qualcomm® Audio Codec (WCD9335)
- Android™ 9 Pie, Debian Linux®
- 82mm x 42mm

Applications

- Next-gen computer vision systems
- Robotics / drones / UAVs
- Industrial IoT
- Digital Signage
- Virtual reality / augmented reality applications
- Stereo-vision cameras
- Retail analytics cameras

Engineering Services:

We provide a full solution – our unparalleled engineering expertise and product development skills deliver innovative products that are cost-effective and can jumpstart your Go-to-Market timeline.

Our business model offers turnkey product development services, or we can augment your team in specific areas of development. The choice is yours.

Key development expertise in:

- Camera development and tuning
- Voice control
- Machine learning
- Mechanical & RF design
- Thermal & power optimization

IoT Product Development made easy



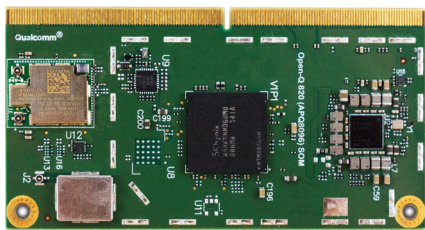
Lantronix Open-Q™ 820 SOM

Hardware Specifications:

Open-Q™ 820 SOM	
• Processor	Qualcomm® APQ8096 SoC Qualcomm® Kryo™ CPU Quad-Core, 64-bit, 2.2GHz Qualcomm® Adreno™ 530 GPU Qualcomm® Hexagon™ 680 DSP
• Memory/Storage	3GB LPDDR4 RAM (1866MHz), 32GB UFS 2.0 Flash 1-lane, gear 3
• Wireless	Pre-certified Wi-Fi 802.11a/b/g/n/ac 2.4/5.0 GHz 2x2 MU-MIMO Bluetooth 4.2 + BLE
• Location Services	Qualcomm® IZat™ Gen 8C GPS
• Display Interface	2x MIPI-DSI 4-lane, 60fps, up to 2560x1600 (single port), 4096x2160 (dual port) 1x HDMI 2.0 up to 4096x2160, 60fps
• Camera Interface	Qualcomm® Spectra™ ISP 3x MIPI-CSI 4-lane, dual ISP, up to 28MP
• Video	H.264 (AVC): Video Playback and Capture at 4K60 H.265 (HEVC): Video Playback at 4K60 and video capture at 4K30
• Audio	Audio Codec on SOM (WCD9335) 3x I2S; 1x PCM; 6x Analog in; 6x Analog out; 3x Digital mic
• Other Interfaces	1x USB 3.0 client or host; 1x USB 2.0 client or host; 2x PCIe v2.1 8x BLSP 4-pin port configurable as I2C, SPI, UART or GPIO; 1x SDIO
• Power/Battery	Power management and battery charging (PMI8996)
• I/O	1x USB 3.0 client or host, 1x USB 2.0 client or host, 2x PCIe v2.1, 8x BLSP configurable ports (I2C, SPI, UART or GPIO), 1x SDIO, LED driver outputs
• Operating Environment	Power input: 3.6V to 4.2V Operating Temperature: -10°C to +70°C
• Form Factor	Modified SMARC form factor 314pin PCB edge connector + 100pin B2B connector Size: 82mm x 42mm

Software:

• OS Support	Android™ 9 Pie, Debian Linux® *Note that all hardware features are not currently supported by SW versions – see latest SW release notes for details.
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Certifications



Purchasing Information:

• Open-Q™ 820 SOM	PN: QC-DB-100004
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Alternate SOM configurations available by special order (minimum order quantities apply) - e.g. different memory size, etc. Contact sales to discuss your specific needs today.

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