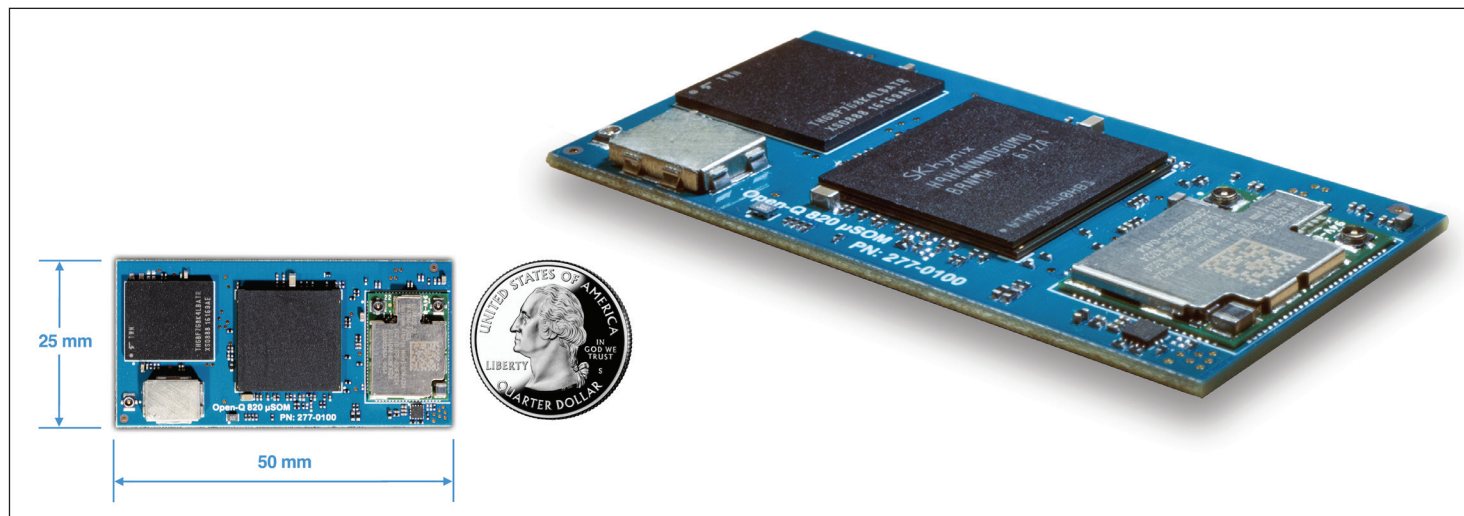


Open-Q™ 820 μ SOM (micro System on Module)

Based on the Qualcomm® APQ8096 SoC



Lantronix's Open-Q™ 820 μ SOM is our best combination of power and performance in an ultra-compact, production ready, pre-certified SOM. The 820 μ SOM features advanced technology and an extensive peripheral set, providing the ideal platform for creating high performance embedded, IoT and mobile devices. Despite its ultra-small size, the SOM offers seamless connectivity to external memory, sensors and a host of other peripheral devices via a comprehensive list of configurable IO. Leverage our best power—performance combination in a class leading form factor with support for a variety of Android™ and Linux® releases to fast track your product development.

Lantronix® also offers a supporting development kit for the 820 μ SOM to allow easy evaluation of the SOM and to fast-track new product development.

Key Features

- Qualcomm® APQ8096 SoC
- 3GB LPDDR4 and 32GB UFS
- FCC/IC Pre-certified Wi-Fi/BT Module
- Qualcomm® IZat™ Gen 8C GNSS location solution
- Battery Charging support
- Ultra-compact 50mm x 25mm
- Android™ 9, Debian Linux®

Applications

- Wearable cam / Action cam / 360 degree cam
- Smart home / IP cam / Security cam
- Industrial machine vision camera
- Stereo-vision camera
- Retail analytics camera
- Robotics / drones

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

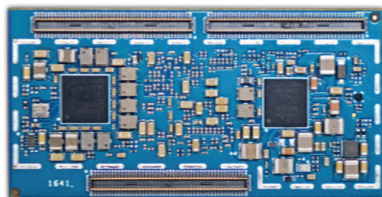
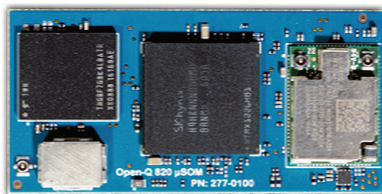
Lantronix Open-Q™ 820 μSOM

Hardware Specifications:

Open-Q™ 820 μSOM	
• Processor	Qualcomm® APQ8096 built on 14nm technology Qualcomm® Kryo™ Quad-Core, 64-bit 2.15GHz Qualcomm® Adreno™ 530 GPU OpenGL ES 3.1, OpenCL 2.0 Full, DirectX 11, Path Rendering 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 2.4/5Ghz 2x2 MU-MIMO (QCA6174A) with U.FL antenna connector Bluetooth 4.2 + BLE
• Location Services	Qualcomm® IZat™ Gen 8C— GPS, GLONASS, Compass (WGR7640) with U.FL antenna connector
• LCD/Touchscreen Interface	2x MIPI-DSI 4-lane, up to 4K Ultra HD 60fps 1x HDMI 2.0 up to 4K @ 60fps
• Camera Interface	Qualcomm® Spectra™ ISP Up to 28MP with 3x 4-lane MIPI CSI and dual ISPs
• Video	Video Capture up to 4K Ultra HD at 30fps Video Playback 4K Ultra HD H.264 (AVC) and H.265 (HEVC)
• Audio	1x SLIMbus and 2x I2S, or 3x I2S Qualcomm® Flurence™ HD with Noise Cancellation (optional)
• Power/Battery Management	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	Input 3.6V to 4.2V Operating Temperature -10°C to +70°C 3x 100 pin board to board connector 50mm x 25mm

Software:

• OS Support	Android™ 9, Android™ 8, Android™ 7, Debian Linux® *Note that all hardware features may not be supported by all SW versions — see latest SW release notes for details
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Purchasing Information:

• Open-Q™ 820 μSOM	PN: QC-DB-I10004
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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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Certifications



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