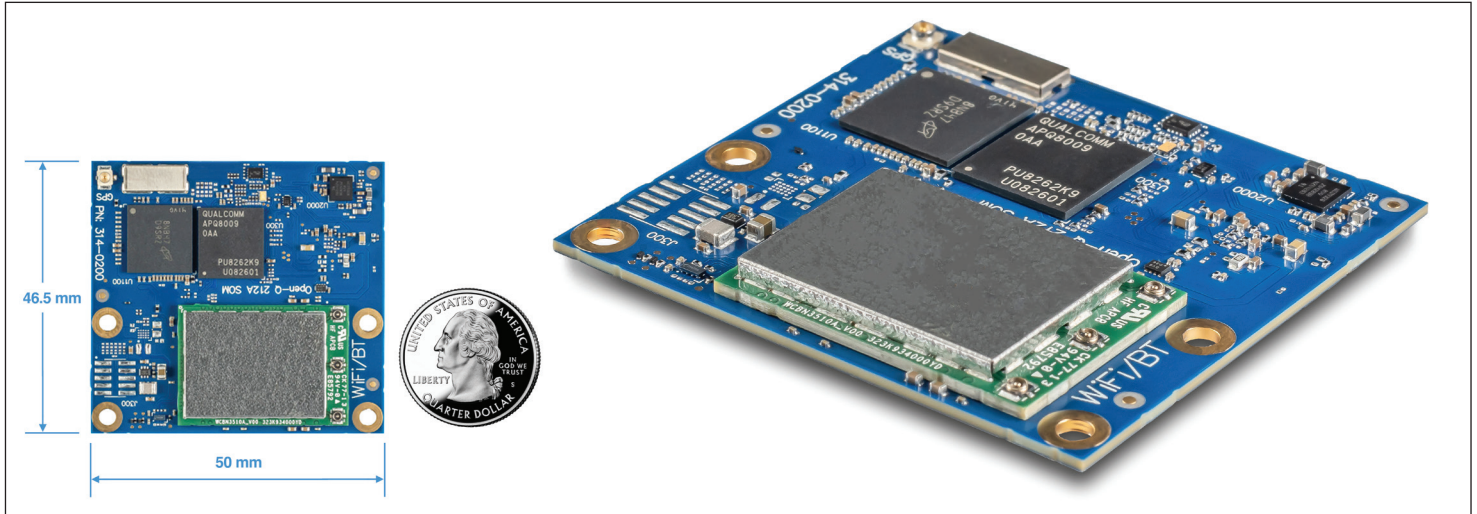


Open-Q™ 212A SOM (System on Module)

Based on the Qualcomm® APQ8009 SoC



Lantronix's Open-Q™ 212A SOM (System-On-Module) is a compact, production ready module based on the APQ8009 SoC from Qualcomm® Technologies, Inc. The SOM's small form factor, high-end Wi-Fi/BT and extensive peripheral I/O make it ideal for devices that require cloud connectivity and edge compute capabilities. The SOM's extensive audio features make it a perfect solution for creating next-gen smart speakers and voice controlled home hub products requiring noise cancellation, voice recognition, or other advanced audio features.

Key Features

- High Performance, Low Power Quad-Core ARM Cortex A7
- Pre-certified high performance Wi-Fi/BT module
- Qualcomm® Hi-Fi audio codec for multi-mic solutions
- Qualcomm® Flucence™ Pro multi-mic SW
- Multiple digital and analog audio I/O
- OpenEmbedded Yocto Linux OS

Applications

- Audio home hubs
- Home automation control
- Streaming audio devices
- Voice recognition
- Smart speakers

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



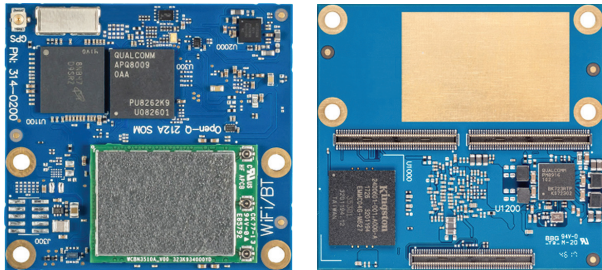
Lantronix Open-Q™ 212A SOM

Hardware Specifications:

Open-Q™ 212A SOM	
• Processor	Qualcomm® APQ8009 Quad-Core ARM Cortex A7 (32-bit) 1.267GHz Qualcomm® Adreno™ 304 GPU Qualcomm® QDSP6 DSP
• Memory/Storage	1GB LPDDR3 RAM, 4GB eMMC Flash storage
• Wireless	Pre-certified Wi-Fi/BT module - 802.11a/b/g/n/ac, 2x2 MU-MIMO, 2.4/5Ghz, Bluetooth 4.2 + BLE (QCA9379-3) 3x MHF4 antenna connectors - 2 for Wi-Fi, 1 separate for BT
• Location Services	GPS, GLONASS, Compass (WGR7640) w/ U.FL antenna connector
• Display Interface	4-lane MIPI DSI interface for LCD up to 720p with touchscreen interface
• Camera Interface	Up to 8MP over 4-lane MIPI CSI interface
• Video	720p@30fps playback, up to 720p playback with H.264 (AVC) and H.265 (HEVC), up to 720p H.264 (AVC) capture
• Audio Interfaces	I2S interface for external audio devices 2x digital mic inputs directly to processor
• Audio Codec	Qualcomm® Hi-Fi audio codec on SOM (WCD9326) with: 1x headset interface 4x analog microphone inputs 1x stereo line output 4x digital mic inputs
• Power/Battery	Qualcomm power management and battery charging solution (PM8916)
• I/O	1x USB2, multiple BLSP ports (GPIO, UART, SPI, I2C buses), debug UART
• Operating Environment	Power input: 3.6V to 4.2V Operating Temperature: 0°C to +50°C
• Form Factor	Carrier board connection: 3x 100 pin board-to-board connectors Size: 50mm x 46.5mm Four mounting holes for secure mounting and effective thermal solutions

Software:

• OS Support	OpenEmbedded Yocto Linux for Home Hub applications with Qualcomm® Fluece™ Pro *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™ 212A SOM	PN: QC-DB-K10004D
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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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