

Open-Q™ 212A SOM (System on Module)

Based on the Qualcomm® Snapdragon™ 212 processor

Intrinsyc's Open-Q™ 212A SOM (System-On-Module) is a compact, production ready module based on the Snapdragon™ 212 processor 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® Fluence™ 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



Hardware Specifications

Processor	Qualcomm® Snapdragon™ 212 processor (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® Flulence™ Pro *Note that all hardware features are not currently supported by SW — see latest SW release notes for details.
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Purchasing Information

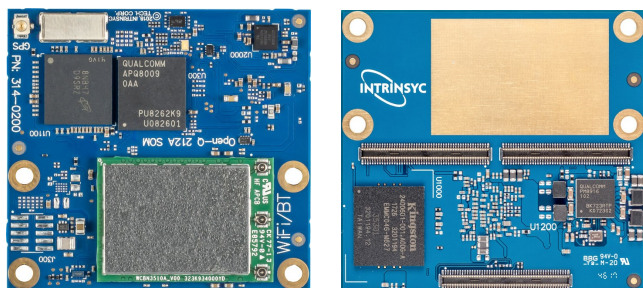
**Open-Q 212A
SOM**

Part number: QC-DB-K10004D

[Store Link](#)

Alternate SOM configurations available by special order (minimum order quantities apply) - e.g. no GPS, different memory size, etc.
Contact sales to discuss your specific needs today:

sales@intrinsyc.com



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