

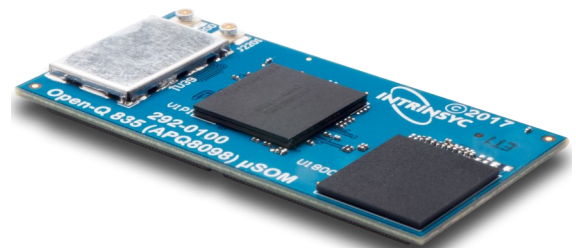
Open-Q™ 835 μSOM Development Kit

Based on the Qualcomm® Snapdragon™ 835 processor

Intrinsic's Open-Q™ 835 μSOM Development Kit is a high performance, exposed board platform powered by the top-tier Qualcomm® Snapdragon™ 835 processor on our ultra-small "micro SOM" form-factor. The Development Kit is ideal for evaluation of the Open-Q™ 835 μSOM as well as jump-starting development of high performance embedded and IoT products. It supports our optional Open-Q™ LCD / touch panel or native HDMI video output. For camera use it has three MIPI-CSI ports compatible with our optional 13MP camera module, and supports high-end audio with the Qualcomm WDC9335 codec on the carrier board. It also includes many GPIO, sensor, audio, battery, and other interfaces on expansion headers.

Key Features

- Qualcomm® Snapdragon™ 835 processor (APQ8098)
- Powered by micro-sized (50x25mm) Open-Q 835 μSOM
- Open-frame Mini-ITX Form-factor carrier board for evaluation and development
- Numerous I/O and connectivity options
- Optional LCD/touchscreen and cameras
- Wi-Fi and Bluetooth antennas on carrier board
- Android™ 8, Android™ 9



Open-Q 835 μSOM



Technical Specifications

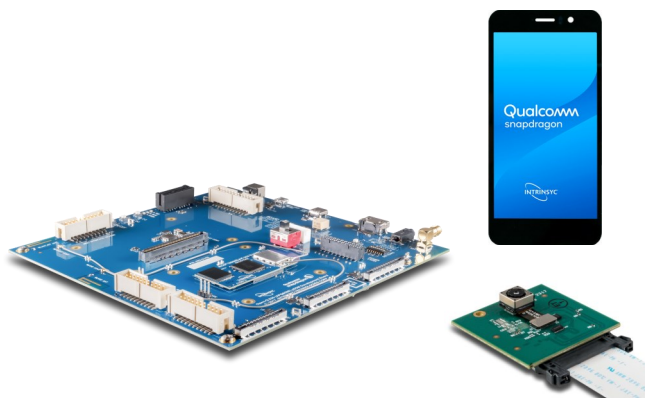
Open-Q™ 835 μSOM

*See the Open-Q 835 μSOM datasheet for complete details

Processors	Qualcomm® Snapdragon™ 835 (APQ8098) Octa-core 64 bit Kryo CPU built on 10nm technology 64 bit ARM v8 compliant processor 4X high-performance Kryo cores – 2.20GHz quad core, 2.30GHz single core operation 4X low-power Kryo cores— 1.9 GHz Qualcomm® Adreno™ 540 GPU OpenGL ES 3.2, OpenCL 2.0 Full Qualcomm® Hexagon™ DSP with Hexagon Vector eExtensions (dual-HVX512) designed for 900 MHz
Memory/Storage	4GB LPDDR4x RAM 32GB UFS2.1 Gear3 2 lane Flash
Wireless	Qualcomm® WCN3990 Wi-Fi 802.11a/b/g/n/ac 2.4/5Ghz 2x2 with 2x U.FL antenna connectors Bluetooth 5.0 + BLE
Power Management	Qualcomm® PM8998, PMI8998, PM8005 power management solution

Open-Q™ 835 μSOM Carrier Board

Display Interface	1x HDMI 2.0 out 4K Ultra HD 2x 4 lane MIPI DSI connector for optional LCD panel accessory or custom display adapters
Camera Interface	3x 4-lane MIPI CSI connectors, Dual Qualcomm® Spectra™ 180 ISP
Video	Video Capture to 4K Ultra HD at 30fps, Video Playback 4K Ultra HD at 60fps H.264 (AVC), H.265 (HEVC)
Audio Interfaces	Qualcomm® WCD9335 HiFi audio codec module 1x ANC Headset Out, Analog audio out expansion header, Analog audio in expansion header
I/O Interfaces	1x USB3.1 Type C with DisplayPort video output 1x USB micro-B UART, uSD 3.0 UHS-1, PCIe 1X slot
OS Support	Android™ 8, Android™ 9
Input Power	Input Power: 12V/3A adapter or single-cell Li-Ion battery
Form Factor	SOM: 50mm x 25mm Carrier Board: Mini-ITX 170mm x 170mm



Optional Display and Camera

Purchasing Information

Open-Q™ 835 μSOM Dev Kit	Part number: QC-DB-L10003 Store Link
Open-Q™ 835 μSOM	Part number: QC-DB-L00004 Store Link
Open-Q™ LCD	Part number: QC-DB-G00005 Store Link
Open-Q™ 13MP Camera	Part number: 030-0181-0101_B Store Link

Development Kit includes: Carrier board, SOM, ST Micro sensor board, 12V power supply, Quick Start Guide, access to full documentation, SW updates, and basic development kit support.

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