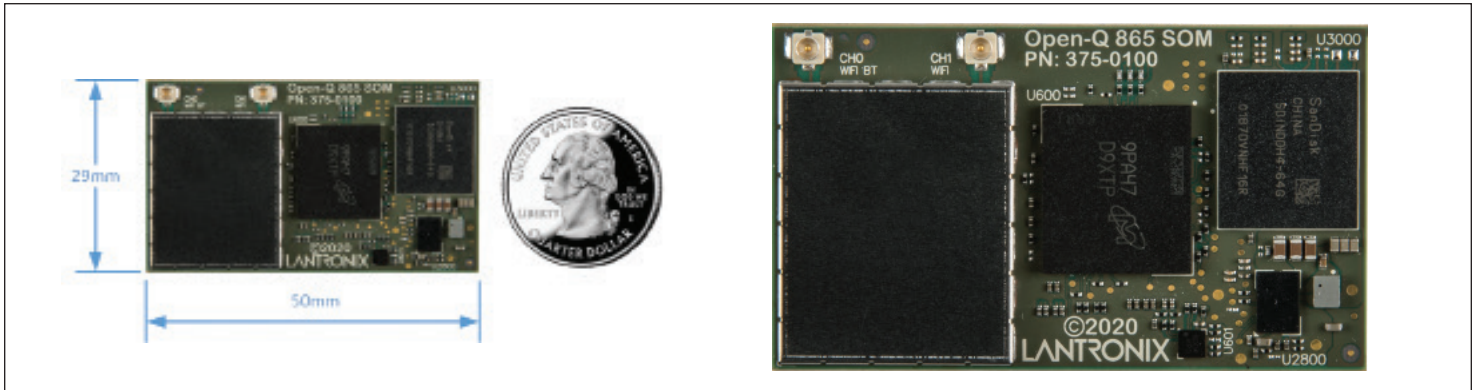


Open-Q™ 865XR SOM (System on Module)

Based on the Qualcomm® SXR2130P processor



Horsepower at the Edge

- The 865XR SOM offers the perfect computing core for a variety of leading edge IoT applications
- The ideal solution to accelerate your “time to revenue” on product development
- The Qualcomm® AI Engine provides 2x the performance of the previous generation with up to 15 TOPS

The Open-Q™ 865XR SOM is an ultra-compact (50mm x 29mm) production-ready SOM based on the powerful Qualcomm SXR2130P SoC. The 865XR utilizes Qualcomm® Technologies’ heterogenous compute expertise to offer a System-on-Chip with multiple specialized processing cores:

- 5th generation Qualcomm® AI Engine
- Qualcomm Spectra™ ISP, Qualcomm® Adreno™ GPU, and Qualcomm® Hexagon™ DSP
- Power, processing and professional quality imaging
- Coupled with the latest Wi-Fi 6 connectivity, advanced camera features, and many high-speed interfaces

Key Features

- Qualcomm SXR2130P processor
- 6GB LPDDR5 RAM + 64GB UFS 3.1 Flash
- 3x MIPI CSI camera ports
- 2x MIPI DSI display ports
- 1x 2-lane PCIe Gen3 interface
- USB Type-C with DisplayPort v1.4
- Wi-Fi 6 - 802.11ax 2x2 MU-MIMO Wi-Fi / BT 5.1

Applications

- AI box—multi-stream encode/decode/AI processing
- Video conference systems
- Multi-camera systems
- Machine vision platforms
- Advanced high resolution multi-display systems
- Medical imaging
- Handheld data collectors

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

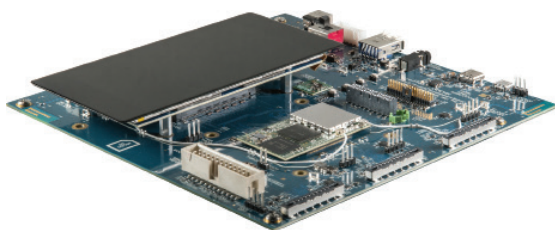


Hardware Specifications:

| | | |
|----------------------------------|--|--|
| • Processors | Qualcomm® SXR2130P SoC built on 7nm technology: Kryo™ 585 Octa-core CPU: 1Kryo Gold prime @ 2.84 GHz + 3 Kryo Gold @ 2.42 GHz + 4 Kryo Silver @ 1.81 GHz Hexagon DSP with quad Hexagon Vector eXTensions | |
| | Adreno 650 GPU @ Fmax = 587 MHz Qualcomm Spectra 480 Image Signal Processor Adreno 665 Video Processing unit | Adreno 995 Display Processing unit NPU230 Neural Processing unit SPU240 Secure Processing unit |
| • Memory/Storage | 6GB LPDDR5 @ 2750MHz, 64GB UFS 2.1 | |
| • Wireless | 802.11ax 2x2 MU-MIMO + Bluetooth 5.1, Bluetooth Milan ready | |
| • Display Interfaces | Up to three 4K displays (1 internal display through DSI and 2 external displays through DisplayPort) 2x 4-lane MIPI DSI D-PHY 1.2, up to 5040 × 2160 @ 60 fps (or 120 Hz in VR mode) + touchscreen support DisplayPort v1.4 on USB Type-C, at 8.1 Gbps/lane, with USB3 and USB2 data concurrency | |
| • Camera Interfaces | 3x 4-lane MIPI CSI camera ports + CCI I2C control | Qualcomm Spectra 480 ISP supporting multiple concurrent cameras 64 MP 30 fps ZSL with a dual ISP |
| • Video Performance | Video decode up to 4K240/8K60 Video encode up to 4K120/8K30 | Concurrent 4K60 decode & 4K30 encode for wireless display |
| • Audio | Supports WCD938x high fidelity audio codec and WSA881x speaker amp on carrier board Dedicated Hexagon audio DSP SoundWire, MI2S, DMIC, TDM/PCM interfaces for audio devices on carrier board | |
| • High Speed Connectivity | 1x PCIe Gen3 2-lane 1x USB 3.1 with support for Type-C + DisplayPort v1.4 with USB SS data concurrency 1x USB 3.1 Type-A | |
| • I/O Interfaces | 4-bit SD 3.0, UART, I2C, I3C, SPI, configurable GPIOs, sensor I/O to dedicated Hexagon sensor DSP | |
| • Power/Battery | Power management and battery charging solution on SOM | |
| • Operating Environment | Input voltage: 3.7V nominal Operating Temperature: TBD | |
| • Form Factor | 50mm x 29mm with 2x 100-pin + 1x 120-pin board to board connectors | |

Software:

| | |
|---------------------|--|
| • OS Support | Android™ 10 — Note that all hardware features may not be supported by SW |
|---------------------|--|



Companion Development Kit Available Separately

Purchasing Information:

| | |
|--------------------------------------|-------------------|
| • Open-Q™ 865XR SOM (6+64GB) | PN: QC-DB-U10004 |
| • Open-Q™ 865XR SOM (8+128GB) | PN: QC-DB-U10004A |

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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Planned Certifications



Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

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