

Open-Q[™] 865XR SOM Development Kit

Based on the Qualcomm® SXR2130P processor



The Open-Q™ 865XR SOM Development Kit is a versatile, easy-to-use, exposed board platform, powered by our ultra-compact, production-ready, Open-Q™ 865XR SOM. The SOM utilizes Qualcomm® Technologies' heterogenous compute expertise to offer a System-on-Chip with multiple specialized processing cores for powerful AI processing, image and graphics processing, and audio processing.

The development kit provides the ideal starting point for evaluating the Open- Q^{TM} 865XR SOM or developing next generation embedded and IoT devices. The platform consists of Lantronix's Open- Q^{TM} 865XR SOM, an open-frame carrier board exposing all the available I/O, and a range of accessories to fast track your product development.

Key Features

- Powered by micro-sized (50x29mm) Open-Q 865XR SOM
- 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™ 10



Open-Q™ 865XR SOM

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™ 865XR SOM Development Kit

Hardware Specifications:

| Open-Q [™] 865XR SOM | *See the Open-Q 865XR SOM product brief for complete details | |
|-------------------------------|---|--|
| Processors | Qualcomm® SXR2130P built on 7nm technology: Kryo™ 585 Octa-core CPU, Hexagon™ DSP, Adreno™ 650 GPU, Spectra™ 480 ISP, Adreno 665 VPU | |
| Memory/Storage | 6GB LPDDR5 SDRAM at 2750MHz, 64GB UFS Flash Storage | |
| Wireless | 802.11ax 2x2 MU-MIMO + Bluetooth 5.1, Bluetooth Milan ready | |
| Power Management | Qualcomm® power management and battery charging on SOM | |
| Open-Q™ 865XR SOM | Carrier Board | |
| Display Interfaces | DisplayPort v1.4 on USB Type-C, at 8.1 Gbps/lane, with USB3 and USB2 data concurrency 2x 4 lane MIPI DSI connector for optional LCD / Touch panel accessory or custom display adapters | |
| Camera Interfaces | 3x 4-lane MIPI CSI with connectors to mate to optional camera accessories | |
| Audio Interfaces | Qualcomm® WCD9385 Hi-Fi audio codec module on carrier board, with 3.5mm headset jack (stereo out + mic in) Additional audio expansion: Analog out header, Analog in header, digital I/O header (SoundWire/DMIC/MI2S/PDM) | |
| I/O Interfaces | 2 USB ports: 1x USB3.1 Type-C + DisplayPort, 1x USB 3.1 Type-A host 1x PCIe Gen3 2-lane M.2 socket, microSD card socket Debug UART with serial USB I/O expansion headers for sensor board, UART, I2C, SPI, configurable GPIOs | |
| Wireless | Dual Wi-Fi/BT PCB antennas on carrier board | |
| Power Input | Input: 12V/3A (adapter included) or single-cell Li-Ion battery (not included) | |
| Form Factor | SOM: 50mm x 29mm, Carrier Board: Mini-ITX 170mm x 170mm | |
| Software: | | |
| OS Support | Android™ 10 — Note that all hardware features may not be supported by SW. | |







Optional Display and Camera

Development Kit includes: Carrier board, 865XR SOM (6+64GB), ST Micro sensor board, 12V power supply, Quick Start Guide, access to full documentation, SW updates, and basic development kit support.

Purchasing Information:

| • Open-Q™ IMX258 Camera | PN: QC-DB-U10006 |
|---|-------------------|
| • Open-Q™ LCD | PN: QC-DB-G00005 |
| • Open-Q™ 865XR SOM (8+128GB) | PN: QC-DB-U10004A |
| • Open-Q™ 865XR SOM (6+64GB) | PN: QC-DB-U10004 |
| Open-Q™ 865XR SOM Dev Kit | PN: QC-DB-U10003 |

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