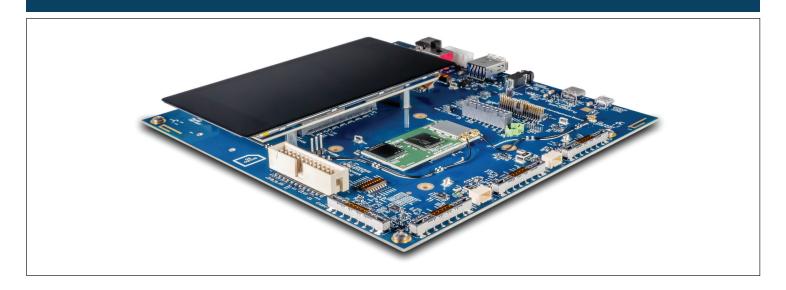


# Open-Q™ 845 µSOM Development Kit

Based on the Qualcomm® SDA845 SoC



Lantronix's Open- $Q^{\mathbb{M}}$  845  $\mu$ SOM Development Kit is a versatile, easy-to-use, exposed board platform, powered by our ultra-compact, production-ready, Open- $Q^{\mathbb{M}}$  845  $\mu$ SOM. The 845  $\mu$ SOM is based on the powerful Qualcomm® SDA845 SoC, one of their most powerful IoT chipsets. With new processing capabilities, on-device AI powers, and generous I/O, the 845  $\mu$ SOM is ideal for powering the most advanced robotics, drones, cameras, and embedded IoT devices.

The development kit provides the ideal starting point for evaluating the Open-Q<sup> $\mathbb{M}$ </sup> 845  $\mu$ SOM or developing next generation embedded and IoT devices. The platform consists of Lantronix's Open-Q $^{\mathbb{M}}$  845  $\mu$ 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**

- · Qualcomm® SDA845 SoC
- Powered by micro-sized (50x25mm) Open-Q 845 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<sup>™</sup> 10, Yocto Linux<sup>®</sup>



Open-Q™ 845 µSOM

## **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™ 845 µSOM Development Kit

## Hardware Specifications:

Open-Q™ 845 µSOM	*See the Open-Q 845 µSOM product brief for complete details	
Processors	Qualcomm® SDA845 built on 2nd-Gen 10nm technology: Kryo™ 385 Quad-core CPU, Hexagon™ 685 DSP, Adreno™ 630 GPU	
Memory/Storage	4GB or 6GB dual-channel high-speed LPDDR4X SDRAM at 1866MHz + 32GB or 64GB UFS Flash Storage	
Wireless	Wi-Fi 802.11a/b/g/n/ac 2.4/5Ghz 2x2 MU-MIMO (WCN3990) + Bluetooth 5.x	
Power Management	Qualcomm® PM845 + PM8998 + PM8005 power management and battery charging on SOM	
Open-Q™ 845 µSOM Carı	ier Board	
Display Interfaces	DisplayPort v1.4 on USB Type-C, up to 4K60 with USB 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 + 1x 2-lane MIPI CSI with connectors to mate to optional camera accessories	
Audio Interfaces	Qualcomm® WCD9340 Hi-Fi audio codec module on carrier board, with 1x 3.5mm headset jack (stereo out + mic in) Additional audio expansion: Analog output header, Analog input header, digital I/O header (SLIMBus/I2S/PDM)	
I/O Interfaces	2 USB ports: 1x USB3.1 Type-C + DisplayPort v1.4 with USB data concurrency, 1x USB 3.1 Type-A host 1x PCIe Gen3 1-lane, microSD card socket I/O expansion headers with 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-lon battery (not included)	
Form Factor	SOM: 50mm x 25mm, Carrier Board: Mini-ITX 170mm x 170mm	
Software:		
OS Support	Android™ 10, Linux OS based on Yocto Rocko, kernel v4.9  * Note that all hardware features may not be supported by all SW — see latest SW release notes for details.	







Optional Display and Camera

Development Kit includes: Carrier board, 845 µSOM (4+32GB), 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™ 845 µSOM Dev Kit	PN: QC-DB-P10003
• Open-Q™ 845 µSOM (4+32GB)	PN: QC-DB-P10004
• Open-Q™ 845 µSOM (6+64GB)	PN: QC-DB-P10004A
• Open-Q™ LCD	PN: QC-DB-G00005
• Open-Q™ 13MP Camera	PN: QC-DB-I10006

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