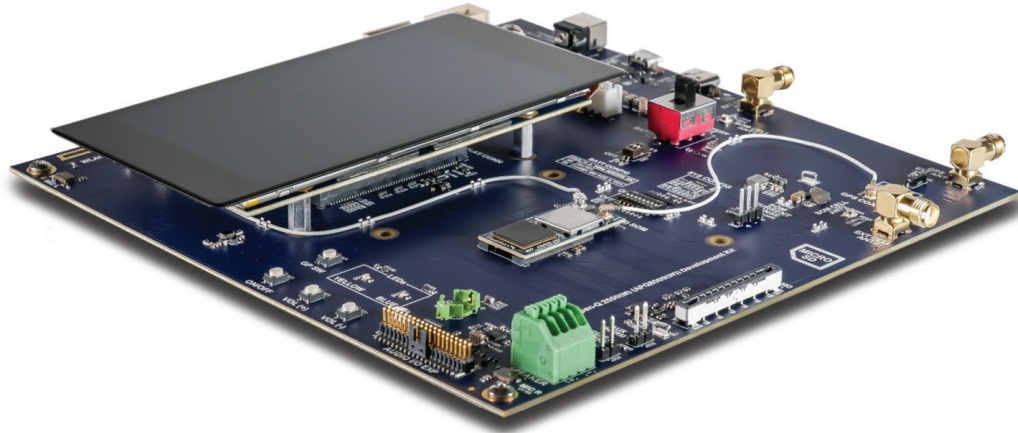


# Open-Q™ 2500 Development Kit

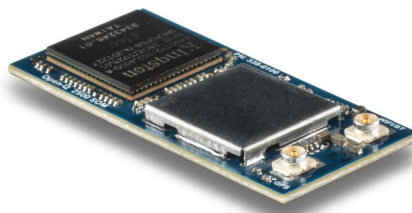
Based on the Qualcomm® Snapdragon Wear™ SDW2500 platform



Lantronix's Open-Q™ 2500 Development Kit is an open frame kit using our ultra-compact (31.5 x 15 mm), production-ready Open-Q™ 2500 SOM, a computing module powered by the Qualcomm® Snapdragon Wear™ SDW2500 platform. The Open-Q™ 2500 SOM combines critical elements for wearable device innovation: high performance, small size, low power, integrated sensor support, and seamless connectivity. The SOM is designed to meet the needs of a range of Android™ based wearable devices including pet, children, and elderly trackers, high-end fitness trackers, smartwatches, connected headsets, smart eyewear, and more.

## Key Features

- Qualcomm® Snapdragon Wear™ SDW2500 (APQ8009W)
- Powered by ultra-small Open-Q™ 2500 SOM
- Open-frame Mini-ITX Form-factor carrier board for evaluation and development
- Numerous I/O and connectivity options
- Optional LCD/touchscreen
- Optional camera
- Optimized Android™ for Wearables



Open-Q™ 2500 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

Qualcomm  
snapdragon wear  
2500 platform



# Lantronix Open-Q™ 2500 Development Kit

## Hardware Specifications:

| Open-Q™ 2500 SOM           |                                                                                                                                                | *See the Open-Q 2500 SOM product brief for complete details |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|
| • Processors               | Snapdragon Wear™ 2500 (APQ8009W) optimized for wearables<br>Quad-Core ARM Cortex A7 (32-bit) at 1.094GHz                                       |                                                             |
| • Memory/Storage           | PoP memory: 1GB LPDDR3 RAM, 8GB eMMC Flash                                                                                                     |                                                             |
| • Wireless                 | Wi-Fi 802.11b/g/n (WCN3620) w/ U.FL antenna connector, Bluetooth 4.x                                                                           |                                                             |
| • Location Services        | Gen 8C GNSS (WGR7640) with U.FL antenna connector                                                                                              |                                                             |
| Open-Q™ 2500 Carrier Board |                                                                                                                                                |                                                             |
| • Display Interface        | 4 lane MIPI DSI interface for optional LCD/touch panel<br>DSI interface supports up to 720p at 60fps, optimized for wearables                  |                                                             |
| • Camera Interface         | 2-lane MIPI CSI camera interface to support up to 8MP                                                                                          |                                                             |
| • Audio Interfaces         | 2x digital mics, mono I2S speaker amp with speaker terminals — on carrier board<br>2x I2S interfaces and DMIC inputs on audio expansion header |                                                             |
| • USB Interface            | USB2 with Type-C interface for quick-charge capability                                                                                         |                                                             |
| • I/O Interfaces           | microSD card socket, SPI, I2C, GPIO, sensor I/O on expansion headers<br>Debug serial USB microB interface                                      |                                                             |
| • Wireless                 | 1x Wi-Fi/BT PCB antennas on Carrier Board                                                                                                      |                                                             |
| • GNSS Receiver            | GNSS receiver LNA/BPF and antenna connector on carrier board                                                                                   |                                                             |
| • Form Factor              | SOM Size: 31.5mm x 15mm<br>Carrier Board Size: 170mm x 170mm—Mini-ITX form factor with on-board mounting for optional LCD panel                |                                                             |
| • Power Input              | 12V/3A from included wall adapter or single-cell Li-Ion battery (not included)                                                                 |                                                             |
| Software:                  |                                                                                                                                                |                                                             |
| • OS Support               | Android™ 8 for Wearables — Note that all hardware features may not be supported by SW versions — see latest SW release notes for details       |                                                             |

## Software:



Optional Display and Camera

**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.**

## Purchasing Information:

|                        |                  |
|------------------------|------------------|
| • Open-Q™ 2500 Dev Kit | PN: QC-DB-J10003 |
| • Open-Q™ 2500 SOM     | PN: QC-DB-J10004 |
| • Open-Q™ LCD          | PN: QC-DB-G00005 |
| • Open-Q™ 13MP Camera  | PN: QC-DB-I10006 |

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