

Specifications are subject to change - 895-0047-00 Rev. B

Open-Q[™] 865 Development Kit Quick Start Guide



10 11 12 9 **Package Contents** 1. Open-Q 865 Carrier Board compatible with Open-Q 865 family of System-on-Modules (SOM) 2. AC Power Adapter (not shown) 13 3. CPU Heatsink (not shown) 4. ST Micro Sensor Board (not shown) SOM SOLD SEPARATELY 23. SOM current sense header 1. 12V DC power jack 14 24. Micro SD socket* 2. Power source switch (DC/Batt) 31 25. Open-Q LCD Touch Panel (Sold Sepa-3. Battery connector USB 3.0 Type-A Connector 26. WLAN Channel 1 Antenna (PCB trace) 5. Power button 27. Digital I/O connector Volume + 28. SIM Card connector* 7. Volume - / Reset button **LANTRONIX**° 29. Audio Output expansion header **General Purpose Button** 30. M.2 PCIe Socket (B-key) * 9. Audio Headset Jack 31. Audio Input expansion header 10. USB 3.0 Type-C connector 32. WLAN Channel 1 U.FL Antenna Con-11. USB debug UART Micro B 18 nector Qualcomm 12. Debug UART Header 35 33. WLAN/BT Channel 0 U.FL Antenna 13. WLAN/BT Channel O Antenna (PCB Connector trace) 34. Qualcomm System-on-Chip (SoC) 14. Audio I/O expansion header with PoP DDR memory on top 15. MIPI Camera 3 Connector 35. Open-Q System on Module (Sold separately) 16. Coin Cell Battery Holder 17. Power Header * On Bottom side 18. MIPI Camera 2 Connector 20 19. VPH PWR current sense header 20. MIPI Camera 1 Connector 21. Sensor expansion header 22. System configuration switches

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SOM Installation and Development Kit Setup

CAUTION: The SOM and Dev Kit are susceptible to damage from static discharge.

- 1. At a static-safe workstation, remove the development kit board and the SOM carefully from their antistatic bags. Do not apply power until after following the steps below to install the SOM, connect the antenna cables, and install the heatsink.
- 2. **SOM Installation:** To prevent damage, be gentle while inserting the SOM onto the carrier board. Ensure that the three board-to-board connectors are properly aligned between the SOM and carrier board before applying any force. Then apply vertical force only along both long edges of the SOM above the board-to-board connectors. Force should be applied on the indicated locations (see figure below) until the SOM is fully seated on the carrier board connectors. For further information and removal instructions refer to the Development Kit User Guide document.
- 3. Antenna Connection: After the SOM is installed onto the carrier board, connect the two WLAN/BT antenna cables (32/33) to the SOM as shown on page 1. Gently align the U.FL cable connectors over top of the corresponding SOM connectors and then apply gentle vertical pressure on top until you feel them click into place.



- 4. Heatsink Installation: A stick-on heatsink for the Qualcomm SoC is included with the development kit. It is safe to
 - operate the SOM without the heatsink installed but the processor performance may be limited. For better thermal performance, install the heatsink on top of the SoC by removing the adhesive covering and sticking the heatsink on top of the SoC (34).
- 5. Power Up: Connect the AC Power Adapter to the 12V DC Jack (1), connect a PC with serial console program to the USB debug UART connector (11), and then press and hold the power button (5) until you see the boot indicator LED light (~3 seconds).
- 6. Further Information: Refer to the SW release notes and Development Kit User Guide for your specific SOM and SW package for more information about supported features, connecting peripherals, and how to log in.

Development Kit Support

Documentation and software

To access the documentation (schematics, user guides, datasheets, programming guides, tech notes...), platform BSP software and much more, please register at:



Technical Support

Should you require more information or assistance, you can contact us at:

https://www.lantronix.com/support

Lantronix also provides technical information and videos on Qualcomm processors

https://www.lantronix.com/resources

Should you require additional technical support for your Development Kit you can easily purchase a technical support package from the Lantronix store:

http://lantronix.com/embedded-compute-support-packages

Thank you for purchasing an Open-Q 865 Development Kit

The Lantronix Team