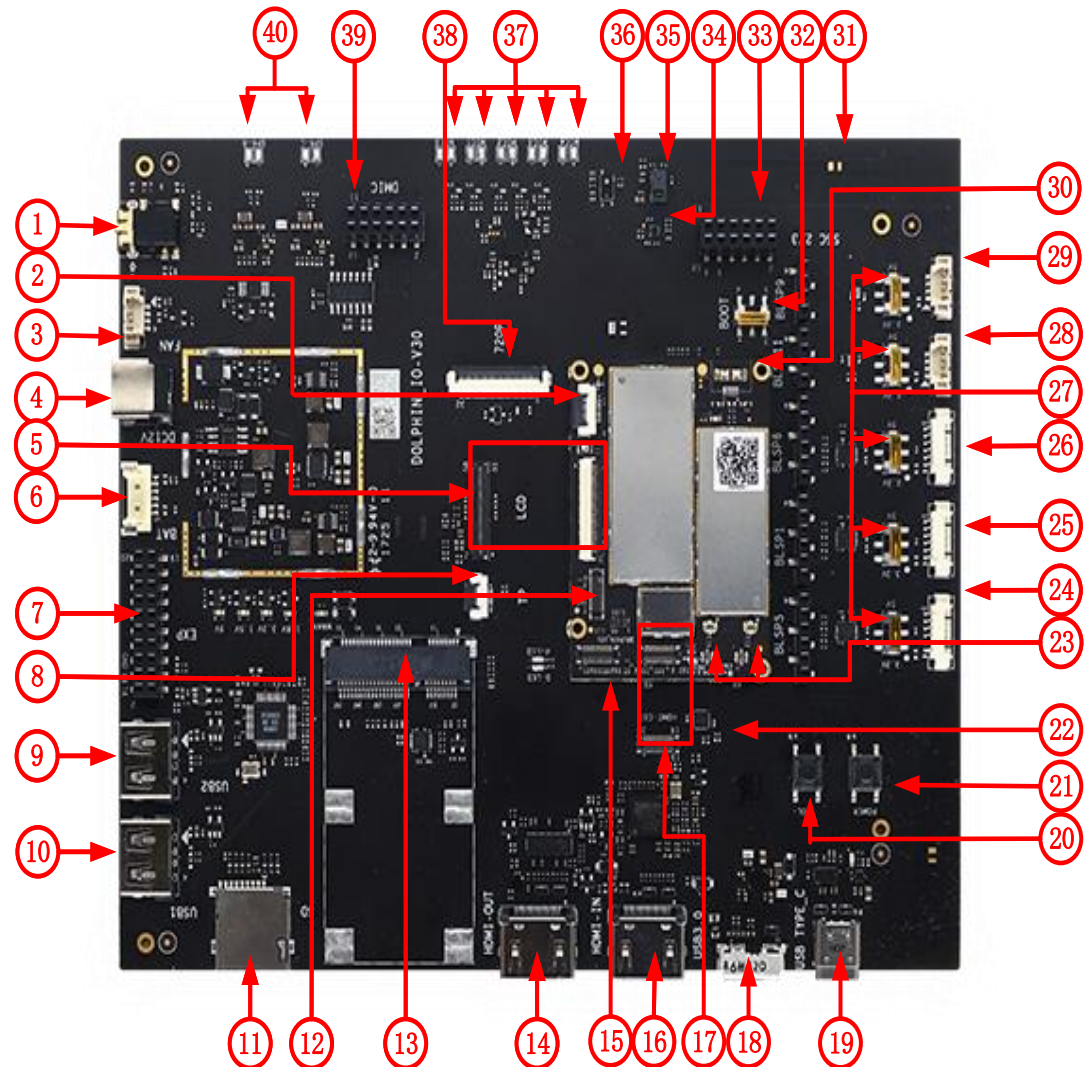


Quick Start Guide

Package Contents

1. SOM Board with APQ8096 processor
2. Carrier Board
3. AC Power Adaptor

- | | |
|--------------------------------|-------------------------------|
| 1. Headset Jack | 21. Power button |
| 2. Key connector | 22. A+G+M IMU |
| 3. Fan connector | 23. WLAN ext. ant. Connector |
| 4. 12V DC Jack | 24. BLSP5 connector |
| 5. LCM Convert connector | 25. BLSP1 connector |
| 6. Battery connector | 26. BLSP6 connector |
| 7. General purpose header | 27. Switch (5V/3.3V change) |
| 8. Touch Panel connector | 28. UART11 connector |
| 9. USB 2.0 Type A connector 2 | 29. UART9 connector |
| 10. USB 2.0 Type A connector 1 | 30. Micro USB2.0 connector |
| 11. TF Card | 31. Antenna 0 on board |
| 12. MIPI camera connector 0 | 32. Switch for Power on mode |
| 13. Mini-PCIE connector | 33. Sensor Core I2C connector |
| 14. HDMI OUT connector | 34. MAG Sensor |
| 15. MIPI camera connector 1 | 35. Gesture Sensor |
| 16. HDMI IN connector | 36. Proximity Sensor |
| 17. HDMI IN FPC connector | 37. Analog MICs |
| 18. Micro USB3.0 connector | 38. 720P LCD connector |
| 19. USB Type C connector(O) | 39. DMICs connector |
| 20. VOL down or Reset button | 40. Speakers connector |



Quick Start Guide

Thundersoft TurboX® S820 EVB Setup

- Remove Thundersoft TurboX® S820 EVB board carefully from the anti-static bag
- Connect SOM board, Carrier board and IMX214 Camera to the corresponding connector as show below.
- Connect Thundersoft TurboX® S820 EVB to a display through HDMI cable.
- Connect Thundersoft TurboX® S820 EVB and PC through the USB cable.
- Connect the Power Adapter to the Thundersoft TurboX® S820 EVB.
- USB connector (18) as the debug interface, when need debugging.
- Press power button (21) for 2 seconds the board will boot automatically.

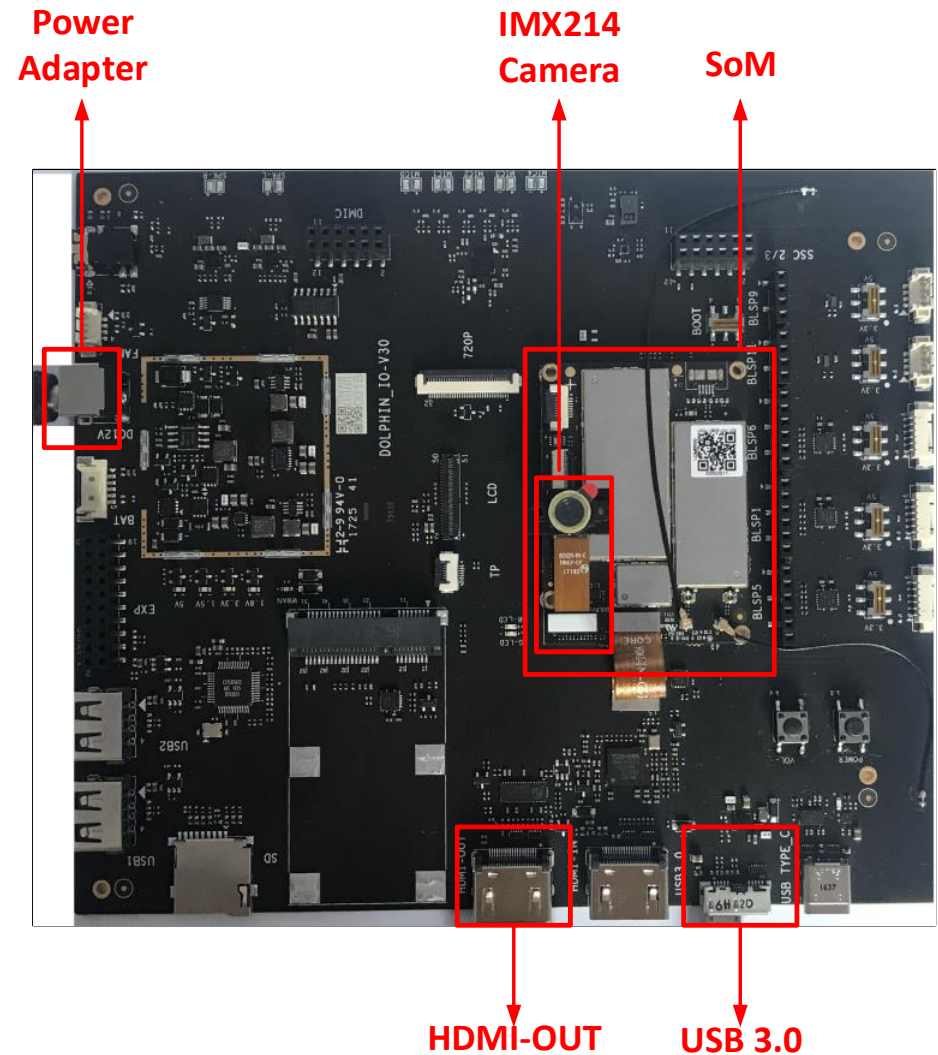
Notes:

All FPC with 'TEXT' mark.

'MB' connecting to the SOM Board.

'IO' connecting to the Carrier Board.

Keep the 'TEXT' side up.

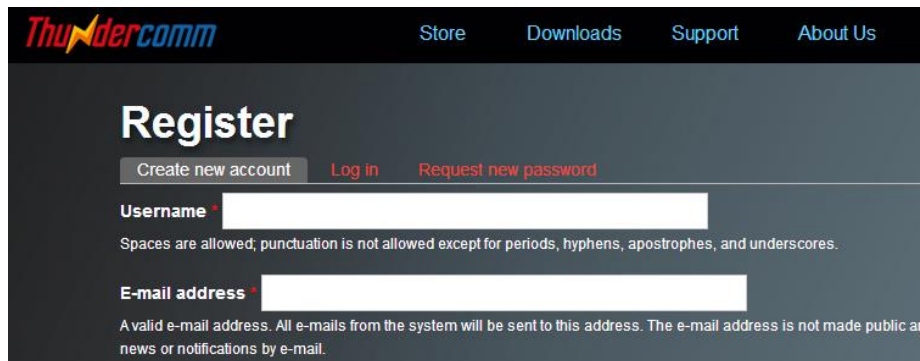


Quick Start Guide

Thundersoft TurboX® S820 EVB Support

Download documentation and software

- To access the documentation (schematics, user guides, datasheets, programming guides, tech notes...), platform BSP software and more, please registry on www.thundercomm.com.

The image shows a screenshot of the Thundercomm website's registration page. At the top, there is a navigation bar with the Thundercomm logo and links for Store, Downloads, Support, and About Us. The main heading is "Register". Below the heading, there are three buttons: "Create new account" (highlighted), "Log in", and "Request new password". The "Create new account" button is active, leading to a registration form. The form has two input fields: "Username" and "E-mail address". Below the "Username" field, there is a note: "Spaces are allowed; punctuation is not allowed except for periods, hyphens, apostrophes, and underscores." Below the "E-mail address" field, there is a note: "A valid e-mail address. All e-mails from the system will be sent to this address. The e-mail address is not made public as news or notifications by e-mail."

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

<https://www.thundercomm.com/contact-support>

- Thundercomm also provides technical information on Snapdragon processors at:

<https://www.thundercomm.com/resources>

- Should you require additional technical support for your Thundersoft TurboX® S820 EVB you can easily purchase a block of technical support hours from the thundercomm store:

<http://store.thundercomm.com/collections/technical-support-packages>

Thank you for purchasing the Thundersoft TurboX® S820 EVB. Any questions, you can send email to contact us.

Email: service@thundercomm.com

The Thundercomm Support Team

Federal Communication Commission (FCC) Radiation Exposure Statement

When using the product, maintain a distance of 20cm from the body to ensure compliance with RF exposure requirements.

FCC statements:

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications or changes to this equipment. Such modifications or changes could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Industry Canada license-exempt RSS standard(s).

Operation is subject to the following two conditions:

- (1) this device may not cause interference, and
- (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil est conforme avec Industrie Canada RSS exemptes de licence standard(s).

Son fonctionnement est soumis aux deux conditions suivantes:

- (1) cet appareil ne peut pas provoquer d'interférences, et
- (2) cet appareil doit accepter toute interférence, y compris celles pouvant causer un mauvais fonctionnement de l'appareil.

A certified modular has the option to use a permanently affixed label, or an electronic label. For a permanently affixed label, the module must be labelled with an FCC ID:

2AOHHTURBOXSOMS820/IC: 23465- TURBOXS820. The OEM manual must provide clear instructions explaining to the OEM the labelling requirements, options and OEM user manual instructions that are required

For a host using a this FCC certified modular with a standard fixed label, if (1) the module's FCC ID is not visible when installed in the host, or (2) if the host is marketed so that end users do not have straightforward commonly used methods for access to remove the module so that the FCC ID of the module is visible; then an additional permanent label referring to the enclosed module:

“Contains Transmitter Module FCC ID: 2AOHHTURBOXSOMS820/IC: 23465- TURBOXS820 or “FCC ID: 2AOHHTURBOXSOMS820/IC: 23465- TURBOXS820 ” must be used. The host OEM user manual must also contain clear instructions on how end users can find and/or access the module and the FCC ID/IC.

Host product is required to comply with all applicable FCC equipment authorizations regulations, requirements and equipment functions not associated with the transmitter module portion. compliance must be demonstrated to regulations for other transmitter components within the host product; to requirements for unintentional radiators (Part 15B).

To ensure compliance with all non-transmitter functions the host manufacturer is responsible for ensuring compliance with the module(s) installed and fully operational. If a host was previously authorized as an unintentional radiator under the Declaration of Conformity procedure without a transmitter certified module and a module is added, the host manufacturer is responsible for ensuring that the after the module is installed and operational the host continues to be compliant with the Part 15B unintentional radiator requirements. Since this may depend on the details of how the module is integrated with

the host, we suggest the host device to recertify part 15B to ensure complete compliance with FCC requirement: Part 2 Subpart J Equipment Authorization Procedures , KDB784748 D01 v07, and KDB 997198 about importation of radio frequency devices into the United States.

Please use FPC antenna with dBi and dBi when the modular used the in the end product. If the end user didn't use the required antenna, it may need to have FCC change.