



Thundercomm TurboX C410/610 Open Kit User Guide

[Home](#) » [Thundercomm](#) » Thundercomm TurboX C410/610 Open Kit User Guide 

Contents

- [1 Thundercomm TurboX C410/610 Open Kit](#)
- [2 Package List](#)
- [3 Board Layout](#)
- [4 Boot Config Switch](#)
- [5 Let's Get Started](#)
- [6 Optional camera modules](#)
- [7 Notices and trademarks](#)
- [8 Documents / Resources](#)
 - [8.1 References](#)
- [9 Related Posts](#)

Thundercomm

Thundercomm TurboX C410/610 Open Kit



Package List



12V/2A AC Power Adaptor (HTE)

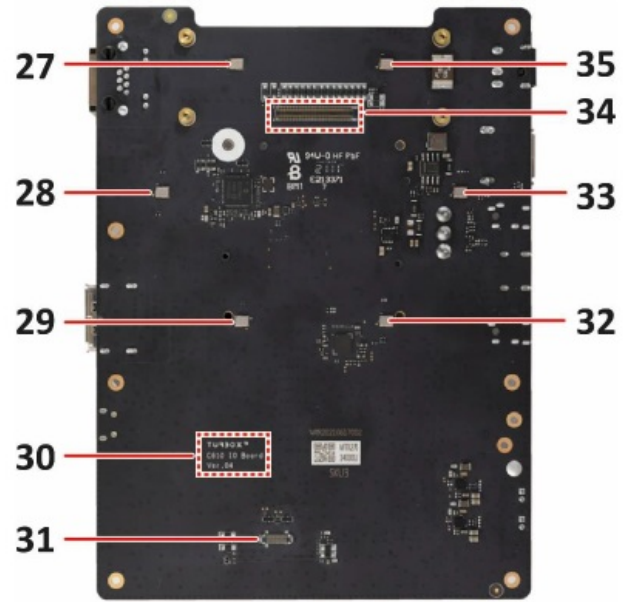
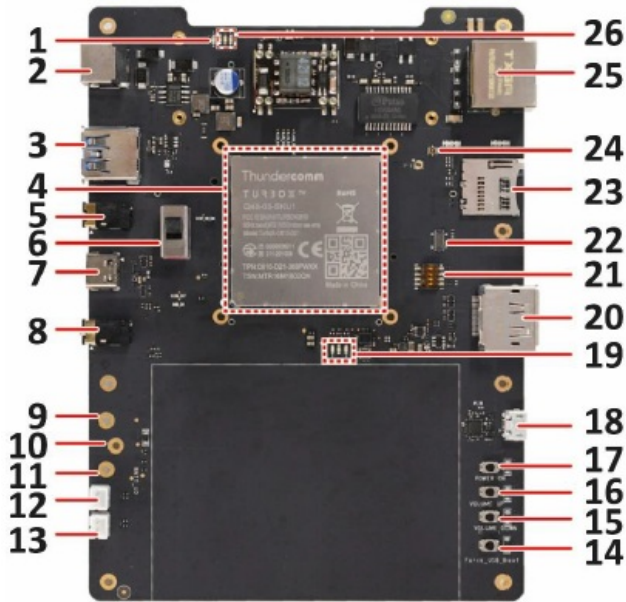


Open Kit Board
(With C410/C610 SOM)



Wi-Fi/BT Antenna (x1)

Board Layout

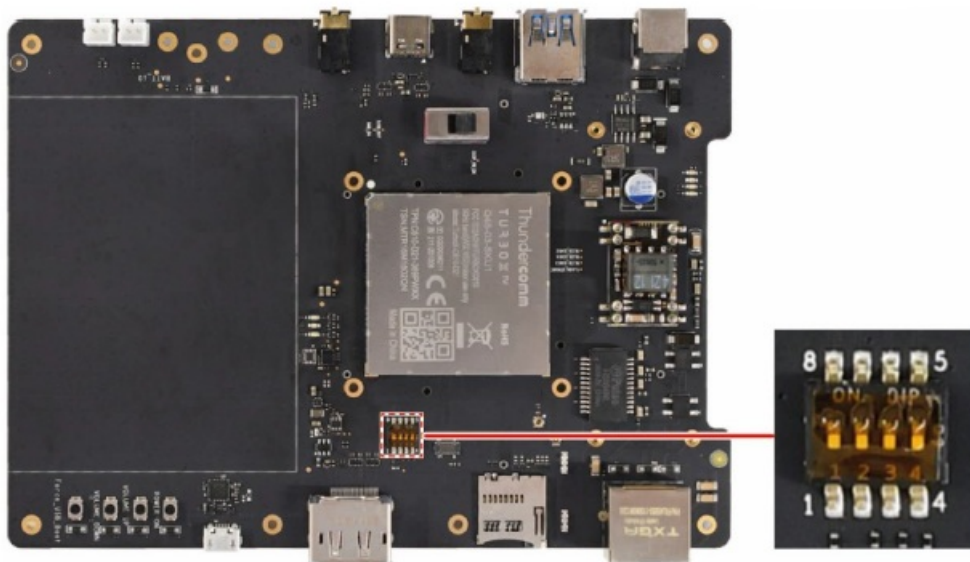


1. Power LED	13. Speaker connector 2	25. Ethernet connector
2. 12V DC-in jack	14. Force USB Boot button	26. PMIC RGB LED
3. USB 3.1 Type-A connector (USB 2.0 protocol only)	15. Volume down button	27. Digital microphone 1
4. Heat sink fixing hole	16. Volume up button	28. Digital microphone 2
5. Line in connector	17. Power on the button	29. Digital microphone 3
6. Power source selective switch	18. UART debug connector	30. Hardware version
7. USB 3.1 Gen1 Type C connector	19. GPIO LED	31. LCD connector
8. Headset connector	20. DisplayPort	32. Digital microphone 4
9. VBAT + pad	21. Boot config switch	33. Digital microphone 5
10. BAT thermal pad	22. JTAG debug connector	34. Camera MEZZ board connector
11. VBAT – pad	23. Micro SD card slot	35. Digital microphone 6
12. Speaker connector 1	24. Wi-Fi/BT antenna connector	–

Boot Config Switch

Switches 1 to 4 function together as a whole, i.e., the boot config switch (item 21) on the board. A combination of their ON/OFF status defines the access sequence of system files for booting the device.

Refer to the table below for detailed information.



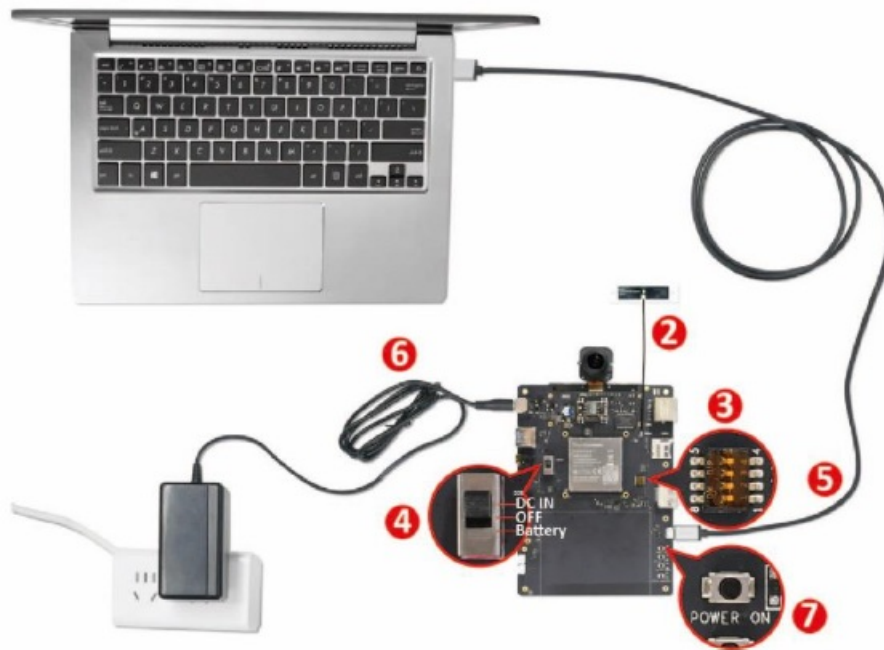
Switch 1	Switch 2	Switch 3	Switch 4	System File Access Sequence
OFF	OFF	OFF	OFF	1. eMMC 2. Micro SD on SDC2 3. USB on USB3.1 (SS/FS/FS)
ON	OFF	OFF	OFF	1. Micro SD on SDC2 2. eMMC
OFF	ON	OFF	OFF	Micro SD on SDC2
OFF	OFF	ON	OFF	USB on USB3.1 (SS/FS/FS)
OFF	OFF	OFF	ON	UFS HS-G1 3.1

Let's Get Started

Follow the steps below to boot up your device

1. Take out C410/C610 Open Kit board carefully from the package.
2. Connect the antenna to the Wi-Fi/BT antenna connector (connector 24).
3. Toggle the Boot config switch (item 21) 1-4 to the OFF position.
4. Toggle the Power source selective switch (item 6) to DC IN (uppermost position of the switch).
5. Connect the board to a computer via UART debug connector (connector 18).
 - **NOTE:** UART debug connector (connector 18), as a debug interface, can be connected if debug function is needed.

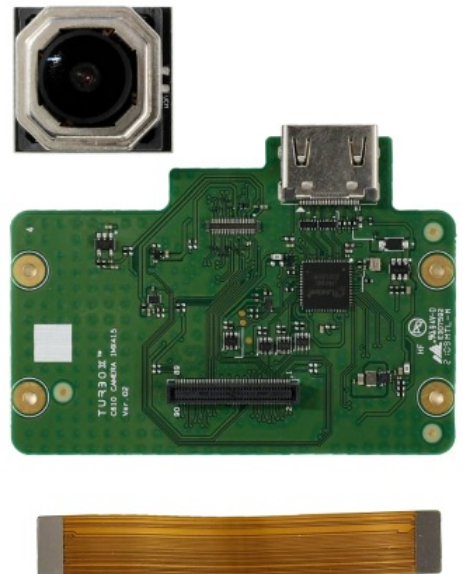
6. Connect the power adapter to the board via a 12V DC-in jack (connector 2).
7. Press the power on button (connector 17) to boot up the device.
 - **NOTE:** Connect the board to the PC through USB 3.1 Gen1 USB Type-C connector (connector 7) if you need the ADB function.



Optional camera modules



Sony IMX577 Camera Module Kit



Sony IMX415 Camera Module Kit

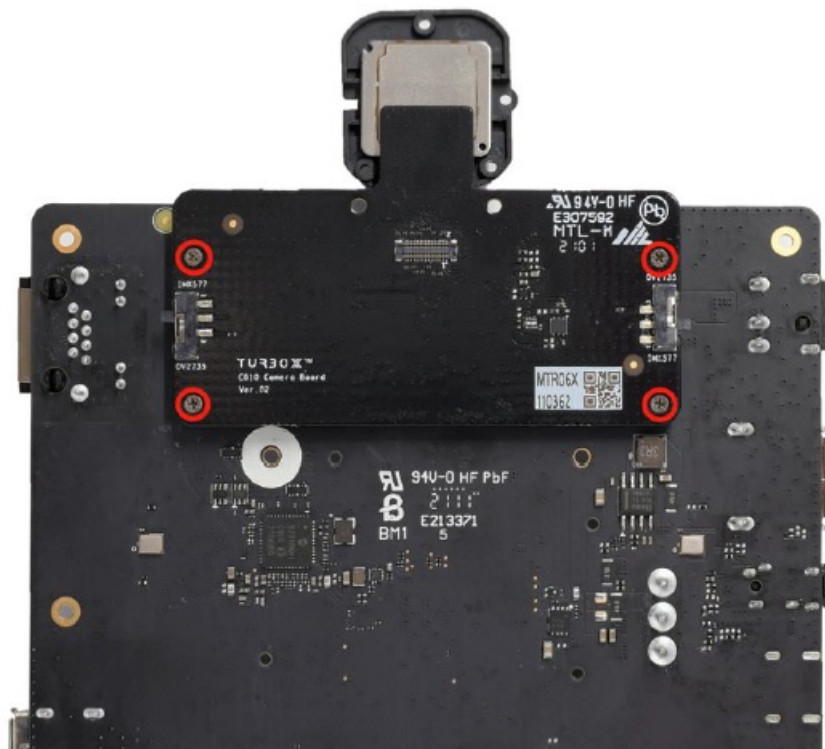
Refer to the steps below for connecting the optional camera modules

- **Connect Sony IMX577 camera module**
 - Step 1.** Connect the camera module to the Mezz A board.



Step 2. Follow the sub-steps below.

1. Align the location holes of the four screws (M1.4) of the Mezz A board to the screw holes of four copper nuts of the Open Kit board.



2. Press the nuts to fasten the connection of high-speed connectors.
3. Fix the mezzanine board with screws.

Step 3. Preview the camera stream on the Snapdragon camera App.

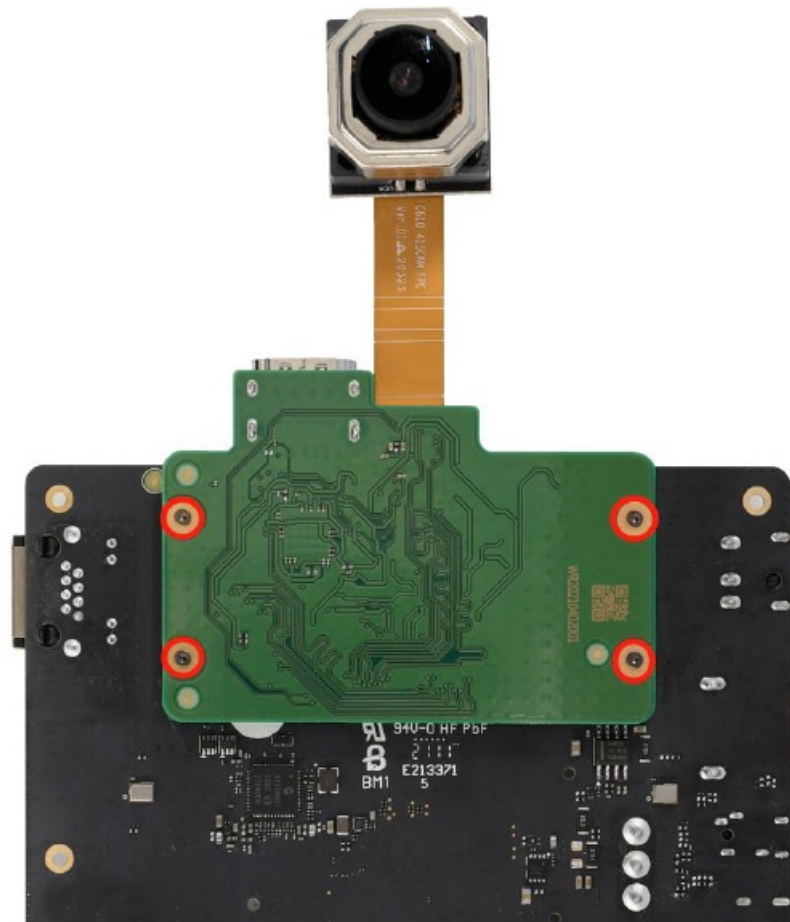
- **Connect the IMX415 camera module**

Step 1. Connect the Mezz A board to the camera module.



Step 2. Follow the sub-steps below.

1. Align the location holes of the four screws (M1.4) of the Mezz B board to the screw holes of the four copper nuts of the Open Kit board.



2. Press the nuts to fasten the connection of high-speed connectors.
3. Fix the mezzanine board with screws.

Step 3. Preview the camera stream on the Snapdragon camera App.

Step 4. Test HDMI IN feature with the hdmnin_1920x1080 App.

Contact us

Email: service@thundercomm.com

Address: 1601 McCarthy Blvd Suite R-12 Milpitas CA,95035.

Support software and documentation downloads: www.thundercomm.com

Notices and trademarks

Thundercomm may have patents or pending patent programs covering the subject matter described in this document. The furnishing of this document does not give you any license to these patents. You can send license inquiries to service@thundercomm.com.

THUNDERCOMM PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE. Some jurisdictions do not allow disclaimers of express or implied warranties in certain transactions; therefore, this statement may not apply to you.

Changes are made periodically to the information herein; these changes will be incorporated in new editions of the publication. To provide better service, Thundercomm reserves the right to improve and/or modify the products and software programs described in the manuals, and the content of the manual, at any time without additional notice. The software interface and function and hardware configuration described in the manuals included with your development board or system on module might not match exactly the actual configuration that you have purchased. For the configuration of the product, refer to the related contract (if any) or product packing list, or consult the distributor for product sales. Thundercomm may use or distribute any of the information you supply in

any way it believes appropriate without incurring any obligation to you.

The products described in this document are not intended for use in implantation or other life support applications where malfunction may result in injury or death to persons. The information contained in this document does not affect or change Thundercomm product specifications or warranties. Nothing in this document shall operate as an express or implied license or indemnity under the intellectual property rights of Thundercomm or third parties. All information contained in this document was obtained in specific environments and is presented as an illustration. The result obtained in other operating environments may vary.

The information in this document should not be as an invitation for an offer or any advice to the visitors. Please consult the professional comments from the sales consultant prior to doing any actions of investment or purchase. Thundercomm may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you. Any references in this publication to non-Thundercomm Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this Thundercomm product, and use of those Web sites is at your own risk. Thundercomm shall not be responsible for the content of the third party.

Any performance data contained herein was determined in a controlled environment. Therefore, the result obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.


This document is copyrighted by Thundercomm and the property right of the date mentioned in this document, including but not limited to trademarks, patents, copyrights, trade names, etc. are not covered by any open-source license. Thundercomm may update this document at any time without notice. Anyone doesn't have the right to amend, reprint, republication, reproduce, transmit, distribute, or any other way to use this document for business or public purposes without the prior written consent of Thundercomm.

E-mail messages sent to Thundercomm via the Internet are not guaranteed to be completely secure. Thundercomm shall not be liable for any loss incurred by the surfer when transmitting any information over the Internet or for any loss incurred by Thundercomm when sending any information over the Internet at your request. Thundercomm has all rights under other relevant exemptions provided by laws and regulations, and Thundercomm's failure to claim or delay in claiming such rights shall not be deemed to be a waiver of such rights by Thundercomm. Thundercomm reserves the right to the final interpretation of this document.

Thundercomm, Thundercomm Turbox, TURBOX, and Thundersoft turbox are trademarks of Thundercomm Corporation or its associate companies in China and/or other countries. All other trademarks are the property of their respective owners.

Empowering Every IoT Device with Our Technology.

Documents / Resources

	<p>Thundercomm TurboX C410/610 Open Kit [pdf] User Guide TurboX C410 610, Open Kit, TurboX C410 610 Open Kit</p>
---	--

References

- [Thundercomm - World leading IoT product and solution provider](#)
- [Thundercomm - World leading IoT product and solution provider](#)

