

Thundercomm TurboX™ Development Kit

Quick Start Guide

Machine Type: C450, CM450, CM625, and C626

Rev. V1.0
Feb 23, 2021

DN: TC_4&6_510

Revision History

Revision	Date	Description
1.0	Feb 23, 2021	Initial release

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Table List

[Table 2-1: Equipment required to install and run the LA SDK \(Software Development Kit\)](#)

[Table 3-1: Top view specifications](#)

[Table 3-2: Bottom view specifications](#)

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Contents

Chapter 1. Introduction.....	- 2 -
Chapter 2. Equipment Requirements	- 3 -
Chapter 3. Board Overview	- 4 -
1. Front view	- 4 -
2. Back view.....	- 6 -
Chapter 4. Quick Start	- 8 -
1. Power on with power key	- 8 -
2. Power on with USB	- 8 -
3. Reset	- 9 -
Chapter 5. System Image Flashing.....	- 10 -
Chapter 6. Service.....	- 11 -
Appendix 1. Intellectual Property Statement.....	- 12 -
Appendix 2. Trademarks	- 13 -

Chapter 1. Introduction

This quick start guide provides detailed information on equipment requirements, board overview, startup, and system images programming.

This document shall take CM450 SOM (System on Module) as an example.

Conventions:

- Function declarations, function names, type declarations, attributes, and code samples appear in a different format, for example, `cp armcc armcpp`.
- Code variables appear in angle brackets, for example, `<number>`.
- Button, tool, and key names appear in bold font, for example, click **Save** or press **Enter**.
- Commands to be entered appear in a different font, for example:

```
$adb devices.
```

- On the host computer use # as shell prompt, for example:

```
#logcat.
```

- On the target device use \$ as shell prompt, for example:

```
$adb shell
```

Chapter 2. Equipment Requirements

Table 2-1: Equipment required to install and run the LA SDK (Software Development Kit)

Equipment	Description
Turbox 450-626 Platform	Based on the Qualcomm® SDA450/SDM450/SDM625/SDA626 processor
Power adapter	<ul style="list-style-type: none"> • 12 V • 2000 mA
USB to Micro USB cable	Connect serial console interface to run ADB
USB to Type-C USB cable	Connect Type-C USB 3.0 port to flash images
Host computer	Connect the development board to install Fastboot

Chapter 3. Board Overview

1. Top view

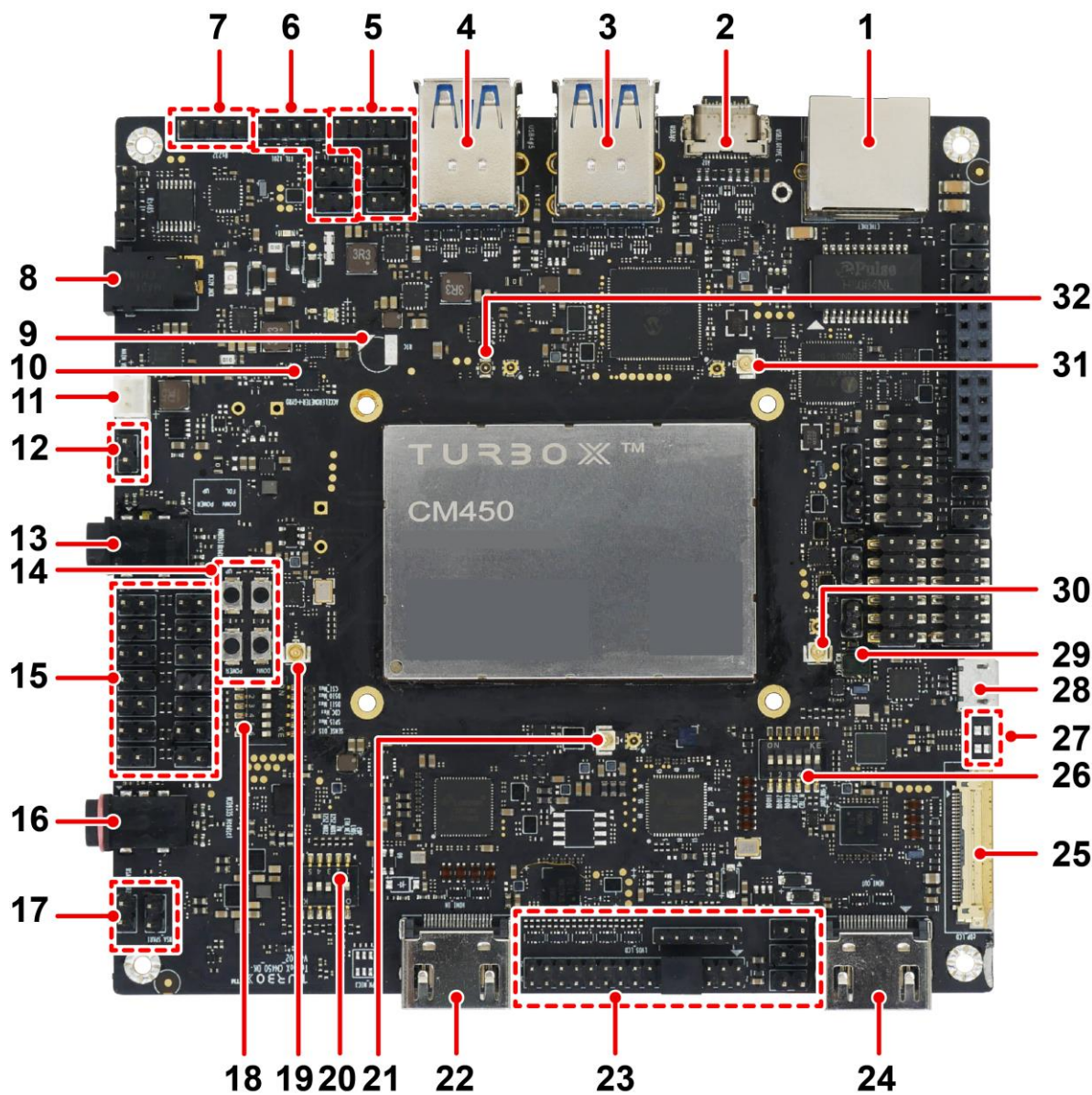


Figure 1: Top View

Table 3-1: Top view specifications

1. RJ45 Gigabit Ethernet Connector	2. Type-C USB Connector
3. USB 3.0 Connector x 2	4. USB 3.0 Connector x 2
5. Fan Pin	6. UART TTL Pin

7. RS232 Pin	8. DC Power Connector
9. RTC Battery	10. A+G Sensor
11. Battery Port	12. PM8953 Speaker Pin
13. PM8953 Headset Port	14. Button
15. UART Jumper Pin	16. WCD9335 Headset Port
17. WCD9335 Speaker Pin	18. Switch 3
19. FM Antenna	20. Switch 2
21. 4G DRX Antenna	22. HDMI IN
23. LVDS Screen Pin	24. HDMI OUT
25. eDP Port	26. Switch 1
27. NFC Antenna Welding Point	28. Debug USB
29. WCD9335 MIC4	30. GPS Antenna
31. 4G PRI Antenna	32. BT/WIFI Antenna

2. Bottom view

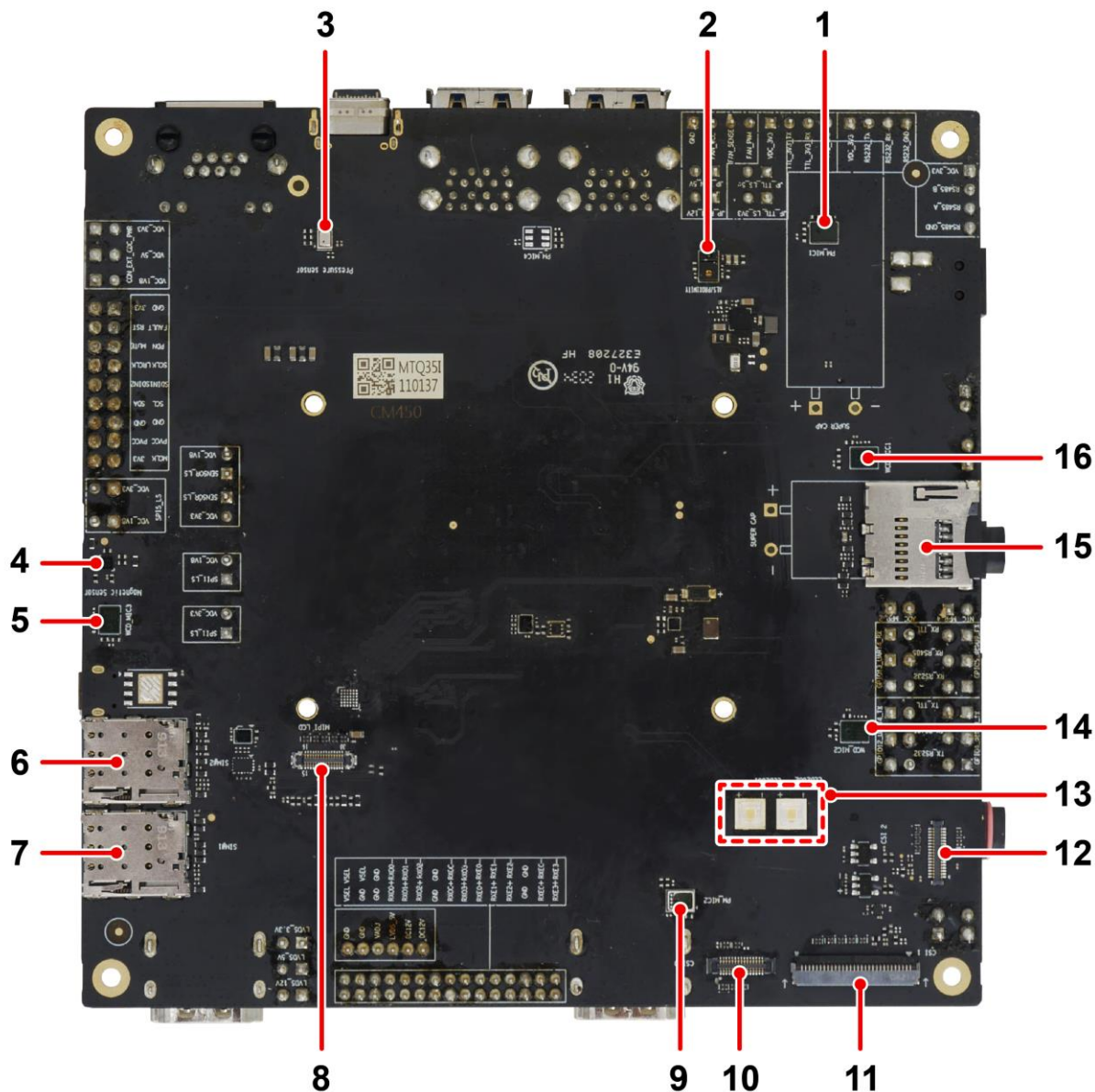


Figure 2: Bottom View

Table 3-2: Bottom view specifications

1. PM8953 MIC1	2. Distance+ Ambient Light Sensor
3. Atmospheric Pressure Sensor	4. Magnetometer
5. WCD9335 MIC3	6. SIM2
7. SIM1	8. LCD Connector
9. PM8953 MIC2	10. CSI0
11. CSI1	12. CSI2

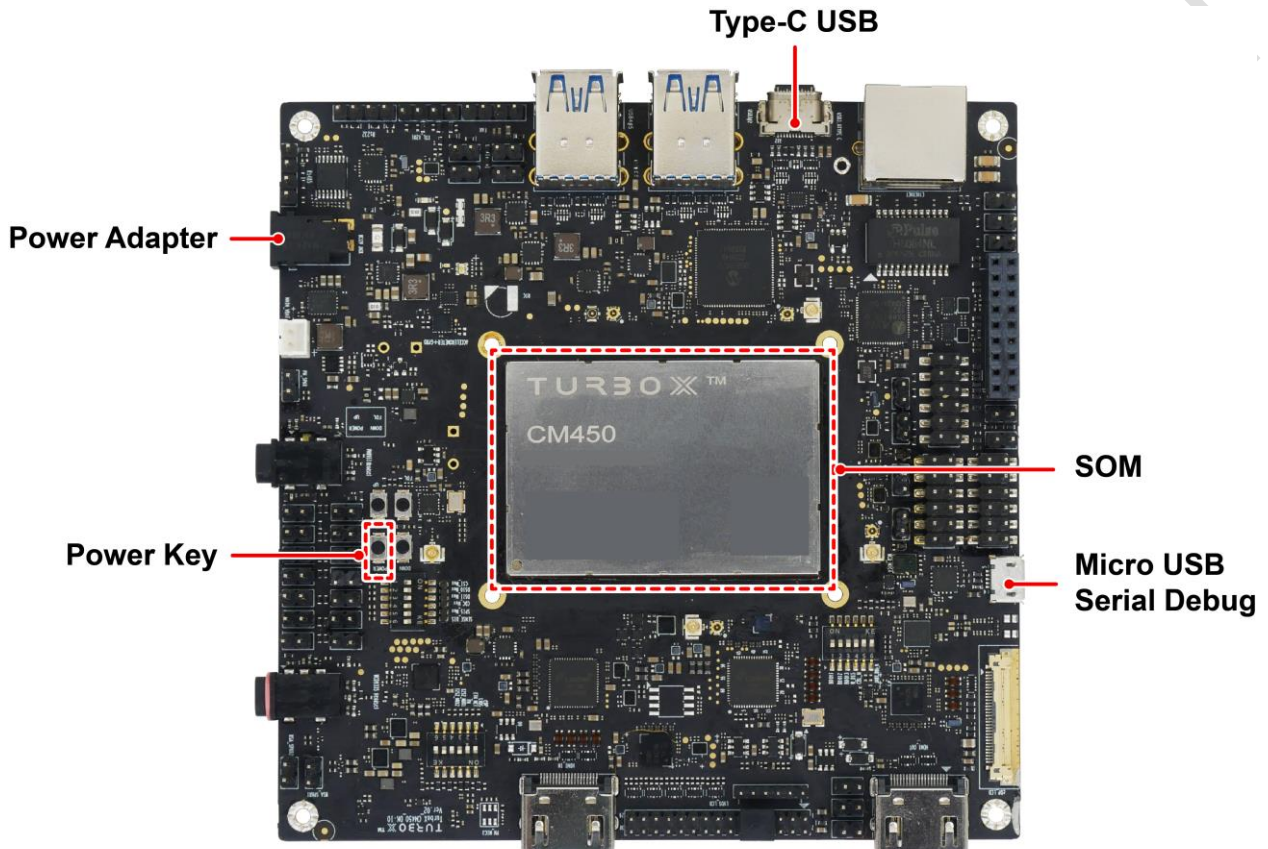
13. Flash LED	14. WCD9335 MIC2
15. TF Card Port	16. WCD9335 MIC1

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Chapter 4. Quick Start

1. Power on with power key

Connect the 12V power adapter, press power key, then the LED on board will blink quickly.



2. Power on with USB

Step 1. Connect the 12V power adapter.

Step 2. Connect Thundercomm TurboX™ CM450 Open Kit to your computer with the USB cable.

Step 3. To check if the board has powered on, open the Terminal in Linux system, input `lsusb`, and press **Enter**. Your device successfully powered on and connected to computer with the following log displaying on your screen.

```
Bus 003 Device 102: ID 05c6:901d Qualcomm, Inc.
```

3. Reset

In Terminal window of Linux, input `adb reboot`, and press enter, the system will reboot.

```
root@ubuntu:~# adb reboot
```

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Chapter 5. System Image Flashing

Refer to [TC_4&6_110]_Thundercomm TurboX C450,CM450,CM625,C626 Development Kit_Release Notes_V1.0.pdf.

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Chapter 6. Service

If you have any problem, please propose a request in the Thundercomm TurboX 450-626 Platform forum: <https://www.thundercomm.com/forum/category/2/thundercomm-turbox-som-platform>.

For business cooperation, please email us at: service@thundercomm.com.

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