

Thundercomm

Empowering Every IoT Device with Our Technology

Thundercomm TurboX™

SDW4100 Development Kits Quick Start

Rev.v0.3

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1 INTRODUCTION

1.1 Product Information

There are **four SKUs** for sale, detailed product information can be found in the upper left corner of the box.

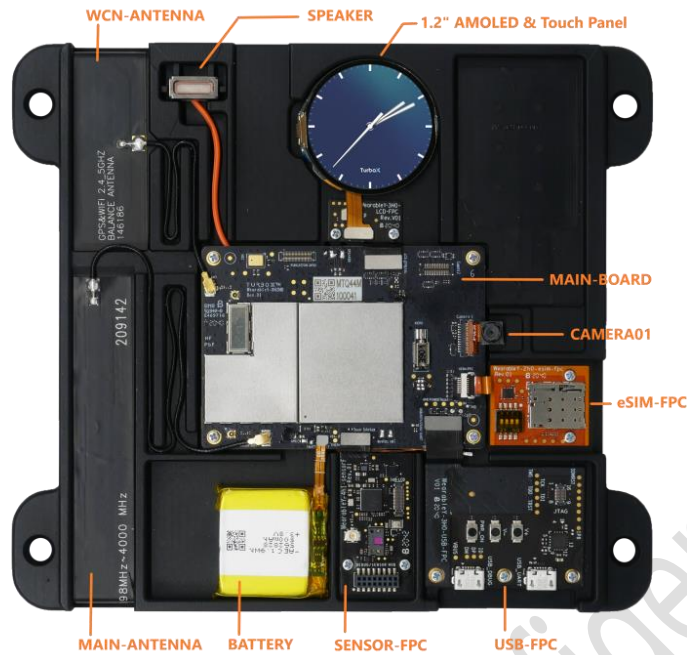
Product	Model	TPN	Coprocessor
WearableY-DK(ADSP)	WearableY-DK-NA	140019999812	N/A
WearableY-DK(ADSP)	WearableY-DK-EU	140019999914	N/A
WearableY-DK	WearableY-DK-NA	140019999911	3 rd Apollo 3B
WearableY-DK	WearableY-DK-EU	140019999913	3 rd Apollo 3B

Product information picture sample:



1.2 SYSTEM OVERVIEW

TurboX™ SDW4100 DK (TurboX™ SDW4100 Development Kits) is a customized development platform based on Qualcomm's SDW4100 platform, it is mainly aimed at enterprise users who want to make the watch class. For detailed information, please refer to [Thundercomm Turbox SDW4100 DK User Manual](#).



2 Boot Instructions

The Qualcomm **Android 8.1** version is installed by default on the SDW4100 DK.

2.1 Development Environment Installation

It needs to install Ubuntu 16.04 on computer.

2.1.1 adb/fastboot environment

```
$ sudo apt-get install android-tools-fastboot android-tools-fastboot
```

```
$ adb version
```

```
Android Debug Bridge version 1.0.32
```

```
Revision debian
```

2.1.2 minicom environment

In the debugging development process is the need to print UART log of the CPU, so there can use minicom tool in Ubuntu.

```
$ sudo apt-get install minicom
```

Set the minicom:

```
$ sudo minicom -s
```

For details about minicom, please refer to

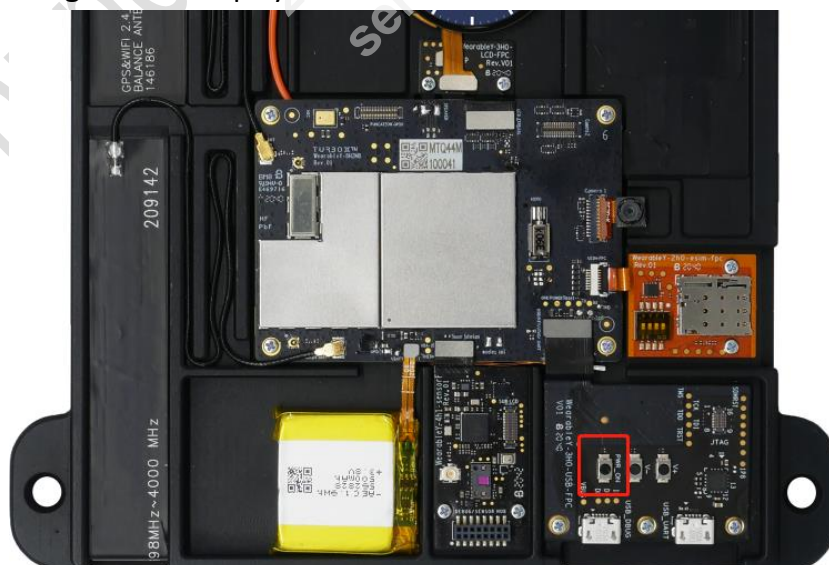
https://wiki.emacinc.com/wiki/Getting_Started_With_Minicom

2.2 Device Boot Up

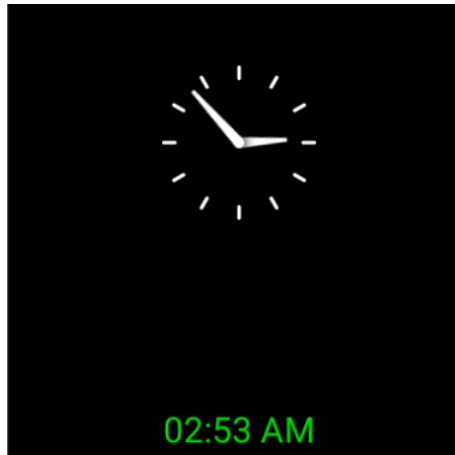
Step 1. Connect the battery according to the picture below.



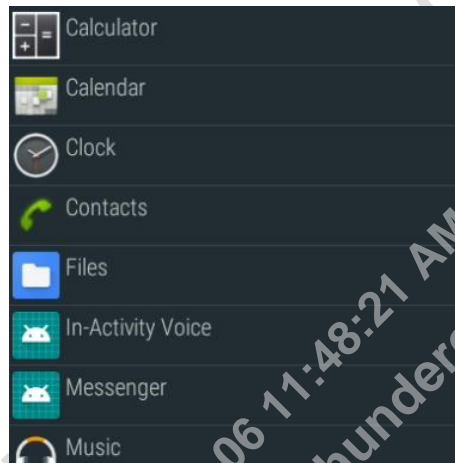
Step 2. Click the **PWR_ON** button to start the system, and the motor vibrates, and the **penguin logo** will be displayed on the screen.



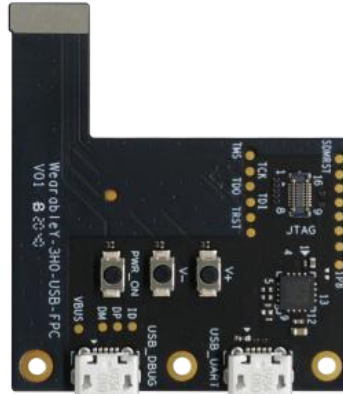
Step 3. After the system is successfully started, the following screen is displayed.



Step 4. When the display is on, **holding down** the display to enter the system desktop automatically.



2.3 Debug Port



The USB board contains two micro USB and one JTAG interface:

- Plug in the micro USB cable to the **USB_DEBUG** port, this port is used to identify adb and Qualcomm Diagnostic port.
- If want to print the UART log, it needs to plug in the micro USB cable to the **USB_UART** port.

The serial port settings as follows:

Baud rate:	115200	Flow control
Data bits:	8	<input type="checkbox"/> DTR/DSR
Parity:	None	<input type="checkbox"/> RTS/CTS
Stop bits:	1	<input type="checkbox"/> XON/XOFF

3 Download Software And Compile

We provide two source baseline according to different product, the customer should choose the baseline source code that matches the product which buying.

This part can get documents from www.thundercomm.com website.

Please refer to the [Thundercomm TurboX SDW4100 DK Download SDK Guide](#)

4 Download Schematic And Part References

Because of some legal restriction, except for the main board schematic diagram can't

be provided, the rest of the schematic diagram can be download on the website:

https://docs.thundercomm.com/turbox_doc/documents/products/turbox-sdw4100

Hardware

- Debug FPC

- [Thundercomm_Turbox_SDW4100_DK_DEBUG_INTERFACE_FPC_V01&V02.pdf](#)

- LCM FPC

- [Thundercomm_Turbox_SDW4100_DK_LCM_FPC_V01-1.pdf](#)
- [Thundercomm_Turbox_SDW4100_DK_LCM_FPC_V02-1.pdf](#)

- SIM FPC

- [Thundercomm_Turbox_SDW4100_DK_SIM_FPC_V01-1.pdf](#)

- Sensor FPC

- [Thundercomm_Turbox_SDW4100_DK_SENSORHUB_FPC_V02_1.pdf](#)
- [Thundercomm_Turbox_SDW4100_DK_SENSORHUB_FPC_V03_1.pdf](#)

- Connector Doc

- [Thundercomm_Turbox_SDW4100_DK_Connector_Spec_V03.zip](#)

Part Reference

- LCM FPC

- [Thundercomm_Turbox_SDW4100_DK_LCM_FPC_PART_REFERENCE-V02.pdf](#)

- Sensor FPC

- [Thundercomm_Turbox_SDW4100_DK_SENSORHUB_FPC_PART_REFERENCE-V02.pdf](#)
- [Thundercomm_Turbox_SDW4100_DK_SENSORHUB_FPC_PART_REFERENCE-V03.pdf](#)

- Debug FPC

- [Thundercomm_Turbox_SDW4100_DK_FPC_USB_PART_REFERENCE-V01&V02.pdf](#)

- Main Board