

# XR1 HDK

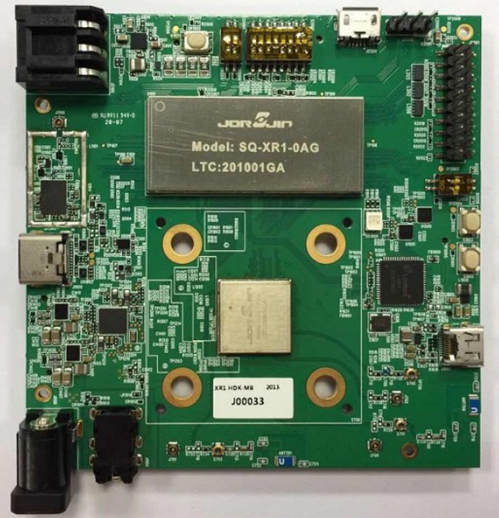

## User Manual

Ver. A



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# Included Items

HDK Board	Battery
Model Name: XR1 HDK	Purpose: Power Source
	

# Function Block

## Power on for HDK

- Plug in the Battery Pack
- Press Power Switch

## Type C connective

- USB 3.1
  - USB Charging / DP function
- USB 2.0
  - USB OTG support

## Micro HDMI connective

- External HDMI display

## Volume control

- + HIGH
- - LOW

## Battery Charging LED

- Green (90%~100%)
  - Full battery
- Lite Green (50%~ 90%)
  - Charging active I
- Lite Red (30%~ 50%)
  - Charging active
- Red (2%~30%)
  - No battery power

Battery in

Power Switch

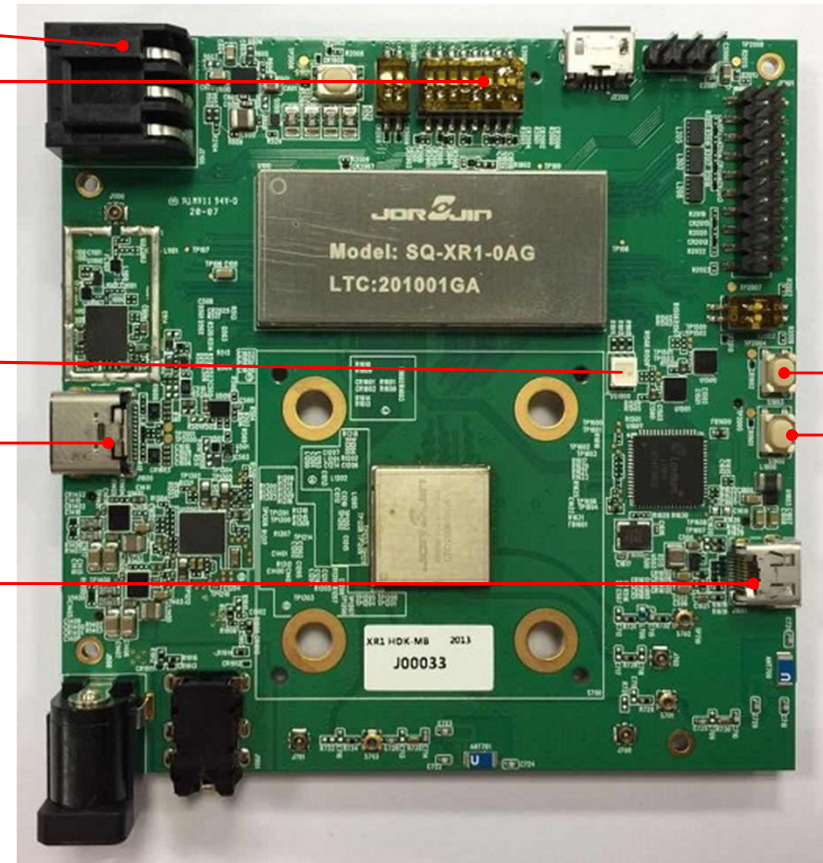
Charging LED

Type C

Micro HDMI

Volume +

Volume -



Battery Pack



# Function Block

## Micro-B

- For UART Debug

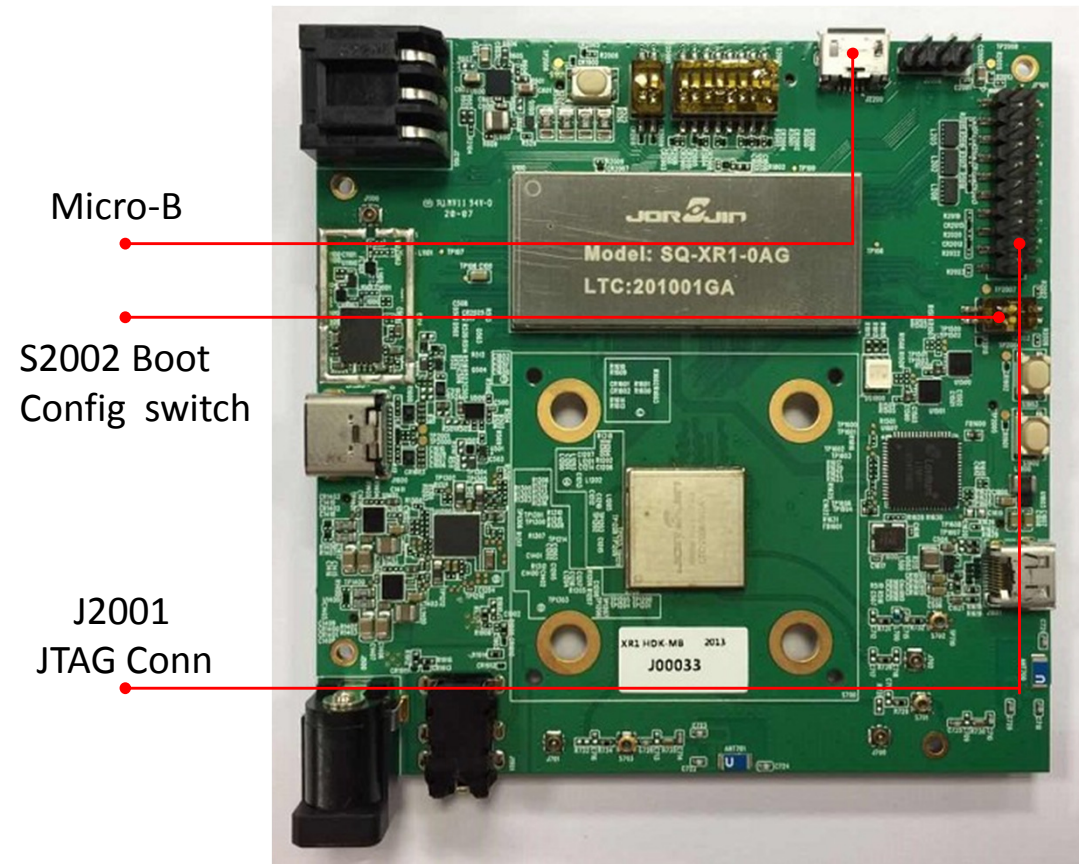
## Boot config switch (S2002)

- S2002
  - FORCE\_USB\_BOOT

Switch 2 (on)	Switch 1 (on)
JTAG_PS_HOLD (High)	FORCE_USB_BOOT (High)

## JTAG Conn (J2001)

- Jump J2001
- Debug UART



Micro-B

S2002 Boot  
Config switch

J2001  
JTAG Conn

# Config Switch

## Boot config switches (S2000)

- Default → off
- Switch to ON for  
→ As Below function

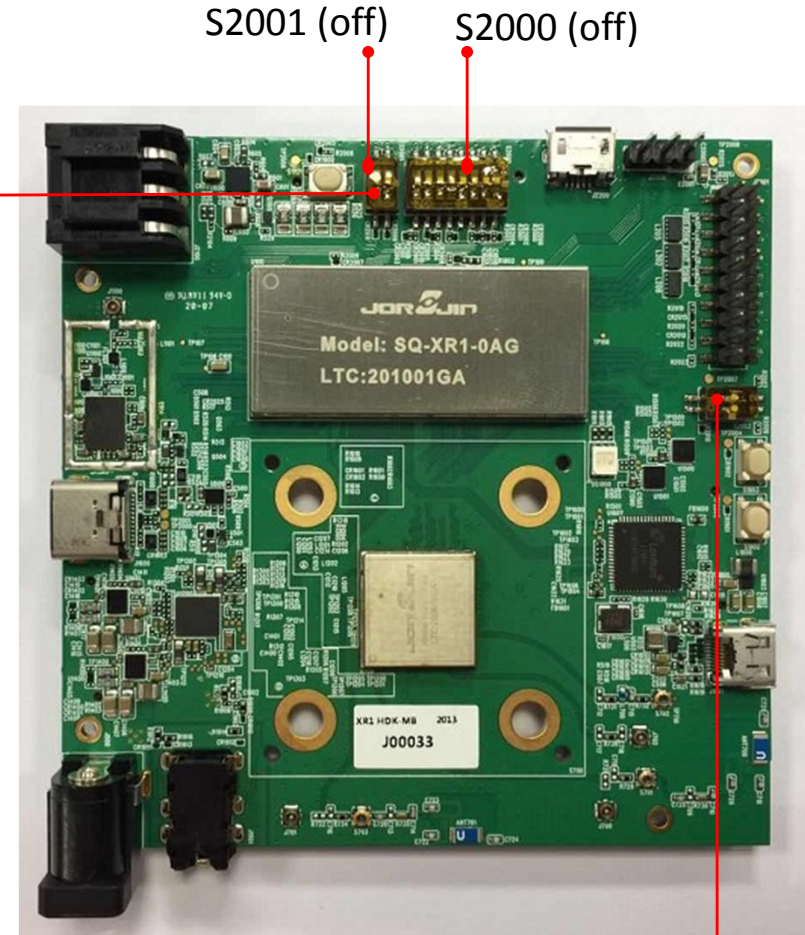
SW 1 (on)	SW 2 (on)	SW 3 (on)	SW 4 (on)	SW 5 (on)	SW 6 (on)	SW 7 (on)	SW 8 (on)
Force USB boot	GRFC4	TS_RESET	LASER_RI NG_EN	BOOT_CO NFIG_3	HAPT_PW M	BATT_TH ERM	BATT_ID

## Config switches (S2001)

- Default  
→ off
- Switch to ON for  
→ As Below function

SW 1 (on)	SW 2 (on)
CBLPWR_ N	USB_VBU S_FORCE D_BYPASS

Boot Config switches



Config switches

# Config Jumper

## UART jumper 3 PIN

- Debug UART

Pin Number	Pin Name	Alt-Function	Type	Function Description
J2000-I01	USB_UART_TX	GPIO_51	D1	QUP 12, lane 3 : UART_TX
J2000-I02	USB_UART_RX	GPIO_52	D0	QUP 12, lane 3 : UART_RX
Power Groun	Power Ground	Power Ground	Power G	Power Ground

## Audio connector (3.5mm)

- Speaker out
- MIC

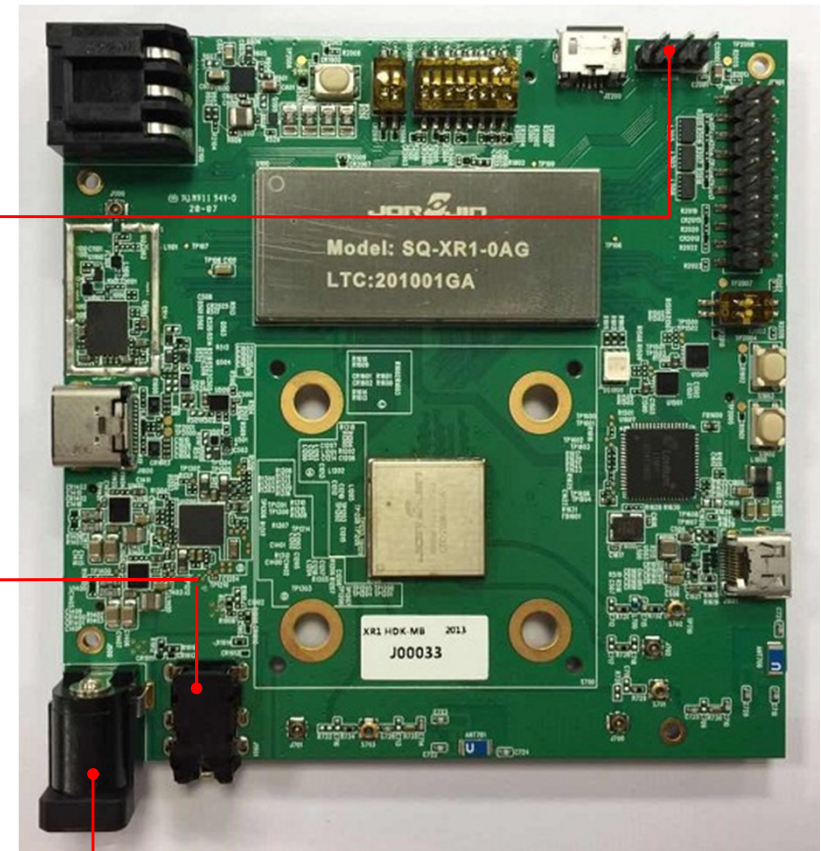
## DC in connector

- 12V / 3A Battery charging from DC adaptor

UART Jumper

AUDIO connector

DC IN connector



# Extension Connectors

## 160 Pin connector

- MIPI CSIx3

## 80 Pin connector

- MIPI DSIx2

## 80 Pin connector

- SPI X 2 / I2C
- Audio

## SD card connector

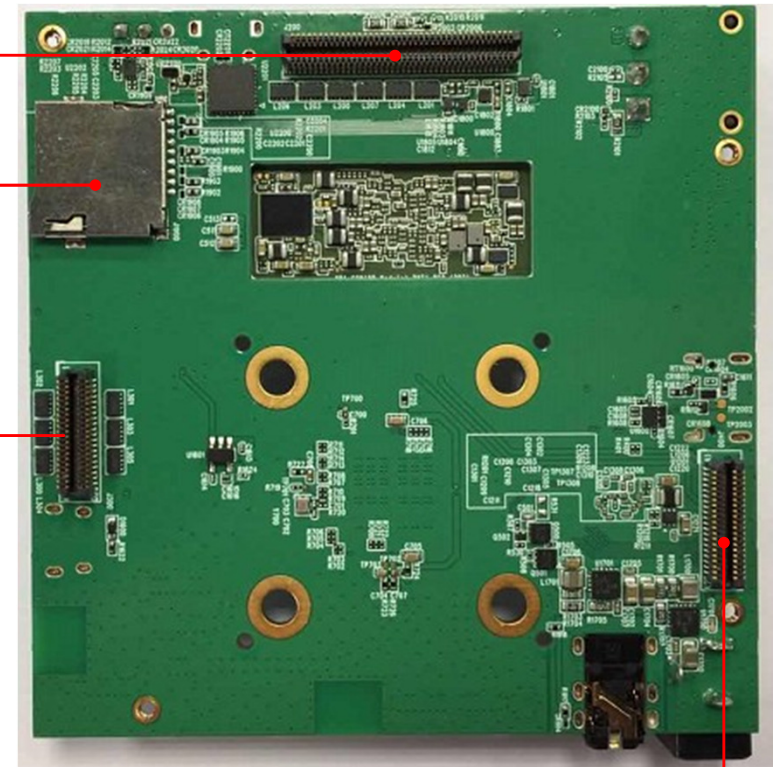
- SD storage

160 pin  
connector

SD card  
connector

80 pin DSI  
connector

80 pin SPI/Audio  
connector





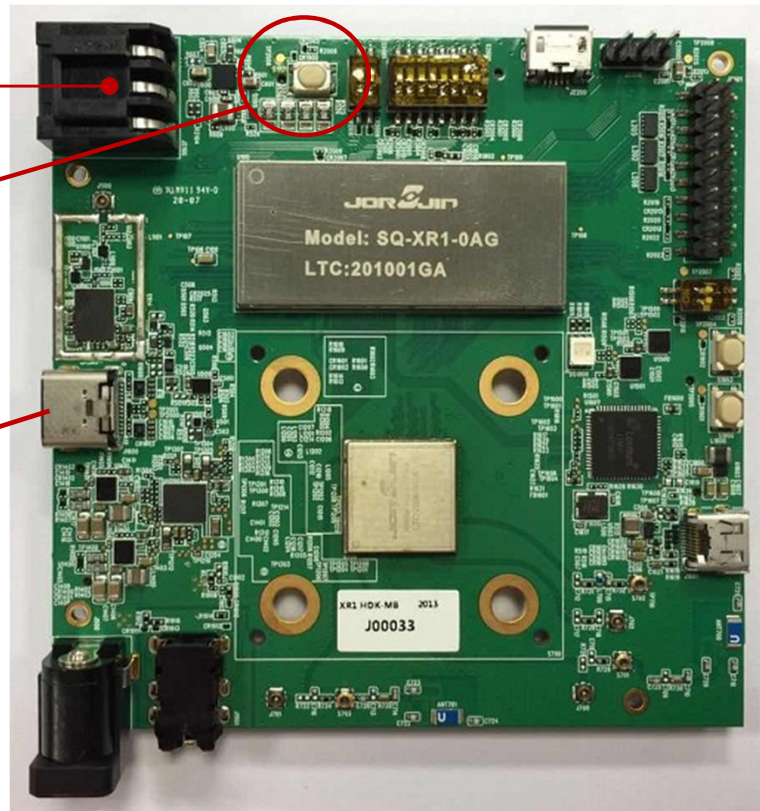
# Turn On

1. Connect the battery to battery jack.
2. Press the power button around 2 seconds to turn on the system.
3. Connect Type-C cable to Notebook or PC.
4. Run ADB's scrcpy.exe program. press Power Button when screen off.



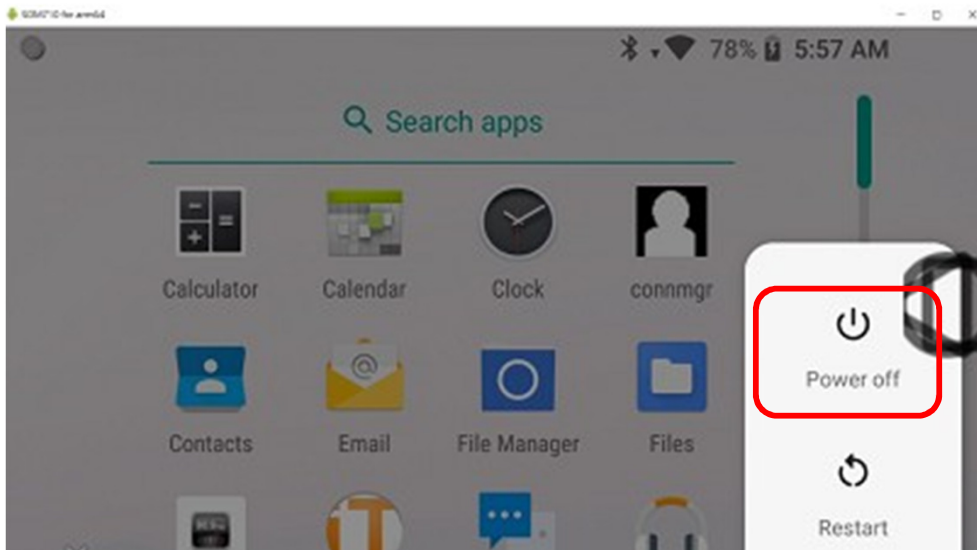
Power Button

Connect to  
Notebook/PC

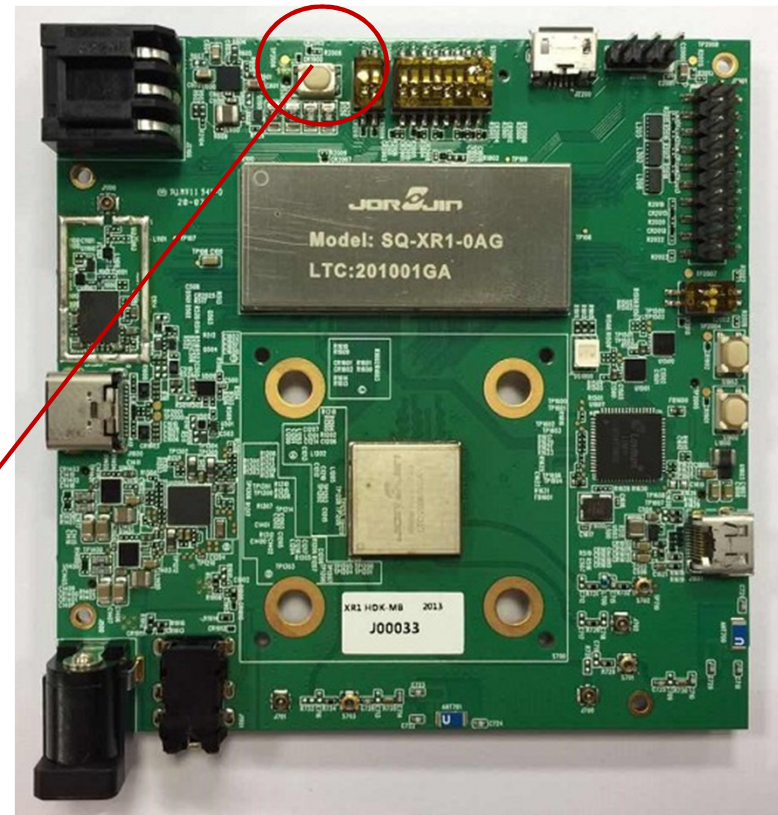


# Turn Off

Long press the power button around 2 seconds to turn off the system.  
You can see the power off menu as the Android following picture.  
Choose “Power off” to shut down the device.

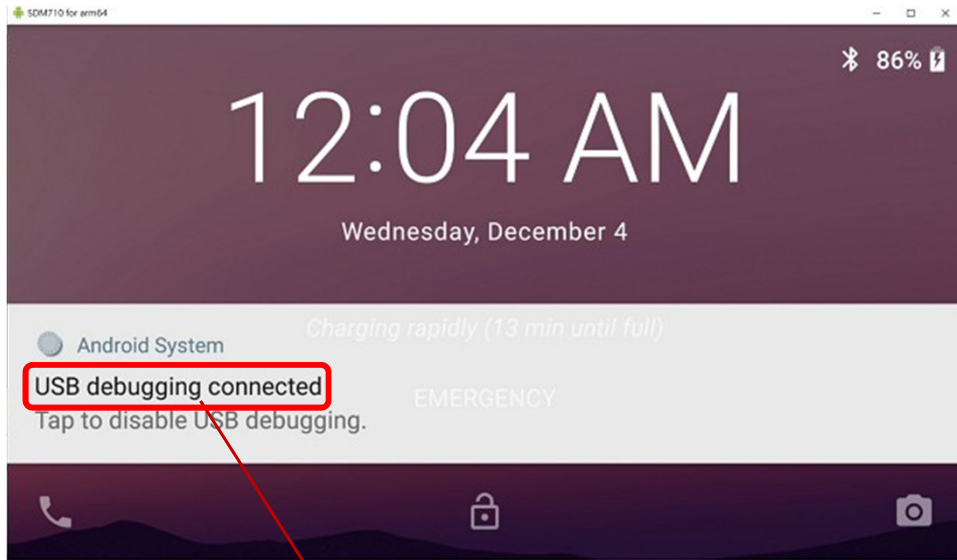


Press  
Power Button

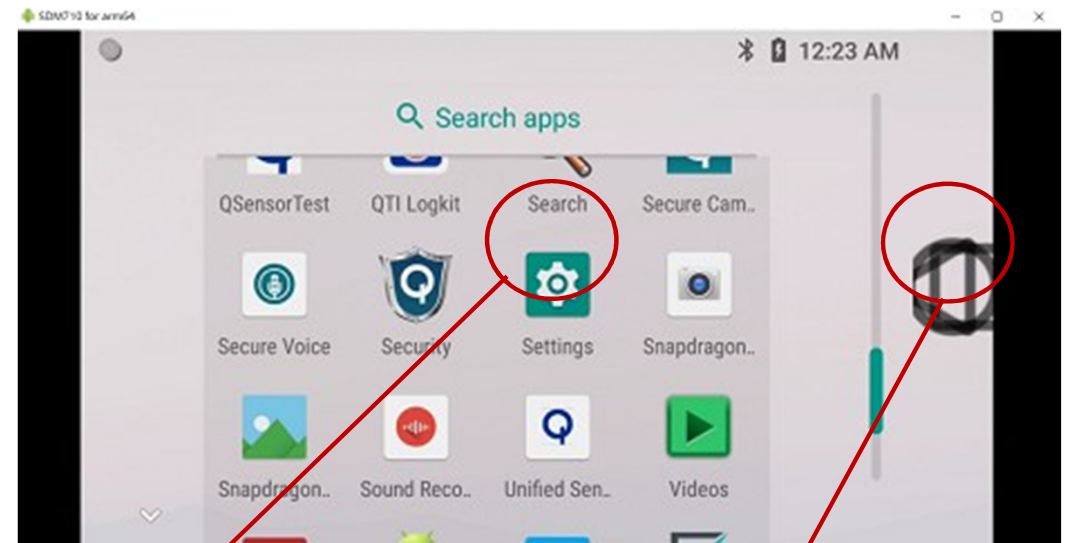


# Go to App setting

Select “USB debugging connected”, Enter App icon to select Settings function.



1. Select this function

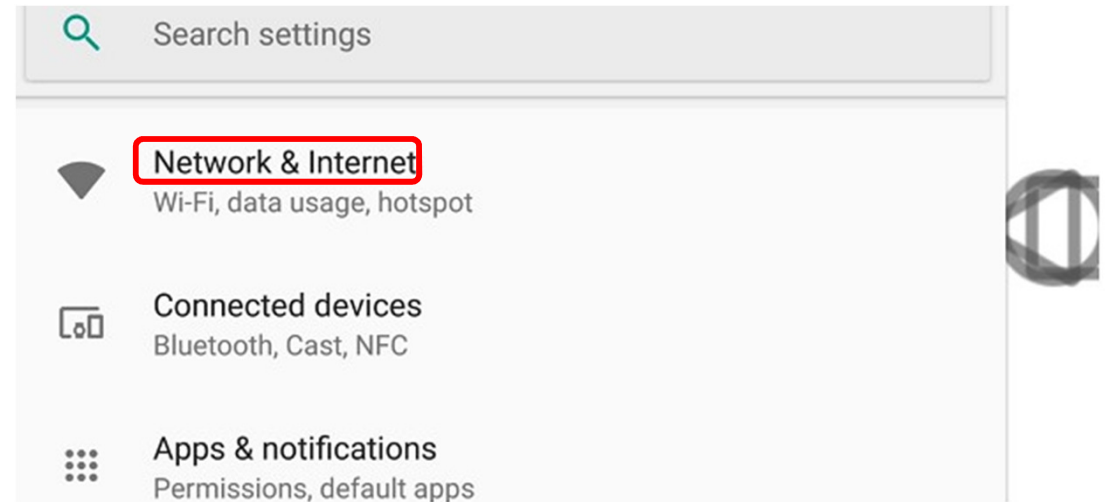
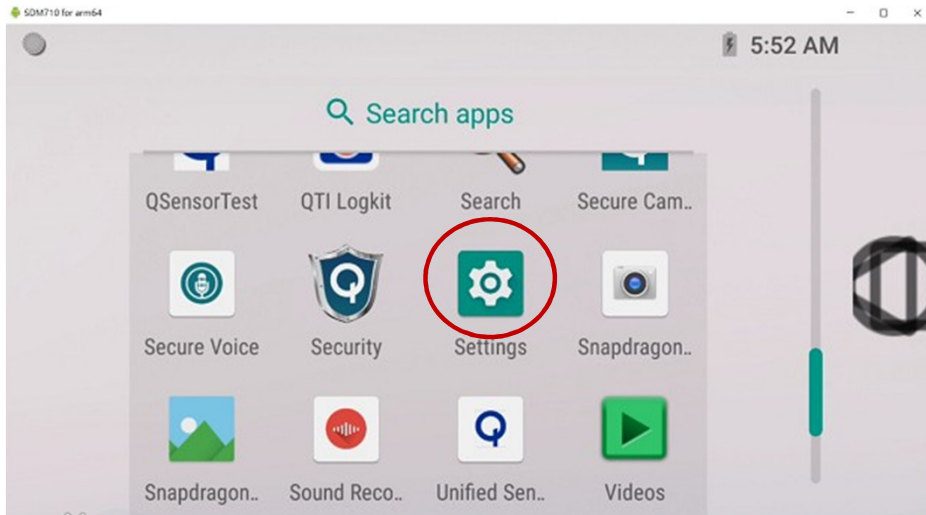


3. Click Settings icon

2. Click on App icon

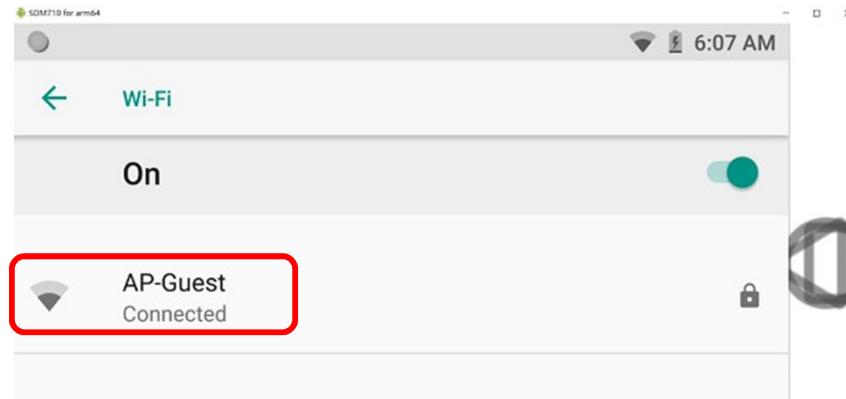
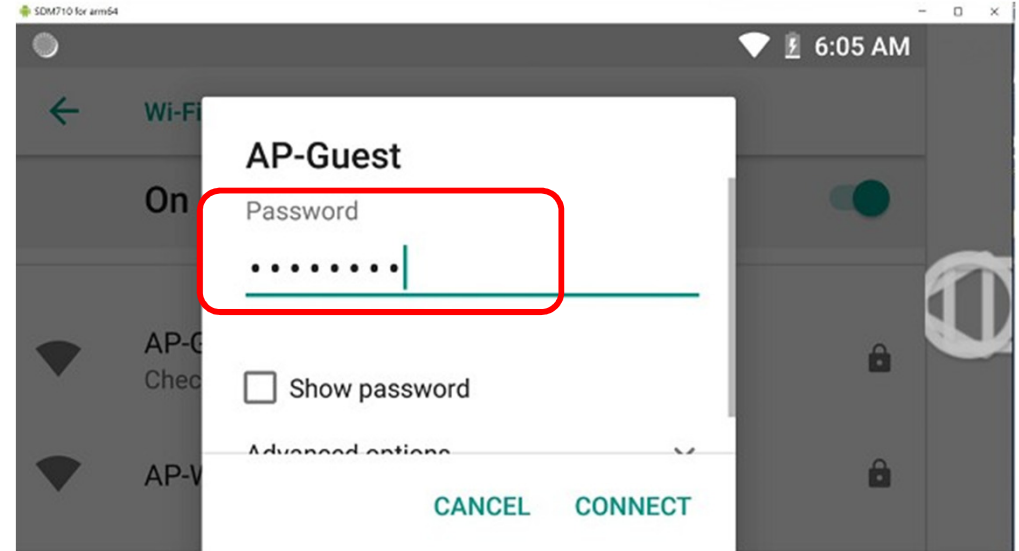
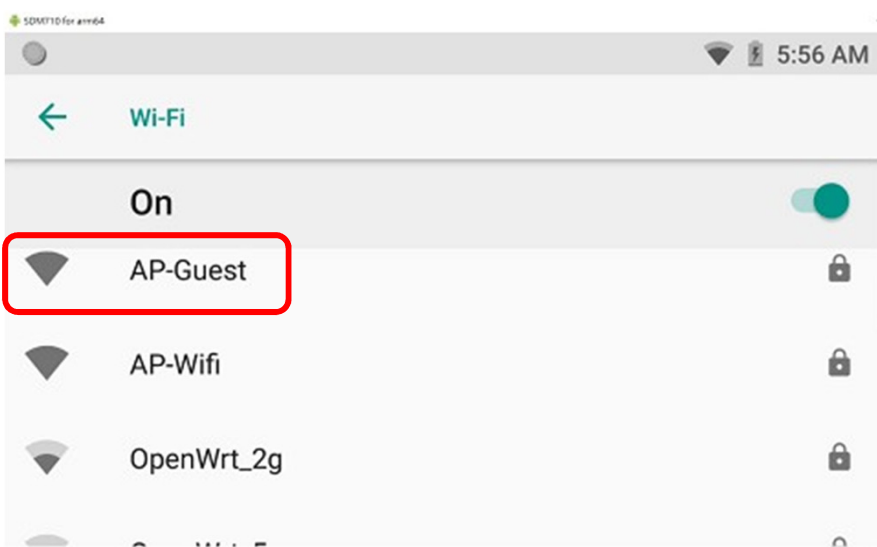
# Connect to WiFi

## Settings > Network & Internet



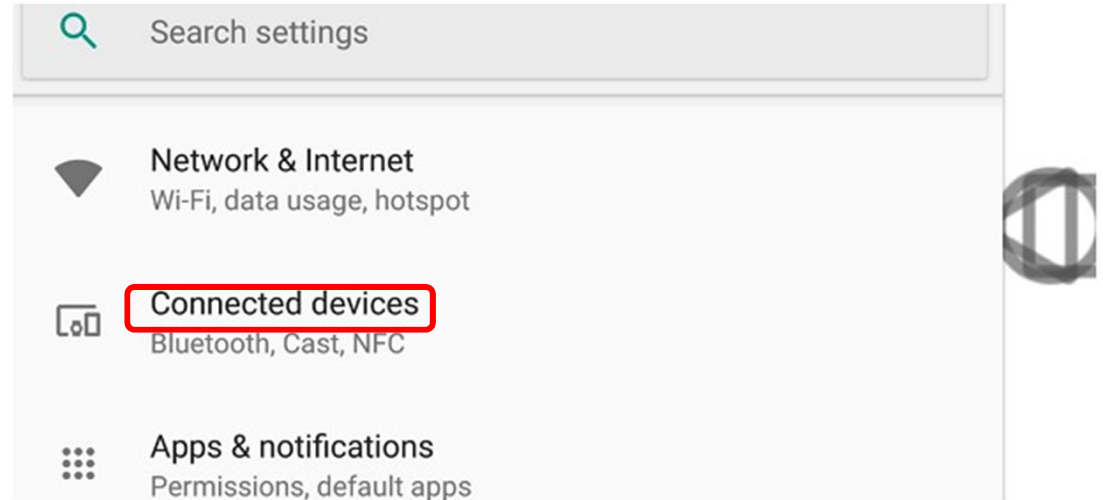
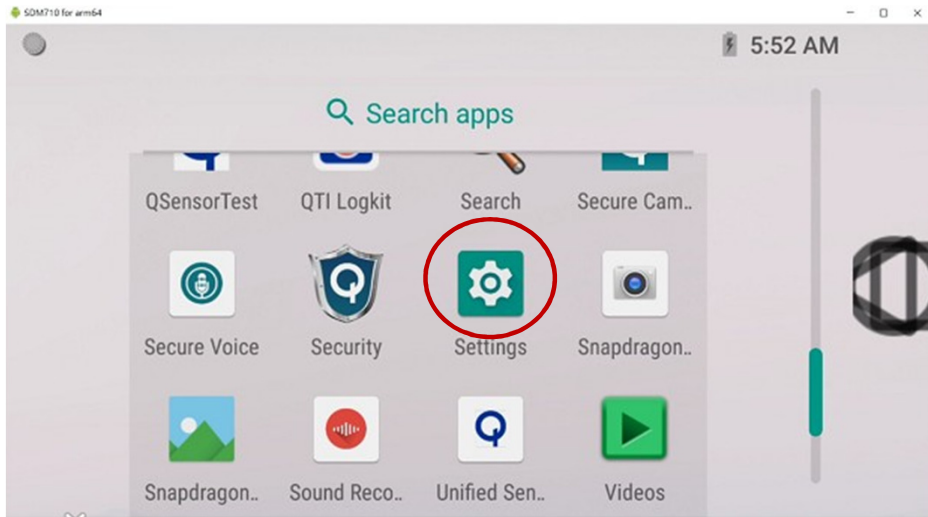
# Connect to WiFi

On > Password > Connected



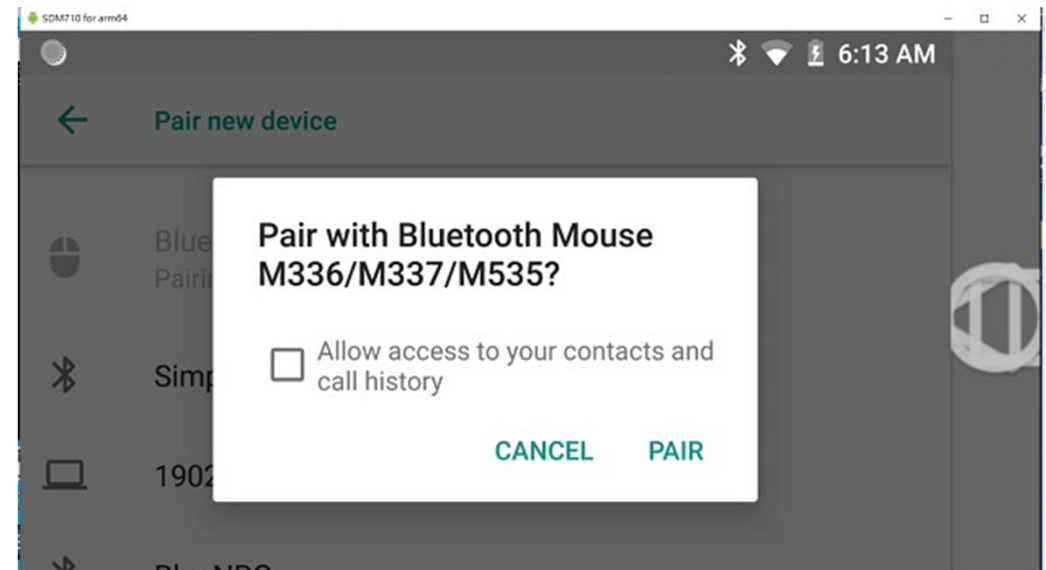
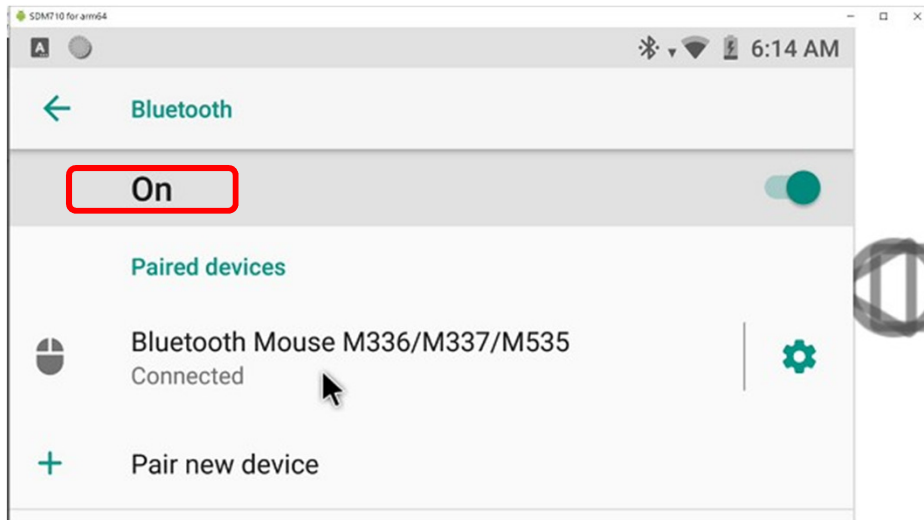
# Setup Bluetooth Function

Settings > Connect devices



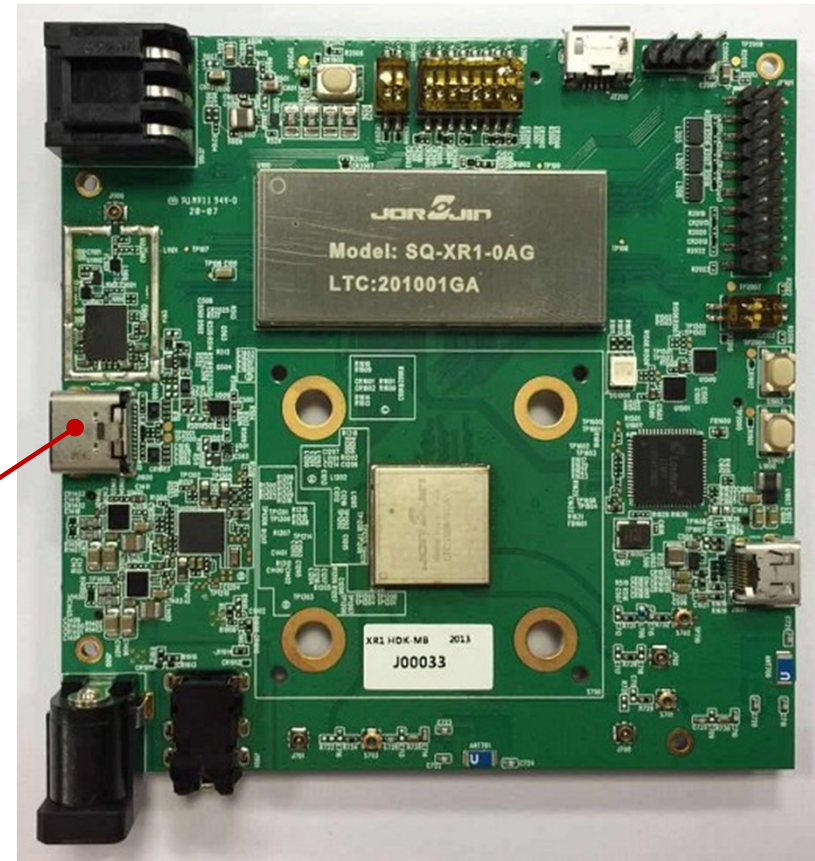
# Setup Bluetooth Function

Bluetooth > On > Connected



# Connect to Smart Glasses

Smart glasses devices > Connect to Type-C port



Connect to Type-C port

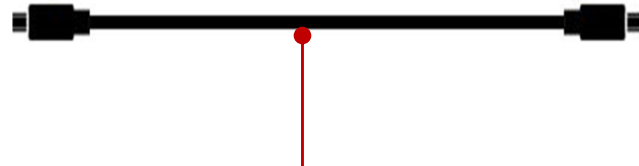


# Connect to Micro HDMI

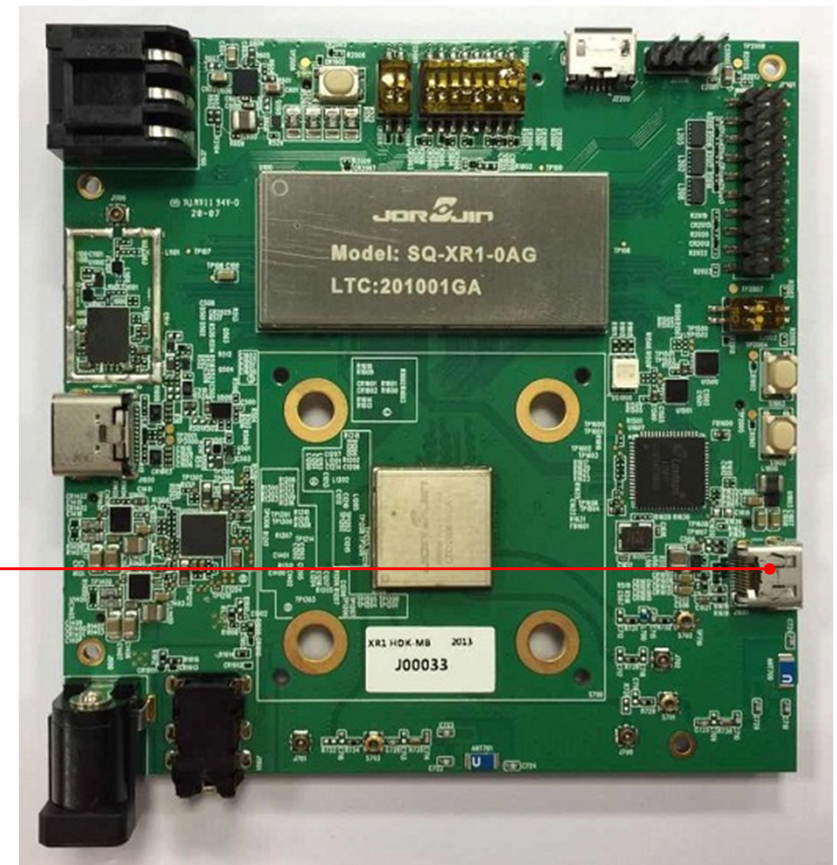
HDMI devices > Connect to Micro HDMI port



On-Lap Monitor



Connect to  
Micro HDMI port



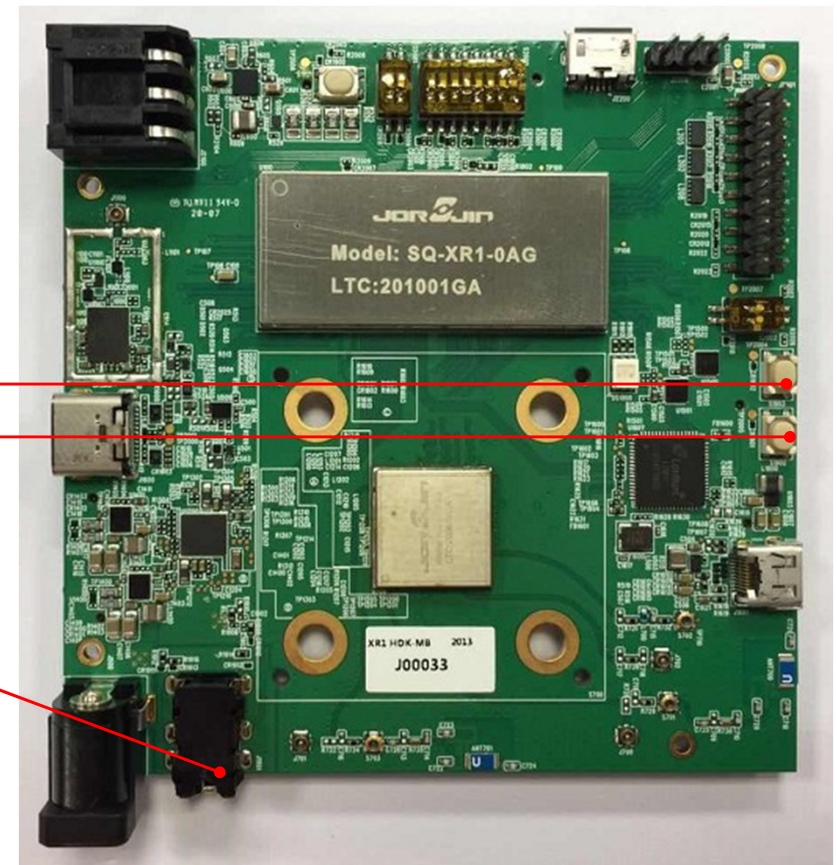
# Connect to Headset

Audio devices > Connect to Audio port



Connect to  
Audio port

Volume +  
Volume -



# Connect to DC Adapter

DC PWR devices > Connect DC adapter to DC-IN port

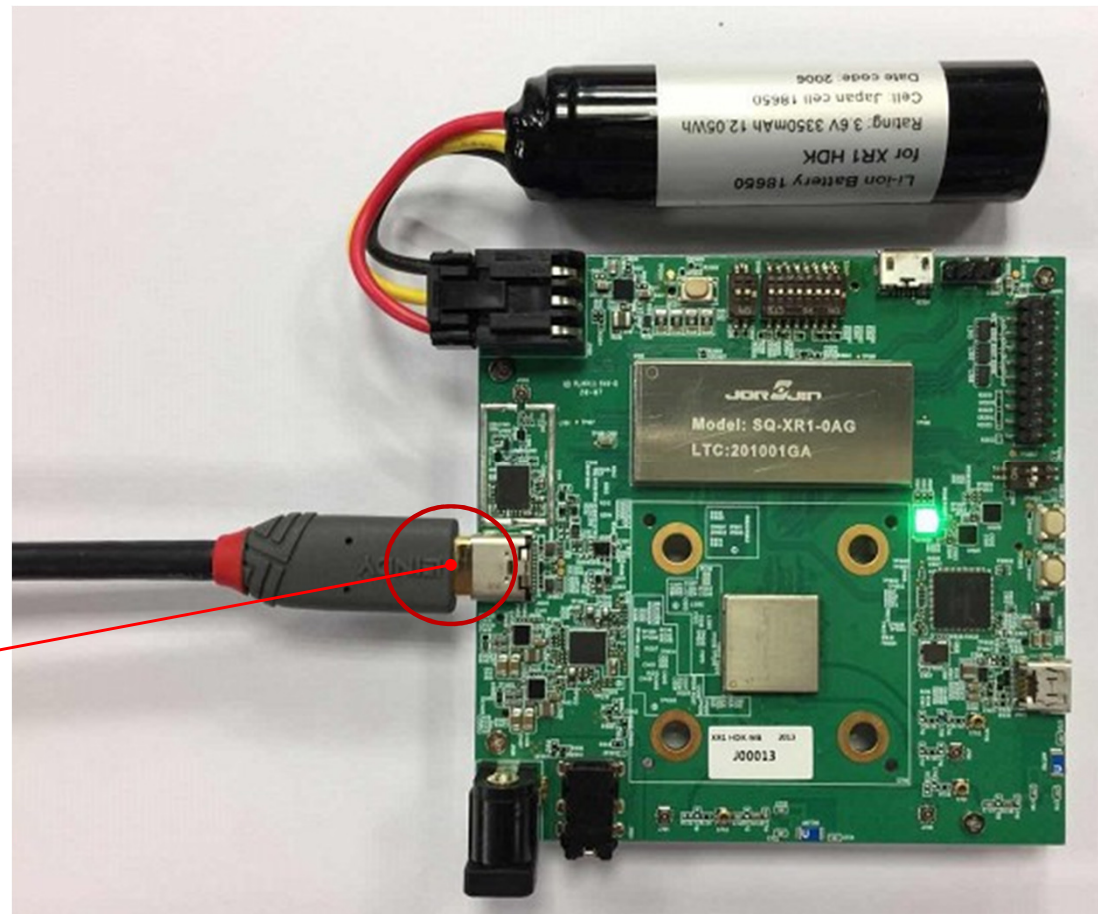


Connect to  
DC port 12V / 3A  
(Option)



# Charging the Battery

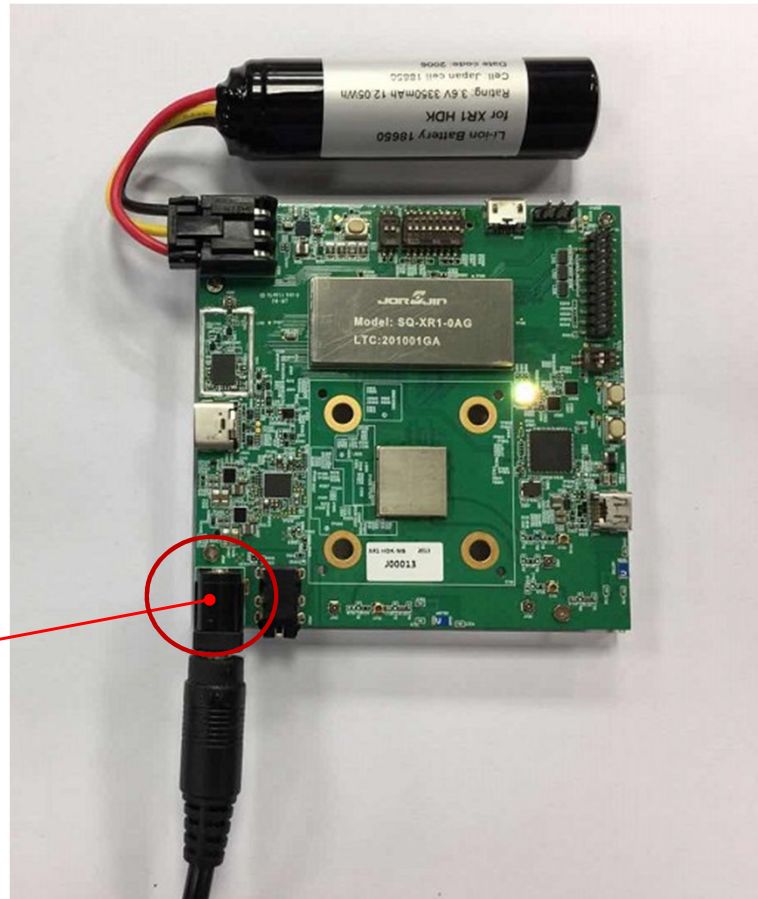
## Option 1. Type-C : Connect w / Type-C cable



Type-C  
Connector

# Charging the Battery

## Option 2. DC jack : Connect w / DC Adapter



DC-IN  
Connector

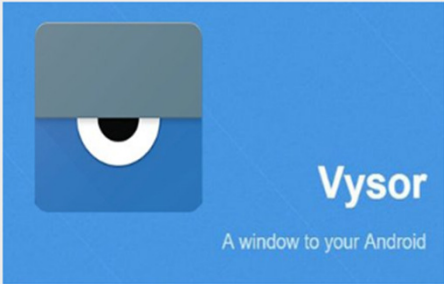
**Note:**  
USB-C DP mode temporarily not  
functional in this configuration

## Reminder for charging

- 1. Priority:** only one of Type-C or DC charger can be chosen for charging.  
When using DC charger, Type-C supports data output only (not DP mode)
- 2. Limitation:** If the battery is over discharged (voltage  $<2.5V$ ), the system can only boot up with Type-C and must be charged by USB until it reaches the safe value of 3.2V.
- 3. Limitation:** DP mode can temporarily be only supported when device is powered from the battery.

# Control Device by Vysor

Vysor lets you view your Android-based device from your desktop computer. Vysor mirrors the display image of the Android device. It helps developers to view and debug their Android devices more easily.



The screenshot shows the Google Play Store listing for the Vysor app. On the left is the app icon, which is a blue square with a white stylized eye shape and the text 'Vysor' and 'A window to your Android'. To the right of the icon, the text reads: 'vysor.io', 'Offered by: primerovanina6', 'Vysor puts a fully controllable window of your Android on your desktop.', and a rating of '★★★★☆ 58 Accessibility'.