

XR1 HDK

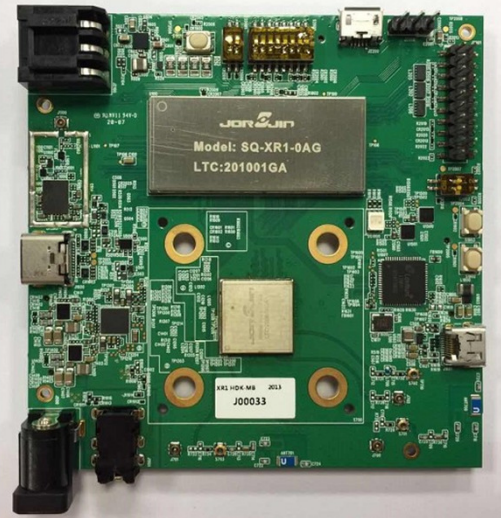

User Manual

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

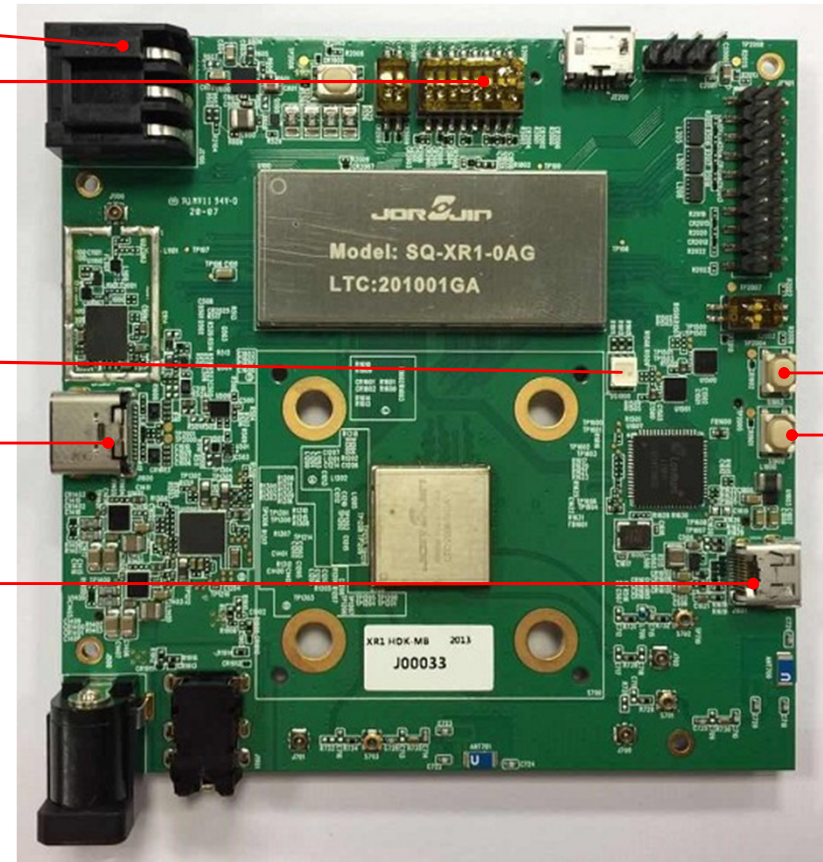
Charging LED

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)

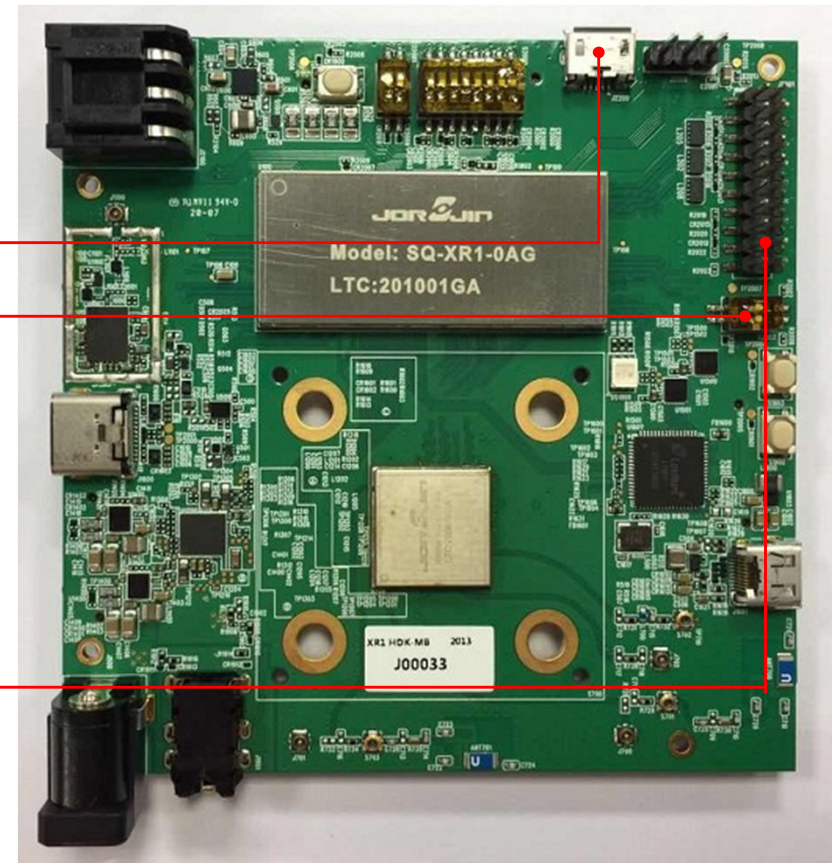
JTAG Conn (J2001)

- 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 Ground	Power Ground	Power Ground	Power G	Power Ground

Audio connector (3.5mm)

- Speaker out
- MIC

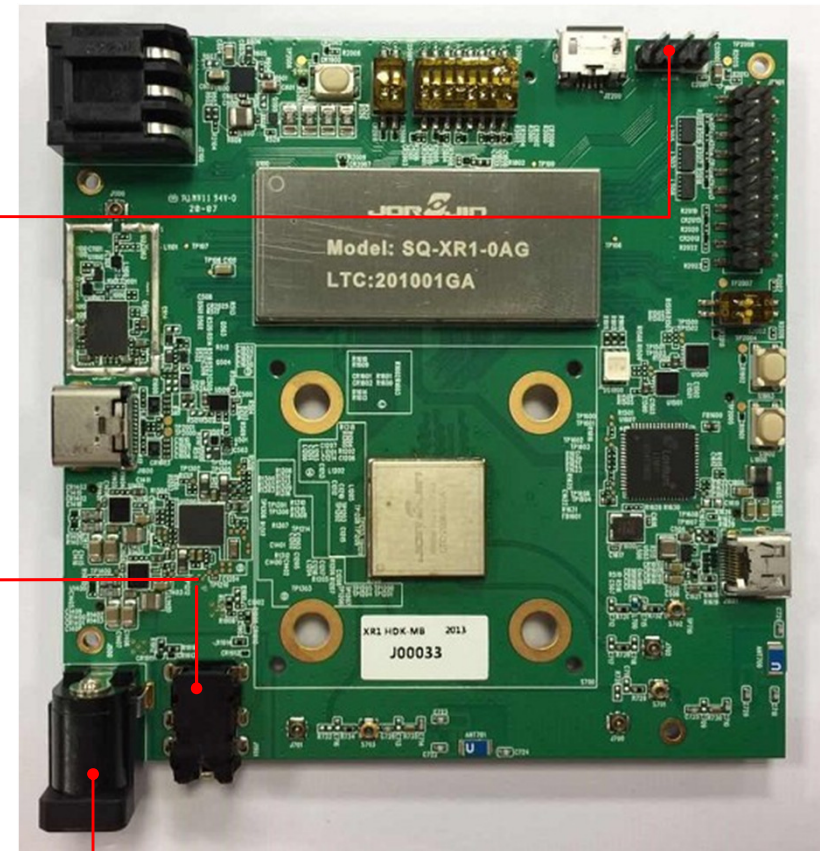
DC in connector

- 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

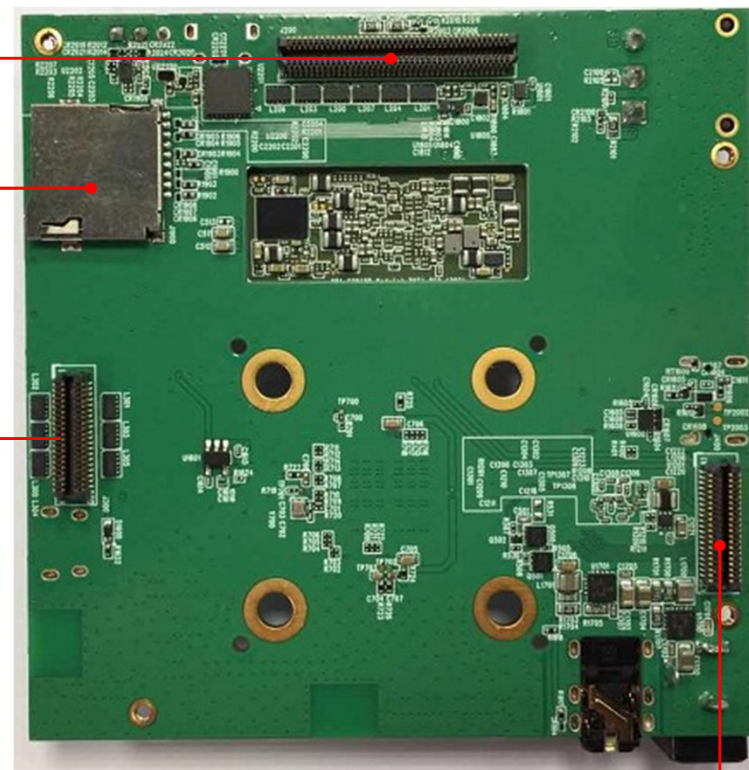
- SD storage

160 pin
connector

SD card
connector

80 pin DSI
connector

80 pin SPI/Audio
connector



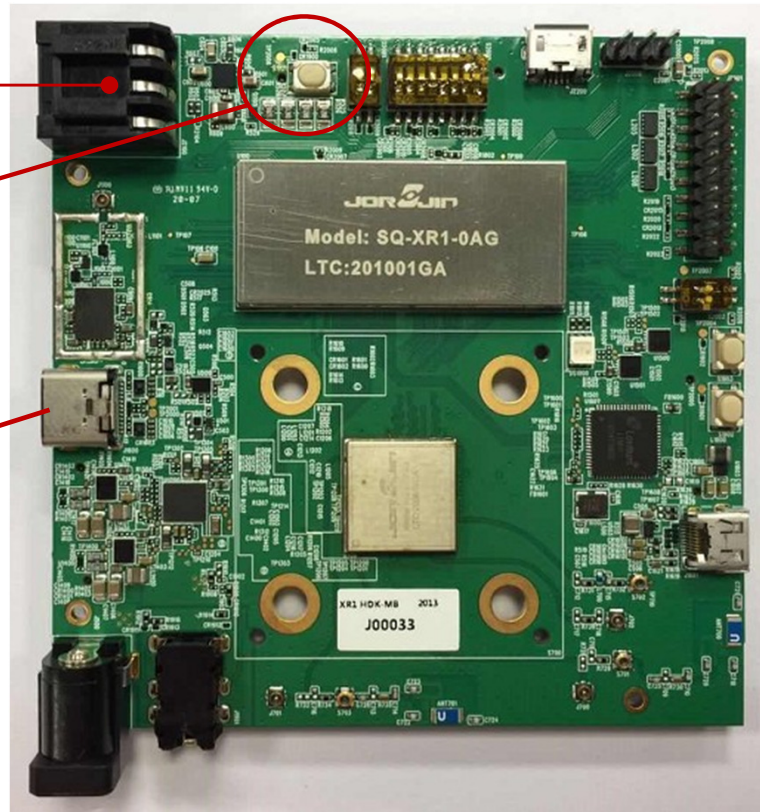
Turn On

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.



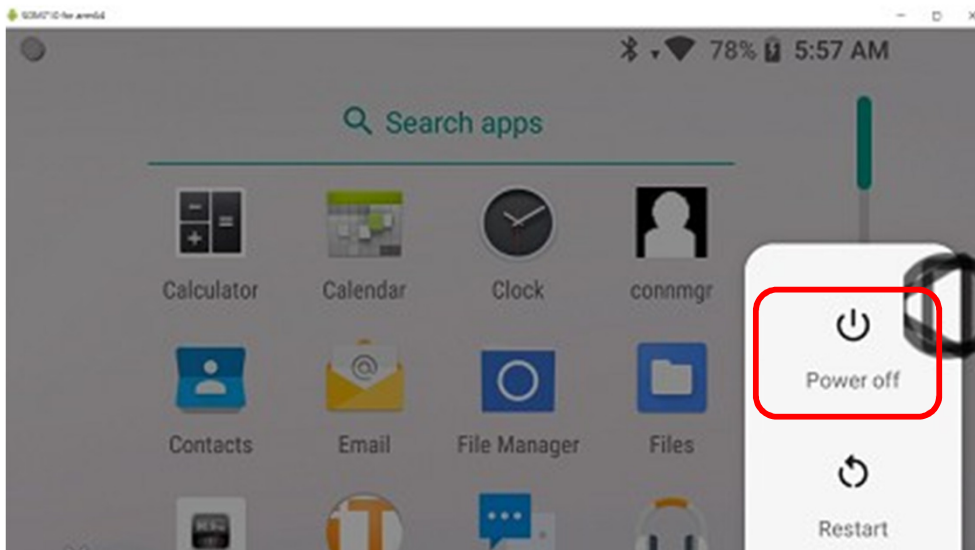
Power Button

Connect to
Notebook/PC

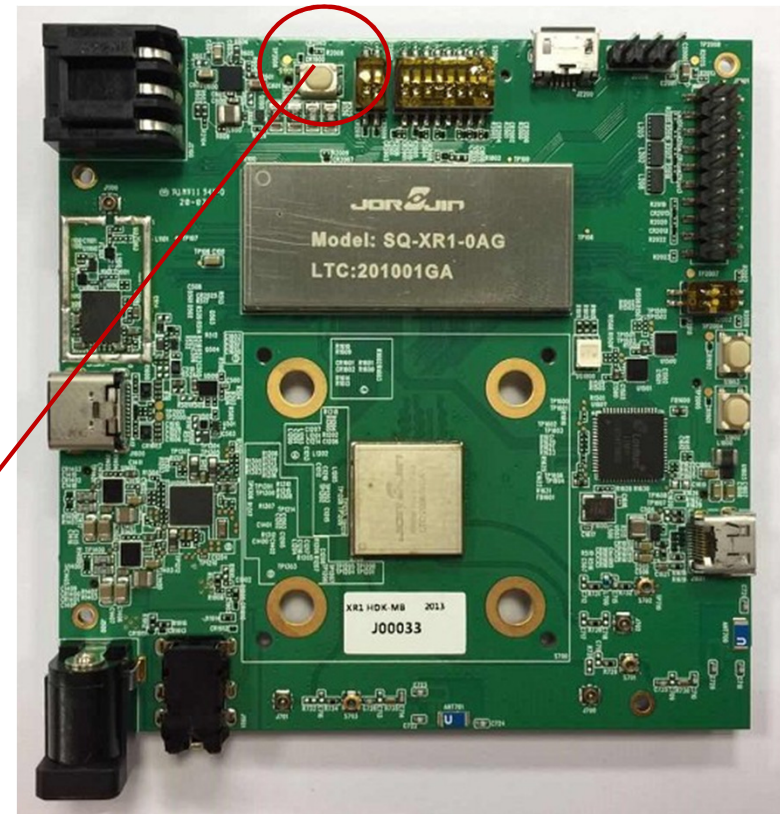


Turn Off

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.

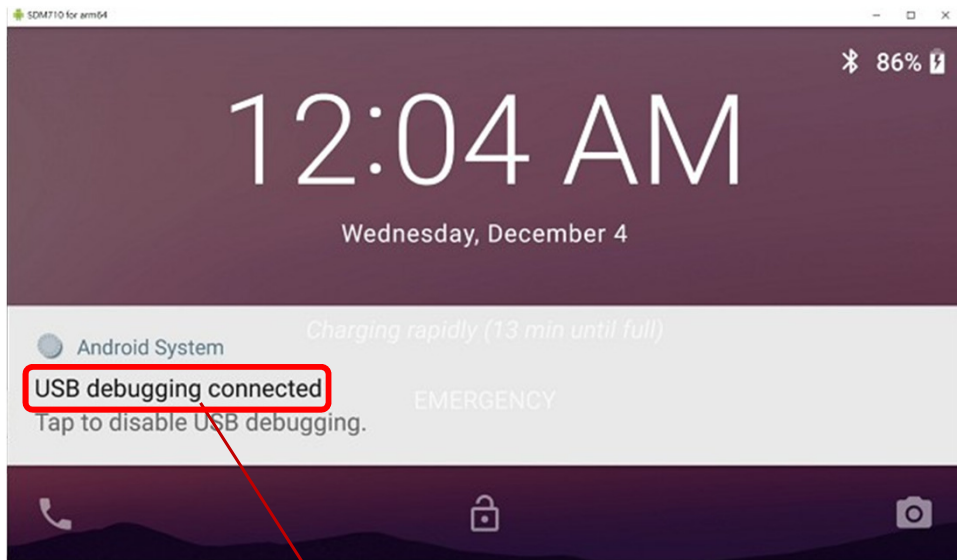


Press
Power Button

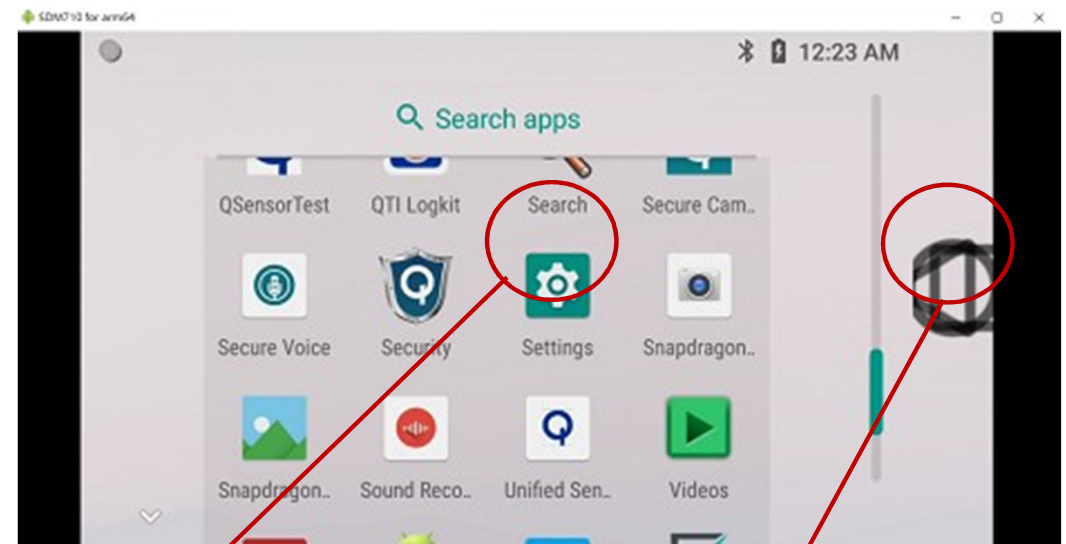


Go to App setting

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



1. Select this function

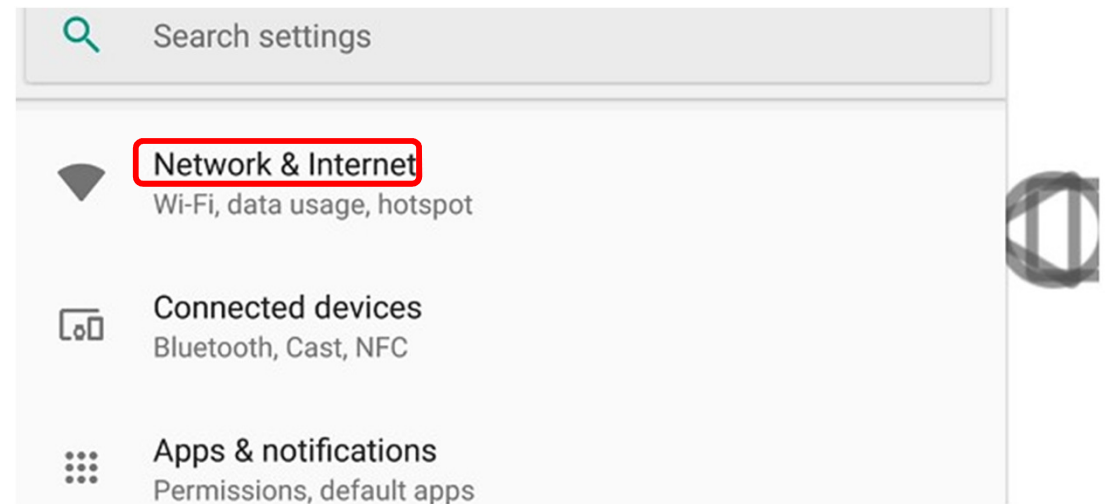
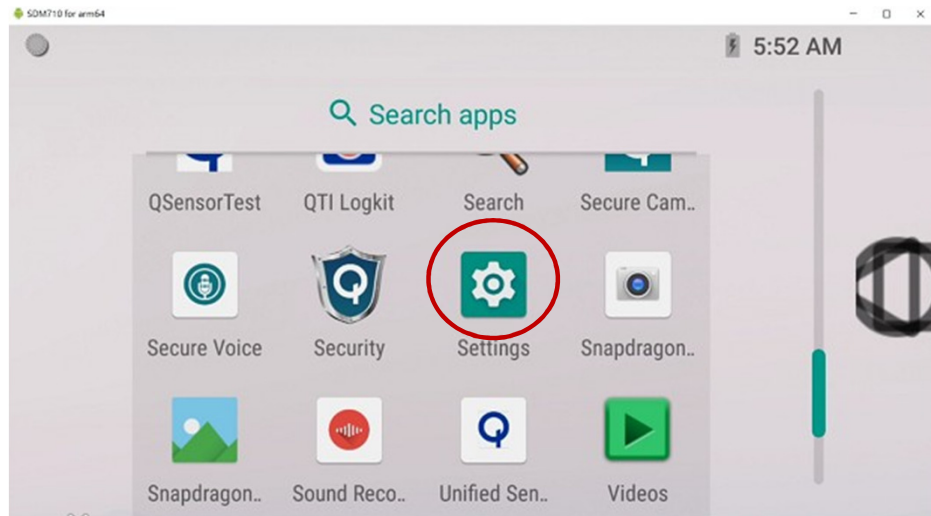


3. Click Settings icon

2. Click on App icon

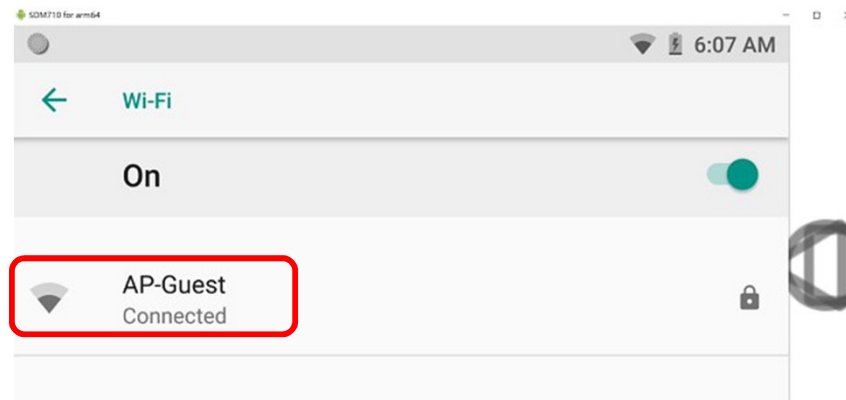
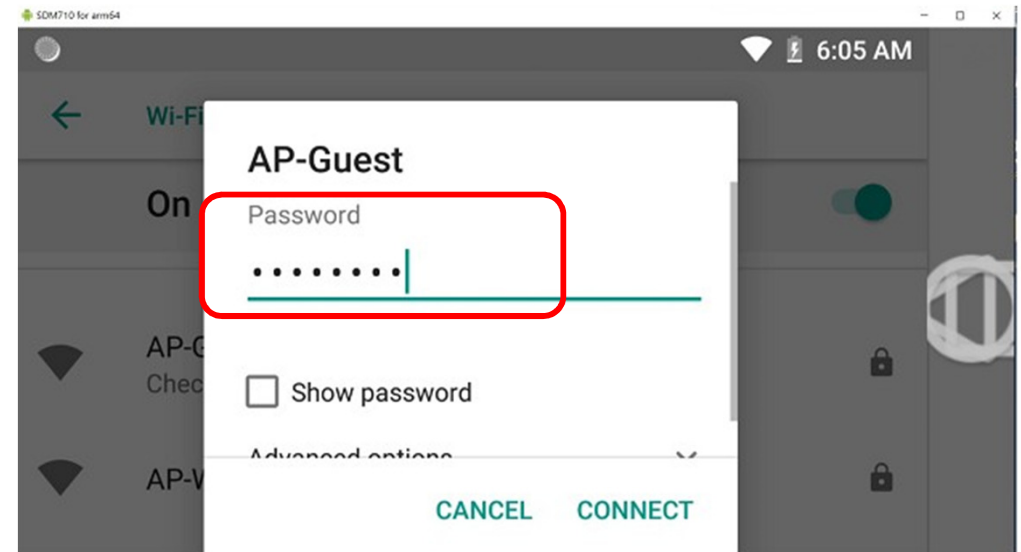
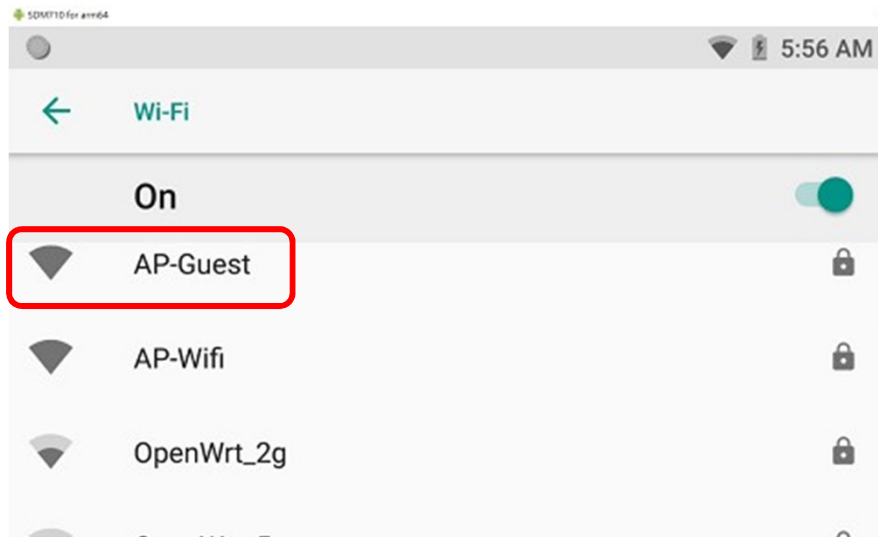
Connect to WiFi

Settings > Network & Internet



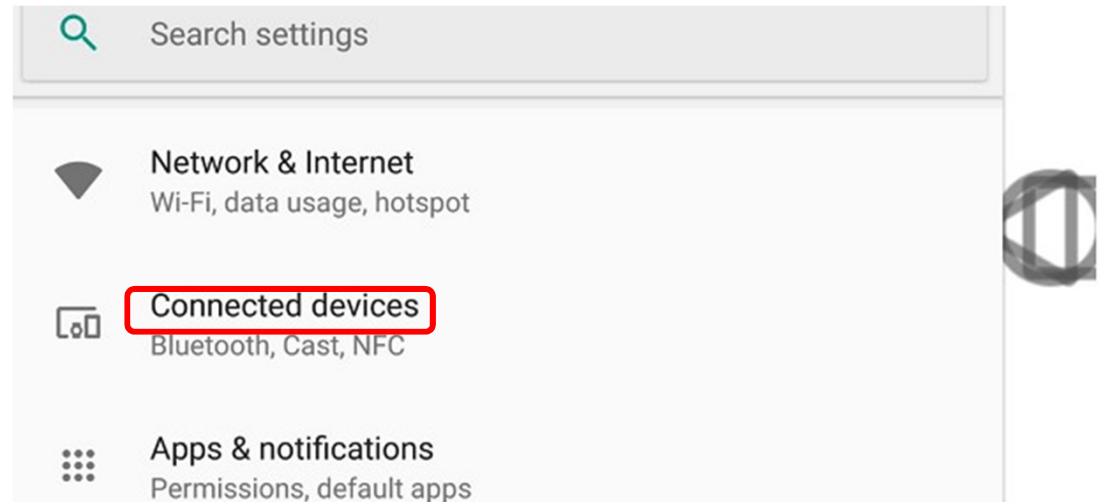
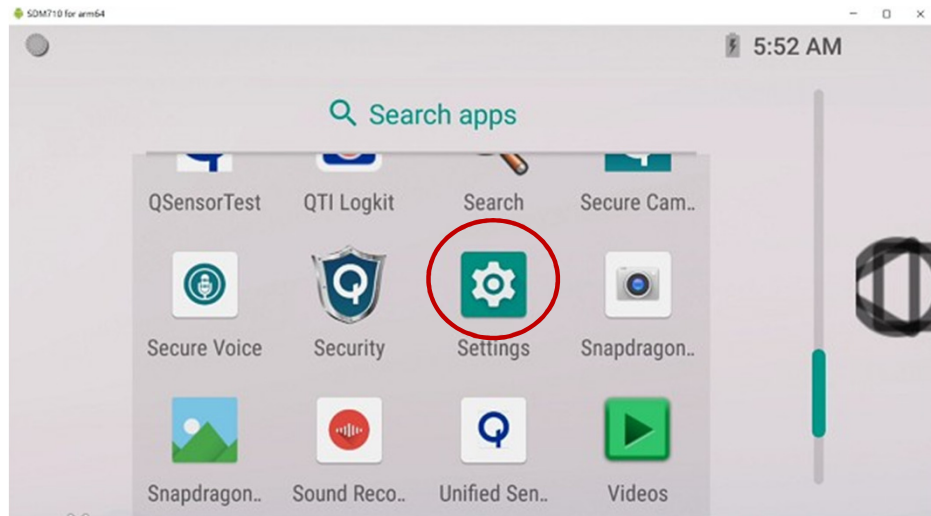
Connect to WiFi

On > Password > Connected



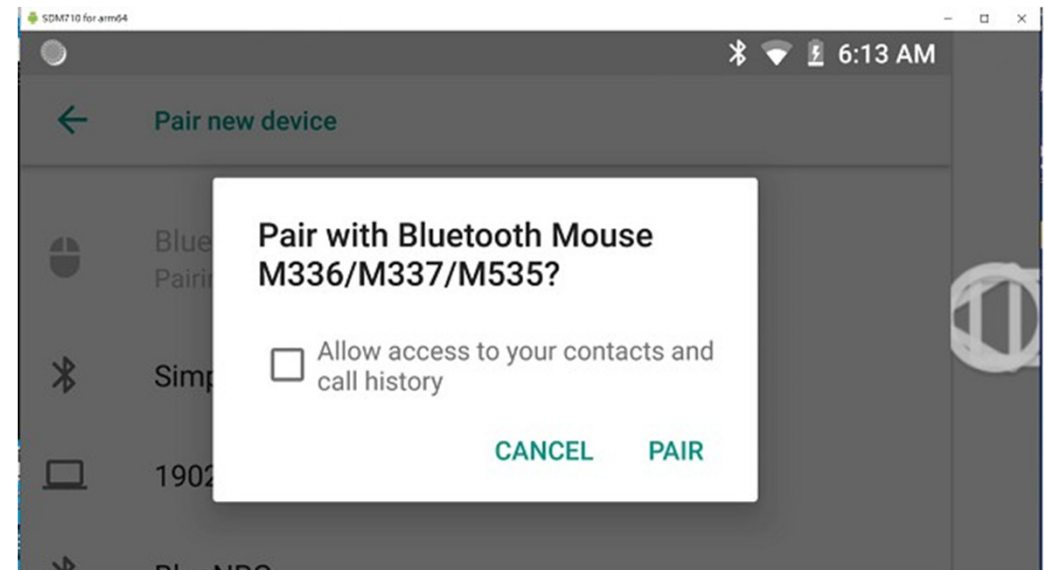
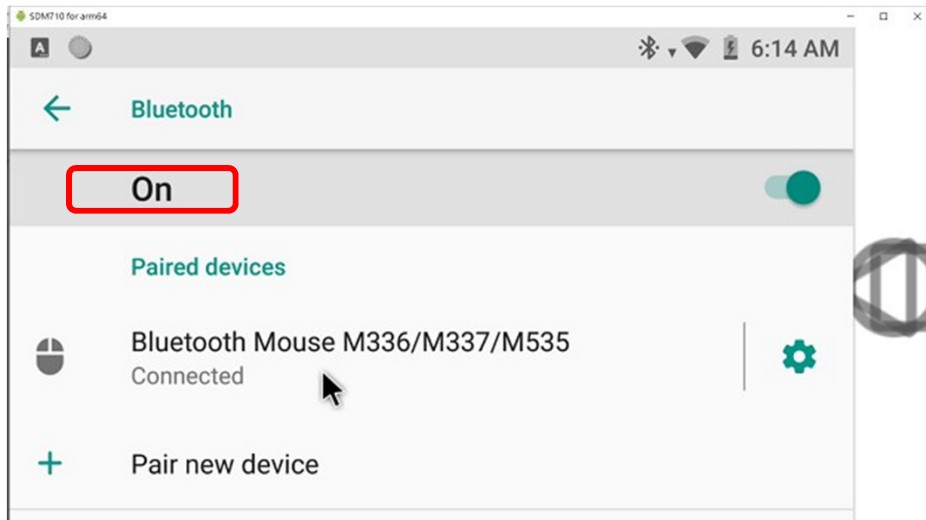
Setup Bluetooth Function

Settings > Connect devices



Setup Bluetooth Function

Bluetooth > On > Connected

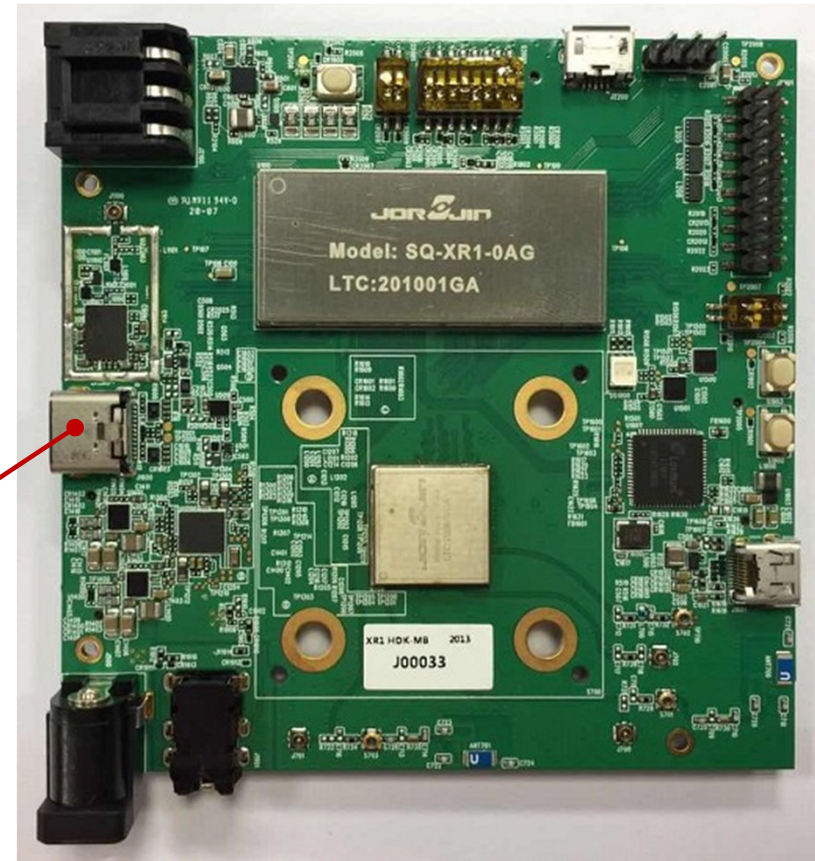


Connect to Smart Glasses

Smart glasses devices > Connect to Type-C port



Connect to Type-C port



Connect to Micro HDMI

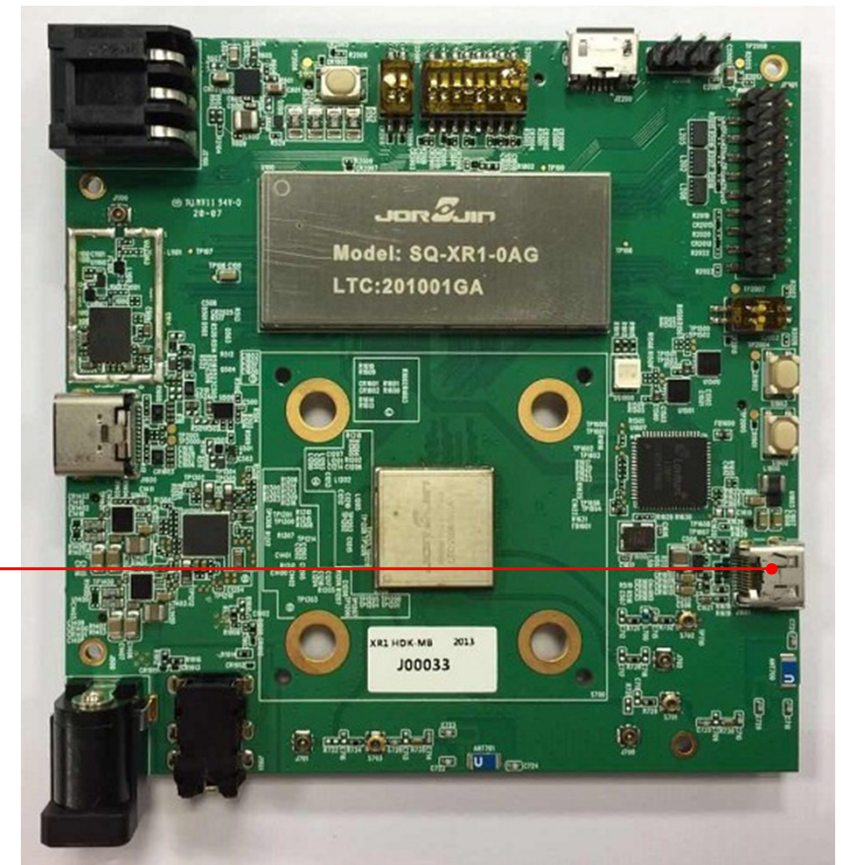
HDMI devices > Connect to Micro HDMI port



On-Lap Monitor



Connect to
Micro HDMI port



Connect to Headset

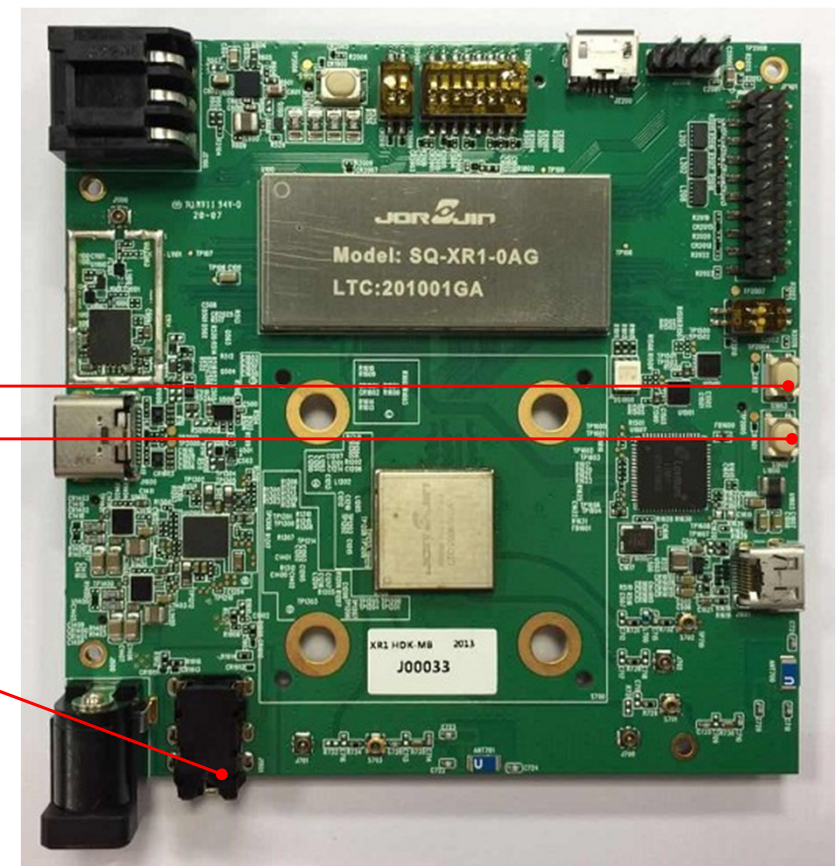
Audio devices > Connect to Audio port



Connect to
Audio port

Volume +

Volume -

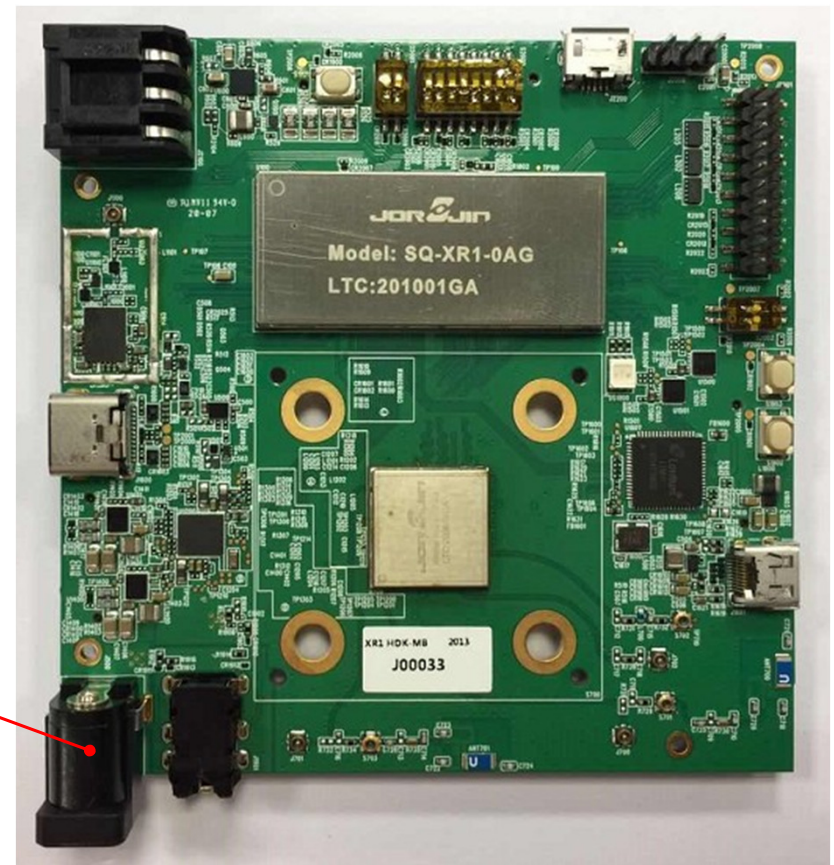


Connect to DC Adapter

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

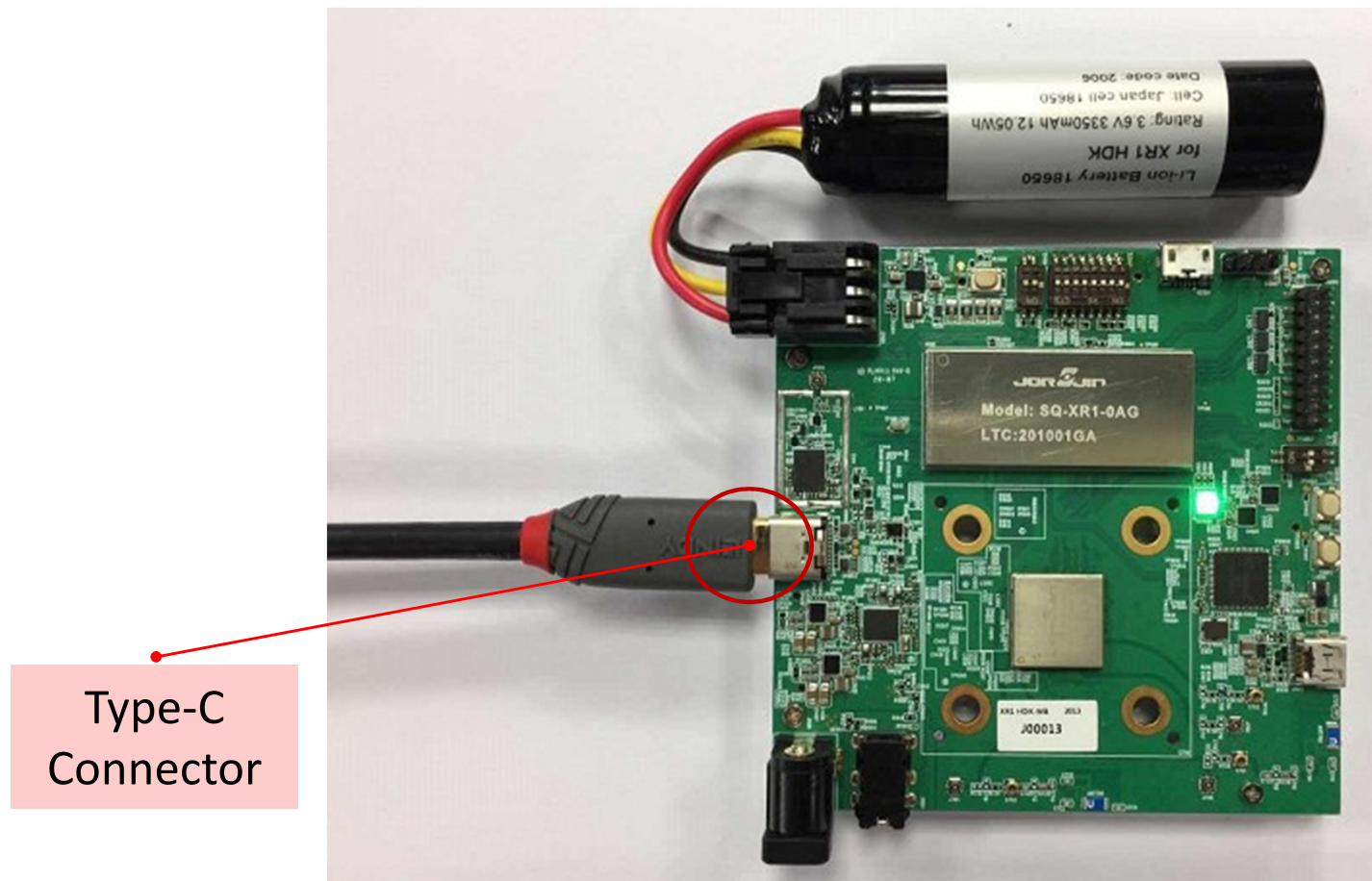


Connect to
DC port 12V / 3A
(Option)



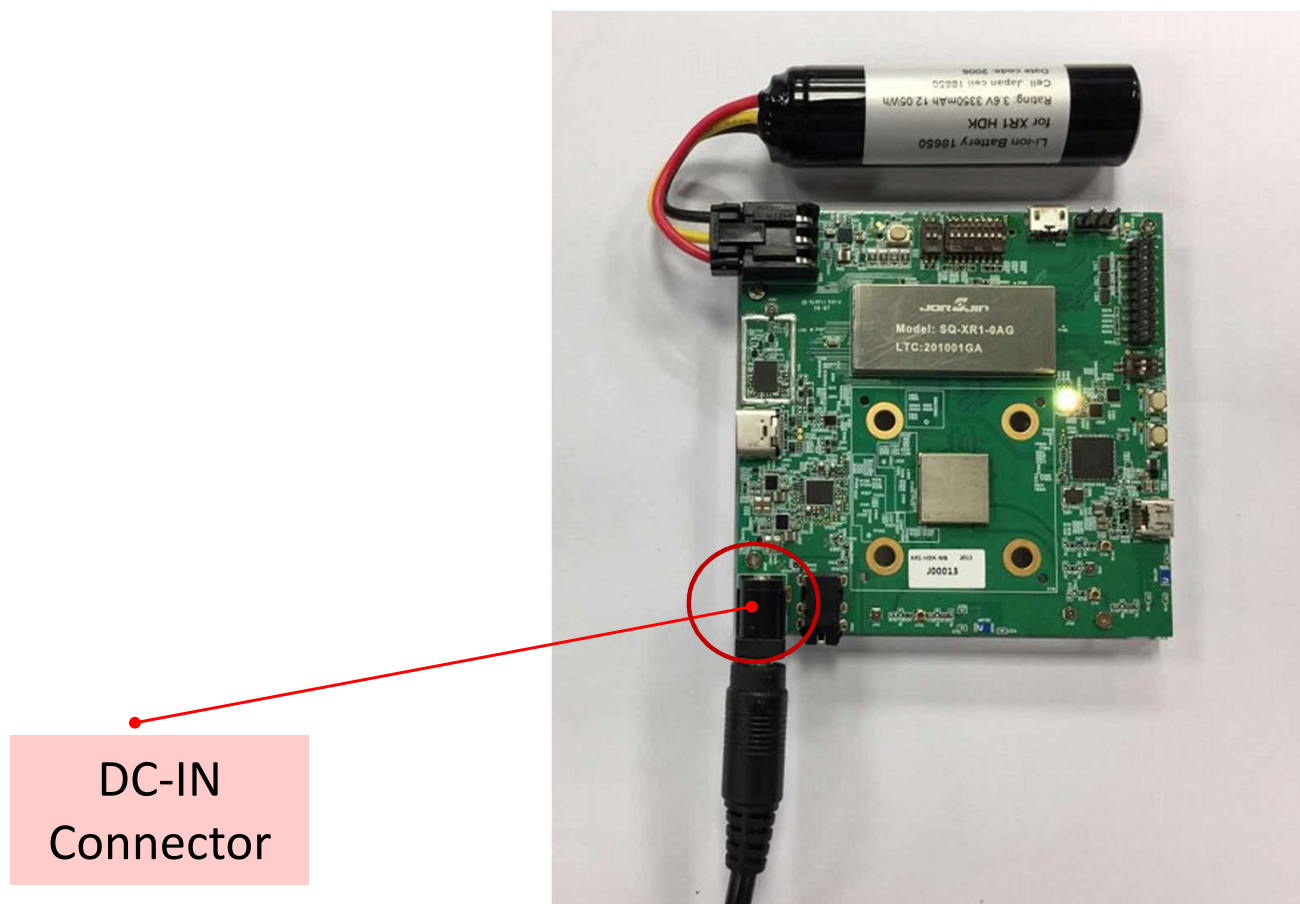
Charging the Battery

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



Charging the Battery

Option 2. DC jack : Connect w / DC Adapter



Note:

USB-C DP mode temporarily not functional in this configuration

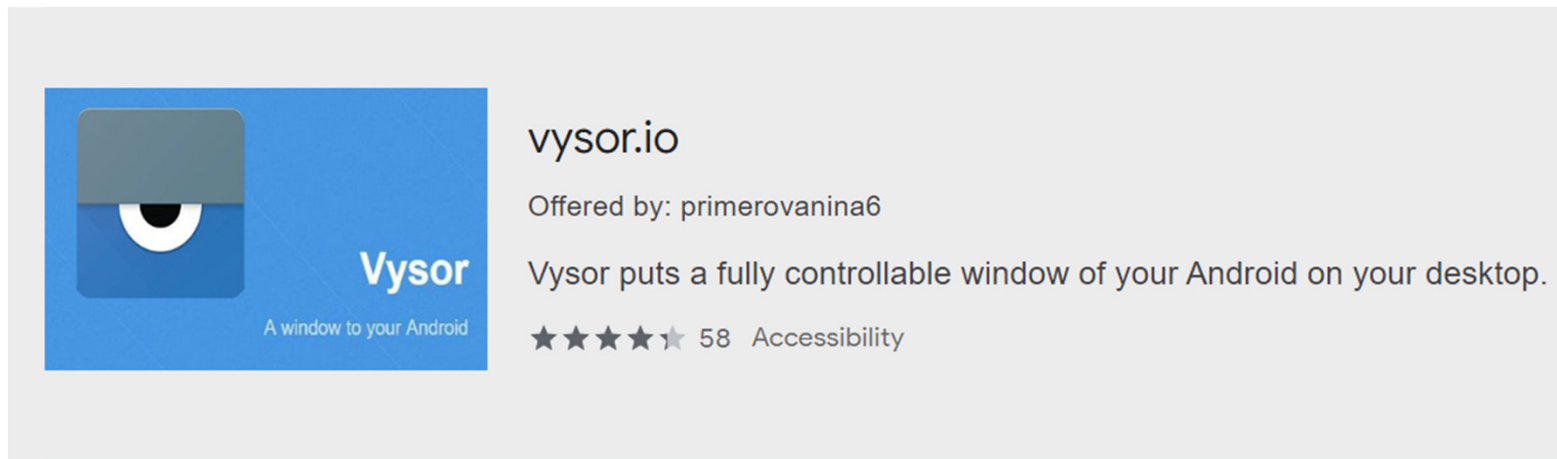
Charging the Battery

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.



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