SHENZHEN CHAINWAY INFORMATION TECHNOLOGY CO.,LTD

Mobile Data Terminal

C72 User Manual

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Statement

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Chapter 1 Product Intro

1.1 Intro

C72 device is a smart mobile PDA that integrated with various features such as wireless communication, data acquisition, wireless transmission, data processing and UHF scanning etc. It is configured with Andriod 8.1 OS and it possesses high reliability and expansibility. With a set of advanced data acquisition options, C72 can be operated in various industries to acquire precise and abundant datum automatically. Meanwhile, the device can match the options with staffs accordingly. The corporation which deployed C72 will realize the deployment work is simple and maintenance work will be remarkably decreased.

C72 is highly rugged, compact and durable. With IP65 water and dust proof capability, the device has met IEC sealing standard. Therefore, it can be operated by staffs such as railway inspector, road toll operator, vehicle inspector, delivery postman, power supply inspector, storage administrator, financial & insurance, police officers, security tracing etc. Wherever your staff' locations are, C72 can remain its connectivity with the system to make sure business in high-effective operating.

C72 mobile data terminal adopted 4G LTE technology to realize multipath communication and calling function for field work, data exchange efficiency has been enhanced simultaneously. Therefore, C72 will bring the largest investment return for enterprises.

1.2 Precaution before using battery

- Do not leave battery unused for long time, no matter it is in device or inventory. If battery has been used for 6 months already, it should be check for charging function or it should be disposed correctly.
- The lifespan of Li-ion battery is around 2 to 3 years, it can be circularly charged for 300 to 500 times. (One full battery charge period means completely charged and completely discharged.)
- When Li-ion battery is not in used, it will continue discharge slowly. Therefore, battery charging status should be checked frequently and take reference of the related battery charging information on the manuals.
- Observe and record the information of a new unused and non-fully charged battery. On the basis of operating time of new battery and compare with a battery that has been used for long time. According to product configuration and application program, the operating time of battery would be different.
- Check battery charging status at regular intervals.
- When battery operating time drops below about 80%, charging time will be increased remarkably.
- If a battery is stored or otherwise unused for an extended period, be sure to follow the storage instructions in this document. If you do not follow the instructions, and the battery has no charge remaining when you check it, consider it to be damaged. Do not attempt to recharge it or to use it. Replace it with a new battery.
- Store the battery at temperatures between 5 °C and 20 °C (41 °F and 68 °F).

1.3 Charger

The charger type is GME10D-050200FGu, output voltage/current is 5V DC/2A. The plug considered as disconnect device of adapter.

1.4 Notes

Note: Using the incorrect type battery has danger of explosion.
Please dispose the used battery according to instructions.

Note: Due to the used enclosure material, the product shall only be connected to a USB Interface of version 2.0 or higher. The connection to so called power USB is prohibited.

Note: The adapter shall be installed near the equipment and shall be easily accessible.

Note: The suitable temperature for the product and accessories is 0-10℃ to 50℃.

Note: CAUTION RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

Chapter 2 Installation instructions

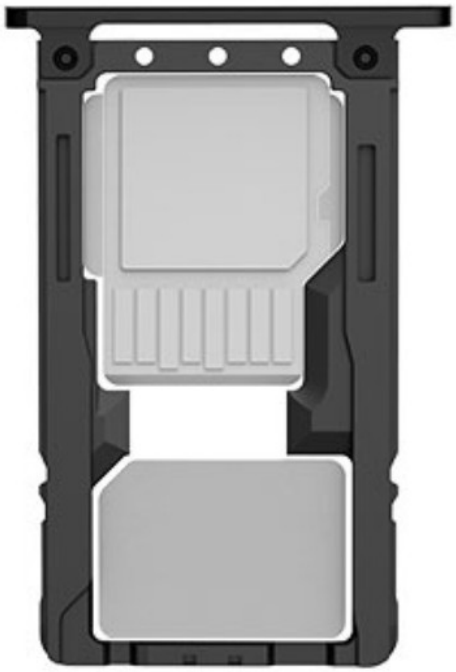
2.1 Appearance

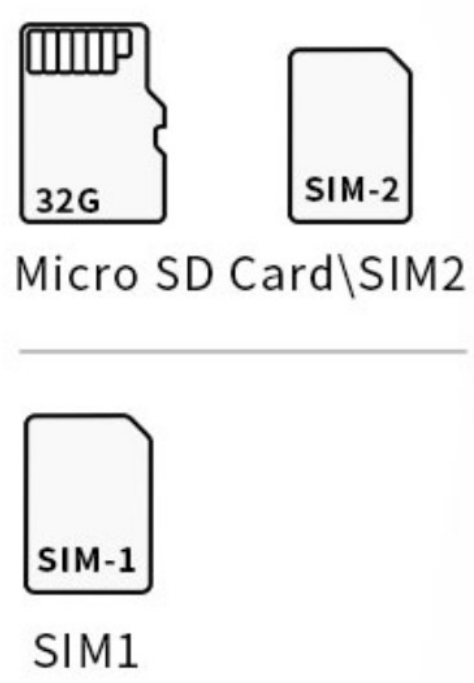
Buttons instruction

Button		Description
Side button	1.Power	Located on left side, press to ON/OFF device.
	2.Function key	Located on left side, its function can be defined by software.
	3.SCAN	Scanning button located on both sides. There are two scanning buttons.
Main button	4.Menu	Display main menu.
	5.Home	Touch it back to main screen.
	6.Enter	Press to confirm current selection.
	7.Backspace	Return to last step to setup.

2.2 Install Micro SD and SIM cards

The cards sockets are showing as follows:





2.3 Battery charge

By using USB Type-C contact, the original adaptor should be used for charging the device. Make sure not to use other adaptors to charge the device.

2.4 Buttons and function area display

C72 has 4 side buttons, 4 main buttons and trigger on pistol, UHF scanning area, 2D scanning module, HD camera and flashlight locate on the top.

Chapter 3 Call function

3.1 Calling numbers

1. Click icon  .
2. Click number key to input phone numbers.
3. Click icon  to call.
4. Click icon  to end call.

3.2 Contacts

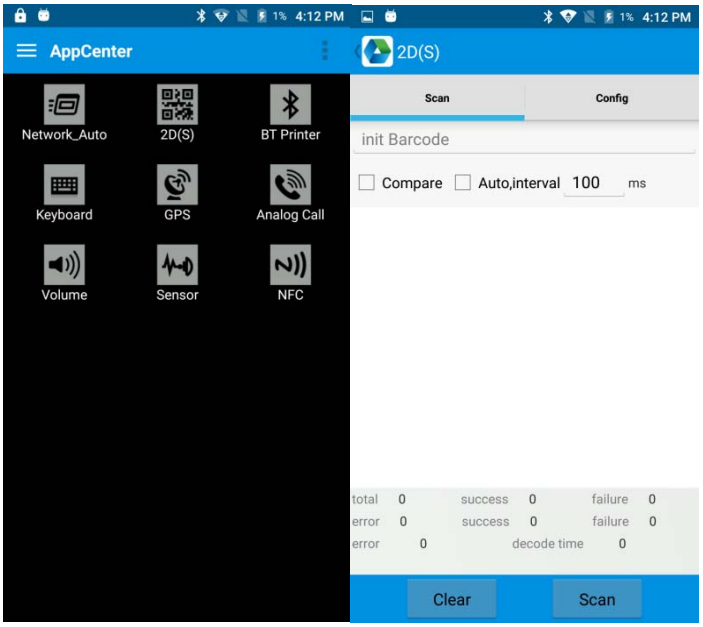
1. Click contacts to open contacts list.
2. Click icon  to add new contacts.
3. Click icon  to import/export contacts.

3.3 SMS and MMS

1. Click  to open message window.
2. Click  to input message receiver and contents.
3. Click  to send out messages.
4. Click  to add attachment pictures and videos.

Chapter 4 Barcode reader-writer

1. In App Center, to open 2D barcode scan test.
2. Press “SCAN” button or click scan key to start scanning, the parameter “Auto interval” can be adjusted.



Caution: Please scan codes in correct way otherwise the scanning will be failed.

1D barcode:

2D code:

Max. radiant power: 0.6mW

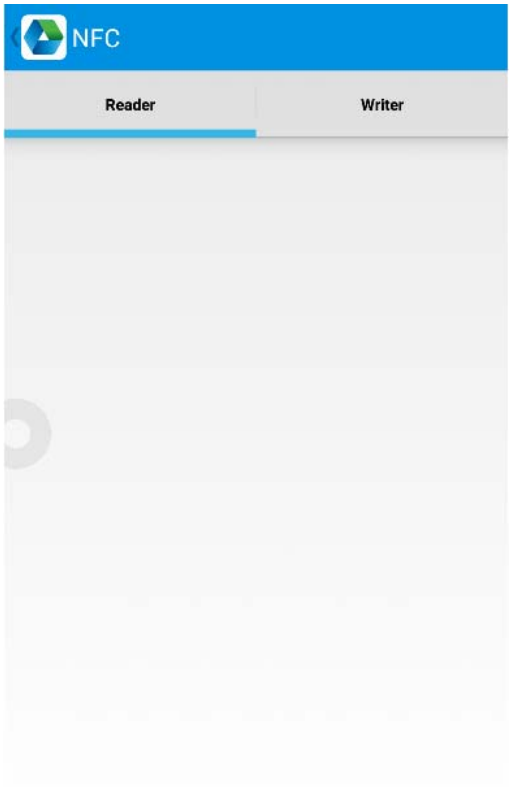
Wave length: 655nM

IEC 60825-1 (Ed.2.0).

21CFR 1040.10 and 1040.11 standard.

Chapter 5 NFC read and write

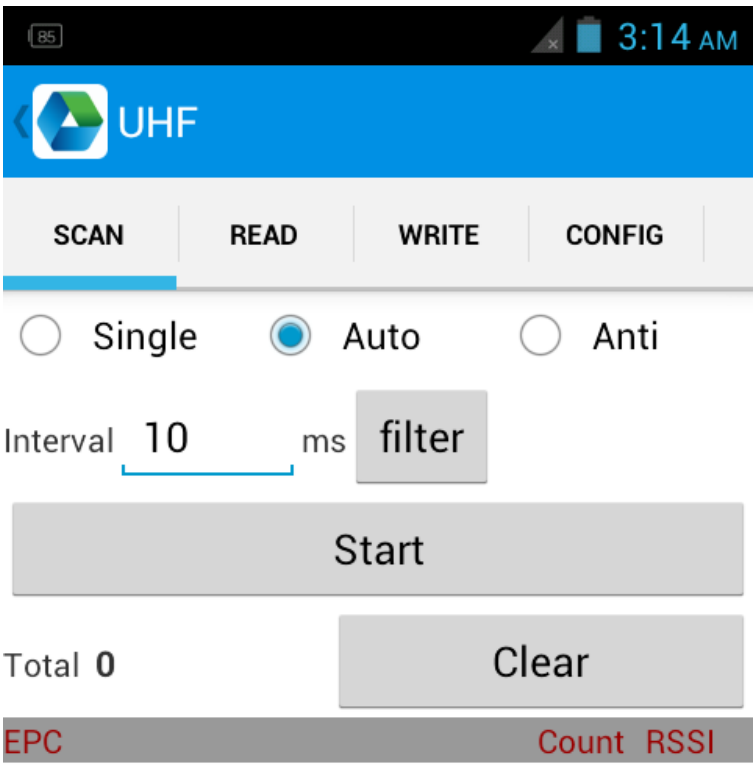
1. In App Center, open NFC to test.
2. Press “Read” button to read a NFC tag or ‘Write’ to write the NFC tag.


NFC
Reader
Writer

Chapter 6 RFID reader

6.1 UHF

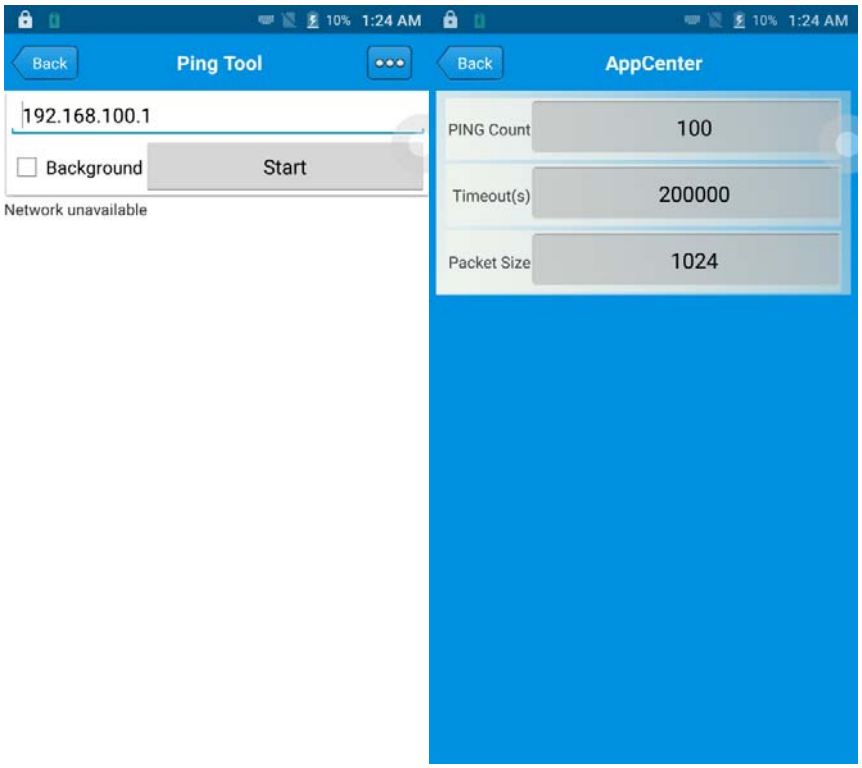
Click App Center, open “UHF” to read and write, kill and lock UHF tag.



Chapter 7 Other functions

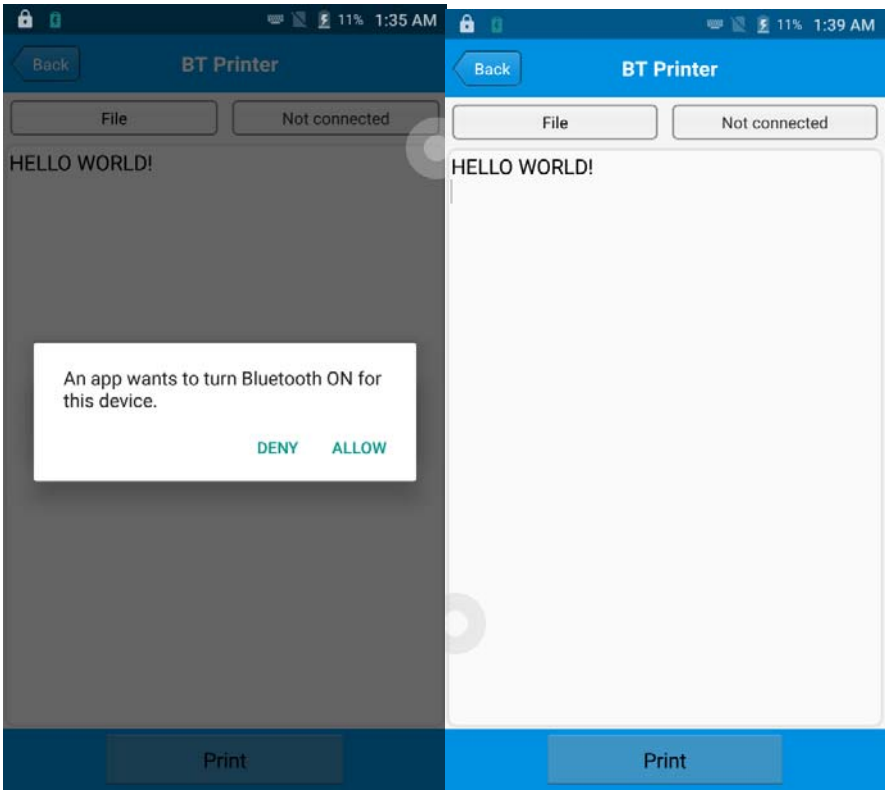
7.1 PING tool

1. Open “PING” in App Center.
2. Setup PING parameter and select external/internal address.



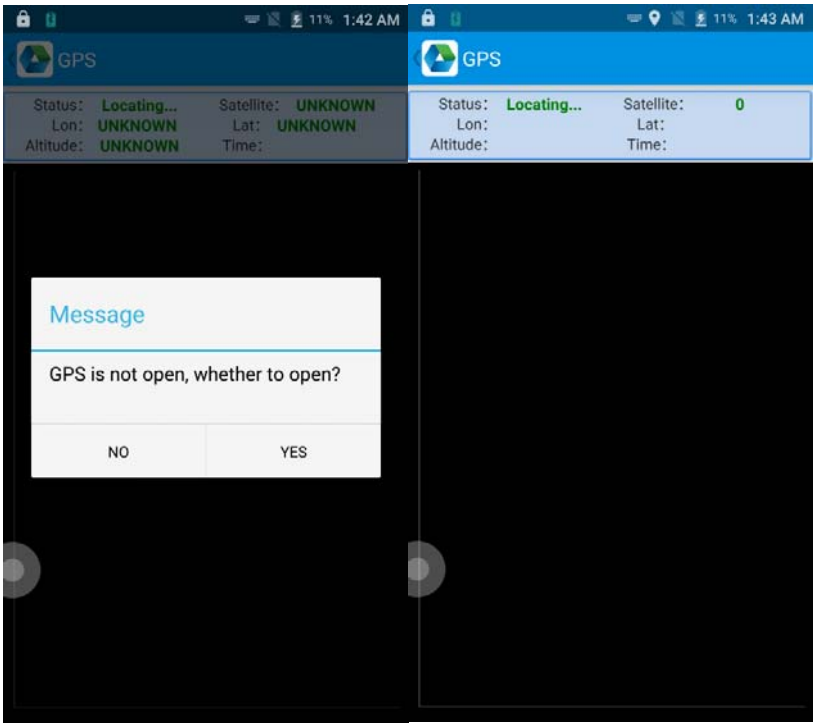
7.2 Bluetooth

1. Open “BT Printer” in App Center.
2. In the list of detected devices, click the device that you want to pair.
3. Select printer and click “Print” to start printing contents.



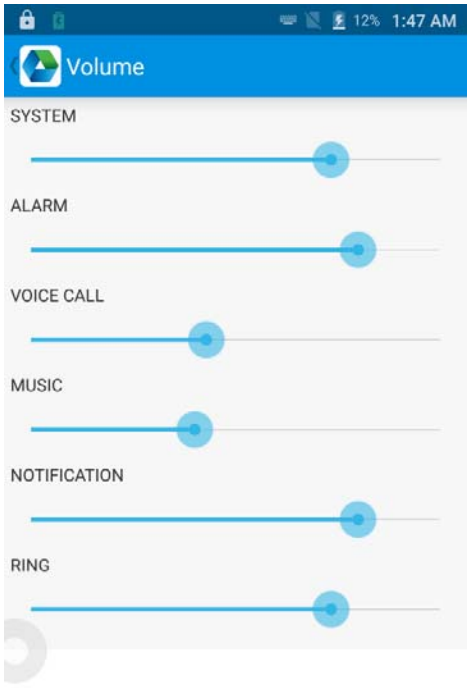
7.3 GPS

1. Click “GPS” in App Center to open GPS test.
2. Setup GPS parameters to access GPS information.



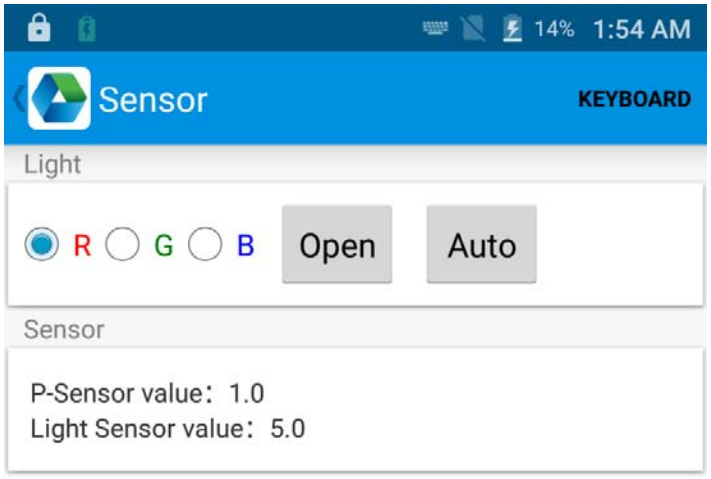
7.4 Volume setup

1. Click “Volume” in App Center.
2. Setup volume by requirements.



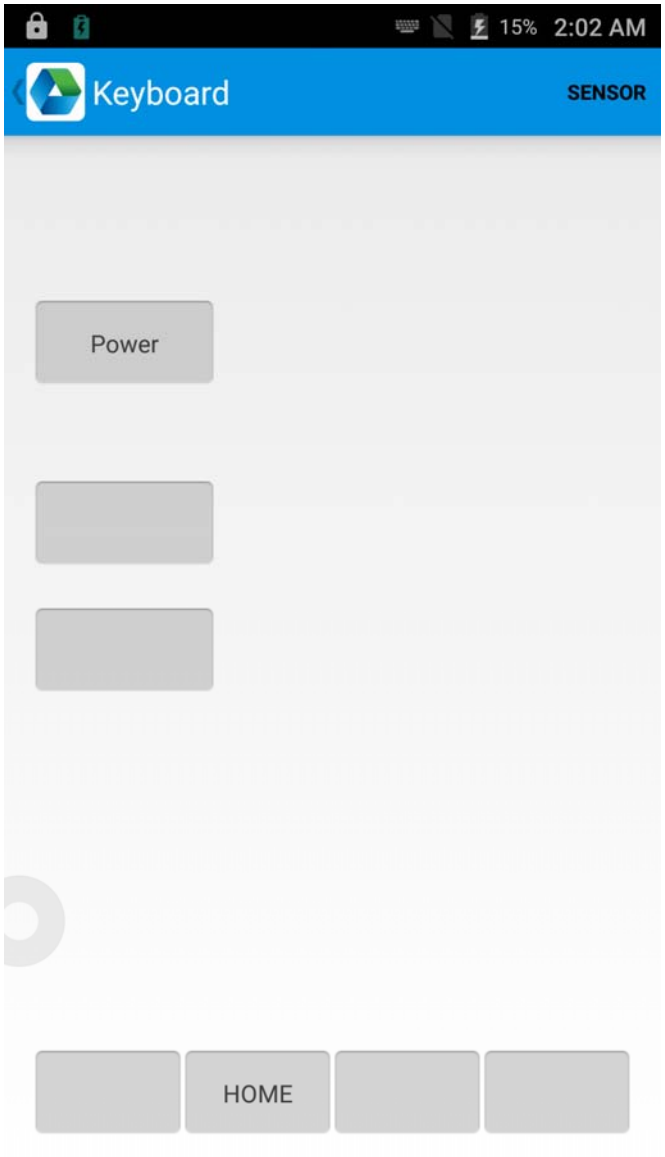
7.5 Sensor

1. Click “Sensor” in App Center.
2. Setup the sensor by requirements.



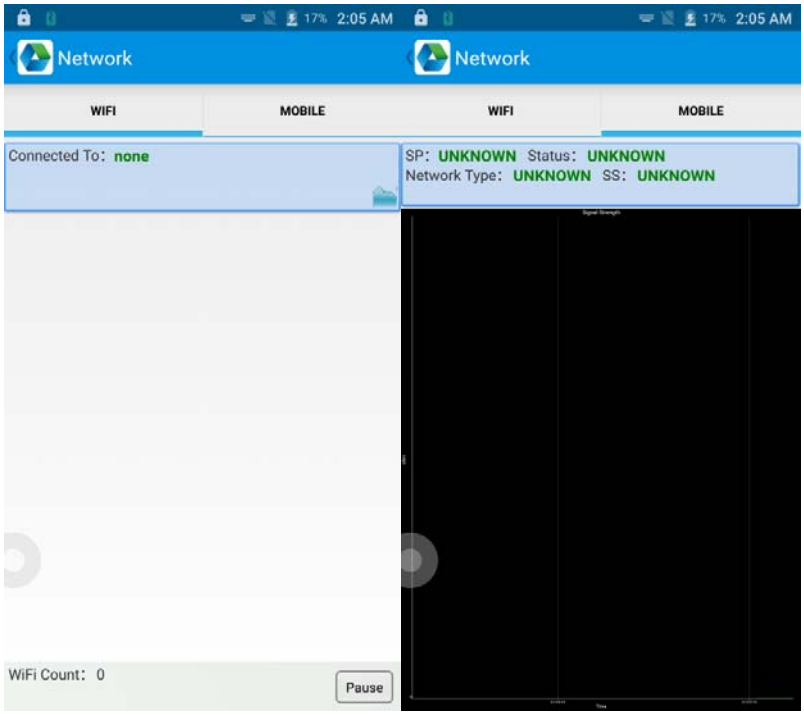
7.6 Keyboard

1. Click “Keyboard” in App Center.
2. Setup and test the main value of the device.



7.7 Network

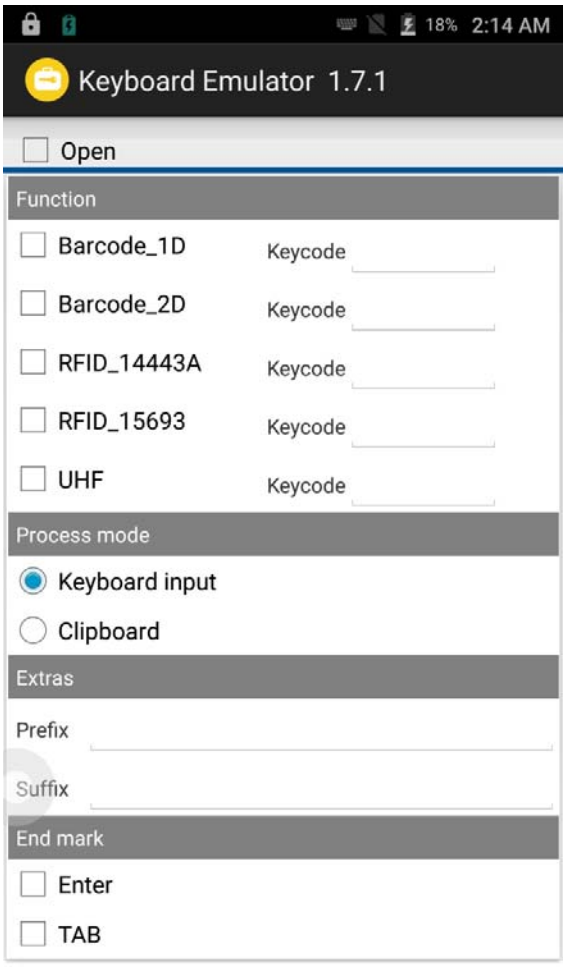
1. Click “Network” in App Center.
2. Test WIFI/Mobile signal by requirements.



7.8 Keyboard emulator (optional)

The keyboard emulator can be used in multiple operating background and output formats directly. And it includes Prefix/Suffix/Enter/TAB.

Please check Keyboard emulator manual for more details.



Chapter 8 Device characteristic

Physical characteristics

Size	164.2mm*78.8mm*17mm
Weight	<654g(battery included)
Display	5.2 inch，IPS FHD 1920*1080P
Touch panel	4 main keyboards, 1 power button, 2 scan buttons, 1 multi-function button
Battery	Li-ion, rechargeable, 8000mAh
Expansion	Supports up to 128GB Micro SD card
Expansion Slot	1 slot for SIM card, 1 slot for SIM or TF card
Audio	speaker, 2 microphones, voice call
Camera	13MP autofocus camera with flashlight

Performance

CPU	Cortex-A53 Octa-core 2.5GHz
OS	Andriod 8.1
RAM	3GB RAM
Communication Interface	USB2.0,Type-C,OTG
ROM	32GB
Max.expansion	Supports up to 128GB Micro SD card

User environment

Operating temp.	-10℃ to 50℃
Storage Temp.	-40℃ to 70℃
Humidity	5%RH - 95%RH non condensing
Sealing	IP65, IEC sealing standard
Drop specification	Multiple 1.8m/4.0ft drops to the concrete

Communication

WAN	WWAN(Overseas) 2G: 850/900/1800/1900MHz 3G: B2,B5 4G: B2/4/5/7/12/17/25/66
WLAN	IEEE802.11 a/b/g/n/ac, 2.4G/5G dual-band, internal antenna
WPAN	Bluetooth 4.0
The device not support the NII straddle channels: 144(20MHz), 142(40MHz), 138(80MHz)	

Data collection

Barcode scanning	2D scanning engine(Zebra SE4710/Zebra SE4750MR/Honeywell N6603)
RFID	NFC 13.56Mhz
	902-928MHz RFID

Developing Environment

SDK	Chainway software develop kit
Language	Java
Develop	Eclipse/Android Studio

Appendix

§ 15.19 Labeling requirements.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

§ 15.21 Information to user.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

§ 15.105 Information to the user.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-Reorient or relocate the receiving antenna.

-Increase the separation between the equipment and receiver.

-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-Consult the dealer or an experienced radio/TV technician for help.

This device is restricted to indoor use where operated in frequency in 5150MHz-5250MHz to reduce the potential for interference.

SAR Information

Specific Absorption Rate (SAR) information:

This **device** meets the government's requirements for exposure to radio waves. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons regardless of age or health.

FCC RF Exposure Information and Statement The SAR limit of USA (FCC) is 1.6 W/kg averaged over one gram of tissue. This device has also been tested against this SARlimit. The highest SAR value reported under thisstandard during product certification for use at the **ear is 0.500W/kg** and when properly worn on the **body is 0.913W/kg**. This device was tested for typical body-worn operations with the back of the handset kept**1.0cm** from the body. To maintain compliance with FCC RF exposure requirements, use accessories that maintain a **1.0cm**separation distance between the user's body and the back of the handset. The use of belt clips, holsters and similar accessories should not contain metallic components in its assembly. The use of accessories that do not satisfy these requirementsmay not comply with FCC RF exposure requirements, and should be avoided.

Body-worn Operation

This device was tested for typical body-worn operations. To comply with RF exposure requirements, a minimum separation distance of **1.0 cm**must be maintained between the user’s body and the handset, including the antenna. Third-party belt-clips, holsters, and similar accessories used by this device should not contain any metallic components. Body-worn accessories that do not meet these requirements may not comply with RF exposure requirements and should be avoided. Use only the supplied or an approved antenna.