

SHENZHEN CHAINWAY INFORMATION TECHNOLOGY CO.,LTD

# Mobile Data Terminal

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## C71 User Manual



# Content

Content.....	1
Statement.....	3
Chapter 1 Product Intro .....	5
1.1 Intro.....	5
1.2 Precaution before using battery.....	6
1.3 Charger.....	7
1.4 Notes.....	8
Chapter 2 Installation instructions.....	9
2.1 Appearance .....	9
2.2 Install Micro SD and SIM cards.....	12
2.3 Battery charge .....	13
2.4 Buttons and function area display.....	14
Chapter 3 Call function.....	15
3.1 Calling numbers.....	15
3.2 Contacts .....	15
3.3 SMS and MMS.....	15
Chapter 4 Barcode reader-writer .....	16
Chapter 5 Infrared read-write function.....	18
Chapter 6 RFID reader.....	19
6.1 NFC .....	19
Chapter 7 Other functions .....	20
7.1 PING tool.....	20
7.2 Bluetooth .....	21
7.3 GPS.....	22

7.4 Volume setup.....	23
7.5 Sensor .....	24
7.6 Keyboard .....	25
7.7 Network .....	26
7.8 Keyboard emulator .....	27
Chapter 8 Device characteristic.....	28
Appendix .....	30
Restrictions:.....	31
Simplified EU declaration of conformity.....	32
SAR Information .....	33

# Statement

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# Chapter 1 Product Intro

## 1.1 Intro

C71 device is a smart mobile PDA that integrated with various features such as wireless communication, data acquisition, wireless transmission and data processing etc. It is configured with Android 6.0 OS and it possesses high reliability and expansibility. With a set of advanced data acquisition options, C71 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 C71 will realize the deployment work is simple and maintenance work will be remarkably decreased.

C71 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, C71 can remain its connectivity with the system to make sure business in high-effective operating.

C71 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, C71 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 USBInterface 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 -20°C to 45°C.

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

**Note:Charging by adapter specified maximum ambient temperature is 35° C ( Declare by manufacturer.)**

## **Chapter 2 Installation instructions**

### **2.1 Appearance**



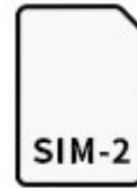
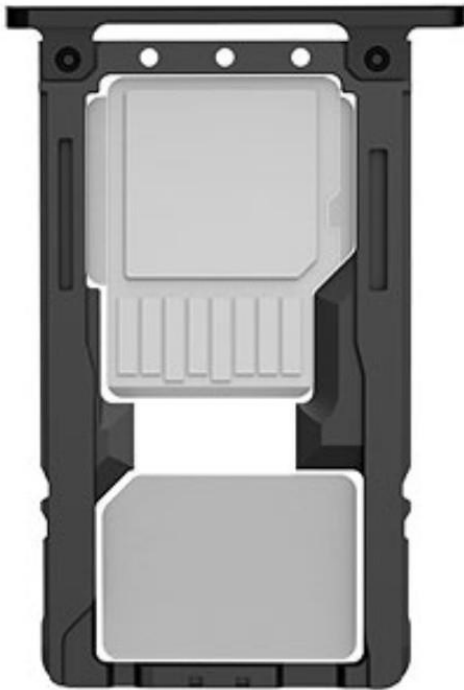
### Buttons instruction

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.

<b>Main button</b>	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:



Micro SD Card\SIM2



SIM1

## **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**



C71 has 4 side buttons and 4 main buttons, NFC identification area 2D scanning head and Infrared scanning lens locates at front. HD camera, optical fingerprint sensor and flashlight locate at rear.

# 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.

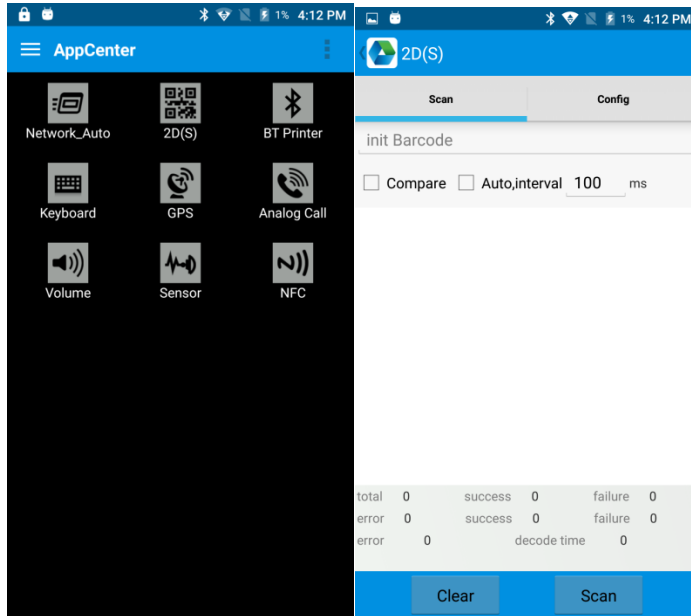
## 3.3 SMS and MMS


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:





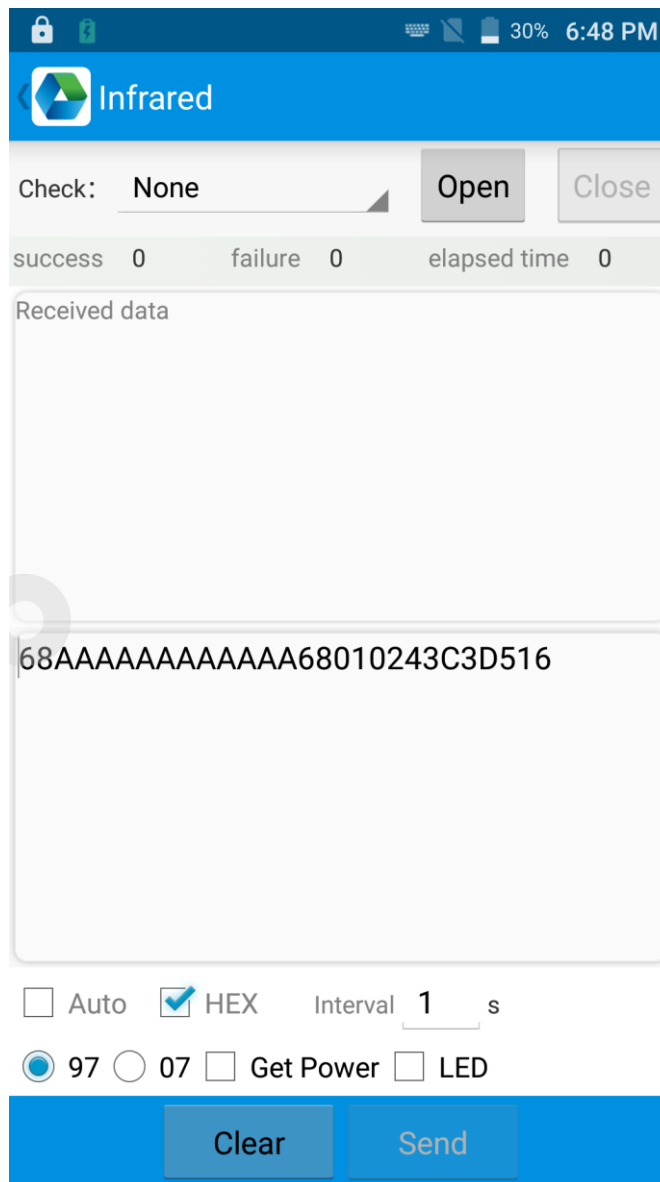
Max. radiant power: 0.6mW

Wave length: 655nm

IEC 62471 (ed.1).

# Chapter 5 Infrared read-write function

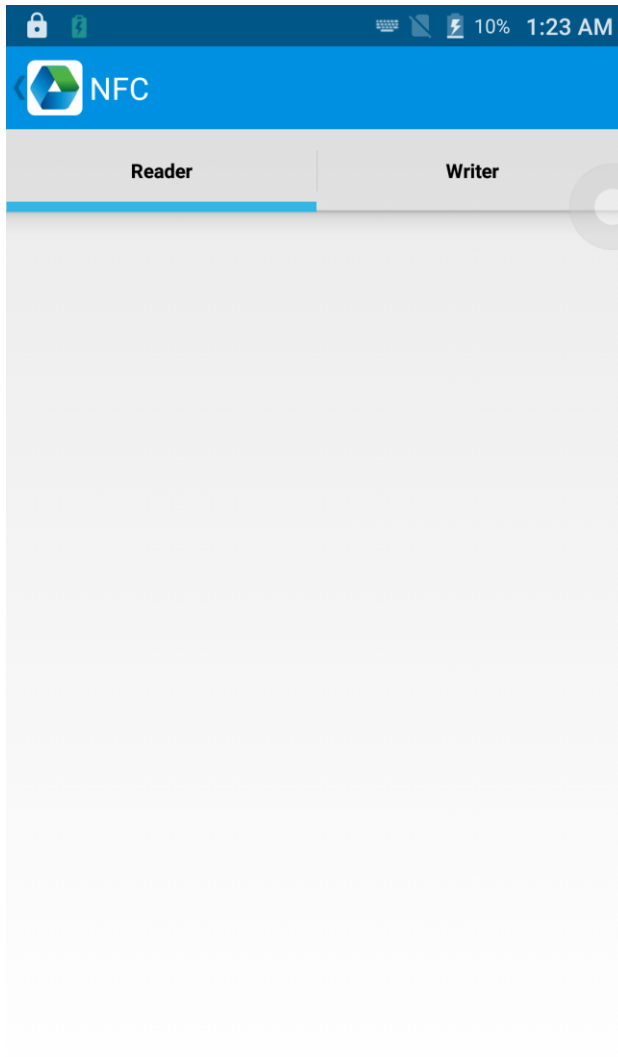
1. Open infrared function in App Center.
2. Click button “Open” to start infrared scanning function. Click “LED” for infrared scanning aim assist. Depending on different application status to compile different commands to realize infrared read and write function.



# Chapter 6 RFID reader

## 6.1 NFC

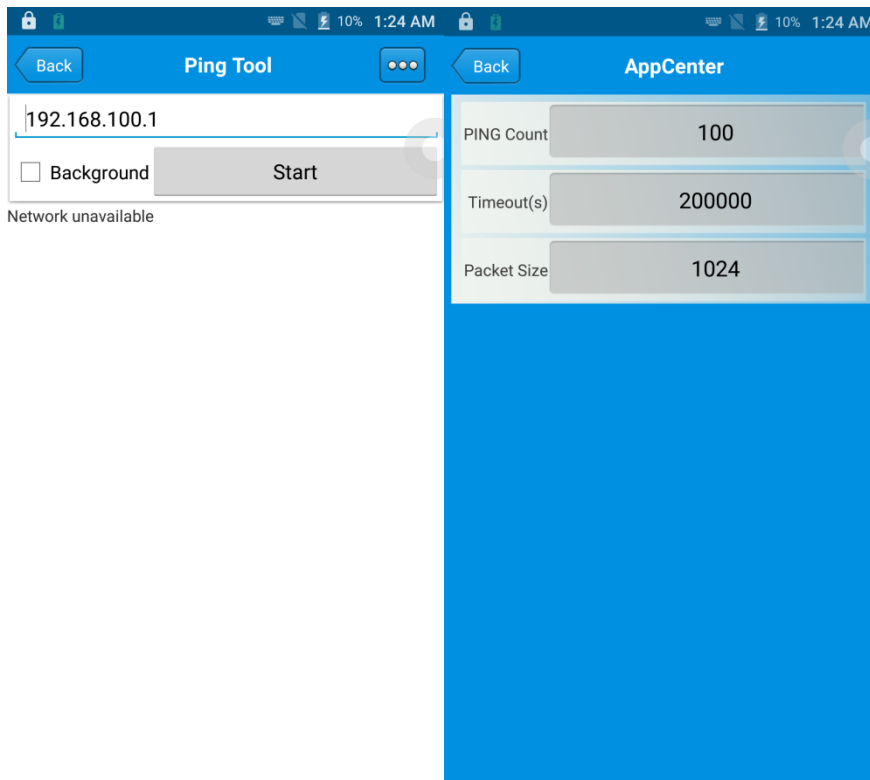
Click App Center, open “NFC” to read and write tag information.



# Chapter 7 Other functions

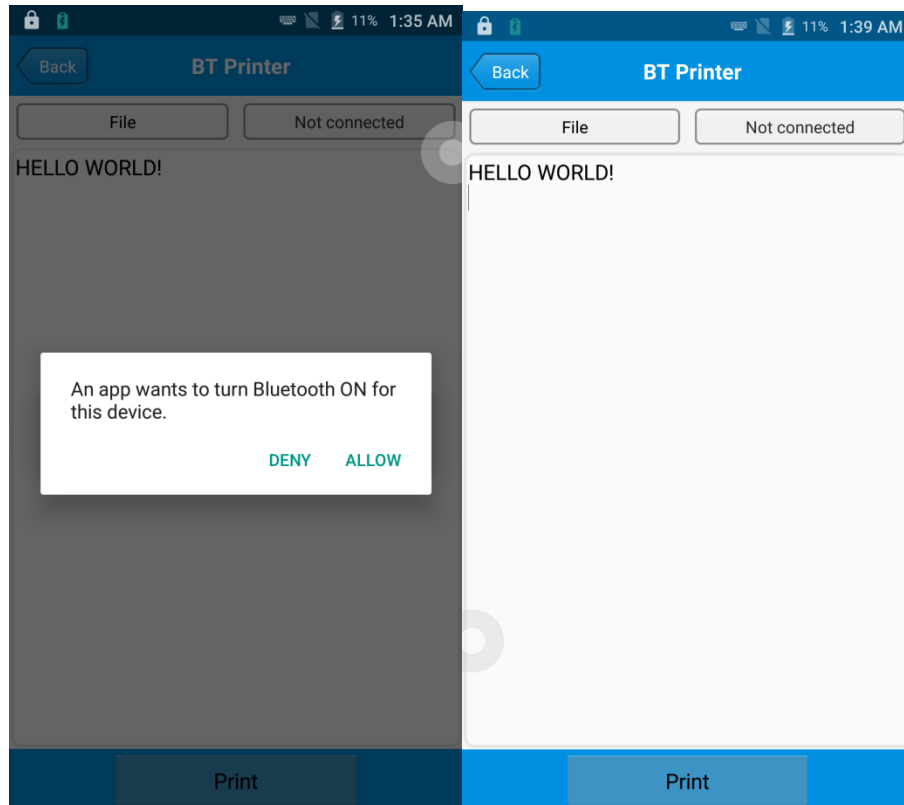
## 7.1 PING tool

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



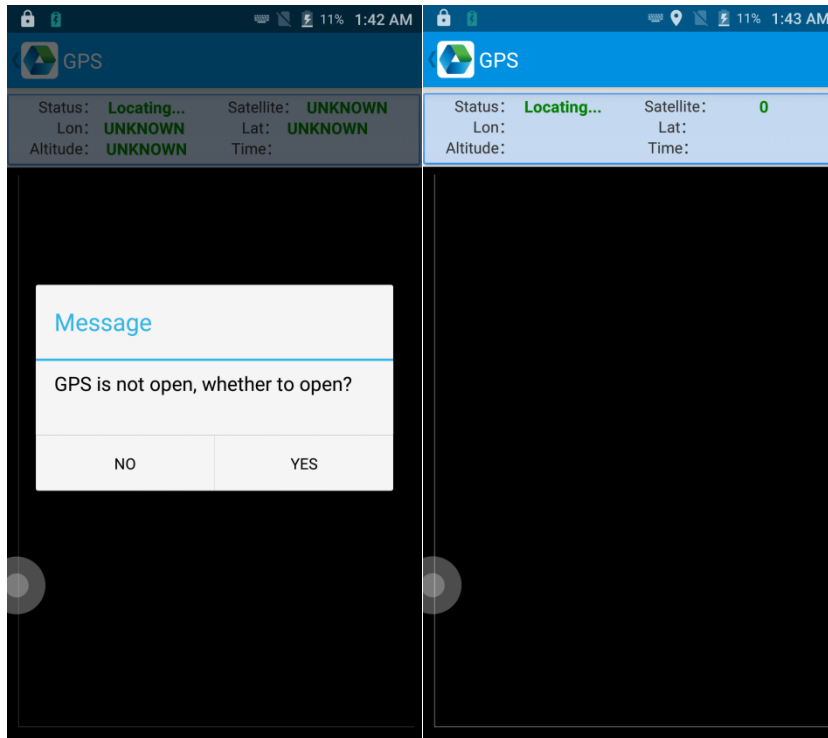
## 7.2 Bluetooth

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.



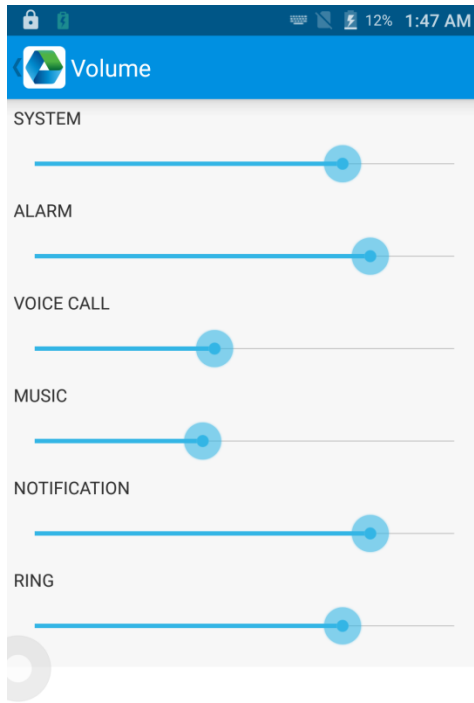
## 7.3 GPS

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



## 7.4 Volume setup

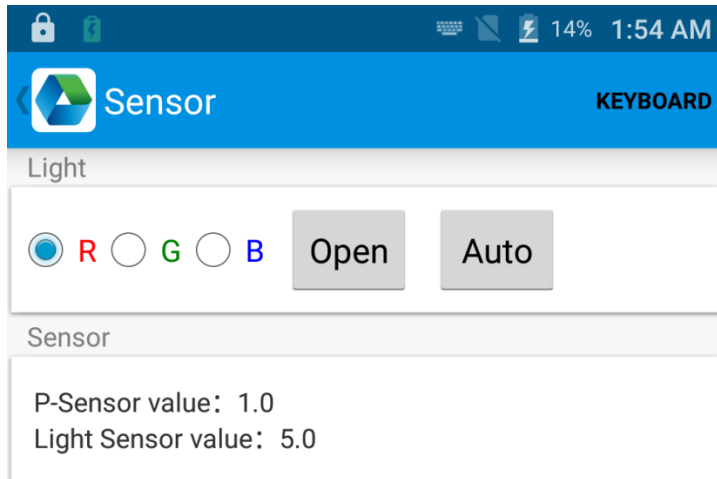
1. Click “Volume” in App Center.
2. Setup volume by requirements.





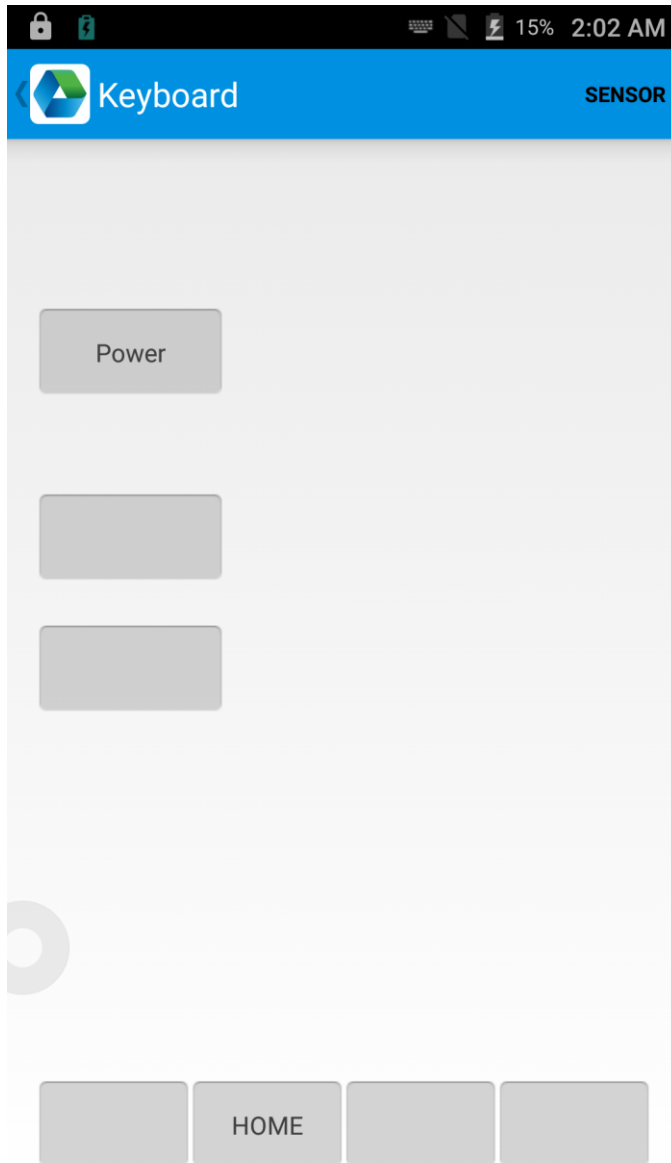
## 7.5 Sensor

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



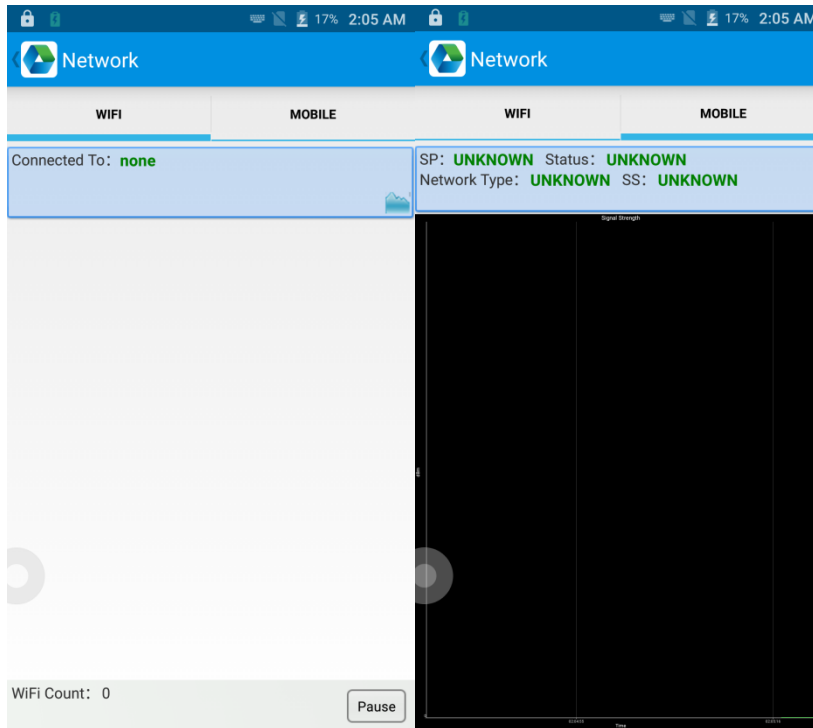
## 7.6 Keyboard

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



## 7.7 Network

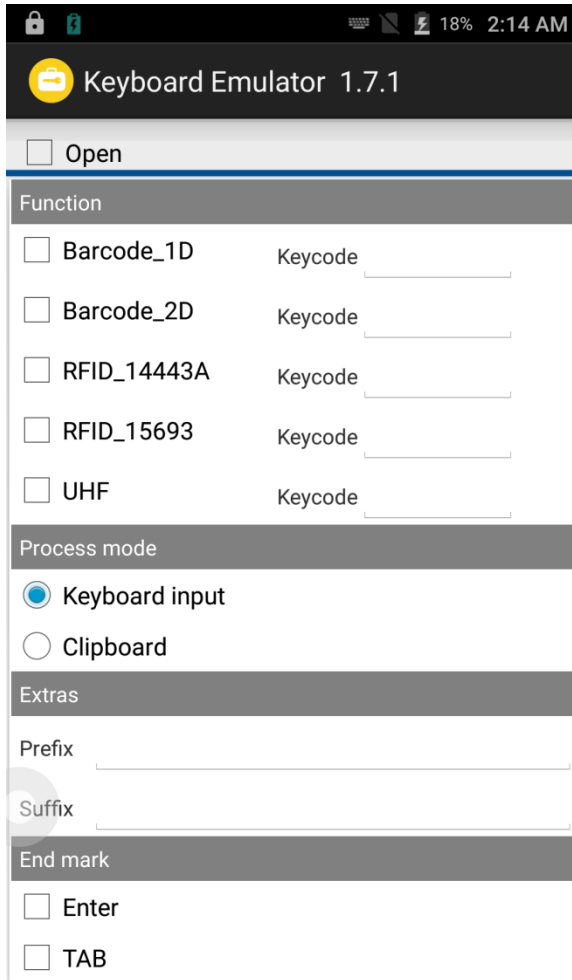
1. Click “Network” in App Center.
2. Test WIFI/Mobile signal by requirements.



## 7.8 Keyboard emulator

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.



The screenshot shows the 'Keyboard Emulator 1.7.1' application interface. At the top, there is a status bar with a lock icon, signal strength, Wi-Fi, battery level at 18%, and the time 2:14 AM. Below the status bar is the app title bar with a yellow icon and the text 'Keyboard Emulator 1.7.1'. The main interface is divided into several sections:

- Open:** A checkbox labeled 'Open'.
- Function:** A list of five items, each with a checkbox and a 'Keycode' input field:
  - Barcode\_1D      Keycode \_\_\_\_\_
  - Barcode\_2D      Keycode \_\_\_\_\_
  - RFID\_14443A      Keycode \_\_\_\_\_
  - RFID\_15693      Keycode \_\_\_\_\_
  - UHF              Keycode \_\_\_\_\_
- Process mode:** Two radio button options:
  - Keyboard input
  - Clipboard
- Extras:** Two text input fields:
  - Prefix \_\_\_\_\_
  - Suffix \_\_\_\_\_
- End mark:** Two checkbox options:
  - Enter
  - TAB

# Chapter 8 Device characteristic

## Physical characteristics

<b>Size</b>	164.2mm*78.8mm*17mm
<b>Weight</b>	<260g(battery included)
<b>Display</b>	5.2 inch, IPS FHD 1920*1080P
<b>Touch panel</b>	4 main keyboards, 1 power button, 2 scan buttons, 1 multi-function button
<b>Battery</b>	Li-ion, rechargeable, 5000mAh
<b>Expansion</b>	Supports up to 32 GB Micro SD card
<b>Expansion Slot</b>	1 slot for SIM card, 1 slot for SIM or TF card
<b>Audio</b>	speaker, 2 microphones, voice call
<b>Camera</b>	13MP autofocus camera with flashlight

## Performance

<b>CPU</b>	Cortex-A53 1.3GHz Quadcore
<b>OS</b>	Andriod 6.0
<b>RAM</b>	2GB RAM
<b>Communication Interface</b>	USB2.0,Type-C,OTG
<b>ROM</b>	16GB
<b>Max.expansion</b>	Supports up to 32 GB Micro SD card

## User environment

<b>Operating temp.</b>	-20°C to 45°C
<b>Storage Temp.</b>	-20°C to 70°C
<b>Humidity</b>	5%RH - 95%RH non condensing
<b>Sealing</b>	IP65, IEC sealing standard
<b>Drop specification</b>	Multiple 1.8m/4.0ft drops to the concrete

### Communication

<b>WAN</b>	2G: 850/900/1800/1900MHz ; max. power 33.69dBm 3G: 850/900/1900/2100 MHz ; max. power 23.52dBm 4G: B1/B3 /B5/B7/B8/B20/B40 ; max. powe23.359dBm
<b>WLAN</b>	IEEE802.11a/b/g/n, embedded antenna, 5 Gigabit WIFI(5G wifi isn't support hotspot) wifi 2.4G; max. power 14.69 dBm Wifi 5G-Band1:max. power 14.69 dBm Wifi 5G -Band2: max. power 12.82 dBm Wifi 5G -Band3: max. power 13.08 dBm SRD5.8G; max. power 12.29 dBm
<b>WPAN</b>	Bluetooth 4.0 ;max. power 6.16 dBm

### Data collection


<b>Barcode scanning</b>	2D CMOS scanning engine(Honeywell N6603/Zebra SE4710)
<b>RFID</b>	NFC 13.56Mhz 62.57 dB $\mu$ V/m (3m) -14.23dB $\mu$ A/m (10m)

### Developing Environment

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

# Appendix

## Restrictions:

						
AT	BE	BG	HR	CY	CZ	DK
EE	FI	FR	DE	GR	HU	IE
IT	LV	LT	LU	MT	NL	PL
PT	RO	SK	SI	ES	SE	UK

This device is restricted to indoor use where operated in the European Community using frequency in 5150MHz-5350MHz to reduce the potential for interference.



## **Simplified EU declaration of conformity**

Hereby, ShenZhenChainway Information Technology Co., Ltd declares that the radio equipment type C71 is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address:[www.chainway.net](http://www.chainway.net)

Signature:

## SAR Information

The SAR limit of Europe is 2.0 W/kg. Device types C71 has also been tested against this SAR limit. The highest SAR value reported under this standard during product certification for use at the ear is 0.219W/kg and when properly worn on the body is 1.216 W/kg. This device was tested for typical body-worn operations with the back of the handset kept 0.5cm from the body. To maintain compliance with RF exposure requirements, use accessories that maintain a 0.5cm 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 requirements may not comply with RF exposure requirements, and should be avoided.