

SHENZHEN CHAINWAY INFORMATION TECHNOLOGY CO.,LTD

Handheld RFID Reader

C5 User Manual



Contents

Statement.....	2
Chapter 1 Product Intro.....	3
1.1 Intro	3
1.2 Precaution before using battery	4
1.3 Charger	5
1.4 Notes	6
Chapter 2 Installation instructions	7
2.1 Appearance	7
2.2 Install Micro SD and SIM cards	9
2.3 Battery charge	10
2.4 Buttons and function area display	11
Chapter 3 Call function.....	12
3.1 Calling numbers.....	12
3.2 Contacts	12
3.3 SMS and MMS	12
Chapter 4 Barcode reader-writer.....	13
Chapter 5 RFID reader.....	15
5.1 UHF	15
Chapter 6 Other functions	16
6.1 PING tool	16
6.2 Bluetooth	17
6.3 GPS	18
6.4 Volume setup.....	19
6.5 Sensor	20
6.6 Keyboard	21
6.7 Network	22
Chapter 7 Device characteristic	23
Appendix	25

Statement

2013 by ShenZhen Chainway Information Technology Co., Ltd. All rights reserved.

No part of this publication may be reproduced or used in any form, or by any electrical or mechanical means, without permission written from Chainway. This includes electronic or mechanical means, such as photocopying, recording, or information storage and retrieval systems. The material in this manual is subject to change without notice.

The software is provided strictly on an “as is” basis. All software, including firmware, furnished to the user is on a licensed basis. Chainway grants to the user a non-transferable and non-exclusive license to use each software or firmware program delivered hereunder (licensed program). Except as noted below, such license may not be assigned, sublicensed, or otherwise transferred by the user without prior written consent of Chainway. No right to copy a licensed program in whole or in part is granted, except as permitted under copyright law. The user shall not modify, merge, or incorporate any form or portion of a licensed program with other program material, create a derivative work from a licensed program, or use a licensed program in a network without written permission from Chainway.

Chainway reserves the right to make changes to any software or product to improve reliability, function, or design.

Chainway does not assume any product liability arising out of, or in connection with, the application or use of any product, circuit, or application described herein.

No license is granted, either expressly or by implication, estoppel, or otherwise under any Chainway intellectual property rights. An implied license only exists for equipment, circuits, and subsystems contained in Chainway products.

Chapter 1 Product Intro

1.1 Intro

Chainway C5 is an upgraded all-in-one high-performance UHF RFID Reader. It has Integrated a self-developed Impinj E710/R2000 based UHF module which offers industry-leading UHF performance. C5 adopts an integrated design, provides more stable UHF performance, and delivers higher durability. The superior system configuration of the mobile computer features the Android 11 platform, Qualcomm octa-core processor, optional mass internal memory and a large capacity removable battery. C5 also supports 2D scanning, NFC, fingerprint recognition and other functions, which enables it to be widely used in scenarios like banking, public security, warehousing, retail, logistics and other industries.

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 PWR-C7X-5V2A-CN/EU/UK/US, 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°C to 50°C.

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



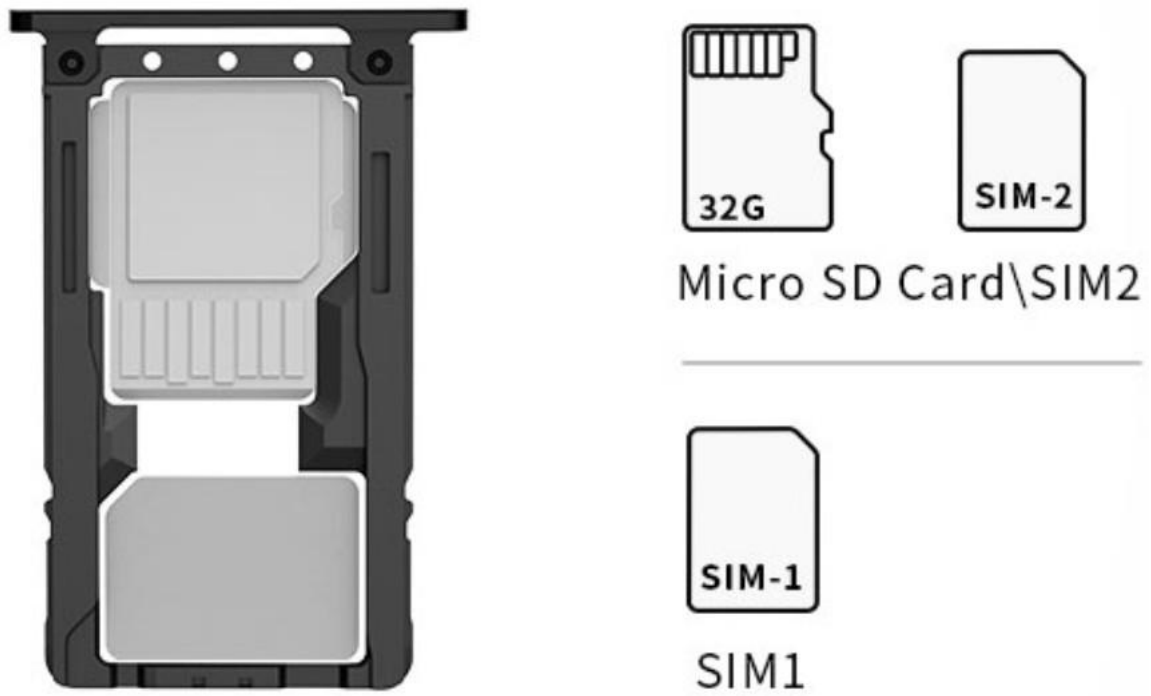


Buttons instruction

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.
	4. Volume +/-	Volume button located on right side.
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

C5 has 5 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

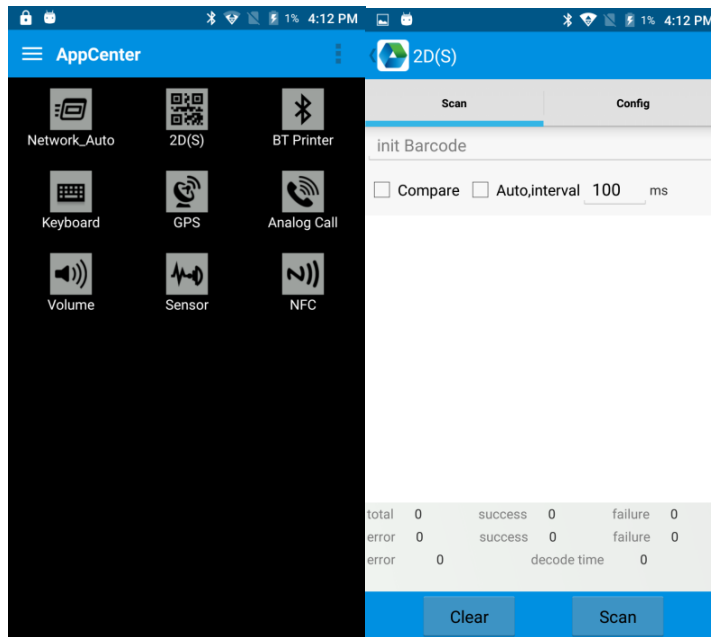
1. Click contacts to open contacts list.
2. Click icon  to add new contacts.
3. Click icon  to import/export contacts.

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:



Correct



Incorrect

2D code:



Correct



Incorrect



Max. radiant power: 0.6mW

Wave length: 655nm

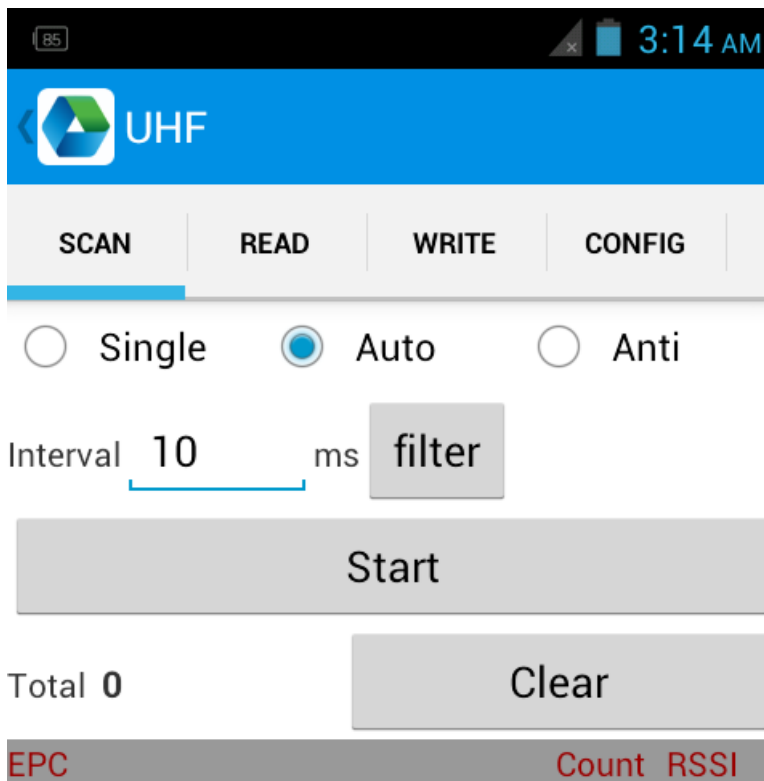
IEC 60825-1 (Ed.2.0).

21CFR 1040.10 and 1040.11 standard.

Chapter 5 RFID reader

5.1 UHF

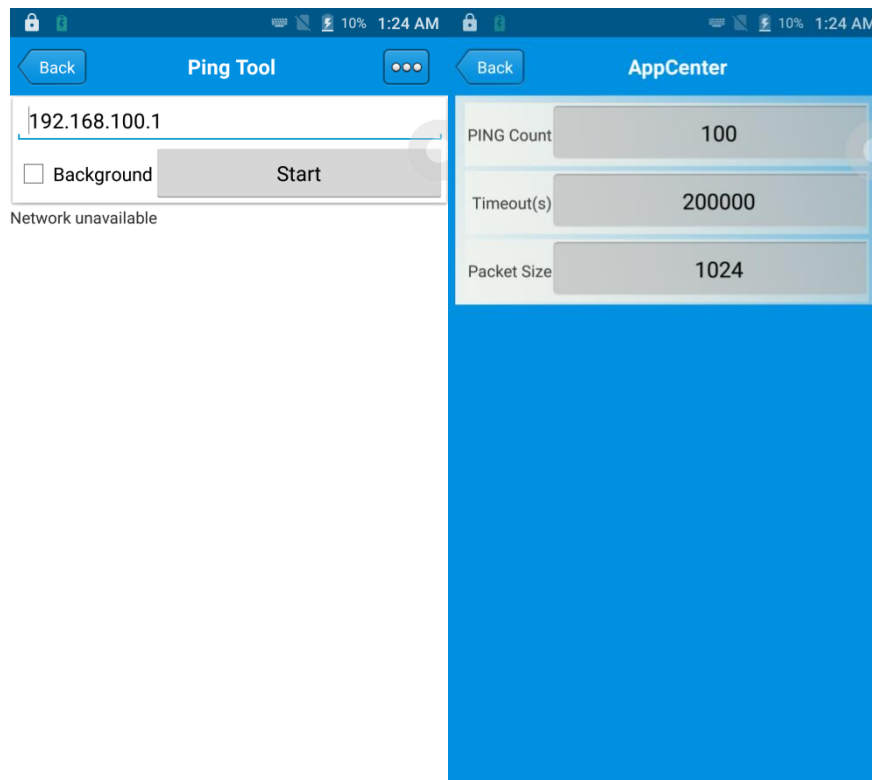
Click App Center, open “UHF” to read and write, kill and lock UHF tag.



Chapter 6 Other functions

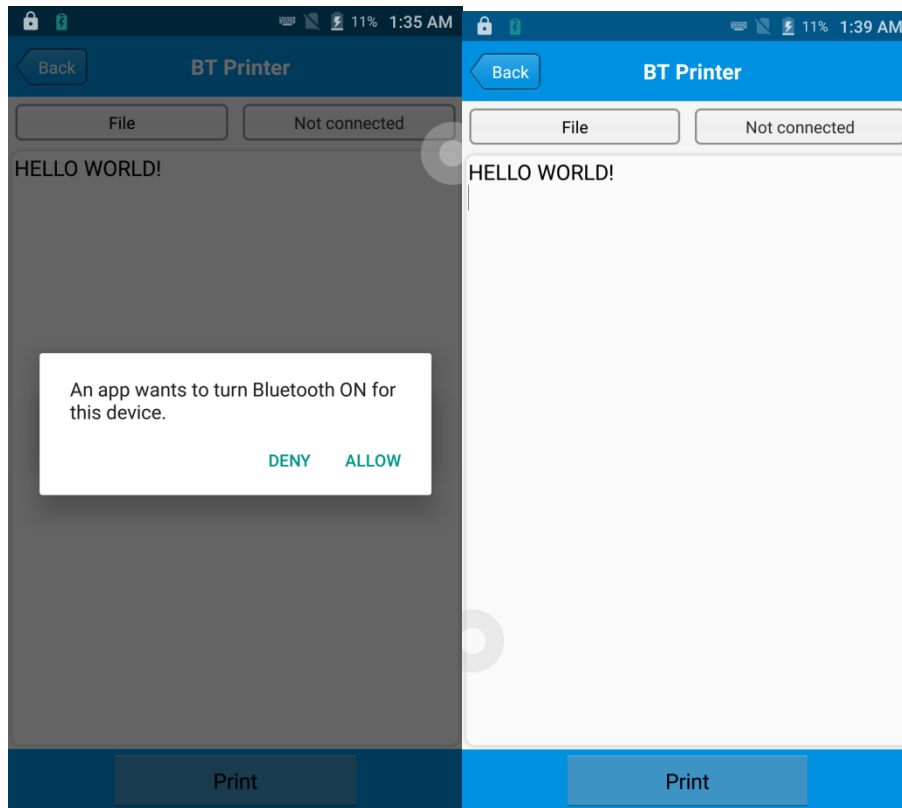
6.1 PING tool

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



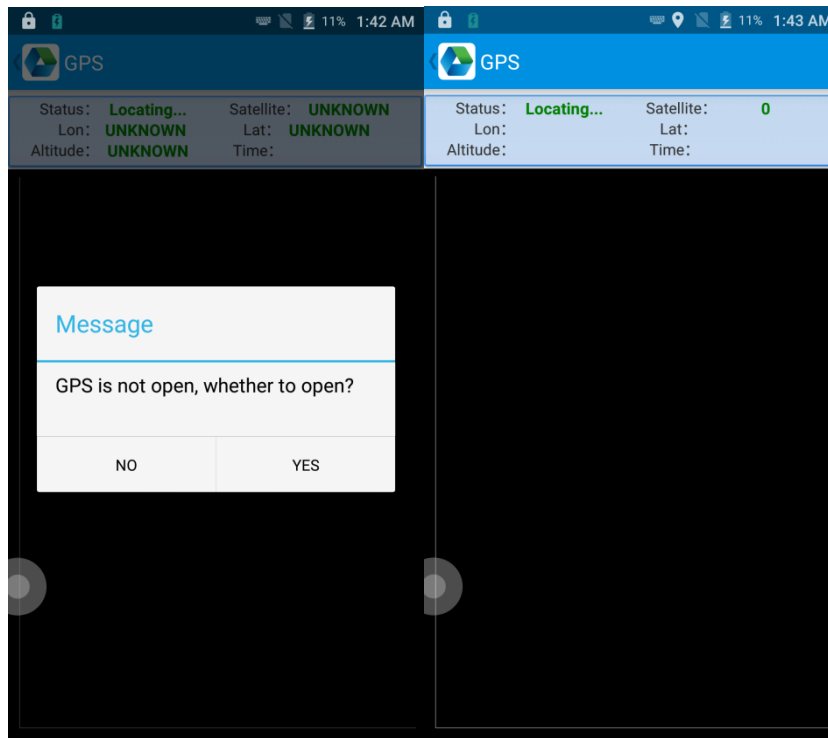
6.2 Bluetooth

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.



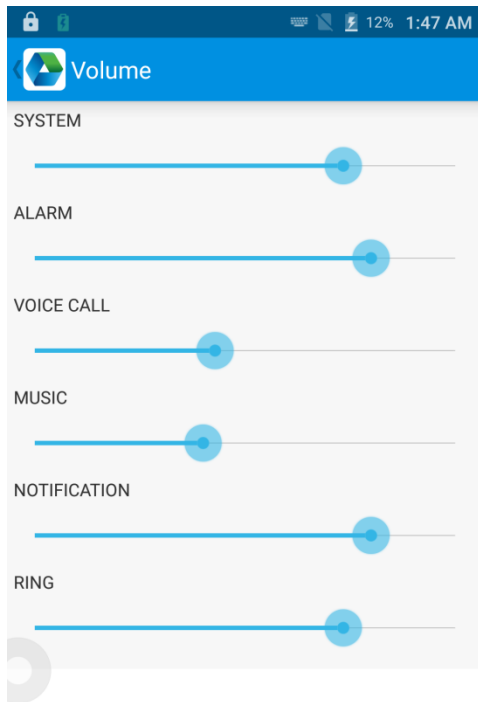
6.3 GPS

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



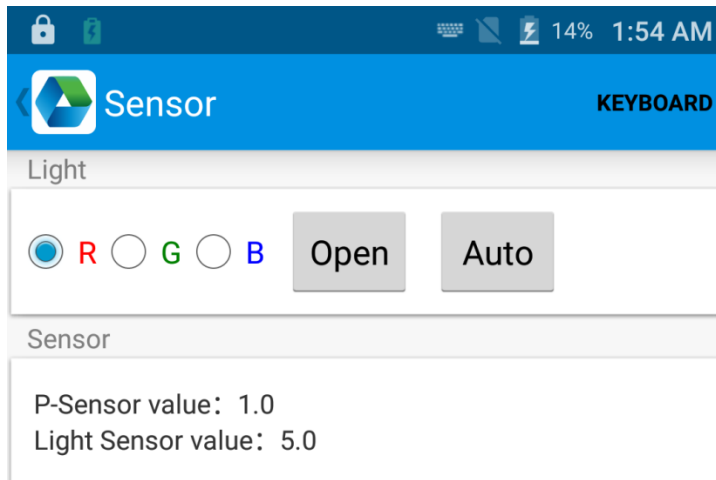
6.4 Volume setup

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



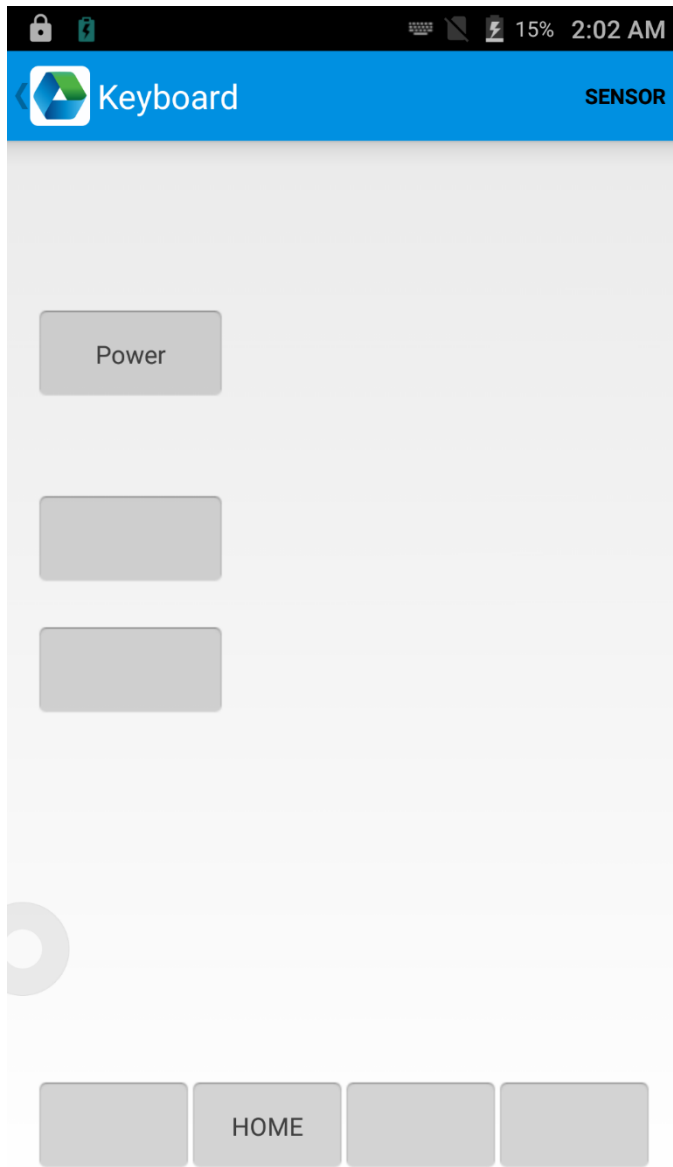
6.5 Sensor

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



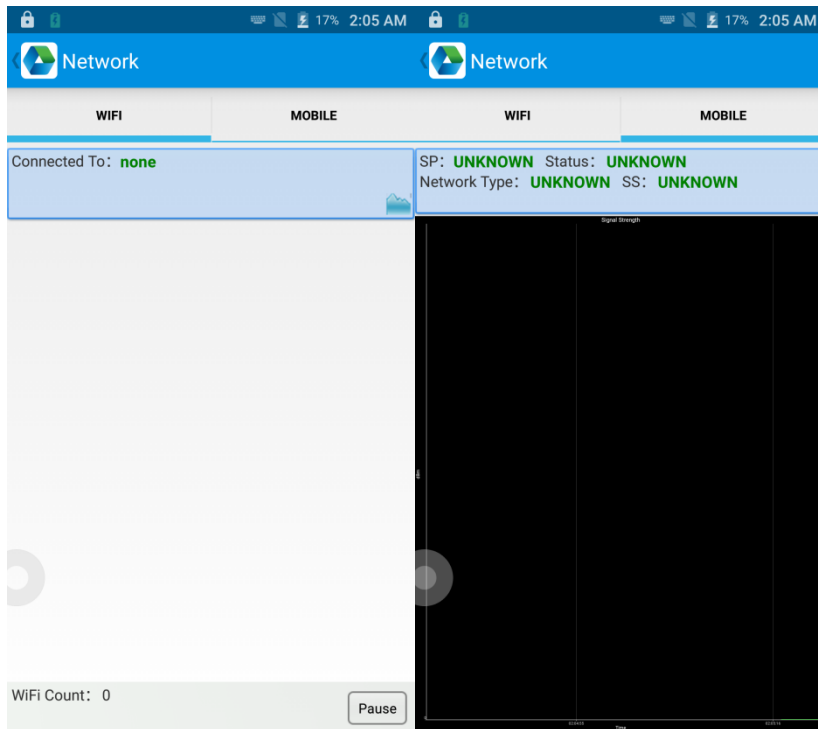
6.6 Keyboard

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



6.7 Network

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



Chapter 7 Device characteristic

Physical characteristics

Size	177.0 x 80.2 x 14.8mm / 6.97 x 3.15 x 0.58in
Weight	598g / 21.09oz. (device with battery)
Display	5-inch (Fingerprint), 1280 x 720 / 6-inch, 2400 x 1080
Touch panel	Multi-touch panel, gloves and wet hands supported
Battery	6700mAh / 134000mAh removable pistol battery Built in 100mAh backup battery, supporting battery hot swap
Card slot	2 slots for PSAM card; 1 slot for Nano SIM card, 1 slot for Nano SIM or TF card
Audio	2 microphones, 1 for noise cancellation; 1 speaker; 1 receiver
Camera	Front camera 5MP Rear camera Rear 13MP Autofocus with flash

Performance

CPU	Cortex-A53 Octa-core, 2.3GHz
OS	Android 11
RAM	3GB + 32GB / 4GB +64GB (Optional) / 6GB + 128GB (Optional)
Communication Interface	USB2.0, Type-C, OTG
ROM	32GB/64GB/128GB
Max.expansion	Supports up to 128 GB Micro SD card

User environment

Operating temp.	-20 °C to 50 °C / 4 °F to 122 °F
Storage Temp.	-40 °C to 70 °C / -40 °F to 158 °F
Humidity	5%RH - 95%RH non condensing
Sealing	IP65, IEC sealing standard
Drop specification	Multiple 1.5m / 5.9ft. drops (at least 28 times) to the concrete across the operating temperature range

Communication

WAN	2G: GSM (850 / 1900) 3G: WCDMA (B2 / B4 / B5) CDMA2000 ECDO: BC0 4G: B2 / B4 / B5 / B7 / B12 / B17 / B38 / B40 / B41
WLAN	802.11 a / b / g / n / ac, 2.4G / 5G dual-band
WPAN	Bluetooth 5.0

Data collection

Barcode scanning	Zebra: SE4710; Honeywell: N6603; CM60; CB300
RFID	EPCglobal Gen 2 (ISO18000-6C) ISO14443A / B, ISO15693, NFC-IP1, NFC-IP2 etc

Developing Environment

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

Appendix

FCC statements:

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.

NOTE: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications or changes to this equipment. Such modifications or changes could void the user's authority to operate the equipment.

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.

FCC SAR statements:

The SAR limit of USA (FCC) is 1.6 W/kg averaged over one gram of tissue. Device types C5 (FCC ID: 2AC6AC5N) has also been tested against this SAR limit.

This device was tested for typical body - worn operations with the back of the handset kept 5mm from the body.

To maintain compliance with FCC RF exposure requirements, use accessories that maintain a 5mm 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 FCC RF exposure requirements, and should be Avoided.