

SHENZHEN CHAINWAY INFORMATION TECHNOLOGY CO.,LTD

Mobile Data Terminal

C70 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.....	10
2.3 Battery charge	11
2.4 Buttons and function area display	12
Chapter 3 Call function.....	13
3.1 Calling numbers.....	13
3.2 Contacts	13
3.3 SMS and MMS.....	13
Chapter 4 Barcode reader-writer	14
Chapter 5 RFID reader.....	16
5.1 NFC	16
Chapter 6 Other functions	17
6.1 PING tool	17
6.2 Bluetooth	18
6.3 GPS.....	19
6.4 Volume setup.....	20
6.5 Sensor	21

6.6 Keyboard	22
6.7 Network	23
6.8 Keyboard emulator	24
Chapter 7 Device characteristic.....	25
Appendix	27
Restrictions:.....	28
Simplified EU declaration of conformity.....	29
SAR Information	30

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 C70, an Android-based mobile computer, delivers unprecedented excellence. It features powerful quad-core processor, stable wireless connectivity, NFC and 1D/2D barcode scanning, iris recognition functions. This rugged device can be deployed in industries like express delivery, logistics, warehousing, manufacturing and so forth.

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 checked 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 use, it will continue to 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°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

C70 back and front appearances are showing as follows:

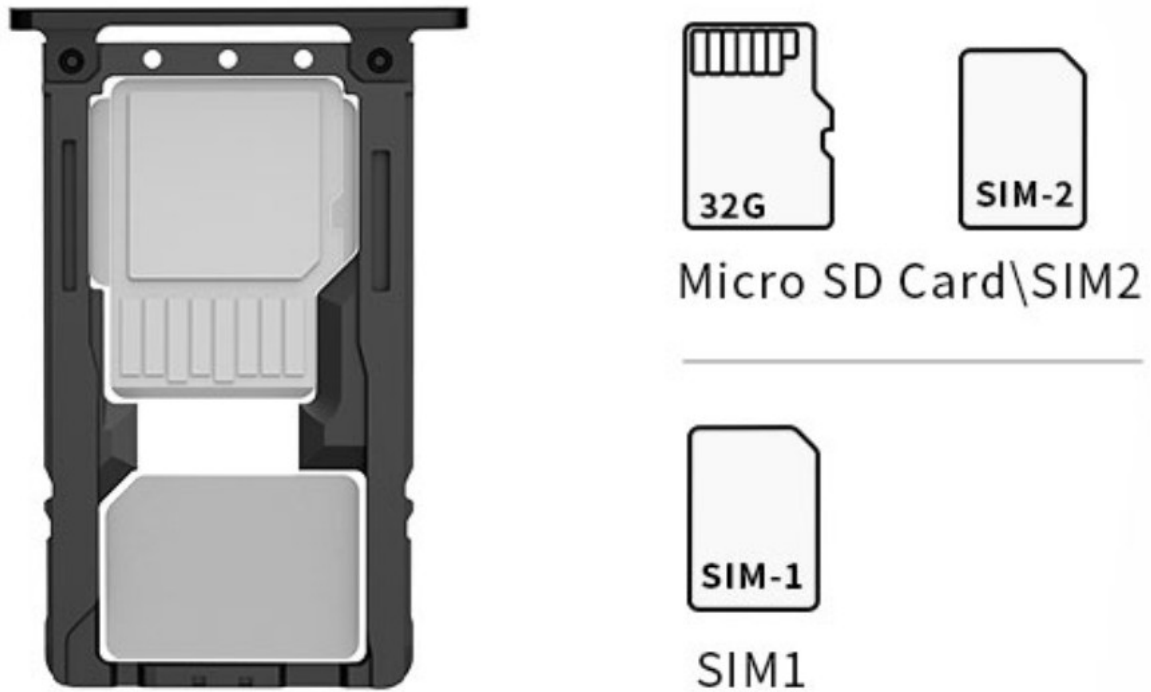


Buttons instruction

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

C70 has 4 side buttons and 4 main buttons, NFC identification area and 2D scanning head locate at front. HD camera 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

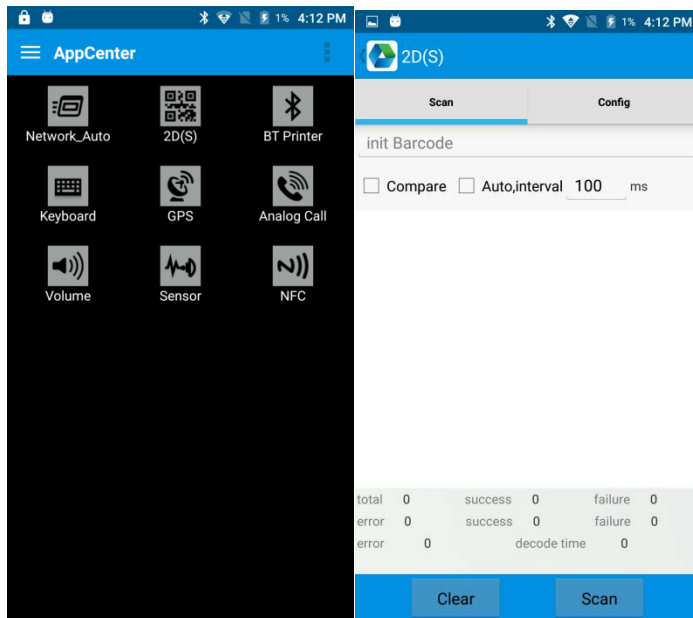
1. Click contacts to open contacts list.
2. Click icon  to add new contacts.
3. Click icon  to import/export contacts.

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.

2D code:



Correct



Incorrect



Max. radiant power: 0.6mW

Wave length: 655nm

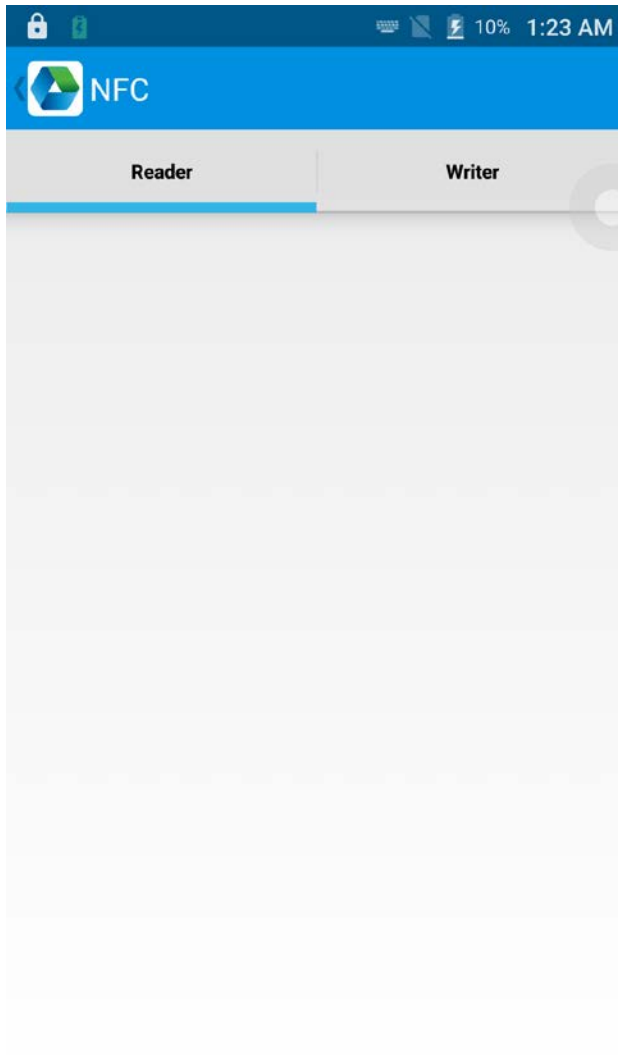
IEC 60825-1 (Ed.2.0).

21CFR 1040.10 and 1040.11 standard.

Chapter 5 RFID reader

5.1 NFC

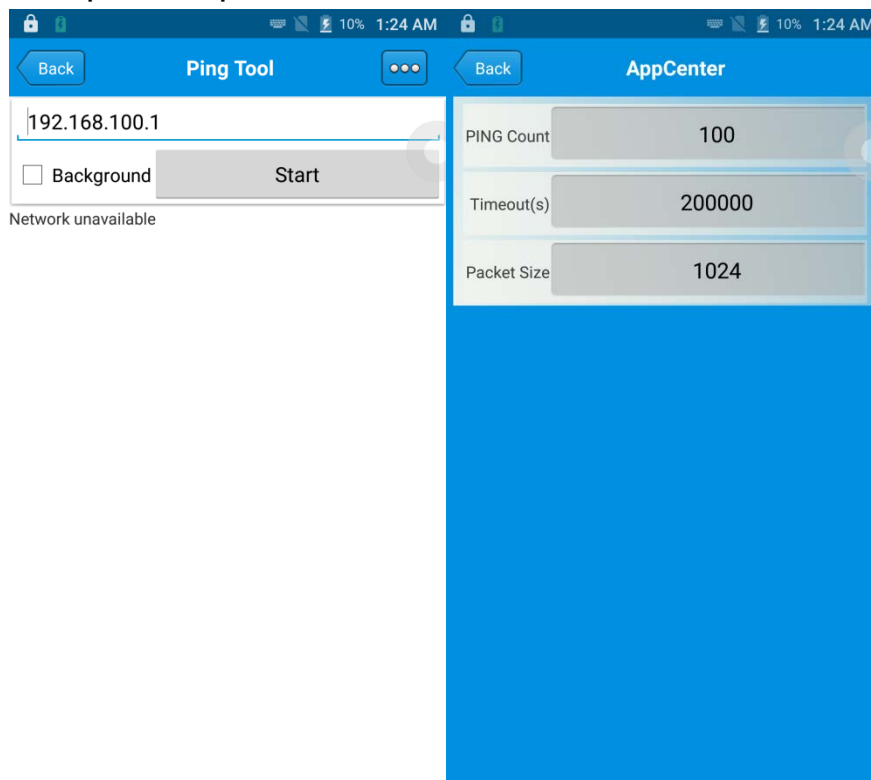
Click App Center, open “NFC” to read and write tag information.



Chapter 6 Other functions

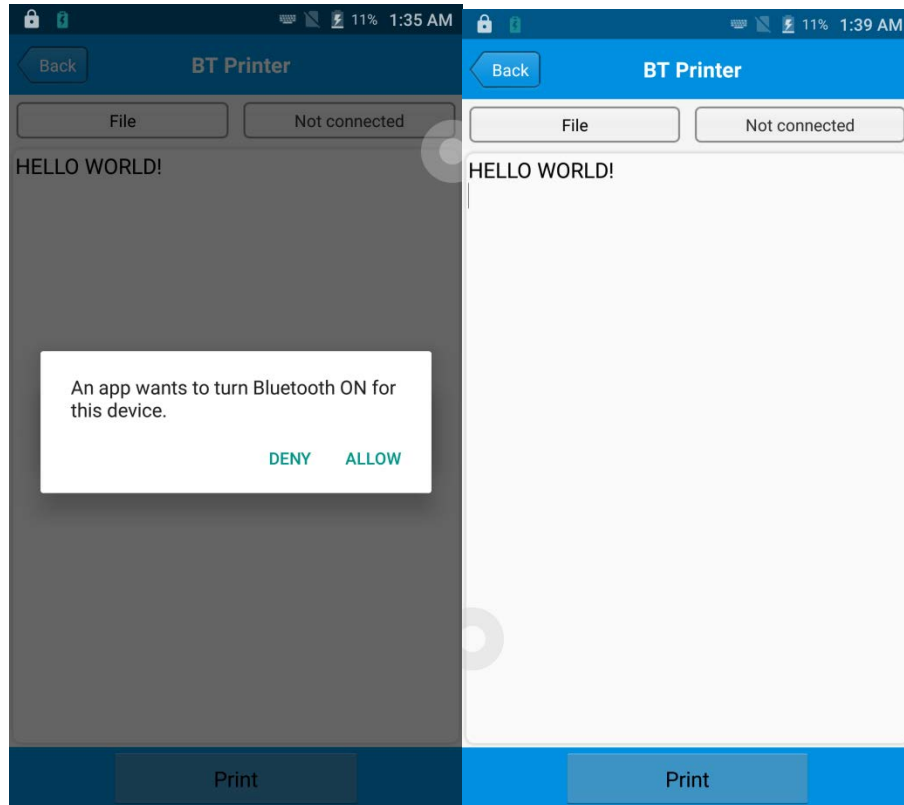
6.1 PING tool

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



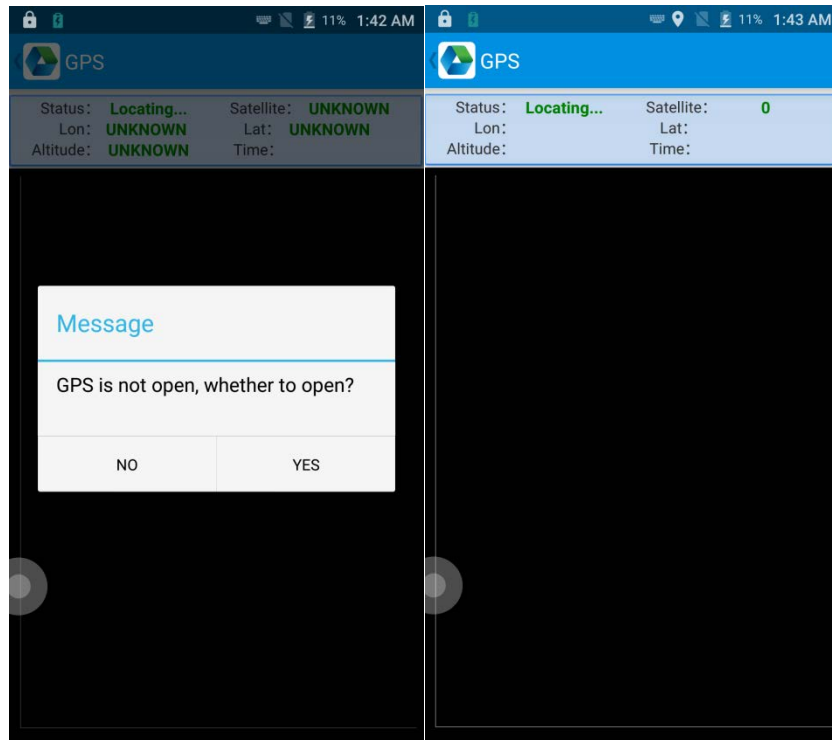
6.2 Bluetooth

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.



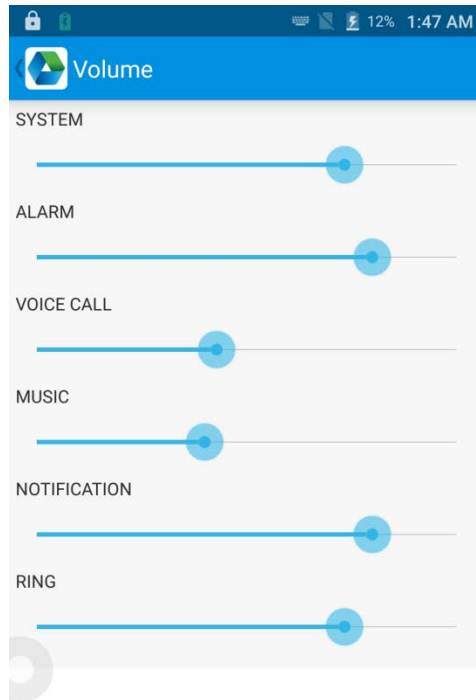
6.3 GPS

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



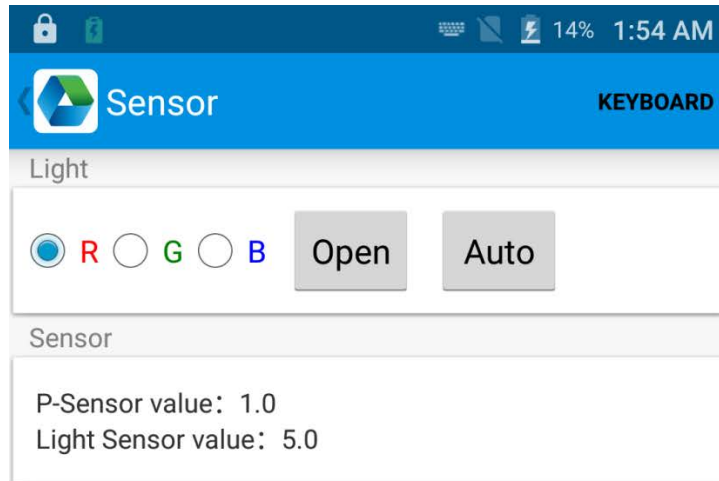
6.4 Volume setup

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



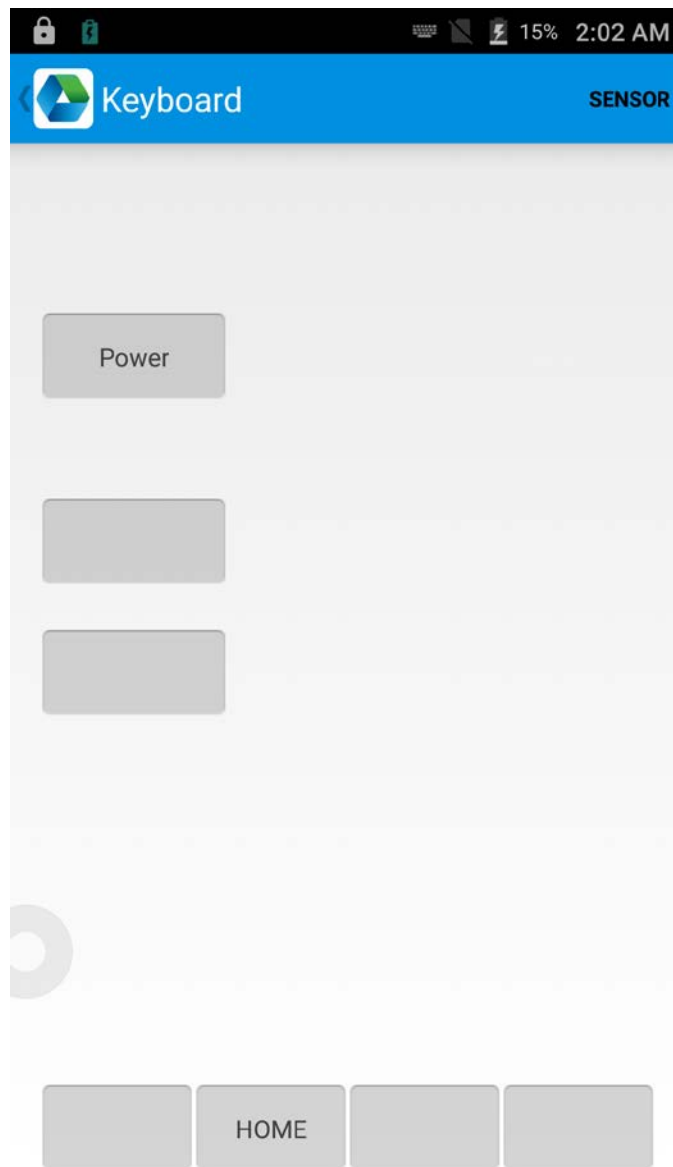
6.5 Sensor

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



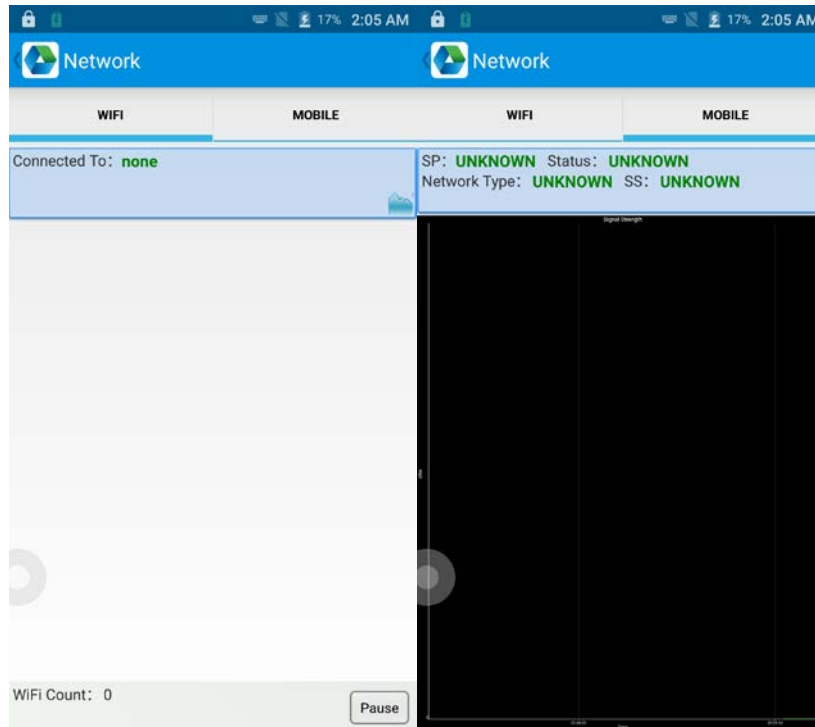
6.6 Keyboard

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.



6.8 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.

keyboardemulator v2.1.8.1

Function AppSettings 2DSettings Test

Enable Scanner ☐ ON

Barcode KeyCode

☐ Barcode1D

☒ Barcode2D 139

RFID KeyCode

☐ 14443A

☐ 15693 139

UHF KeyCode

☐ UHF 139

LF KeyCode

☐ IDCard

☐ Animal

☐ HiTag

☐ HDX 139

☐ EM4450

☐ TinyAniTag

Chapter 7 Device characteristic

Physical characteristics

Size	163.8*79.2*13.8mm/6.45*3.12*0.54in
Weight	<242g/8.5oz
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, 4000mAh
Expansion	Supports up to 128 GB Micro SD card
Expansion Slot	1 slot for SIM card, 1 slot for SIM or TF card
Audio	speaker, 2 microphones
Camera	13MP autofocus camera with flashlight

Performance

CPU	Cortex-A53 Quad-core 1.45GHz
OS	Andriod 6.0
RAM	2GB RAM
Communication Interface	USB2.0,Type-C,OTG
ROM	16GB
Max. expansion	Supports up to 128 GB Micro SD card

User environment

Operating temp.	-20°C to 50°C
Storage Temp.	-20°C to 70°C
Humidity	5%RH - 95%RH non condensing
Sealing	IP65/IP67, IEC sealing standard
Drop specification	Multiple 1.8m/5.9ft drops (at least 20 times) to the concrete across the operating temperature range

Communication

WAN	EU: 2G: 850/900/1800/1900MHz 3G: 850/900/1900/2100MHz 4G: B1, B3, B5, B7, B8, B20, B40 US: 2G: 850/900/1800/1900MHz 3G: 850/900/1700/1900MHz 4G: B2, B4, B7, B12, B17 CN: 2G: 900/1800MHz 3G: 900/1900/2000/2100MHz 4G: TDD-LTE: B38, B39, B40, B41 FDD-LTE: B1, B3, B5
WLAN	IEEE802.11 a/b/g/n, 2.4G/5G dual-band, internal antenna
WPAN	Bluetooth 4.0

Data collection

Barcode scanning	2D CMOS scanning engine(Honeywell N6603/Zebra SE4710)
RFID	NFC 13.56Mhz

Developing Environment

SDK	Chainway software develop kit
Language	Java
Develop	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, ShenZhen Chainway Information Technology Co., Ltd declares that the radio equipment type C70 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

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.