

SHENZHEN CHAINWAY INFORMATION TECHNOLOGY CO., LTD

C4050-Q4 Handheld Terminal

User Manual



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Statement

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1. Getting Started

1.1 Brief Instruction

Chainway C4050-Q4 is a series of Android powered smart terminals, with data capture, data processing, wireless communication. It is with high-reliability & high-expansibility. Auto & Accurate data collection is achieved in various business fields via a complete solution of premium options, the flexible solution among options and operators is suited-up. You will find out with C4050-Q4, much easier deployment, reduced complexity, decreased maintenance, are the benefits for enterprises.

C4050-Q4 meets industrial level IP64 (IEC sealing), is sufficient to routine applications, eg, railway inspection, road parking toll, vehicle inspection, logistics express, power inspection, warehousing management, chain retail, etc. Whether the mobile operators are working indoor or outdoor, with Chainway C4050-Q4, your business is always & highly efficient on-line.

Meeting industrial standards, designed to support various mobile solutions. With the build-in high performance Qualcomm 1.3GHz quad core processor technology, the operators need only one device to enjoy a convenient and easy job, C4050-Q4 will be the ideal choice for key-fact business in mobile solutions, for simplified task flow, enhanced work efficiency, for shortened time to customer response, more satisfied customer care service.

Chainway C4050-Q4 comes with world wide band 4G LTE technology. Multi channels data and voice communication guarantees the real-time communication and data efficiency, C4050-Q4 brings you the best ROI.

1.2 Precaution before Using Battery

- Do not leave batteries unused for extended periods of time, either in the product or in storage. When the battery has not been used for 6 months, check the charge status and charge or dispose of the battery as appropriate.
- The typical estimated life of a Lithium-Ion battery is about two to three years or 300 to 500 charge cycles, whichever occurs first. One charge cycle is a period of use from fully charged, to fully discharged, and fully recharged again. Use a two to three year life expectancy for batteries that do not run through complete charge cycles.
- Please do use original battery to replace, wrong battery may cause fire, explosion. Please do keep the battery as recommended.
- Rechargeable Lithium-Ion batteries have a limited life and will gradually lose their capacity to hold a charge. This loss of capacity (aging) is irreversible. As the battery loses capacity, the length of time it will power the product (run time) decreases.
- Lithium-Ion batteries continue to slowly discharge (self-discharge) when not in use or while in storage. Routinely check the battery's charge status. The user manual typically includes information on how to check battery status, as well as battery charging instructions.
- Observe and note the run time that a new fully-charged battery provides for powering your product. Use the new battery run time as a basis to compare run times for older batteries. The run time of your battery will vary depending on the product's configuration and the applications that you run.
- Routinely check the battery's charge status.
- Carefully monitor batteries that are approaching the end of their estimated life.

Consider replacing the battery with a new one if you note either of the following conditions:

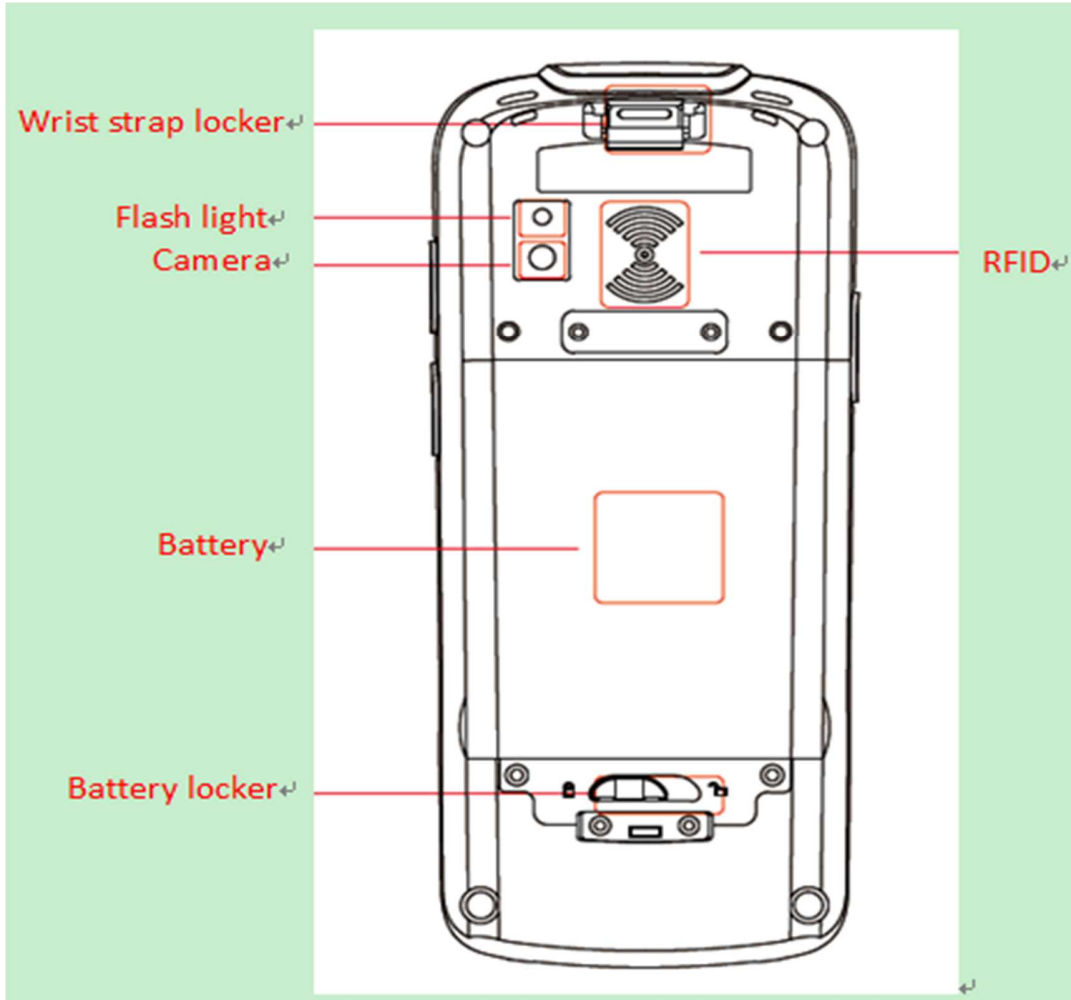
- The battery run time drops below about 80% of the original run time.
- The battery charge time increases significantly.
- If a battery is stored or otherwise unused for an extended period, be sure to follow the storage instructions in this document. If you do not follow the instructions, and the battery 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.
- Always follow the charging instructions provided with your product. Refer to your product's user manual and/or online help for detailed information about charging its battery.
- Charge or discharge the battery to approximately 50% of capacity before storage.
- Charge the battery to approximately 50% of capacity at least once every six months.
- Remove the battery and store it separately from the product.
- Store the battery at temperatures between 5 °C and 20 °C (41 °F and 68 °F).

2.About The Device

2.1 Structure



<Front>



<Back>

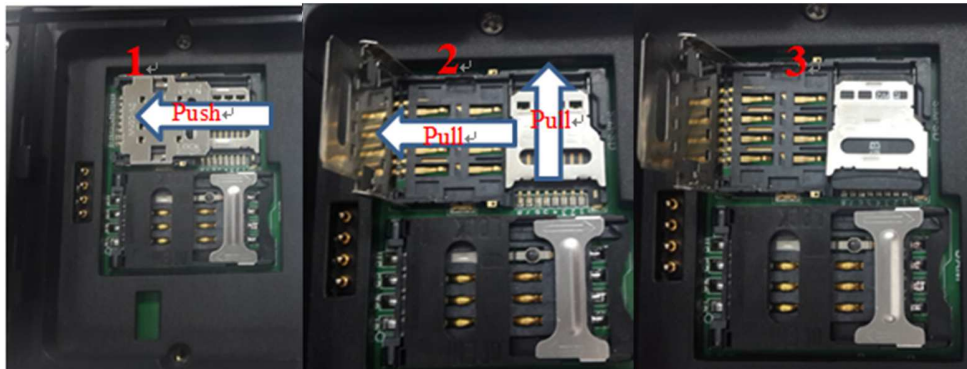
Buttons:

Button	Function
Power Button	Press and hold to turn the device on or off
App List View Button	View a list of apps running
Home Button	Press to return to the home screen
Cancel Button	Tap to return to the previous screen

2.2 SD Card Installation

Detailed installation steps are as follows:

1. Open the SIM slot as the direction of 'Open/Lock' labeled.
2. Open the SD slot as the direction of 'Open/Lock' labeled.
3. Install the SD card properly.
4. Lock the SD slot and SIM slot properly.



2.3 SIM Card Installation

1. Open the SIM slot as the direction of 'Open/Lock' labeled.
2. Install the SIM card correctly.
3. Lock the SIM slot properly.



2.4 Battery Installation

1. Push the battery down into the bottom of the battery.
2. Push the battery to the direction of the array.
3. Turn the battery lock.

2.5 Battery Charging

2.5.1 Direct Charging

Use the adapter to charge the battery via the USB connector of the snap-on.

2.5.2 Cradle Charging




Connect the adapter with the power cable to charge the device.

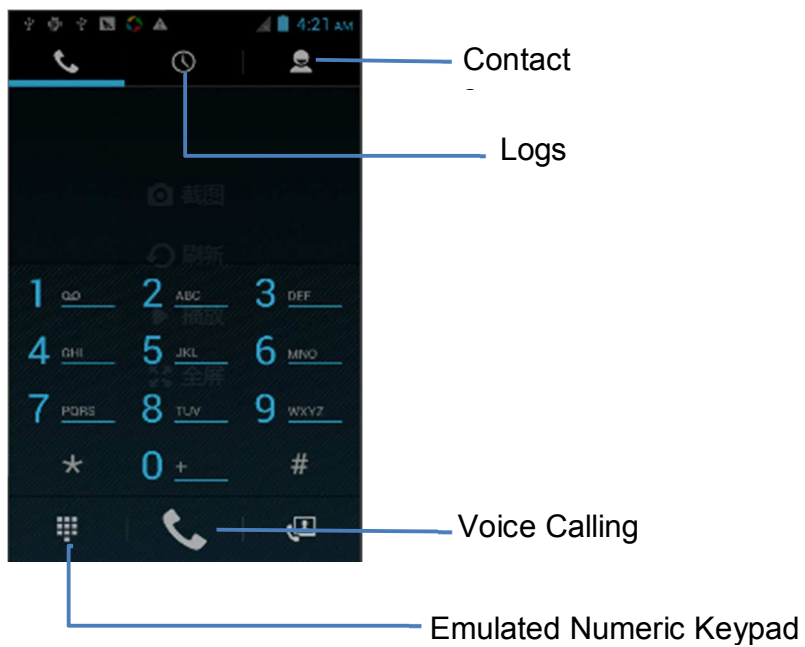
2.6 Device Power on/off

Press the 'Power' button on the side shortly due to turn on/off.



3.Call Function

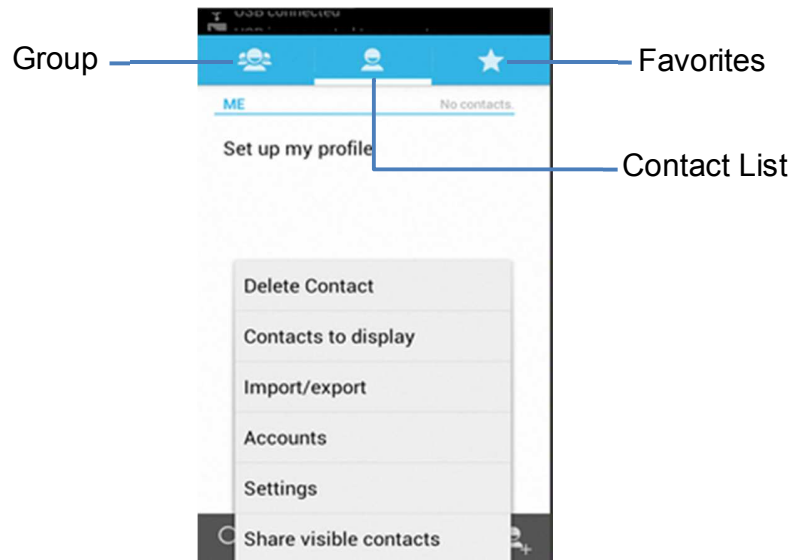
3.1 Phone

1. Click this icon :
2. Click the number button to input the numbers;
3. Click the  button to confirm and dial;
4. Click the  to end the calling;







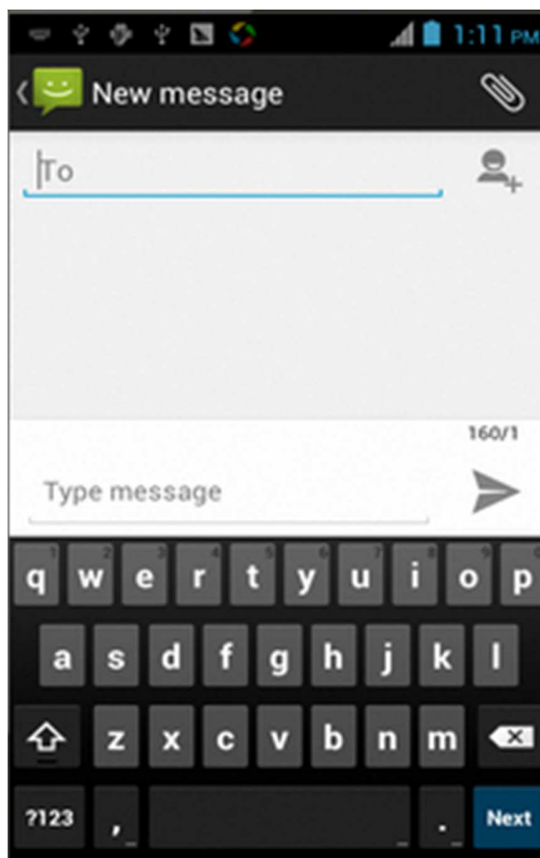
3.2 Contacts

1. Click 'Contacts' to open the contacts list.
2. Click  to add the new contact.
3. Click  to import/export or delete the contact list.



3.3 Messaging

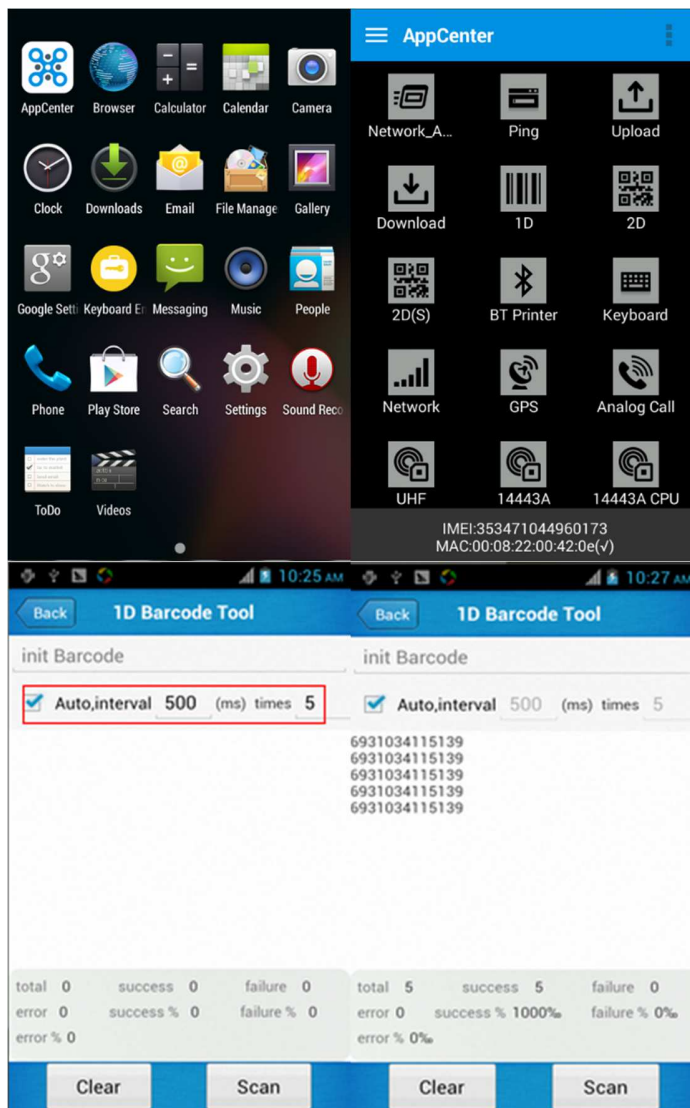
1. Click  to open the message list.
2. Click  to input the content.
3. Click  to send the message.
4. Click  to add photos, videos.



4. Barcode Reader

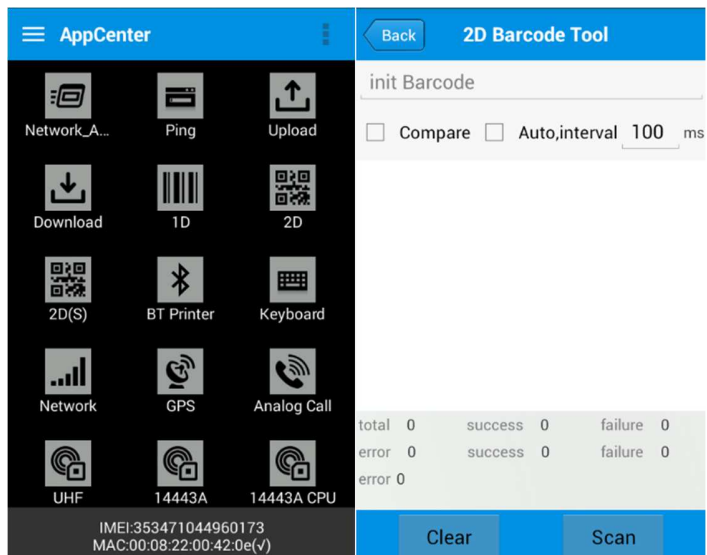
4.1 1D Barcode

1. Open the 1D Barcode Demo in Appcenter.
2. Press the 'Scan' button to start scanning, then the auto interval parameters can also be set.



4.2 2D Barcode

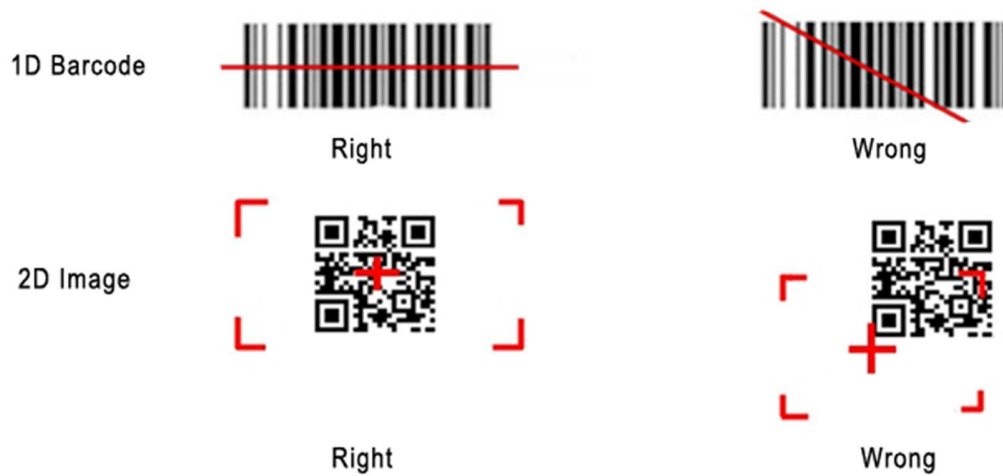
1. Open the 2D Barcode Demo in Appcenter.
2. Press the 'Scan' button to start scanning, then the auto interval parameters can also be set.



4.3 2D(S) Barcode

1. Open the 2D(S) Barcode Demo in Appcenter.
2. Press the 'Scan' button to start scanning, then the auto interval parameters can also be set.
3. Also, the barcode types enabling/disabling can also be set.

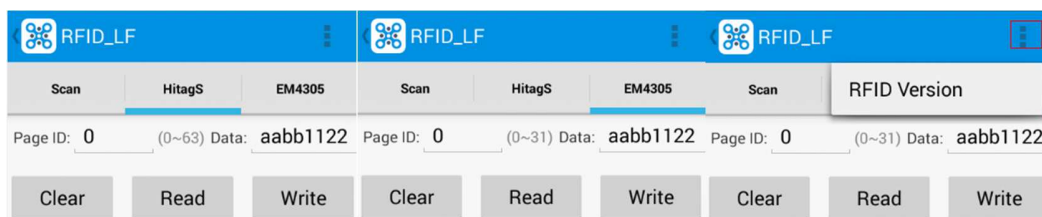
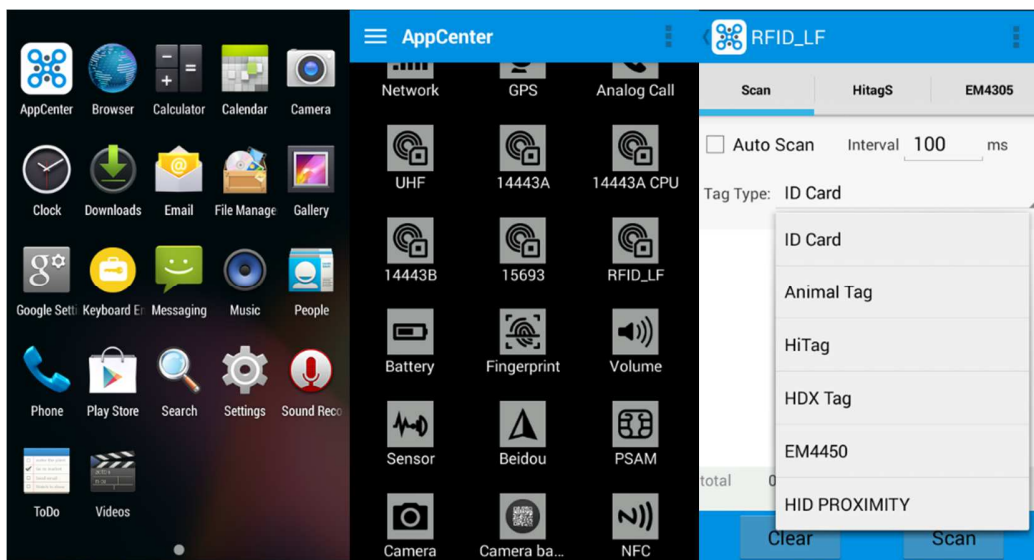
Note: Please scan the barcode in a correct way, otherwise the scanning might be failed.



5. RFID Reader

5.1 Low Frequency

1. Open the RFID_LF Demo within Appcenter and then press the 'Scan' button to start reading.
2. Tag types including ID Card/Animal Tag/Hitag/HDX Tag/EM4450 can be also selected, and Hitag-S and EM4305 reading/writing are already supported by the device.

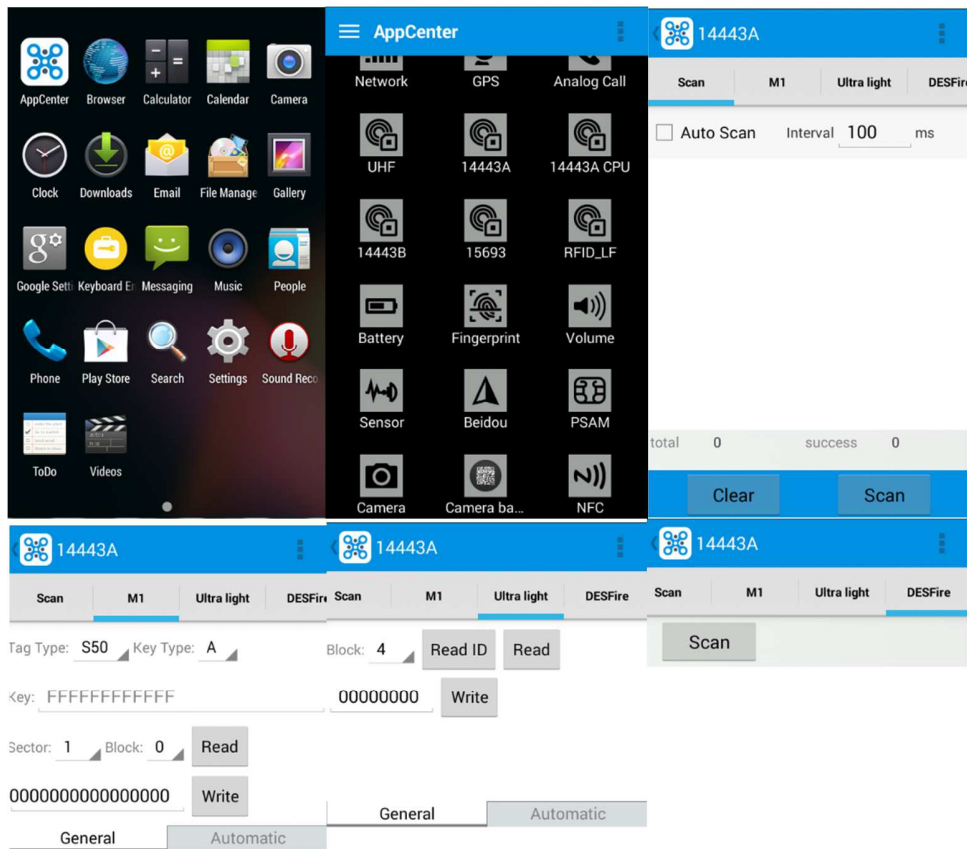


Please ensure that the LF module is embedded in the device, also please select the tag type correctly, otherwise the operation might not work. Meanwhile, please pay attention to the HDX and FDX-B since they are using different hardware due to the different working principles.

5.2 High Frequency

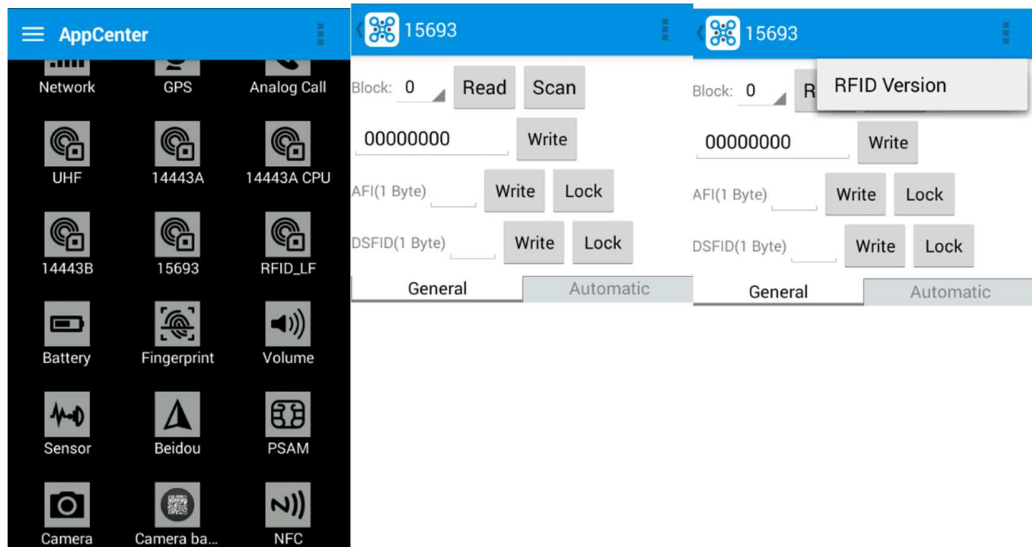
5.2.1 14443A

1. Open the 14443A demo within Appcenter, and press the 'Scan' button to start reading.
2. Mifare and UltraLight reading/writing are also supported.



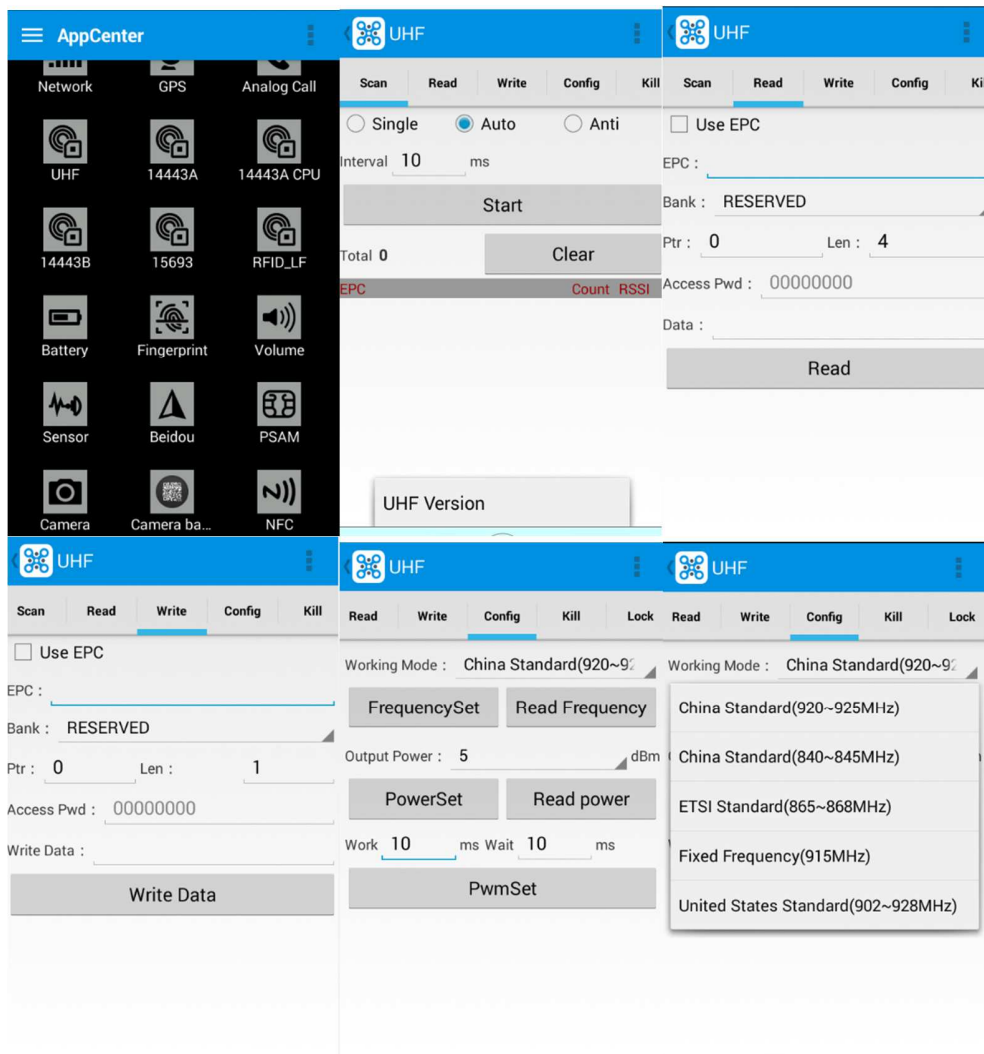
5.2.2 15693

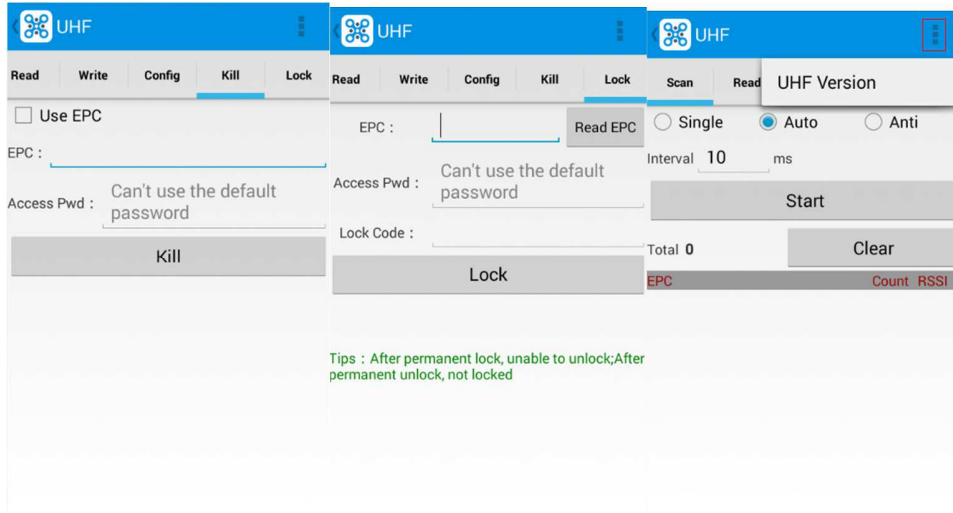
1. Open the RFID_15693 demo within Appcenter, and press the 'Scan' button to start scanning.
2. 15693 writing are also supported.



5.3 Ultra High Frequency

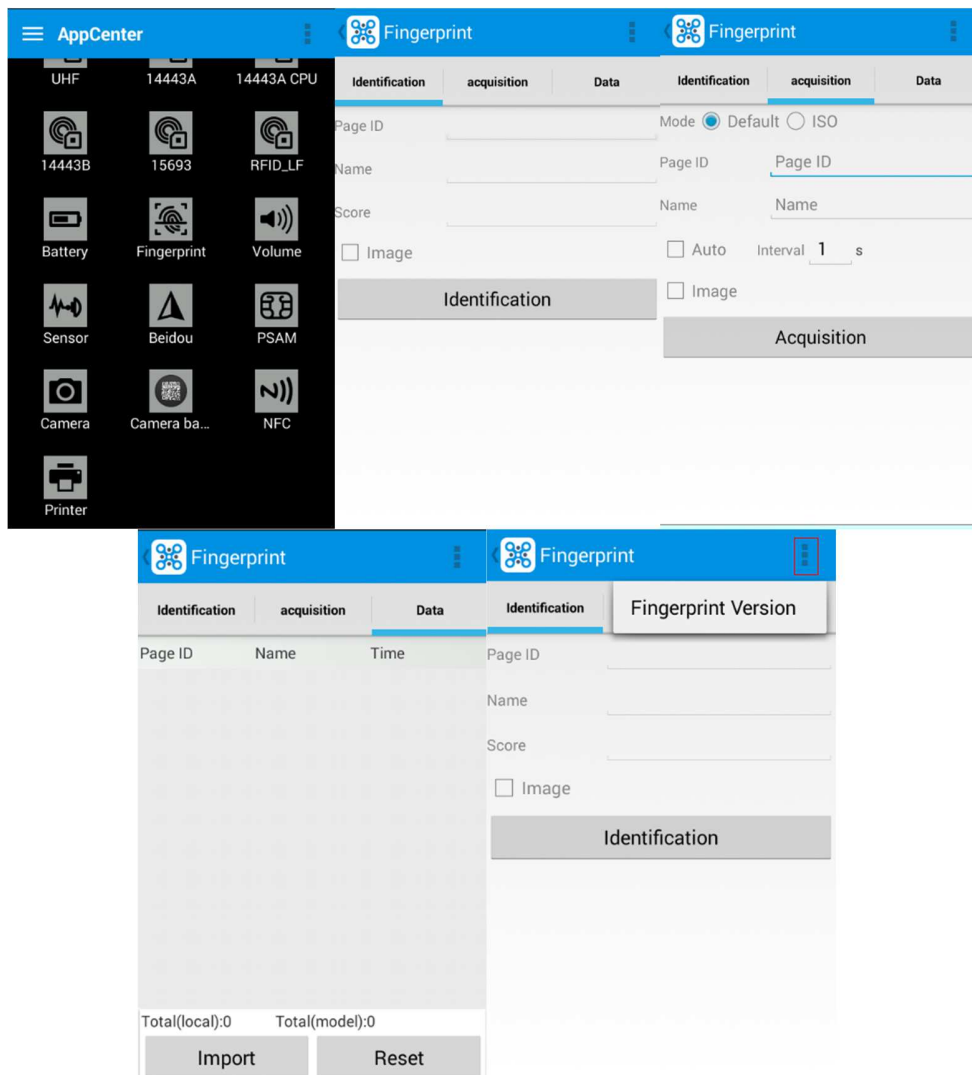
1. Open the UHF demo within Appcenter, and press the 'Start' button to start scanning.
2. Multiple tags reading and single tag reading/writing are also supported.





6. Fingerprint Reader

1. Open the Fingerprint Demo in Appcenter.
2. Put the finger to the fingerprint module and set the ID/name of the template under 'ACQUISITION'.
3. Put the finger to the fingerprint module properly and identify by ID/Name/Score under 'IDENTIFICATION'.
4. The local templates can also be checked under 'Data'.

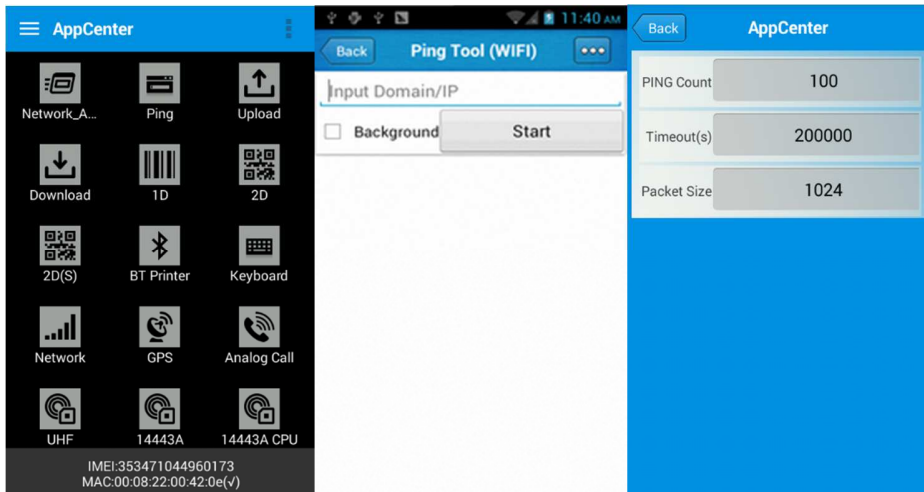


Note: Please be aware that ISO standards are only supported by the ISO fingerprint hardware module.

7. Other Functions

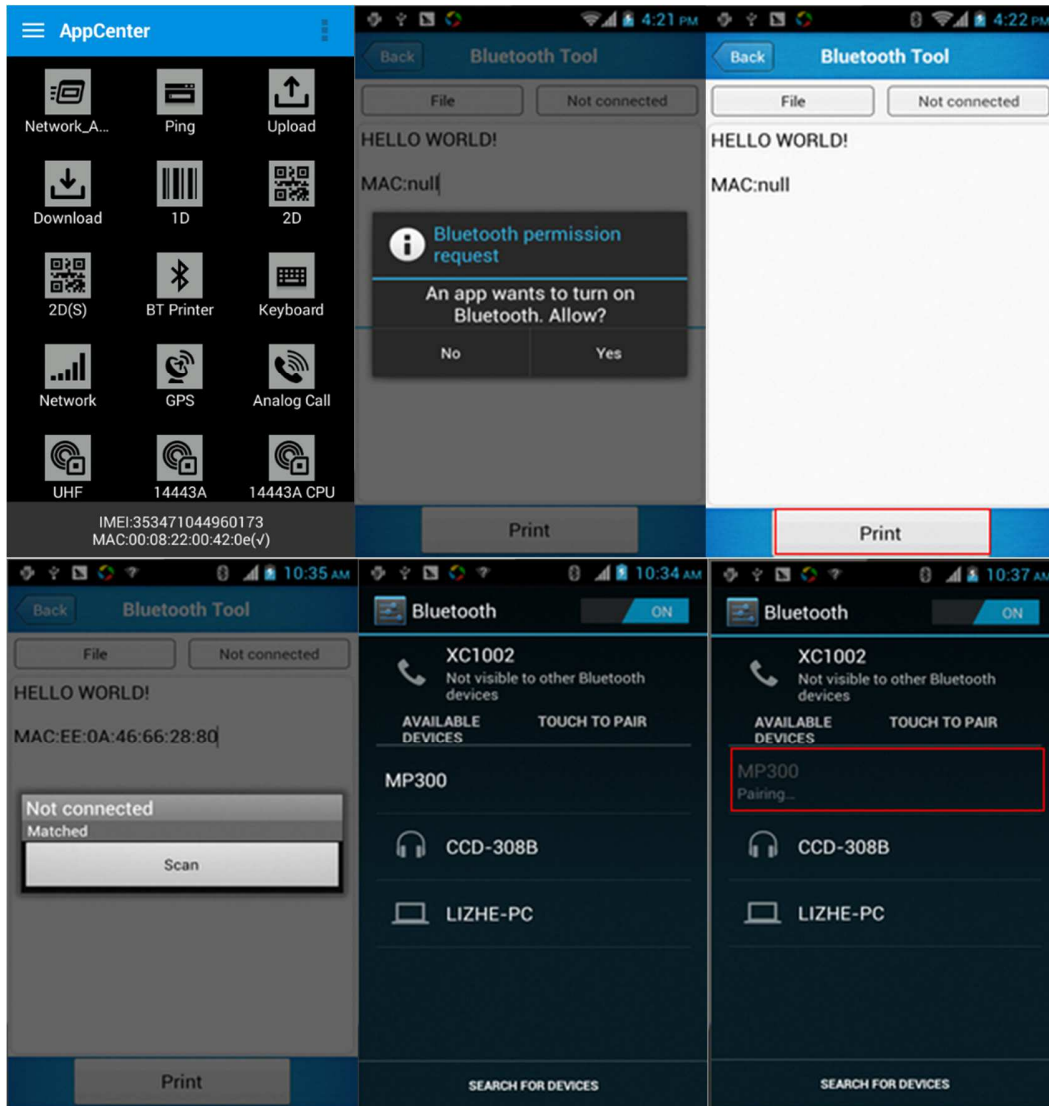
7.1 PING

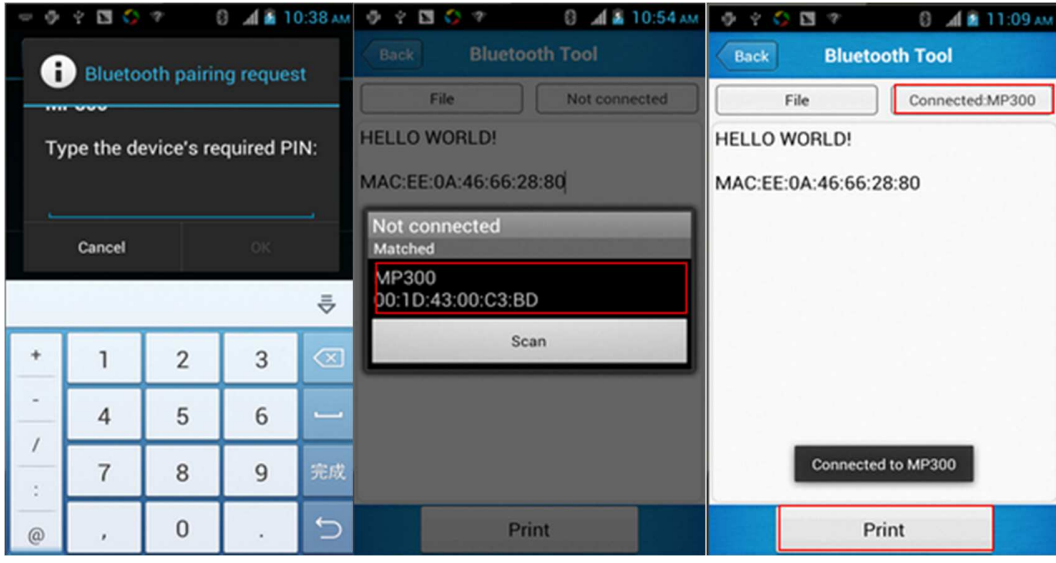
1. Open the Ping in Appcenter.
2. Set the Ping parameters and select the internal/external addresses.



7.2 Bluetooth

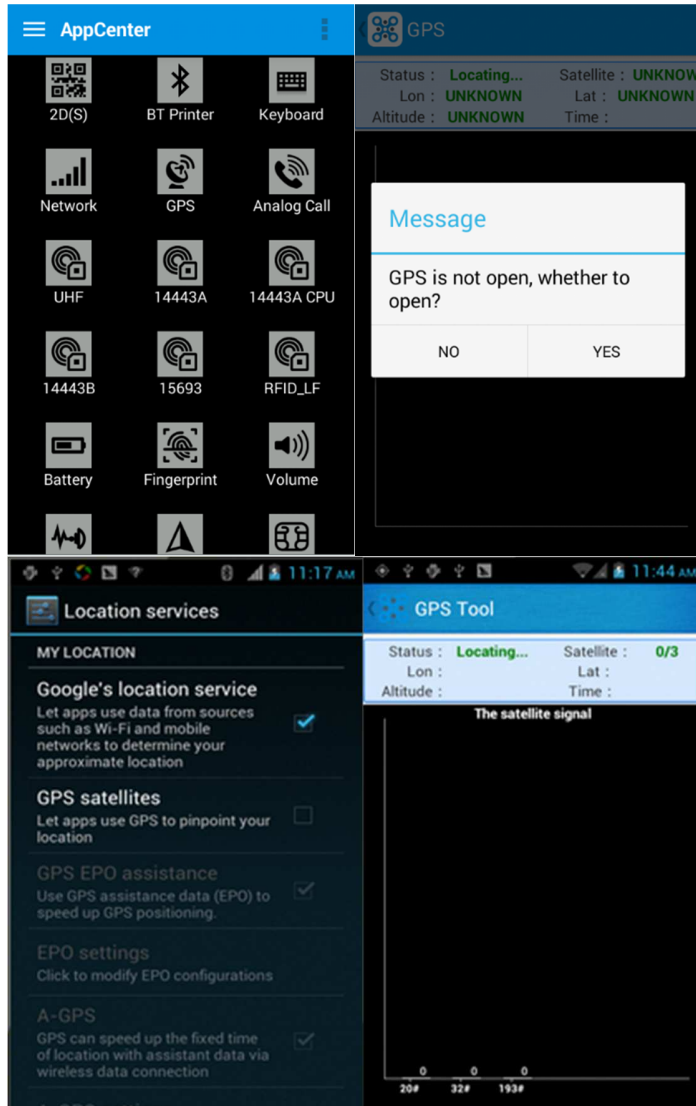
1. Open the Bluetooth demo in Appcenter and turn on the Bluetooth.
2. Input the content or select the file, then scan the nearby Bluetooth printer and pair them.
3. Select the printer and click 'Print' to print the content.





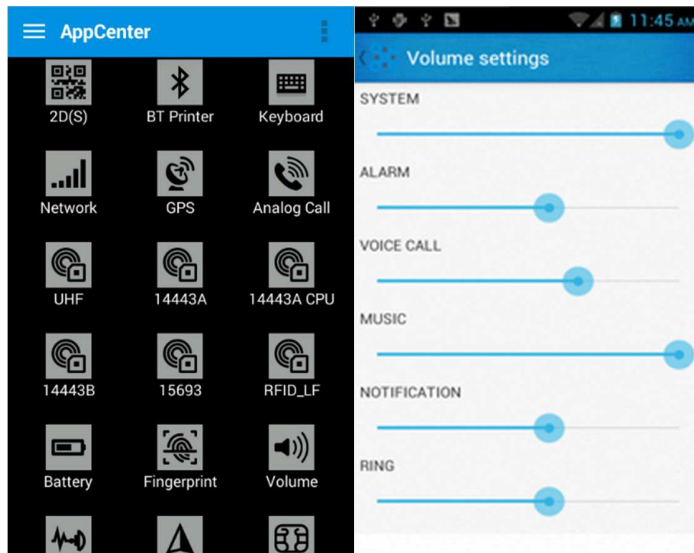
7.3 GPS

1. Open the GPS demo in Appcenter and turn on GPS module.
2. Set the GPS parameters and get the GPS data information.



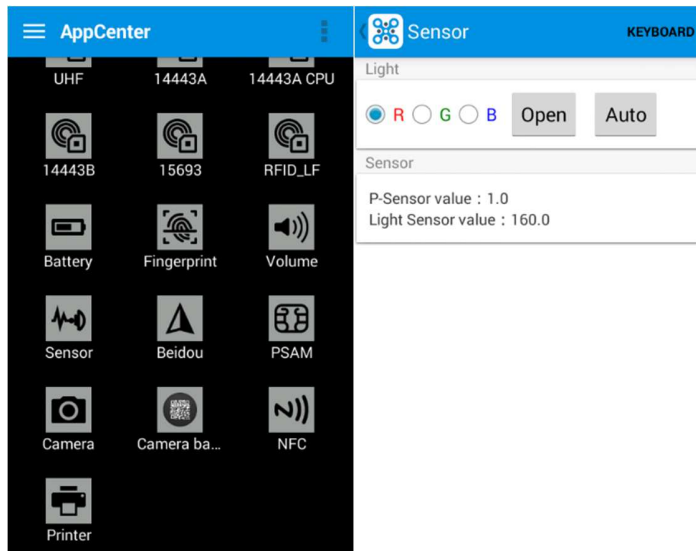
7.4 Volume Settings

1. Open the Volume Setting demo in Appcenter.
2. Set the volumes based on the requirements.



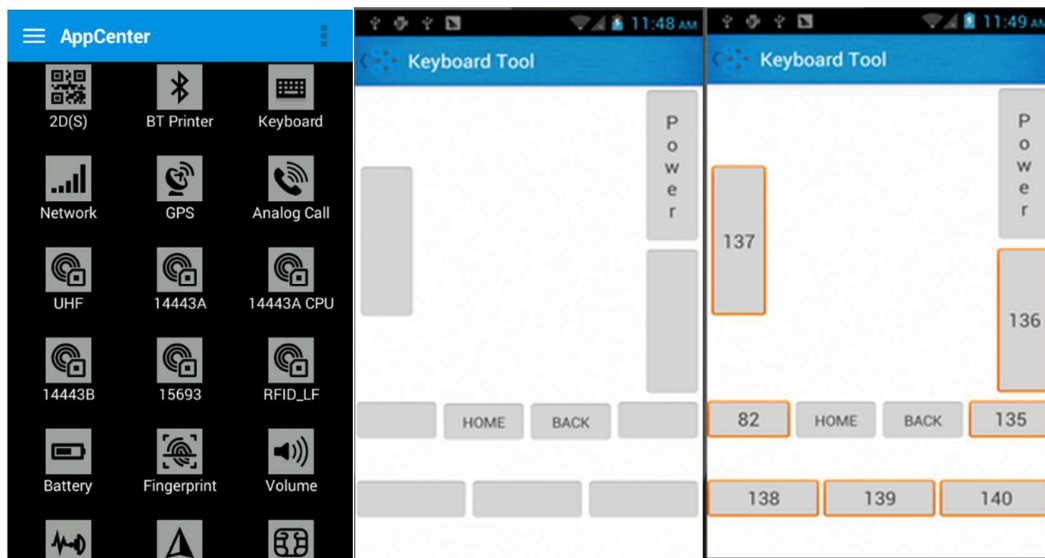
7.5 Sensor

1. Open the Sensor demo in Appcenter.
2. Test the sensor based on the requirements.



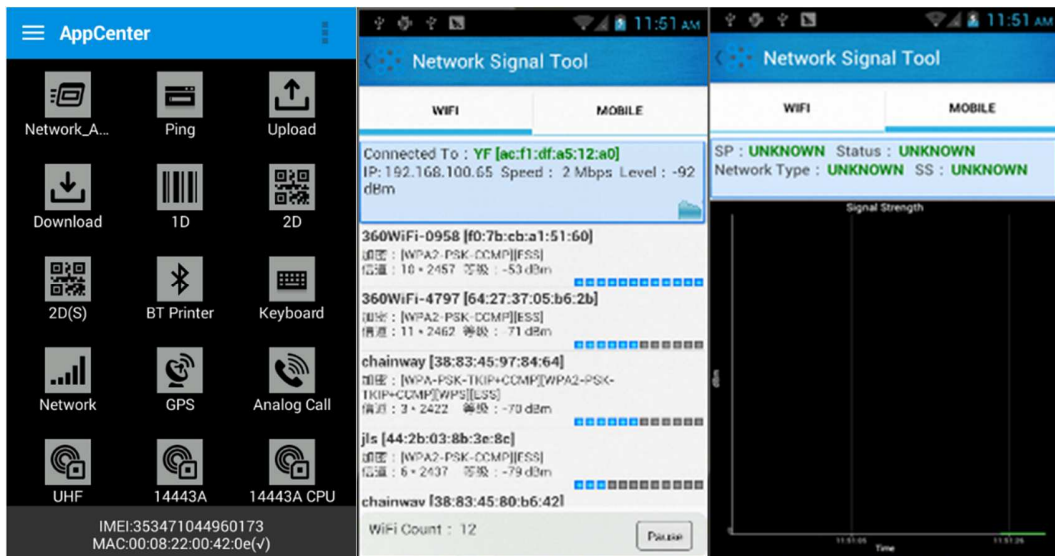
7.6 Keyboard

1. Open the Keyboard demo in Handset Appcenter.
2. Set and test the key values of the device.



7.7 Network

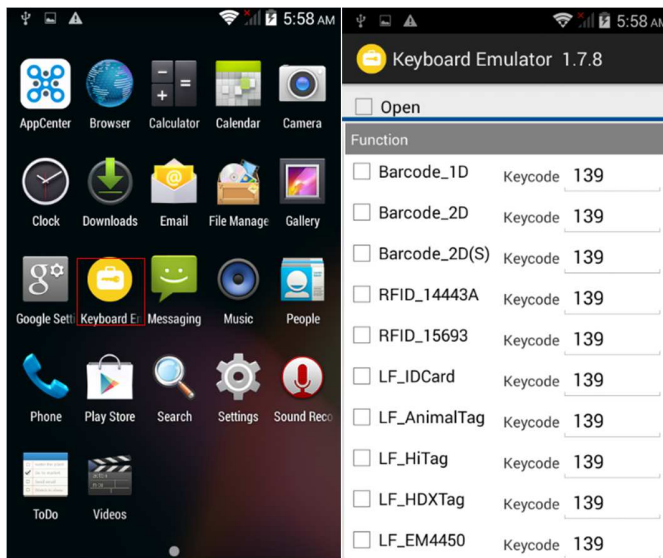
1. Open the Network demo in Appcenter.
2. Test the WIFI/Mobile signal based on the requirements.



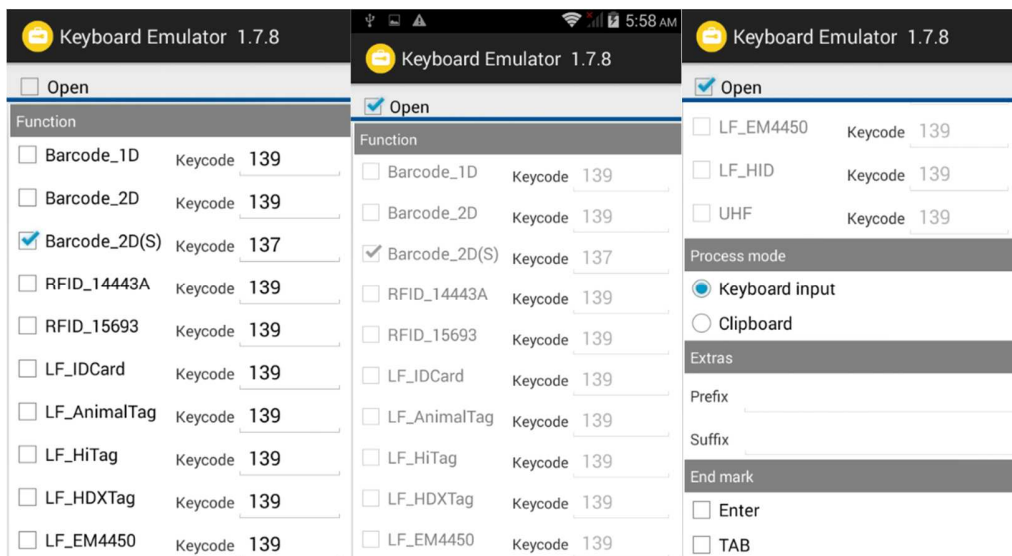
7.8 Keyboardemulator

Keyboard Emulator can be used directly for multiple using environments and the output formats can including prefix/suffix/enter/tap can also be defined, please define the options properly based on the features of the device.

1. Open the KeyboardEmulator which is preinstalled in the device.



2. Click the options correctly based on the features of the device hardware, please also press the physical button to define the scan button, then please define the output formats based on the requirements, finally click 'Open' to save and enable it.



8. Device Specification

Physical Characteristics	
Dimensions	176mm x 76mm x 29mm/ 6.93 x 2.99 x 1.14in
Weight	319g/ 11.25oz
Screen	4" WVGA (480*800), 16.7M colors
Keyboard	Numeric / Qwerty
Battery	Main bat. (rechargeable li-ion polymer, 3.7V, 3200 mAh) Pistol bat. (rechargeable li-ion polymer, 3.7V, 5200 mAh)
Expansion Slot	MicroSD/TF, maximum capacity of 32G
SIM Slot	1 PSAM, 1 SIM, 1 MicroSD
Audio	0.5W
Camera	8MP autofocus camera with flash
Performance Characteristics	
CPU	Qualcomm 1.3GHz quad core
OS	Android 5.1
Memory	2GB RAM, Build-in 16GB Flash
Interface	USB Micro-B, serial port RS-232(TTL)
Storage Card Type	MicroSD card
Maximum Expansion Storage	32GB
User Environmental Characteristics	
Operating Temperature	-10°C to 50°C
Storage Temperature	-40°C to 70°C
Humidity	5%RH-95%RH (non-condensing)
Dropping Survive	1.2m/3.9ft. drop, 6 sides (concrete floor under operating temp.)
Sealing	IP64, IEC compliance
Wireless Communication	

WAN	<p>EU: 2G: GPRS(900/1800MHz) 3G: WCDMA B1 B8 4G: FDD-LTE:B1 B3 B7 B8 B20</p> <p>US: 2G: GPRS(850/1900MHz) 3G: WCDMA B1 B2 B5 4G: FDD-LTE: B2 B4 B7 B17</p> <p>CN: 2G: GPRS(850/900/1800MHz) 3G: WCDMA: B1 CDMA EVDD: EVDD Rev.A800MHz TD-SCDMA: B34 B39 4G: TDD-LTE: B38 B39 B40 B41 FDD-LTE: B1 B3</p>
WLAN	IEEE802.11a/b/g/n, internal antenna
WPAN	Bluetooth v4.0 Low Energy Bluetooth 3.0+HS
Data Collection	
Barcode Scan Engine	1D barcode (Symbol SE965, laser) (optional);
	2D CMOS laser scanner: Symbol SE4500(optional) Sensor resolution: 750 (horizontal) * 480 (perpendicular) pixel (gray LF 125KHz/134.2KHz, HDX/FDX-B(optional)
RFID	HF 13.56MHz, ISO14443A/ISO15693(optional)
	UHF 860-960MHz, EPC C1 GEN2/ISO18000-6C(optional)
	NFC 13.56MHz, ISO/IEC 18092、 ISO/IEC 21481
Developing Environment	
SDK	Chainway SDK
Programming Language	Java
Developing Tool	Eclipse/Android Studio