

MBA4

User guide



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1 Revision

Description	Date	Version	Author	Check
First release	2021/03/04	1.0	CLO	ACA

2 Product introduction

2.1 Precautions before using the 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. Based on 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).

2.2 Charger

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

2.3 Notes

Note 1:

Using the incorrect type battery has danger of explosion.

Please dispose the used battery according to instructions

Note 2:

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 3:

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

Note 4:

The suitable temperature for the product and accessories is 0-10 to 50°C.

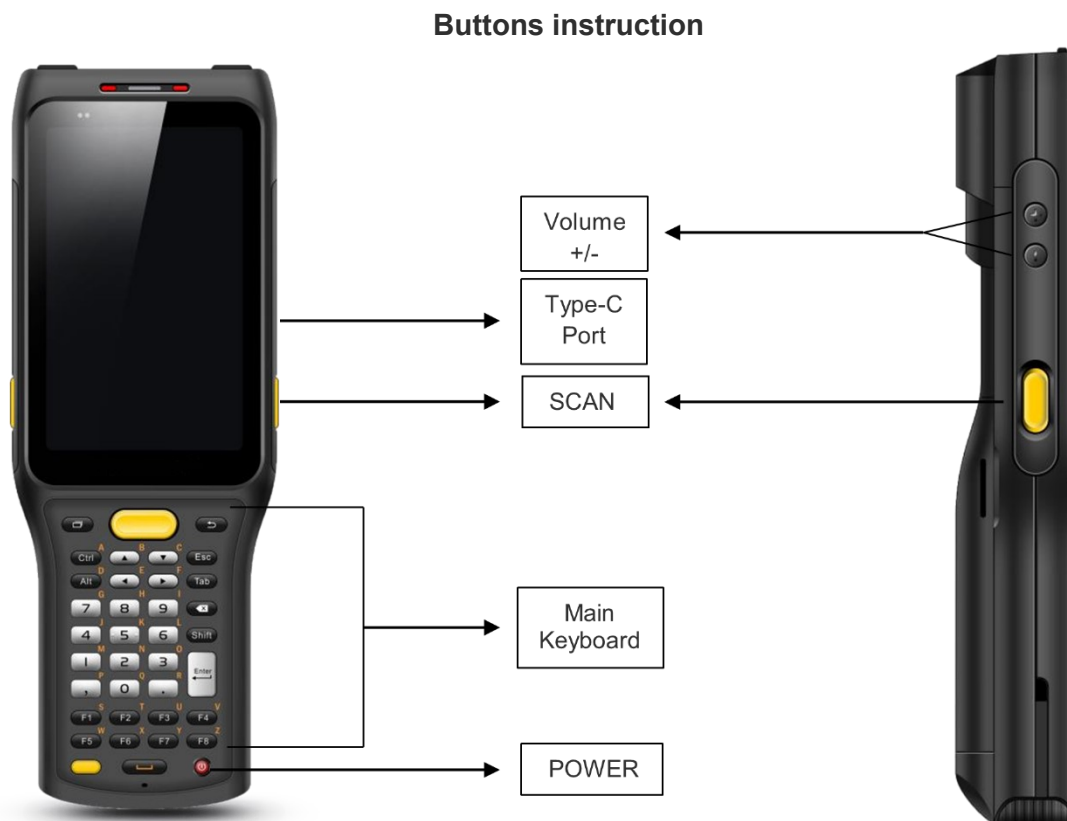
Note 5:

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

3 Installation instructions

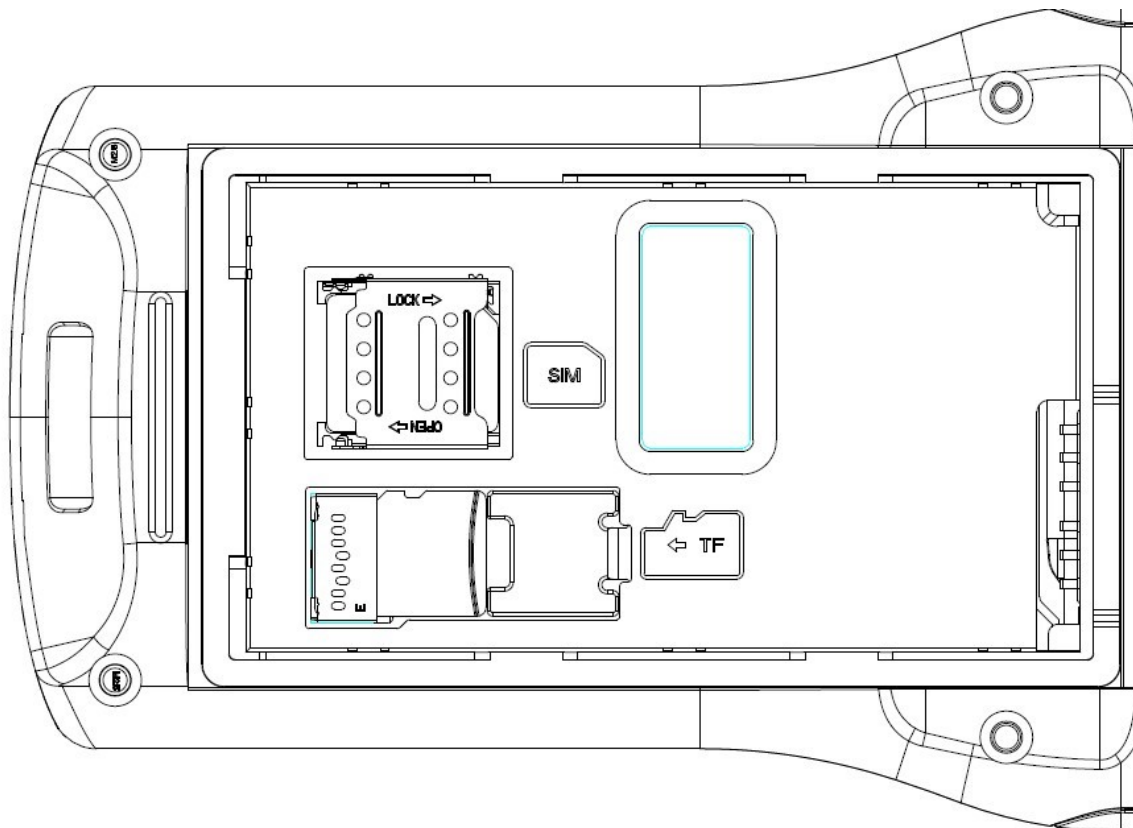
3.1 Appearance

MBA4 back and front appearances are showing as follows:



3.2 Install Micro SD and SIM cards

The cards sockets are showing as follows:



3.3 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.

3.4 Buttons and function area display

MBA4 has main keyboard that contains:

10 numeric keys+2 symbolic keys, 4 direction keys, 2 Android function keys, ENTER/ESC/TAB/ALT/CTRL/BACK/DELETE, 10 user defined function keys (reuse with letter keys), 1 POWER key, 1 SCAN key, 1 Alt key, 38 keys in total.

Side keys: 2 SCAN keys+2 volume keys+1 user-defined key, 2D scanning module locates on the top. HD camera and flashlight locate at rear. NFC identification surrounds the camera.

4 Call function

4.1 Calling numbers

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

4.2 Contacts

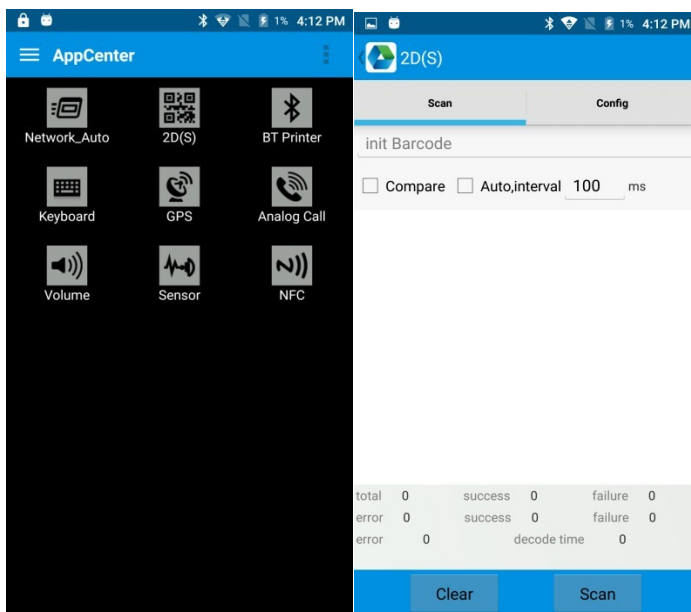
1. Click contacts to open contacts list.
2. Click icon  to add new contacts.
3. Click icon  to import/export contacts.

4.3 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.

5 Barcode reader

1. In App Center 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 fail.

2D code:



Correct



Incorrect

 当心 Caution 使用激光时 眼睛切勿直视射线 DO NOT STARE INTO LASER WHEN USE LASER	Max. radiant power: 0.6mW Wavelength: 655nm IEC 60825-1 (Ed.2.0). 21CFR 1040.10 and 1040.11 standard.
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5.1. SE4850 (Long range)

MBA4 provides short and long range 1D and 2D barcode capture thanks to its SE4850 extended range Imager.

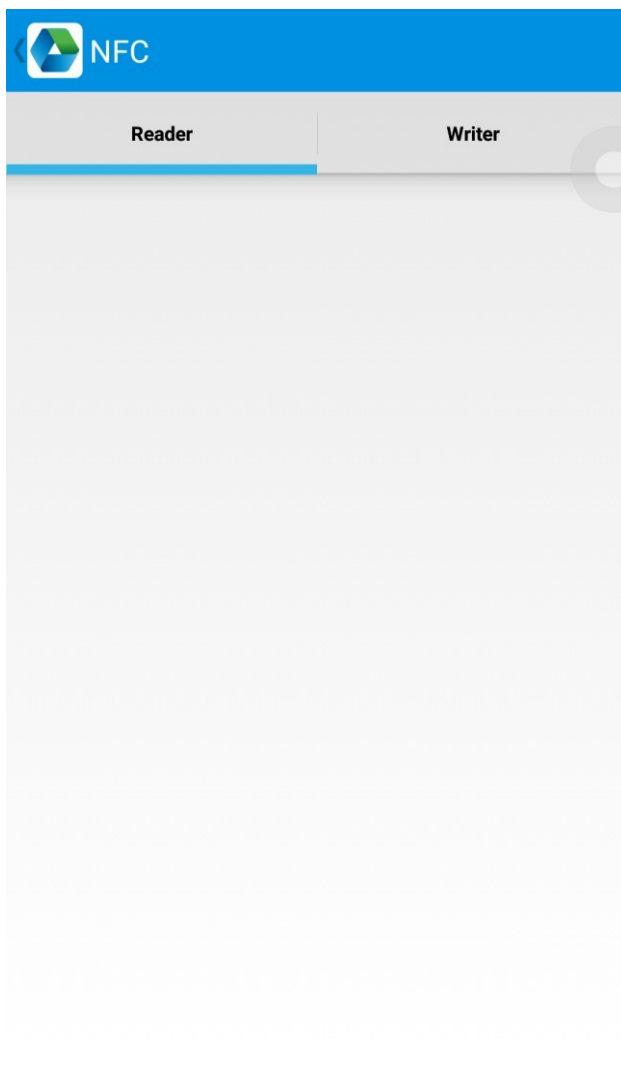
This imager enables to read very fast 1D and 2D barcodes of all shapes and sizes.

5.1 SE4710 (Normal range)

SE4710 enables to read 1D and 2D barcodes at a few centimeters.

6 NFC reader

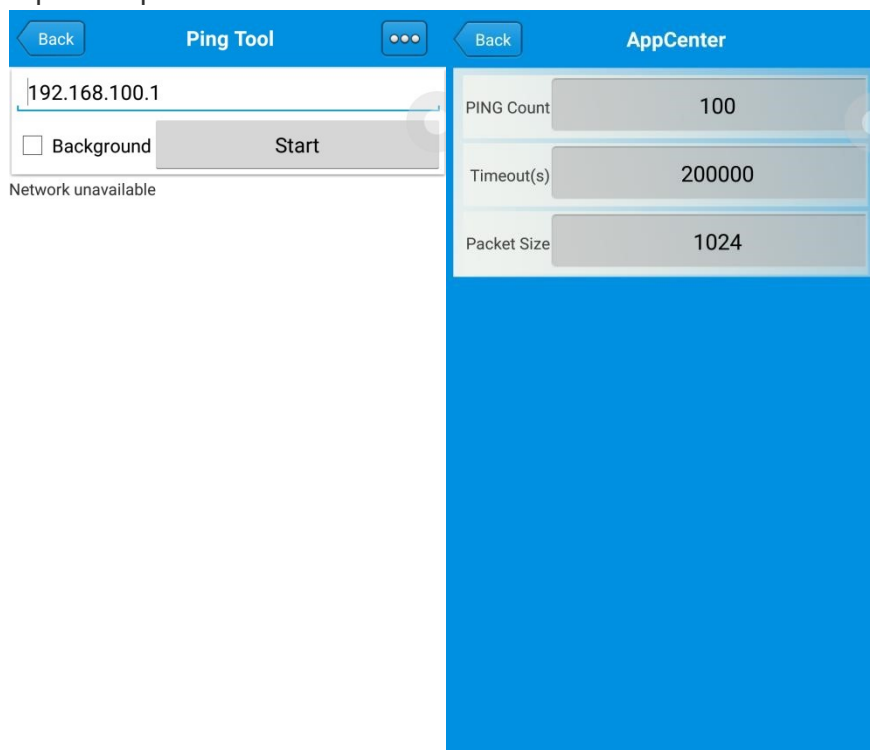
In App Center open “NFC” to read and write tag information.



7 Other functions

7.1 PING tool

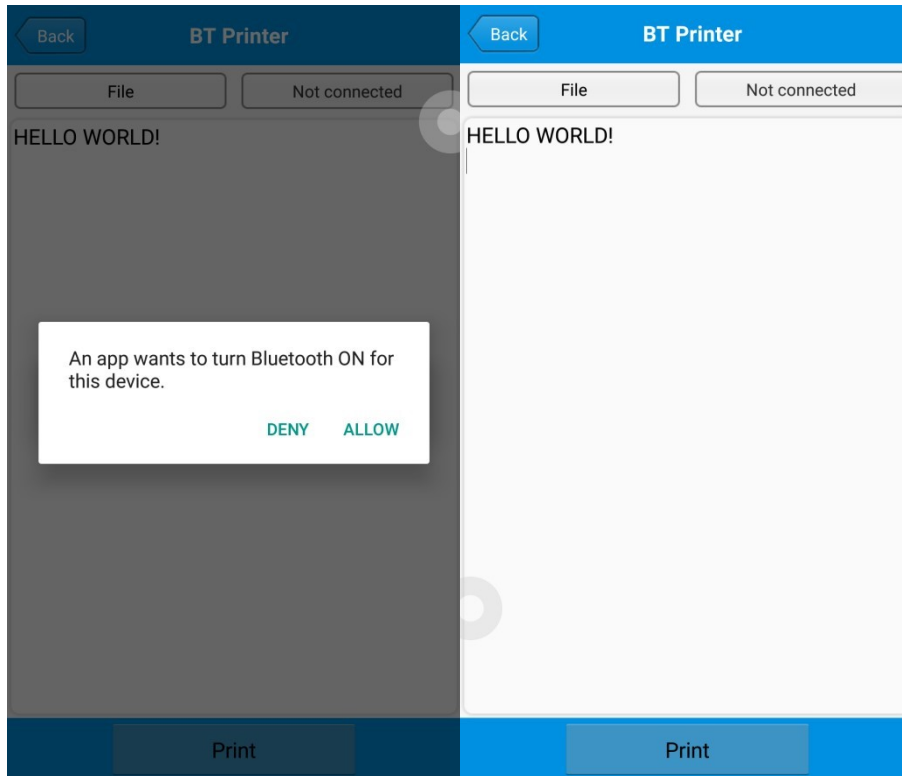
1. Open “PING” in App Center.
2. Setup PING parameter and select external/internal address.



Field	Value
PING Count	100
Timeout(s)	200000
Packet Size	1024

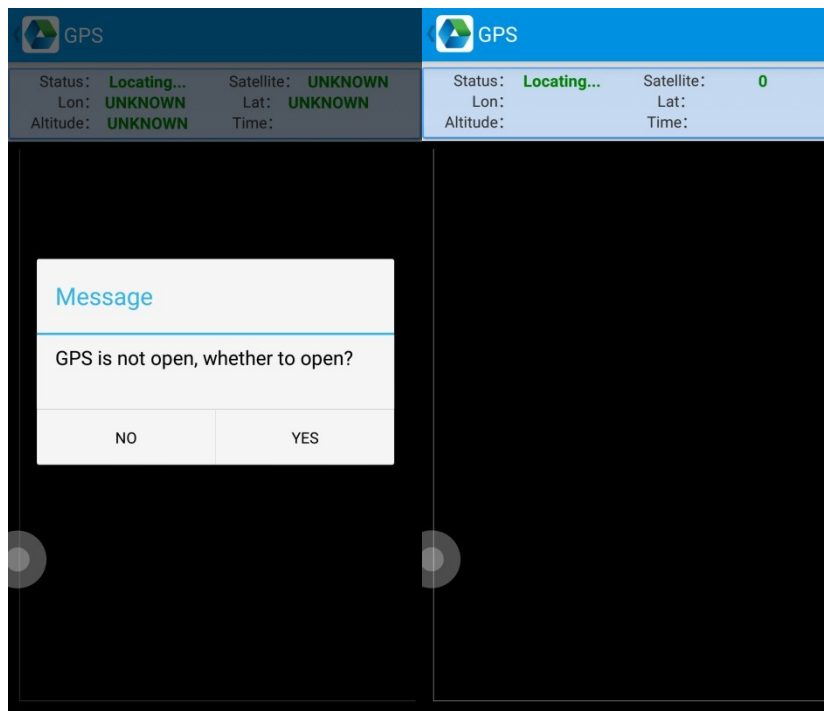
7.2 Bluetooth

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.



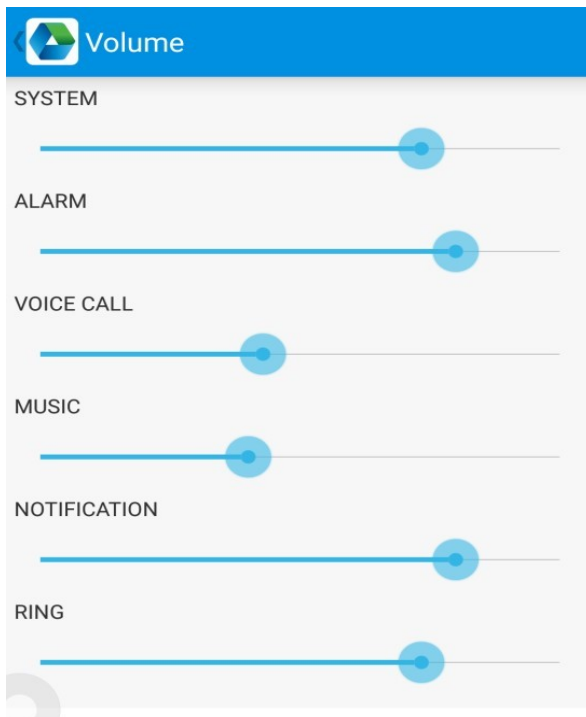
7.3 GPS

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



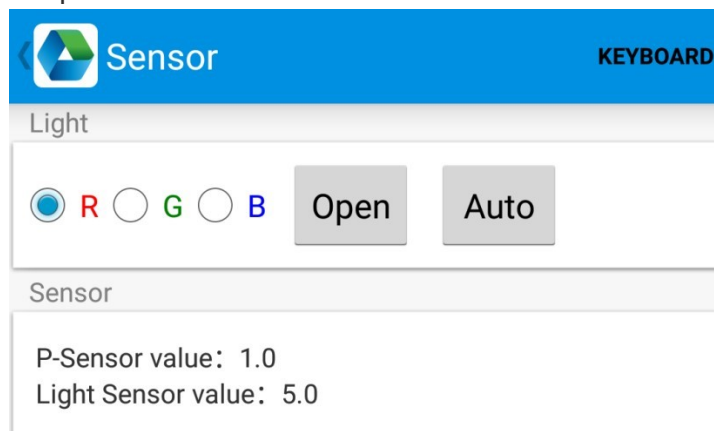
7.4 Volume setup

1. Click "Volume" in App Center.
2. Setup volume.



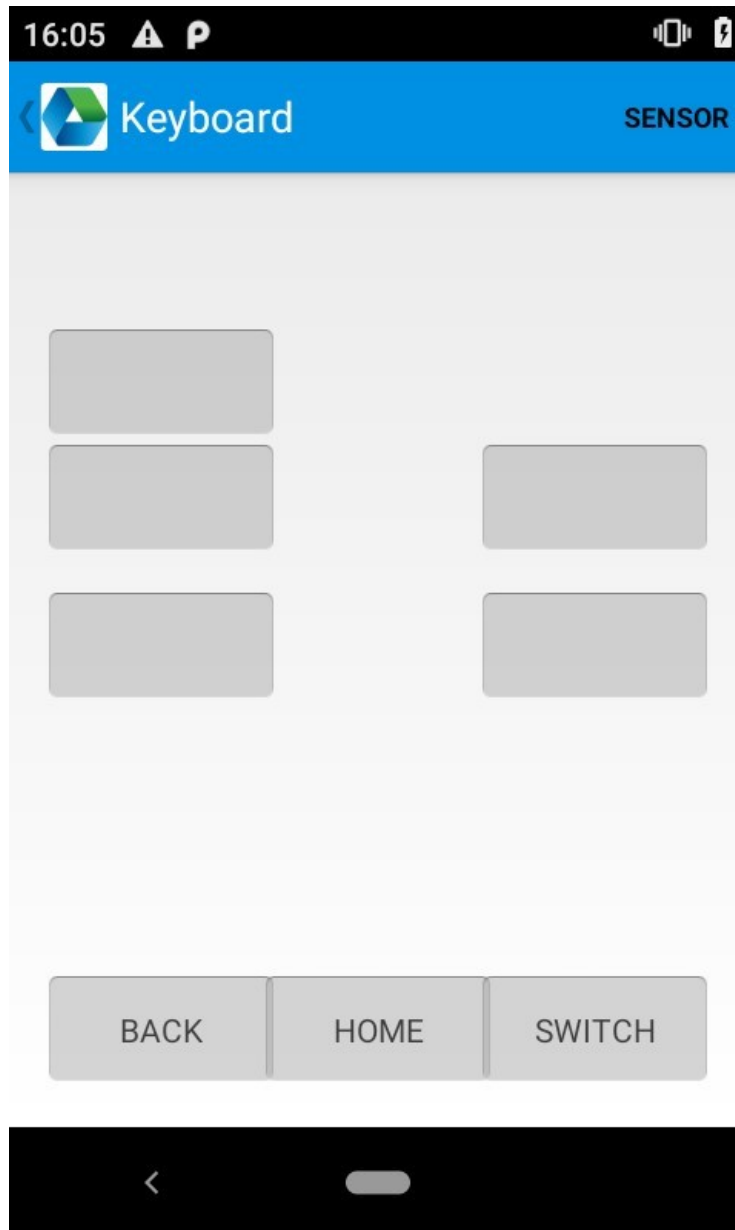
7.5 Sensor

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



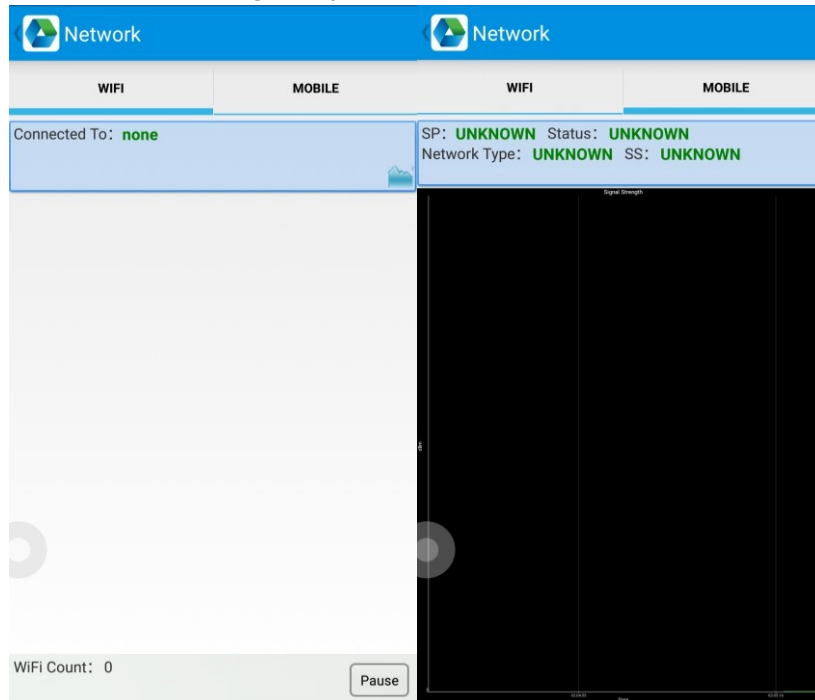
7.6 Keyboard

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



7.7 Network

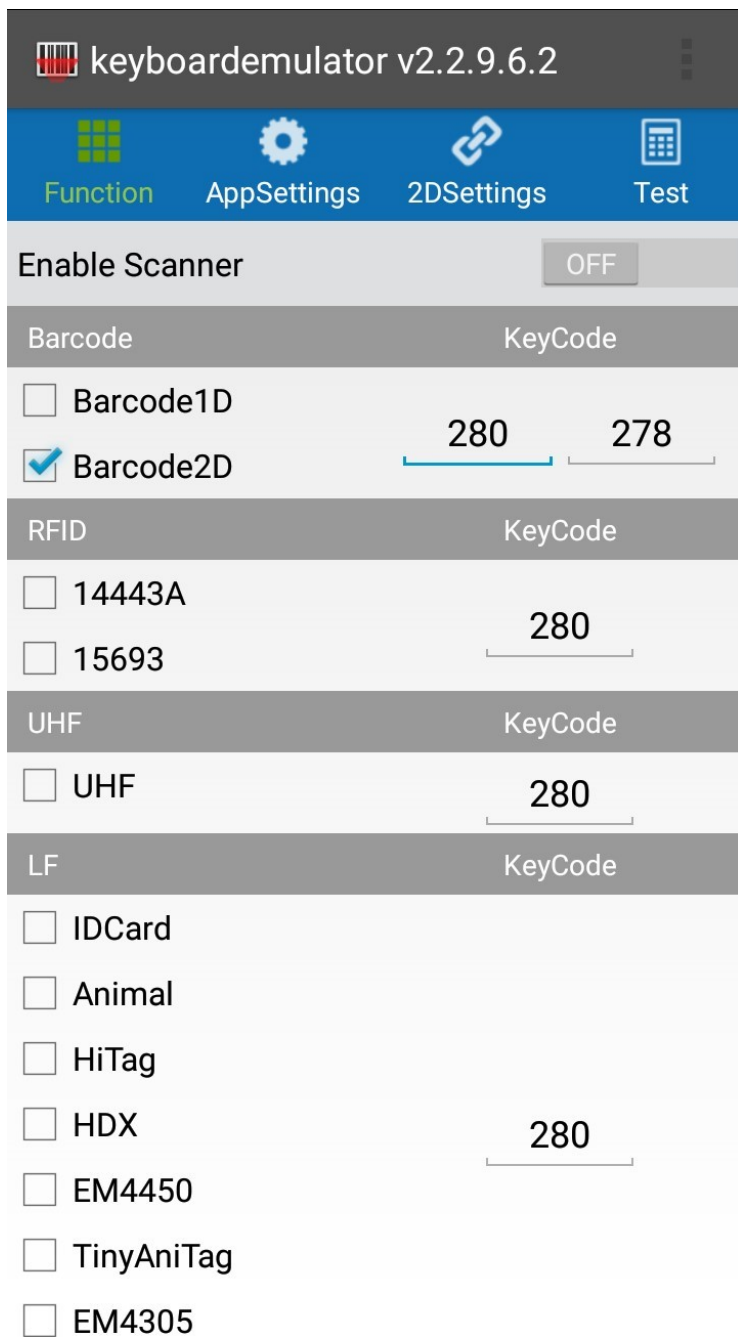
1. Click “Network” in App Center.
2. Test WIFI/Mobile signal by requirements.



7.8 Keyboard emulator

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

Please check Keyboard emulator manual for more details.



The screenshot shows the 'keyboardemulator v2.2.9.6.2' application interface. At the top, there is a title bar with a keyboard icon and the version number. Below the title bar is a navigation bar with four icons: 'Function' (a grid of dots), 'AppSettings' (a gear), '2DSettings' (a chain link), and 'Test' (a calculator). The main content area is divided into several sections. The first section is 'Enable Scanner' with a toggle switch set to 'OFF'. Below this is a 'Barcode' section with a 'KeyCode' column. It contains two rows: 'Barcode1D' with an unchecked checkbox and 'Barcode2D' with a checked checkbox. The 'Barcode2D' row has a '280' value in the 'KeyCode' column. The next section is 'RFID' with a 'KeyCode' column. It contains two rows: '14443A' with an unchecked checkbox and '15693' with an unchecked checkbox. The '15693' row has a '280' value in the 'KeyCode' column. The next section is 'UHF' with a 'KeyCode' column. It contains one row: 'UHF' with an unchecked checkbox. The 'UHF' row has a '280' value in the 'KeyCode' column. The final section is 'LF' with a 'KeyCode' column. It contains seven rows: 'IDCard', 'Animal', 'HiTag', 'HDX', 'EM4450', 'TinyAniTag', and 'EM4305'. The 'HDX' row has a '280' value in the 'KeyCode' column.

Barcode	KeyCode
☐ Barcode1D	
☒ Barcode2D	280

RFID	KeyCode
☐ 14443A	
☐ 15693	280

UHF	KeyCode
☐ UHF	280

LF	KeyCode
☐ IDCard	
☐ Animal	
☐ HiTag	
☐ HDX	280
☐ EM4450	
☐ TinyAniTag	
☐ EM4305	

8 Device features

Physical characteristics

Size	202.0 x 72.5 x 32.0 mm / 7.95 x 2.85 x 1.26 in.
Weight	390 g / 13.76 oz.
Display	4-inch display, LTPS LCD screen
Main Keyboard	37 keys in total Side keys: 2 SCAN keys + 2 volume keys + 1 user-defined key
Battery	5200 mAh removable main battery, 5200 mAh optional pistol battery, support QC3.0 and RTC Standby: over 300 hours (only main battery) Continuous use: over 12 hours (depending on user environment) Charging time: 2.5hours (charge device by standard adaptor and USB cable)
Expansion	Supports up to 128 GB Micro SD card
Expansion Slot	1 slot for SIM card, 1 slot for TF card
Audio	1 Microphones, 1 Speaker
Camera	13MP autofocus camera with flashlight

Performance

CPU	Qualcomm 1.8 GHz Octa-core
OS	Android 9
RAM	3GB
Communication Interface	USB3.0, Type-C
ROM	32GB
Max. expansion	Supports up to 128 GB Micro SD card

User environment

Operating temp.	-20°C to 50°C	
Storage Temp.	-40°C to 70°C	
Humidity	5%RH - 95%RH non condensing	
Sealing	IP65, IEC sealing standard	
Drop specification	Multiple 1.8 m / 5.9 ft. drops (at least 20 times) to the concrete across the operating temperature range	

Communication

WAN	EU/CH: 2G: 850/900/1800/1900 MHz 3G: CDMA EVDO: BC0 WCDMA: 850/900/1900/2100 MHz TD-SCDMA: A/F(B34/B39) 4G: B1/B3/B5/B7/B8/B20/B38/B39/B40/B41 US: 2G: 850/900/1800/1900MHz 3G: 850/900/1900/2100MHz 4G: B2/B4/B5/B7/B17/B38	
WLAN	Support 802.11 a/b/g/n/ac	
Bluetooth	Bluetooth 4.2/4.1+HS/4.0/3.0+HS/2.1+EDR	

Data collection

Barcode scanning	SE4750/SE4850
NFC	13.56Mhz