



3nStar
One Brand, One Solution



Portable Data Terminal

Nustar 5s User Manual

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Chapter 1 Product intro

1.1 Intro

3nStar Nustar 5s, 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 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 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

Nustar 5s front appearances is as showing as follows:

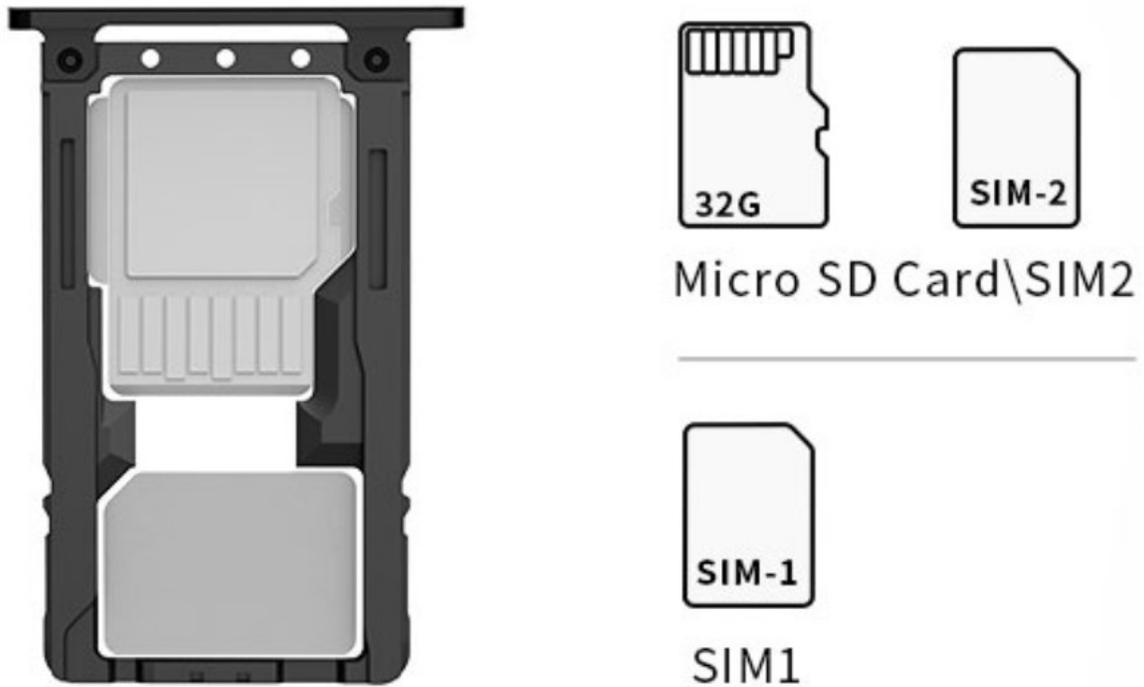


Buttons instruction

| 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

Nustar 5s 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

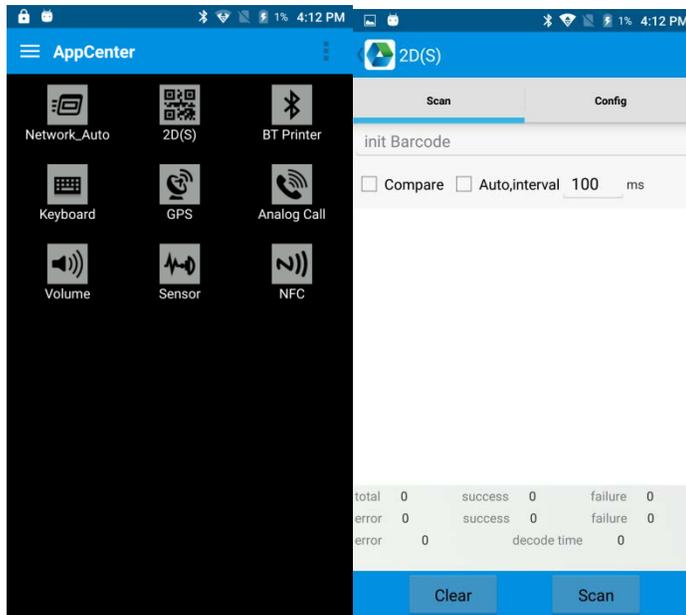
1. Click contacts to open contacts list.
2. Click icon  to add new contacts.
3. Click icon  to import/export contacts.

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

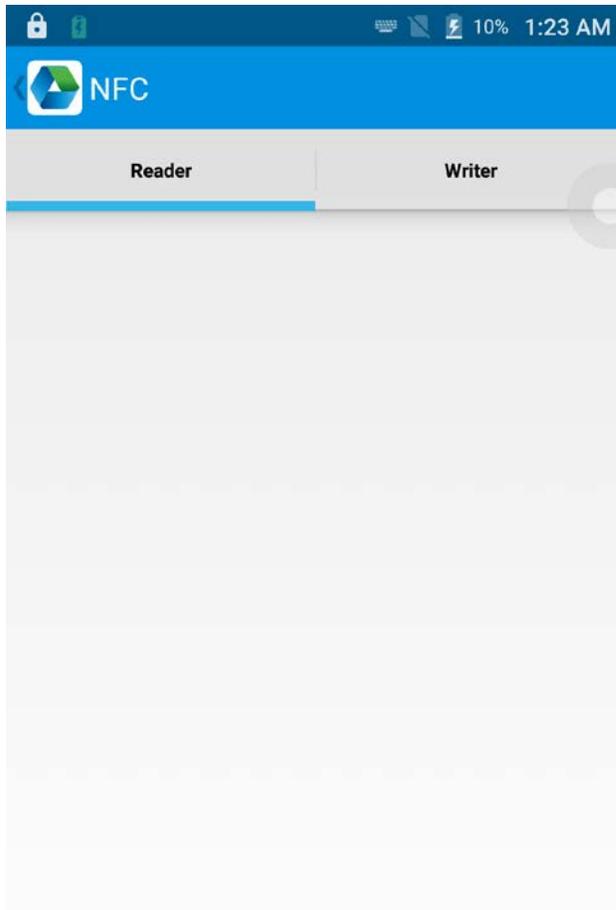
IEC 60825-1 (Ed.2.0).

21CFR 1040.10 and 1040.11 standard.

Chapter 5 RFID reader

5.1 NFC

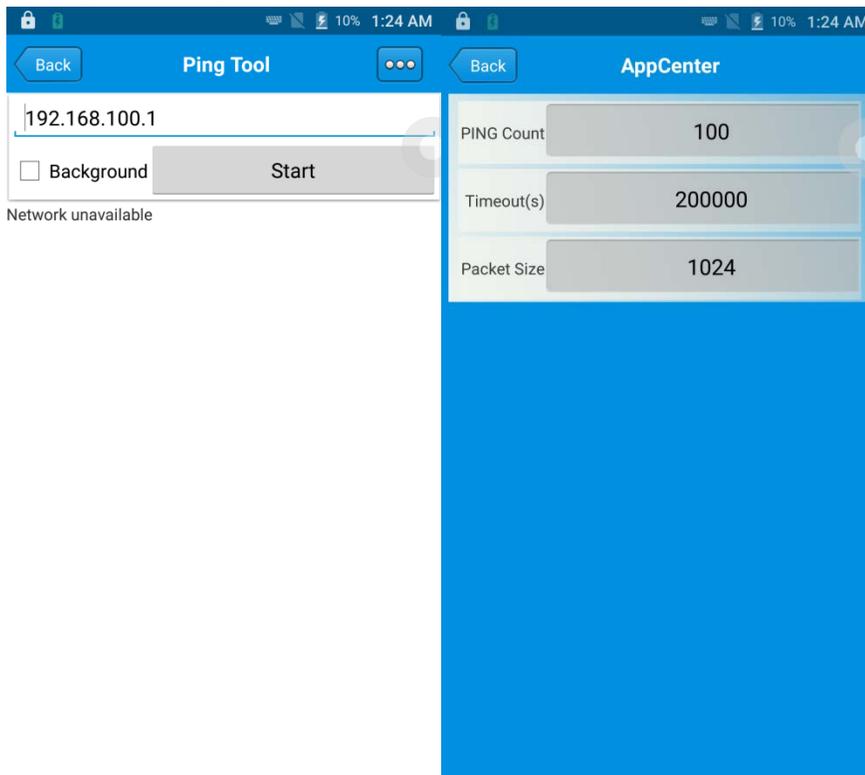
Click App Center, open “NFC” to read and write tag information.



Chapter 6 Other functions

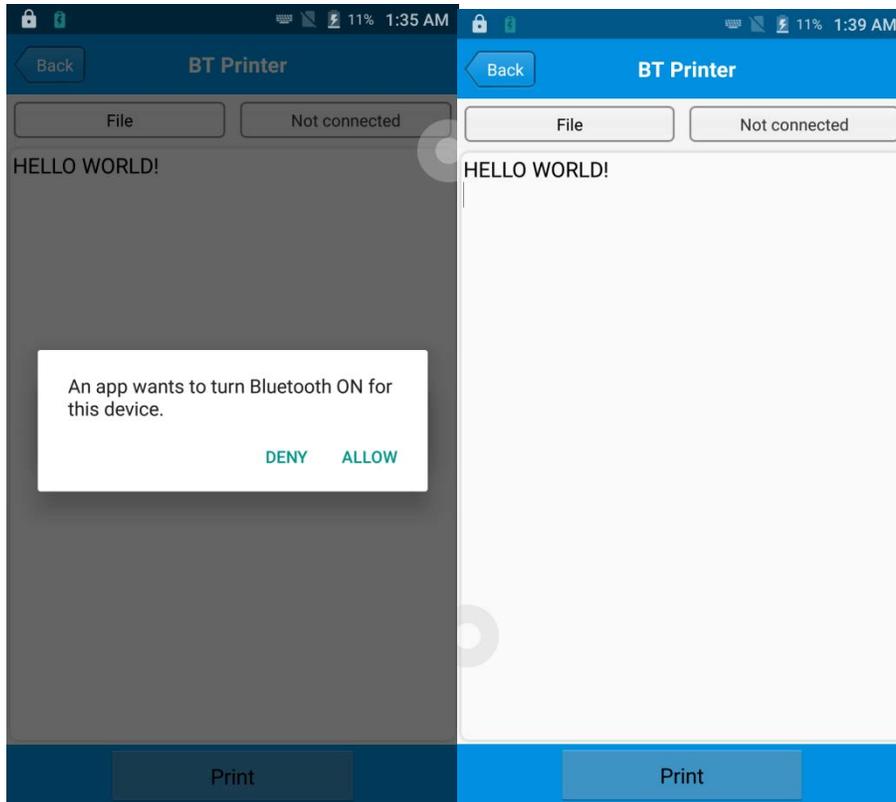
6.1 PING tool

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



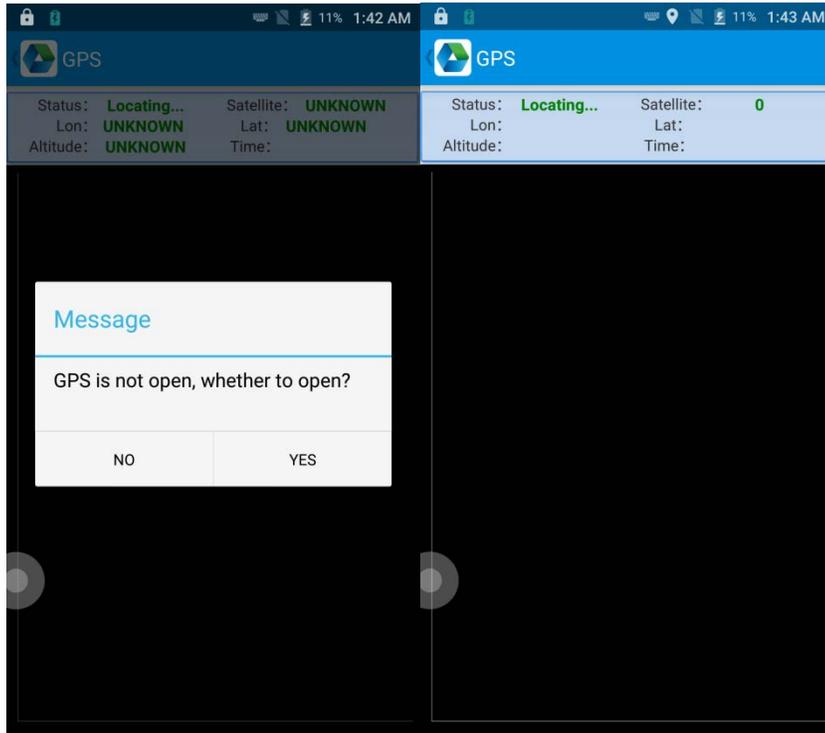
6.2 Bluetooth

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.



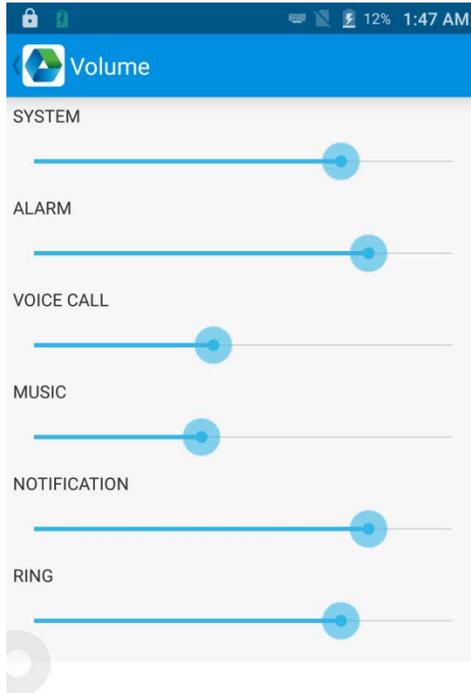
6.3 GPS

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



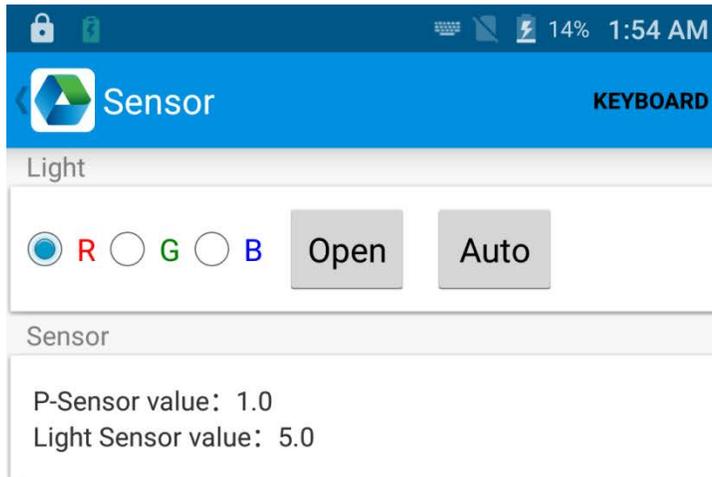
6.4 Volume setup

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



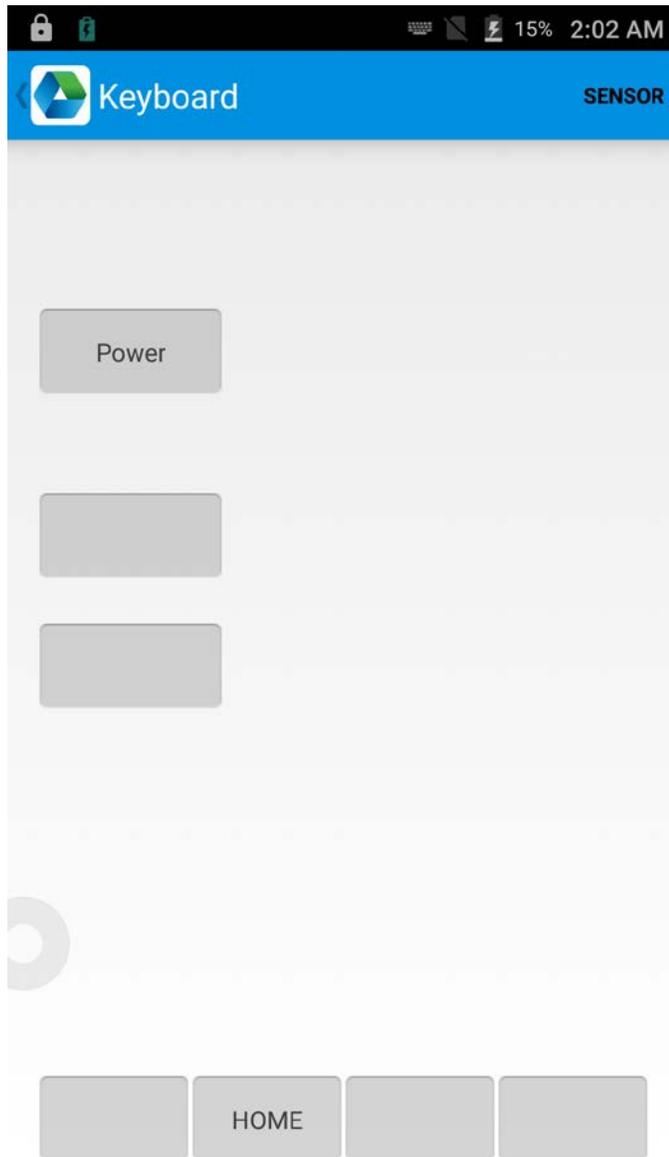
6.5 Sensor

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



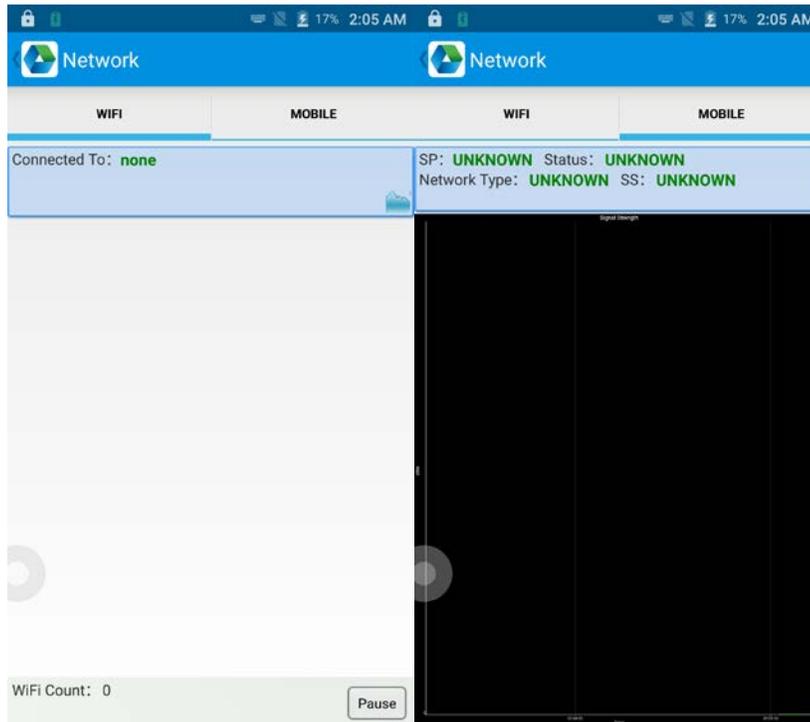
6.6 Keyboard

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



6.7 Network

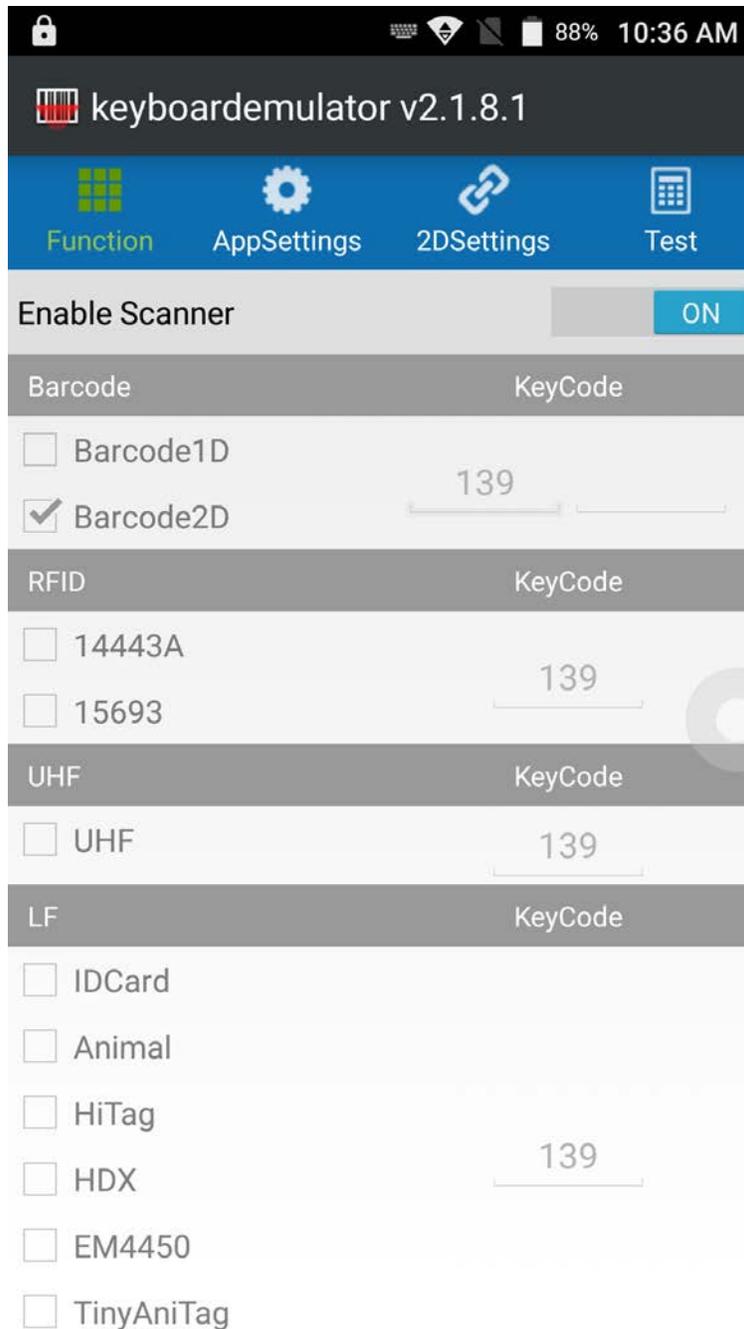
1. Click “Network” in App Center.
2. Test WIFI/Mobile signal by requirements.



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.



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 32 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 1.3GHz |
| OS | Andriod 6.0 |
| RAM | 2GB RAM |
| Communication Interface | USB2.0, Type-C, OTG |
| ROM | 16GB |
| Max. expansion | Supports up to 32 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 | <p>EU: 2G: 850/900/1800/1900MHz 3G: 850/900/1900/2100MHz 4G: B1, B3, B5, B7, B8, B20, B40</p> <p>US: 2G: 850/900/1800/1900MHz 3G: 850/900/1700/1900MHz 4G: B2, B4, B7, B12, B17</p> <p>CN: 2G: 900/1800MHz 3G: 900/1900/2000/2100MHz 4G: TDD-LTE: B38, B39, B40, B41 FDD-LTE: B1, B3, B5</p> |
| 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 | 3nStar 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.