BITA-INTERNATIONAL CO., LTD.

Handheld Computer

HC61 User Manual

Android is a trademark of Google LLC.

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Statement

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Chapter 1 Product intro

1.1 Intro

Bita-International HC61 is a new generation rugged handheld computer with robust performance. Built with Android™ 11 OS and Qualcomm Octa-Core processor, it supports numeric/QWERTY keypad, abundant accessories like trigger handle, and features powerful removable battery. And it delivers optional barcode scanning, RFID, NFC, etc. This mobile computer can fulfill applications in logistics, warehousing, retail, etc.

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-HC61-5V2A-EU (UK/US/CN), 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℃ to 50℃.

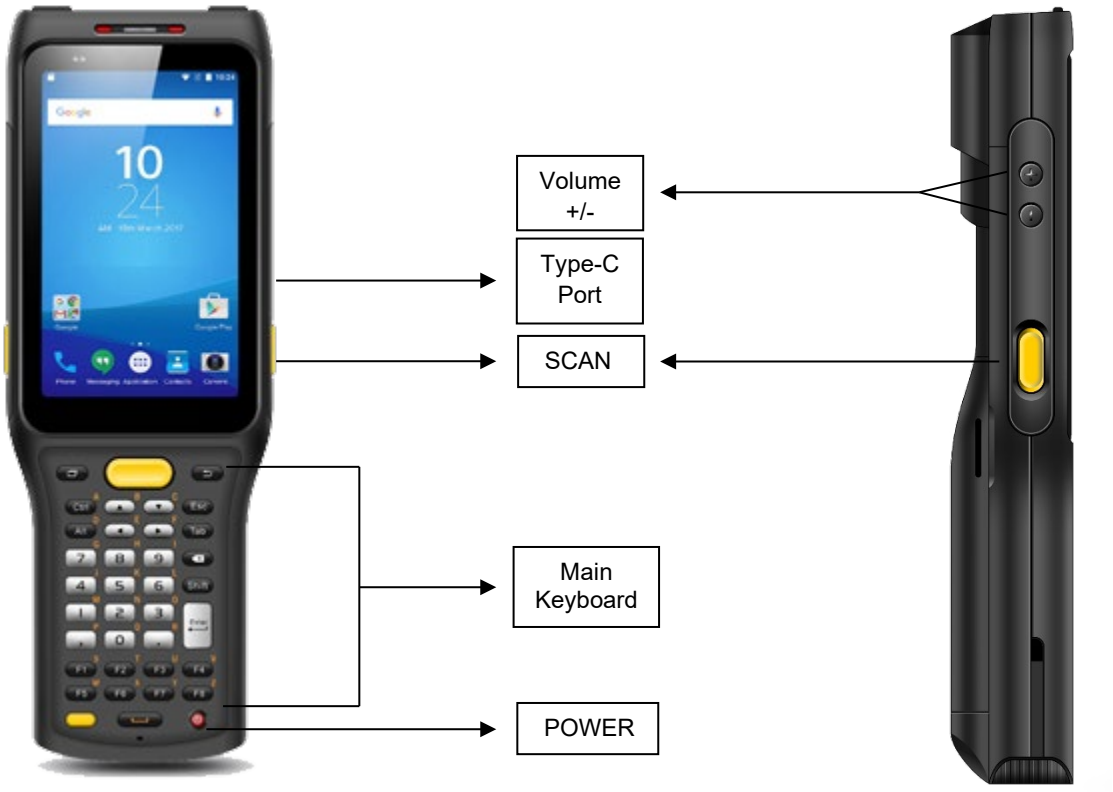
Note:
CAUTION RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

Chapter 2 Installation instructions

2.1 Appearance

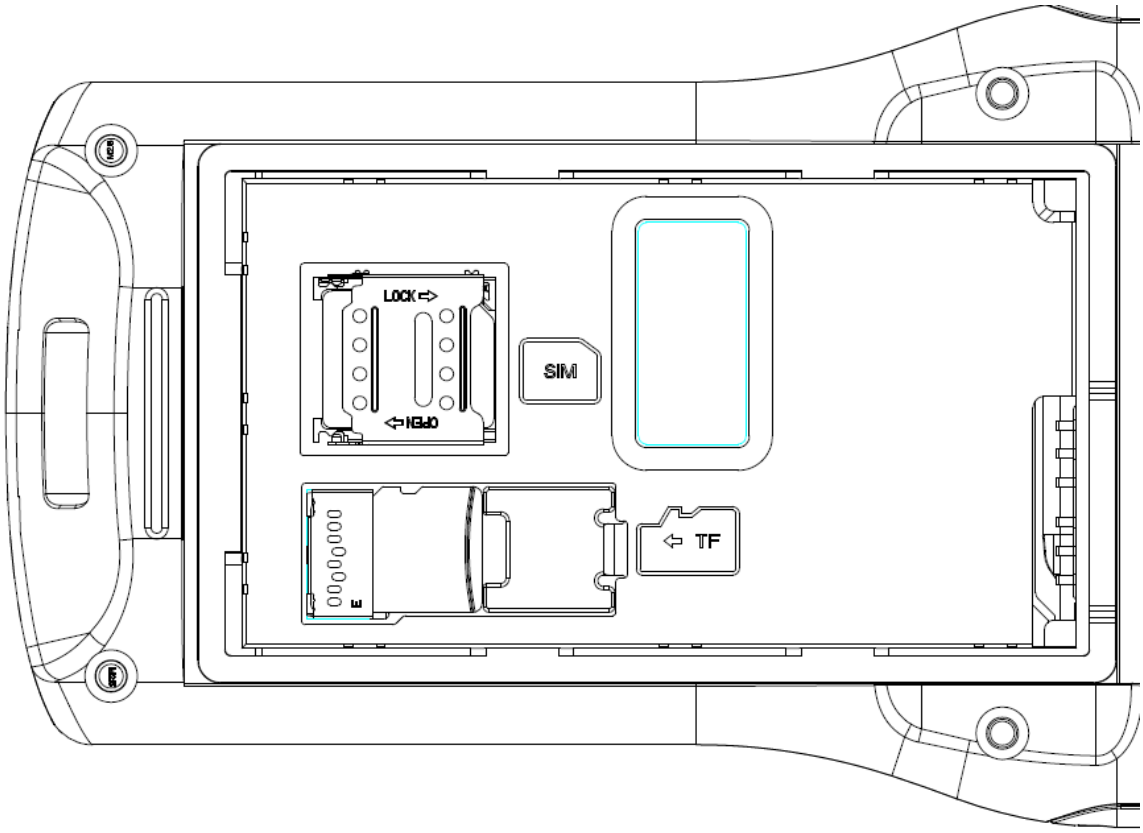
HC61 back and front appearances are showing as follows:

Buttons instruction



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

HC61 has main keyboard that contains
10 numeric keys+2 symbolic keys, 4 direction keys, 2 Android functio n keys, ENTER/ESC/TAB/ALT/CTRL/BACK/DELETE, 10 user-defined function keys (reuse with letter keys), 1 POWER key, 1 SCA N key, 1 Alt key, 37 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.

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

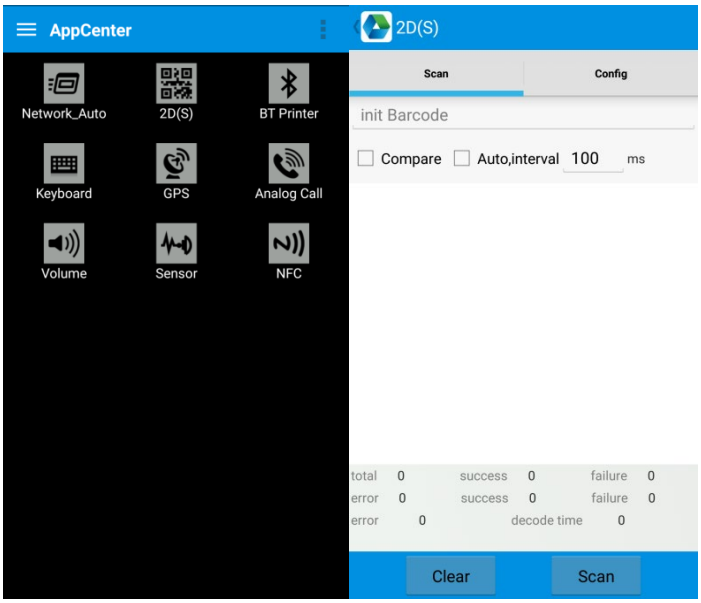
1. Click contacts to open contacts list.
2. Click icon to add new contacts.
3. Click icon to import/export contacts.

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

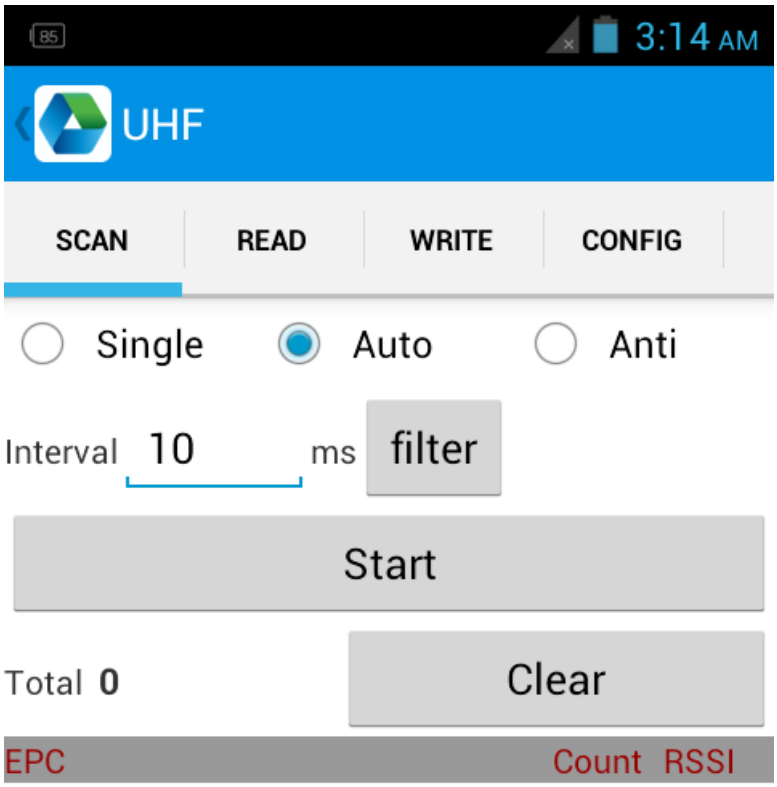
IEC 60825-1 (Ed.2.0).

21CFR 1040.10 and 1040.11 standard.

Chapter 5 RFID reader

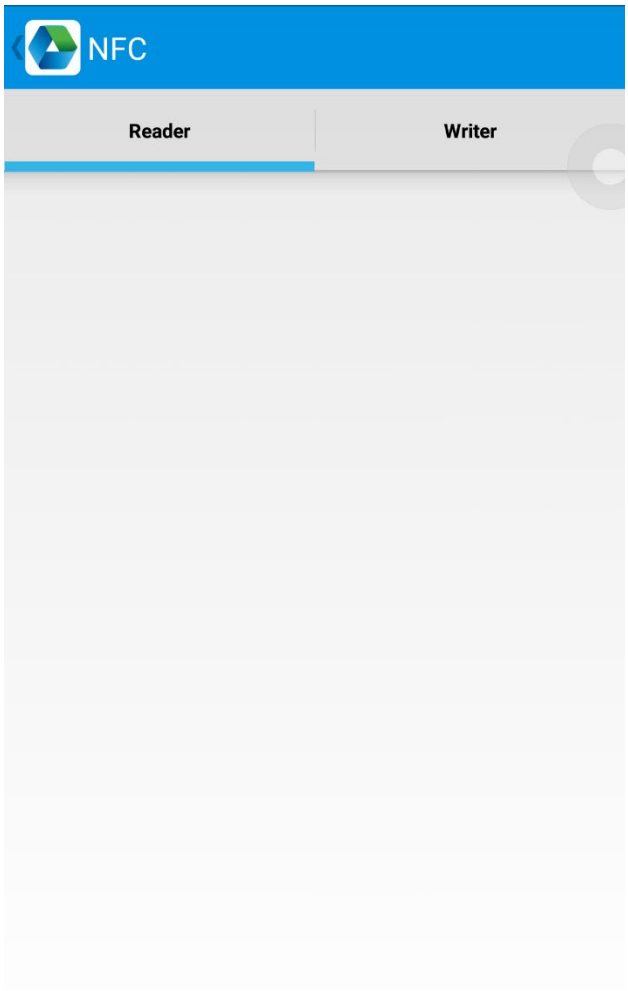
5.1 UHF

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



5.2 NFC

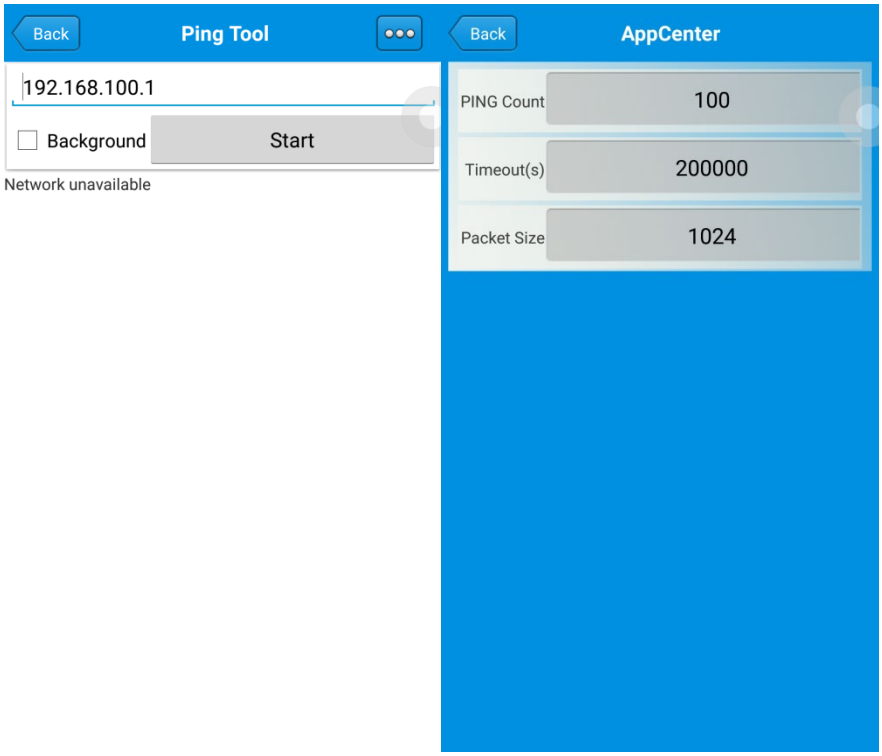
Click App Center, open “NFC” to read and write tag information.



Chapter 6 Other functions

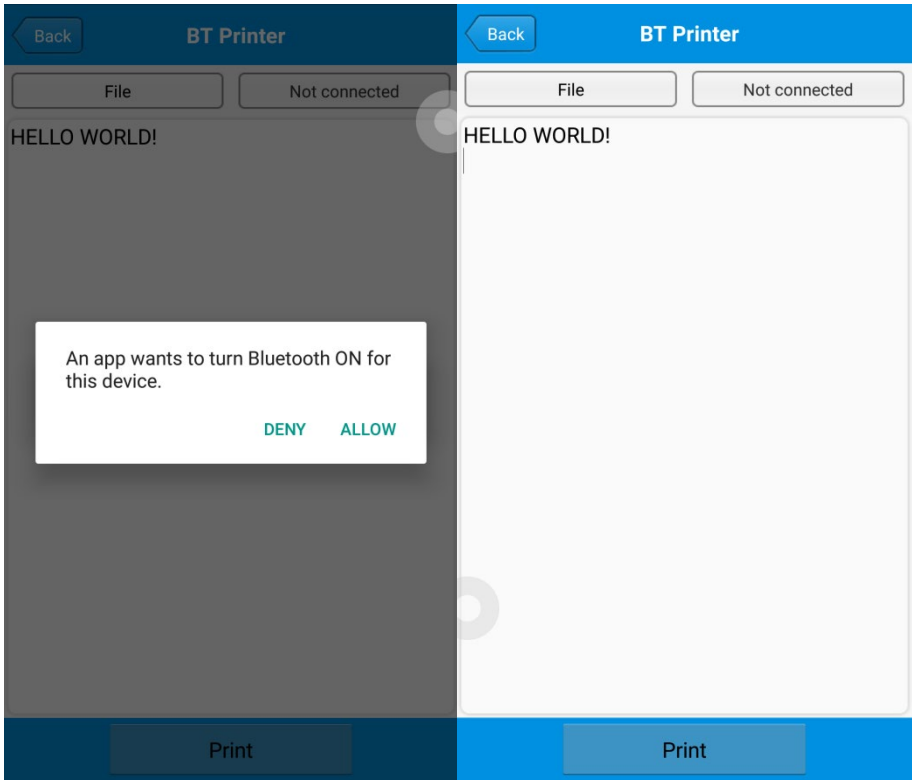
6.1 PING tool

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



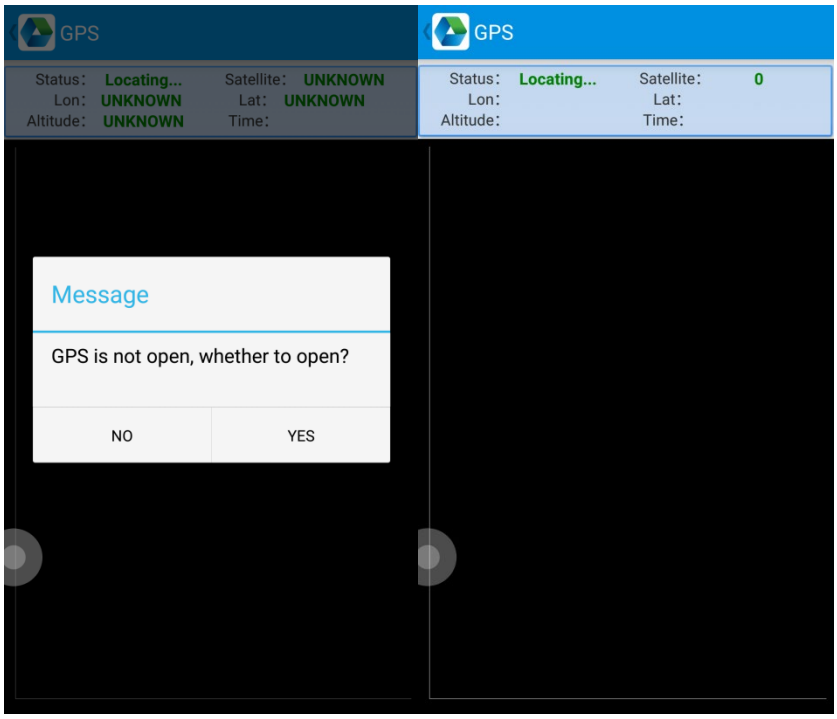
6.2 Bluetooth

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.



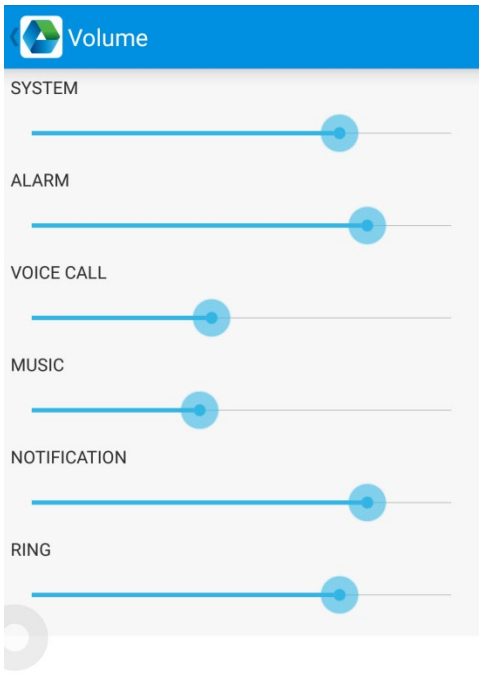
6.3 GPS

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



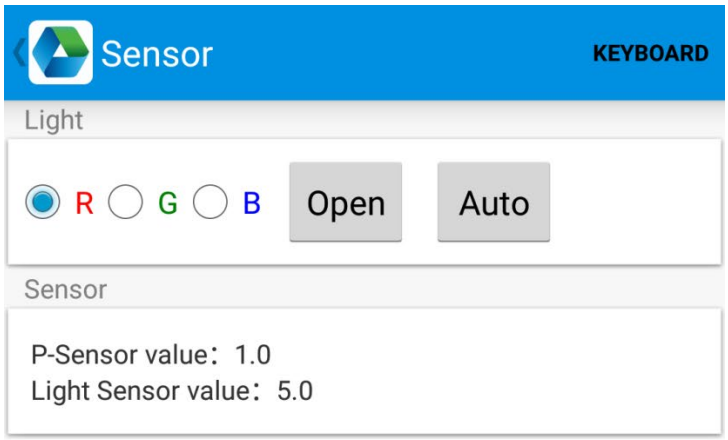
6.4 Volume setup

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



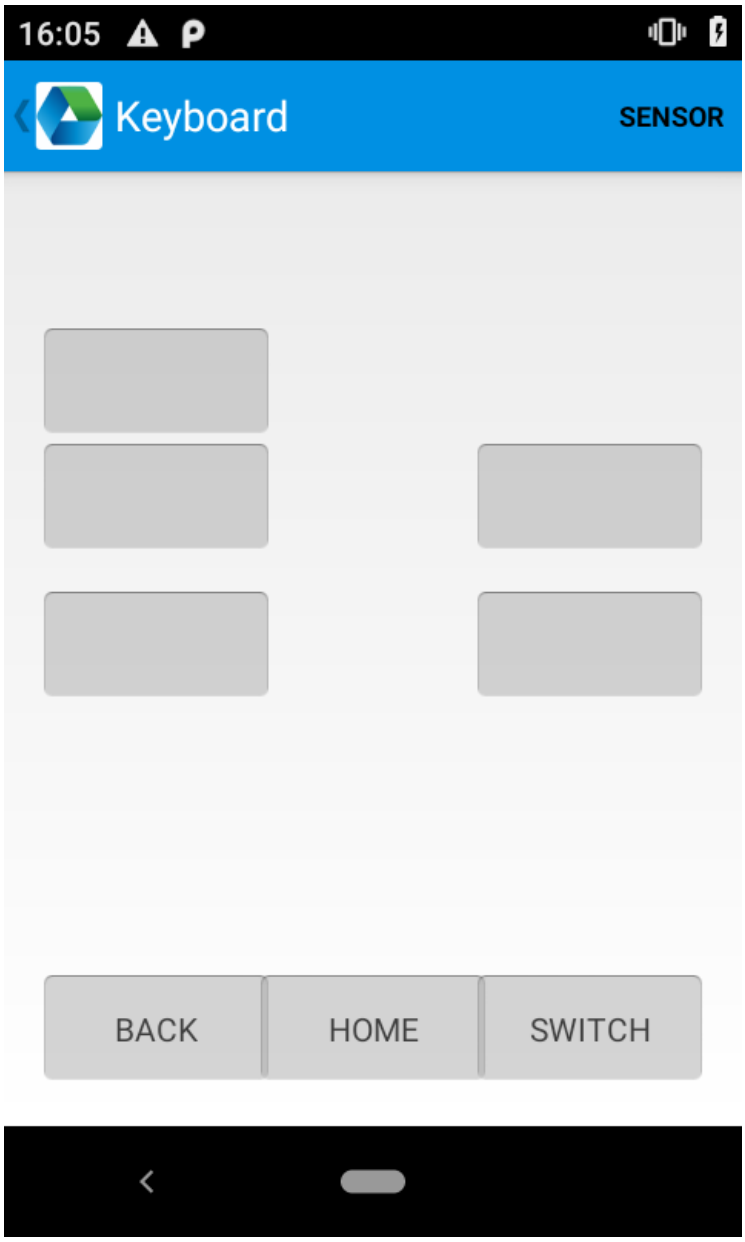
6.5 Sensor

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



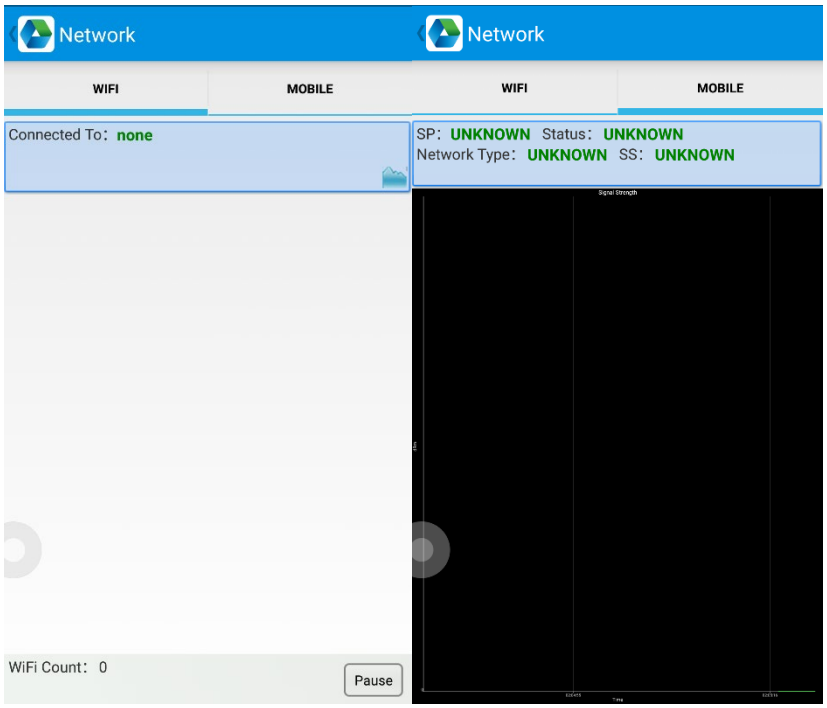
6.6 Keyboard

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



6.7 Network

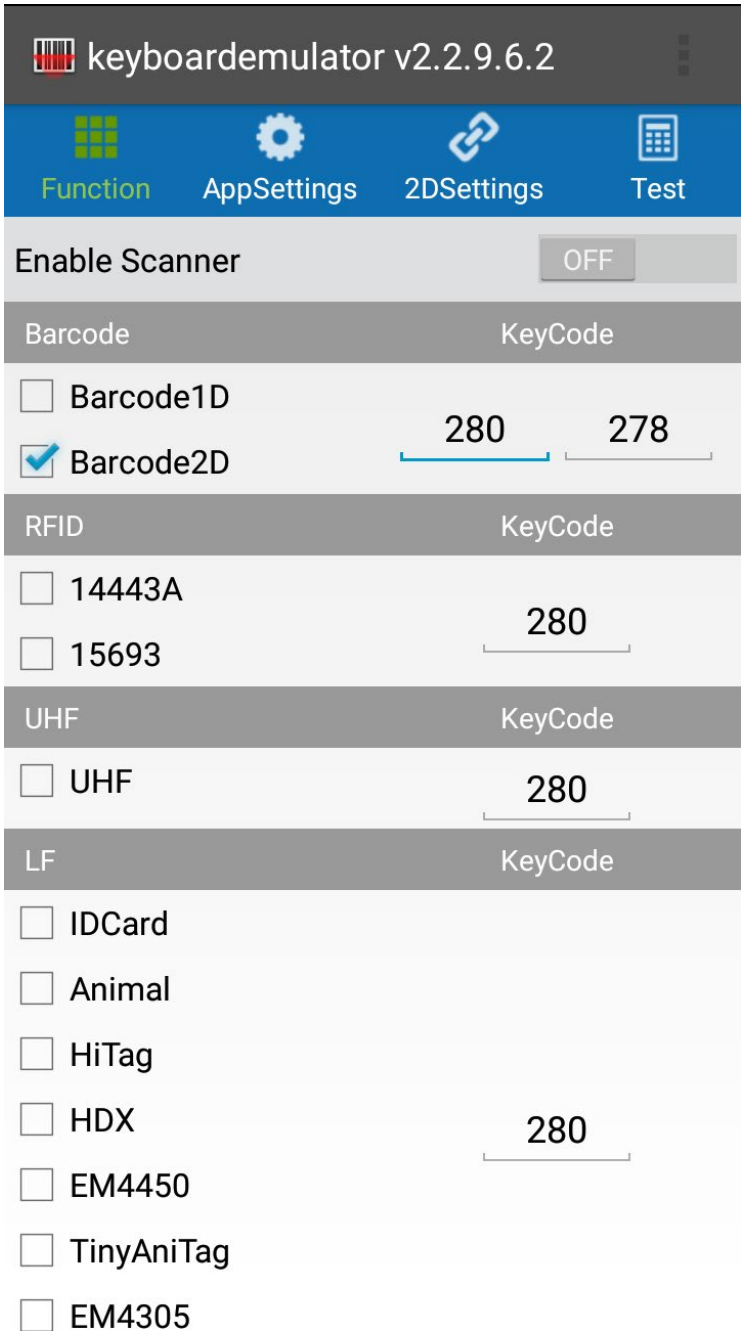
1. Click “Network” in App Center.
2. Test WIFI/Mobile signal by requirements.



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	202.0 x 72.5 x 32.0mm / 7.95 x 2.85 x 1.26in.(Device Weight for Argentina, Uruguay, Bolivia, Ecuador market:342~404g, including battery)
Weight	370g / 13.05oz. (SE4710) ; 404g / 14.25oz. (SE4850) / 26 .05oz. /738g (SE4850, UHF, pistol battery
Display	4-inch display, LTPS LCD screen
Battery	6700 mAh removable main battery, 5200 mAh optionalpistol battery, support QC3.0 and RTC; Built in 100mAh backupbattery, supporting battery hot swap, improving reliability andensuring user data securityStandby: up to 680 hours (only main battery ; WiFi: up to 560h; 4G:up to 560h)Continuous use: over 12 hours (depending on user environment)Charging time: 3.5 hours (charge device by standard adaptor andUSB 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	Rear 13 MP Autofocus with flash

Performance

CPU	Qualcomm Snapdragon™ 662 Octa-core, 2.0 GHz
OS	Android 11
RAM	3GB/4GB
Communication Interface	USB3.0, Type-C
ROM	32GB/64GB
Max. expansion	Supports up to 128 GB Micro SD card

User environment

Operating temp.	-20℃ to 50℃
Storage Temp.	-40℃ to 70℃
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

WWAN	**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/B8/B12/B13/B17/B28A/B28B/B38
WLAN	Support 802.11 a/b/g/n/ac/ax-ready/d/e/h/i/k/r/v, 2.4G/5G dualband, IPV4, IPV6, 5G PA;
Bluetooth	Bluetooth 5.1

Data collection

Barcode scanning	Zebra: SE4710/SE4750SR/SE4750MR/SE4850 and Newland: CM60
RFID	NFC 13.56Mhz UHF 865-868 MHz / 920-925 MHz / 902-928 MHz Protocol: EPC C1 GEN2 / ISO18000-6C Antenna: Circular Polarized (4dBi) Power: 1W(30dBm), 2W(33 dBm)

Developing Environment

SDK	Software Develop Kit
Language	Java
Develop	Eclipse/Android Studio

This radio equipment operates with the following frequency bands and maximum radio-frequency power：

Operating Mode	Operating Frequency Range		Maximum Transmit Power (Conducted) dBm
	TX(MHz)	RX(MHz)	
GSM900	880 - 915	925 - 960	33.12
DCS1800	1710 - 1785	1805 - 1880	29.43
WCDMA BAND 1	1920 - 1980	2110 - 2170	22.7
WCDMA BAND 8	880 - 915	925 - 960	24.3
LTE BAND 7	2500~2570	2620~2690	21.9
LTE BAND 20	832~862	791~821	23.9
LTE BAND 38	2570~2620		22.7
Operating Mode	Operating Frequency Range		Maximum Transmit Power (EIRP) dBm
	TX(MHz)	RX(MHz)	
Bluetooth EDR+BDR	2402 - 2480		7.18
Bluetooth	2402 - 2480		2.89
WLAN 2.4GHz	2412 - 2472		16.63
WLAN 5GHz Band 1	5150 - 5250		16.0
WLAN 5GHz Band 4	5725 - 5850		11.53
Operating Mode	Operating Frequency Range		Strength Field
NFC	13.56		10.74dBuA/m at 10m

The device is restricted to indoor use only when operating in the 5150 to 5250 MHz frequency range.

	AT	BE	BG	CH	CY	CZ	DE	DK	EE	EL	ES	FI
	FR	HR	HU	IE	IS	IT	LI	LT	LU	LV	MT	NL
	NO	PO	PT	RO	SE	SI	SK	TR	UK(NI)	UK		

The device could be used with a separation distance of 5mm to the human body.

Hereby, [Bita-International Co., Ltd.] declares that the radio equipment type [HC61] is in compliance with Directive 2014/53/EU.

Bita-International Co., Ltd.

Address: 2F, No. 36 Park ST., Nangang Dist., Taipei City 115, Taiwan R.O.C.

FCC Caution

15.19 Labeling requirements. 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.

15.105 Information to the user. 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.

15.21 Information to user. Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

27 Specific Absorption Rate (SAR) information: This wireless phone meets the government's requirements for exposure to radio waves. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons regardless of age or health. The highest SAR value reported under this standard during product certification for use at the ear is 0.31W/kg and when properly worn on the body is 1.14W/kg. This device was tested for typical body-worn operations with the back of the handset kept1.0cm from the body. To maintain compliance with FCC RF exposure requirements, use accessories that maintain a 1.0cmseparation 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. Body-worn Operation This device was tested for typical body-worn operations. To comply with RF exposure requirements, a minimum separation distance of 1.0 cm must be maintained between the user’s body and the handset, including the antenna. Third-party belt-clips, holsters, and similar accessories used by this device should not contain any metallic components. Body-worn accessories that do not meet these requirements may not comply with RF exposure requirements and should be avoided. Use only the supplied or an approved antenna.