SHENZHEN CHAINWAY INFORMATION TECHNOLOGY CO.,LTD

UHF Swing Reader

R2 User Manual

Content

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Chapter 1 Product intro

1.1 Intro

This is the latest convenient, stylish and efficient handheld data collector, featuring the excellent performance of the Cortex-M3 core processor. The body is light and thin, easy to operate, and the high-performance ultra-high frequency function helps the retail inventory of shoes and clothing. The device transmits the inventory data to the data center through bluetooth, and completes tasks such as inventory management, asset management, and inspection 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 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℃ 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

R2 back and front appearances are showing as follows:

Buttons and Indicating Lamps instruction

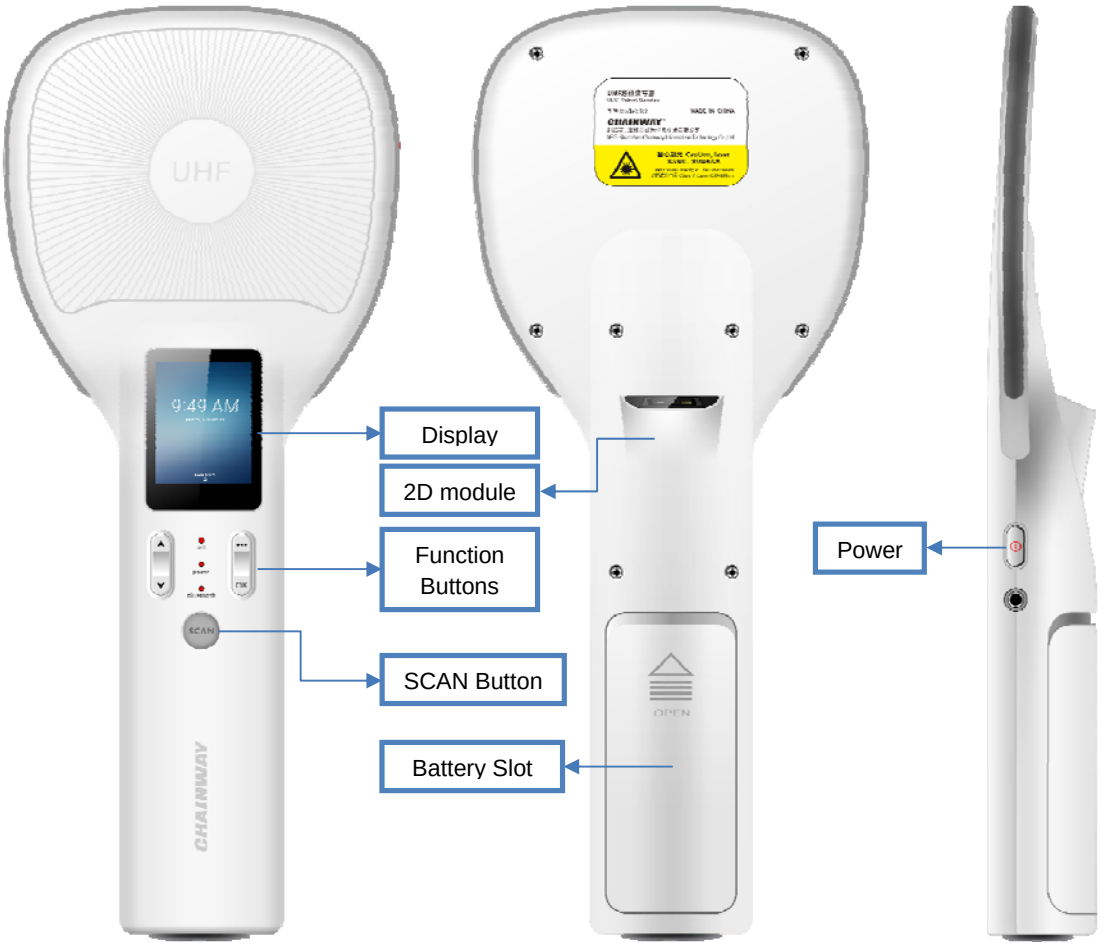
Buttons and Lamps		Description
Indicating Lamp	Power	Display power status
	Bluetooth	Display Bluetooth connection status
Main button	UP	Move up cursor
	DOWN	Move down cursor
	OK	Press to confirm current selection.
	• • •	Escape current page

2.3 Battery charge

By using Micro USB 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

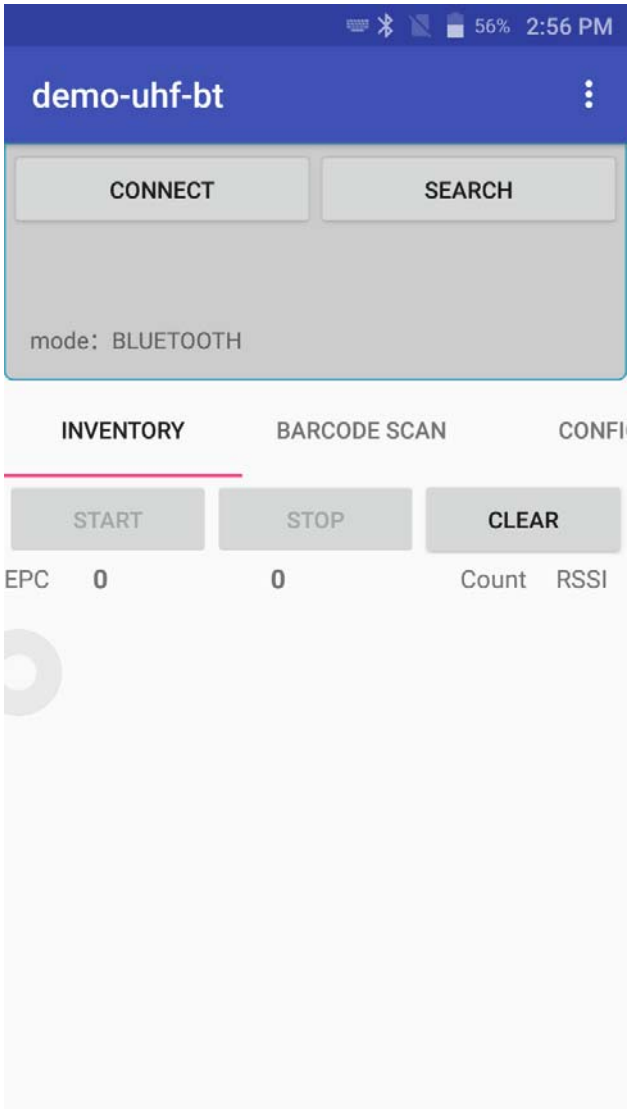
R2 UHF swing reader has 4 function buttons and 1 SCAN button, UHF scanning area, 1 display screen. Power key on the right side.



Chapter 3 Demo Test

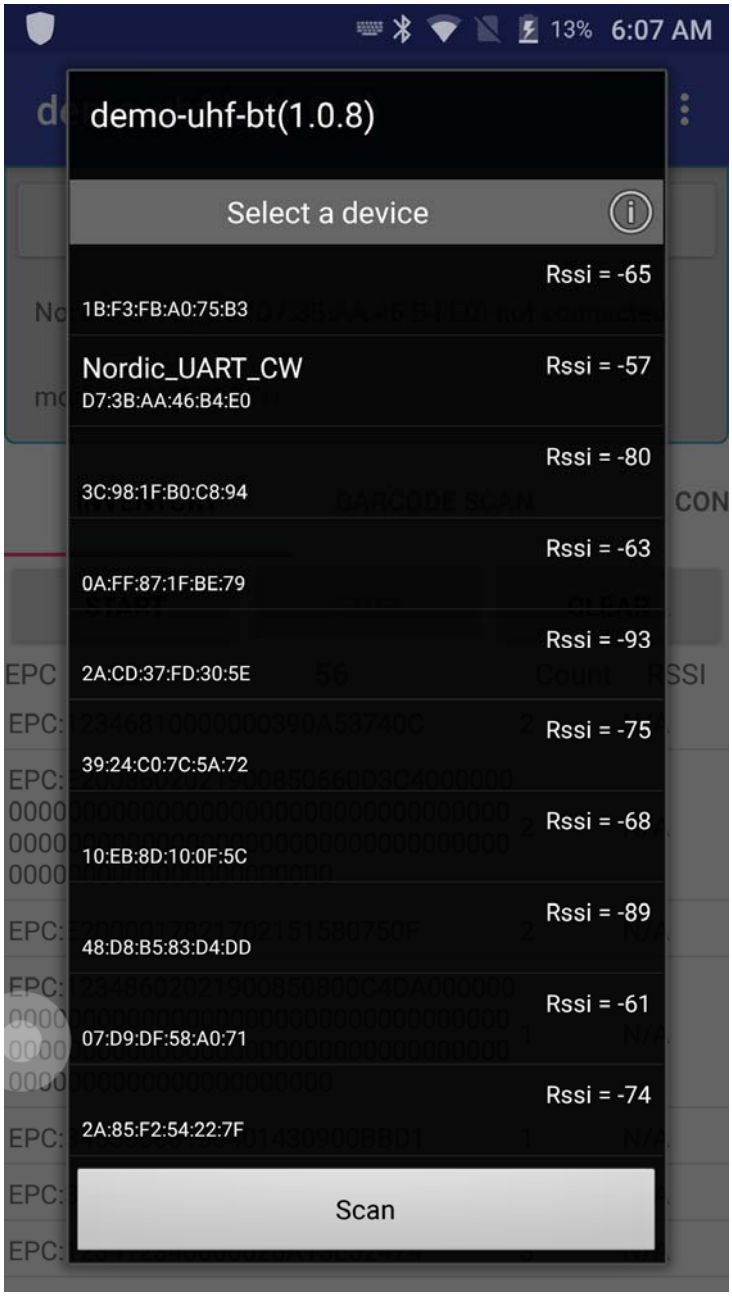
3.1 Install demo-uhf-bt (1.1.5)

1. Copy demo-uhf-bt (1.1.5) into internal storage of smart phone or C7x device.
2. Click to install.
3. Click icon to open demo.



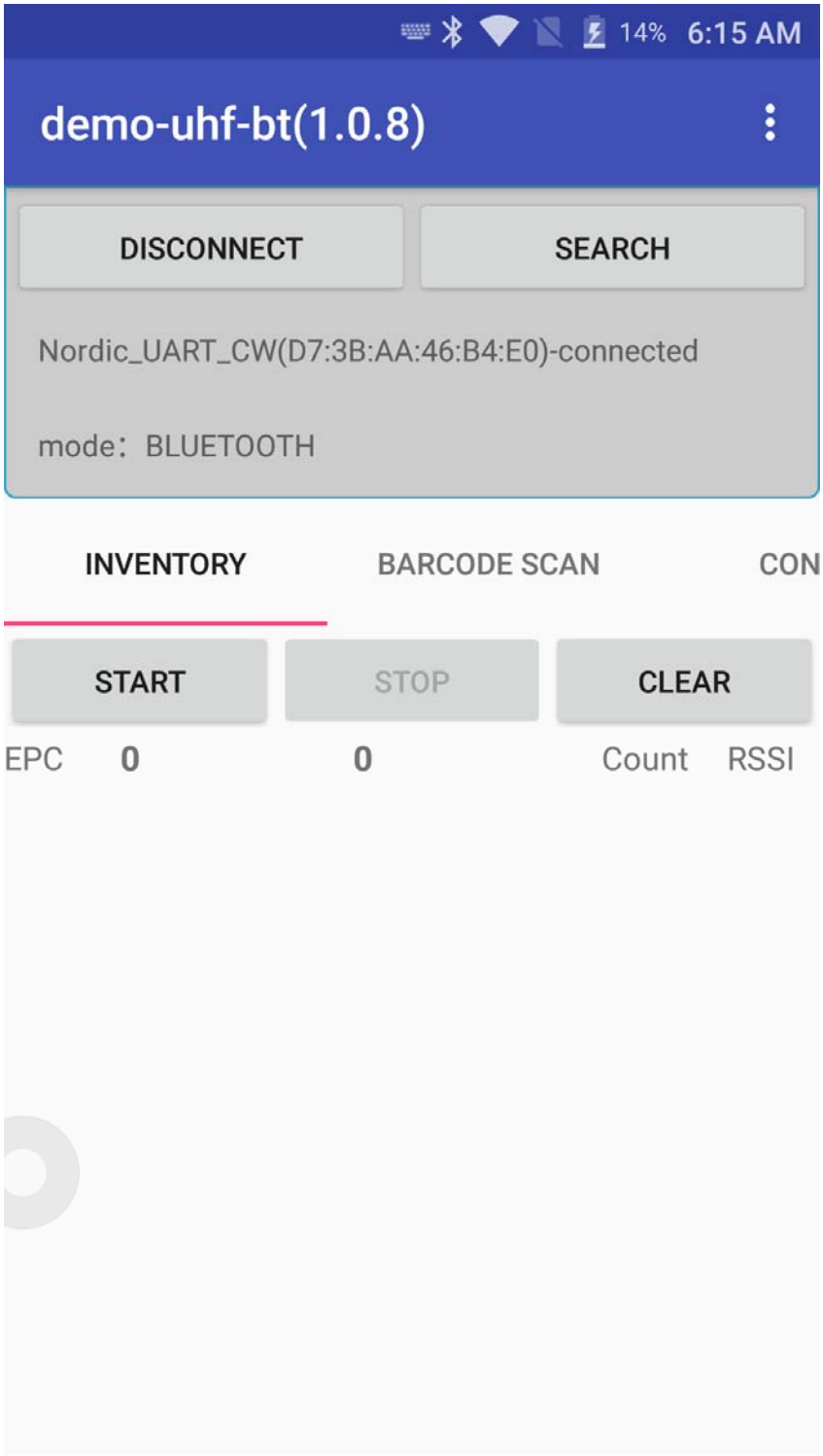
3.2 Pairing Device

1. Switch on Bluetooth function of smartphone or C7x device.
2. Power on R2.
3. Click BLUETOOTH in the demo.
4. Click SEARCH to search for Nordic_UART_CW.



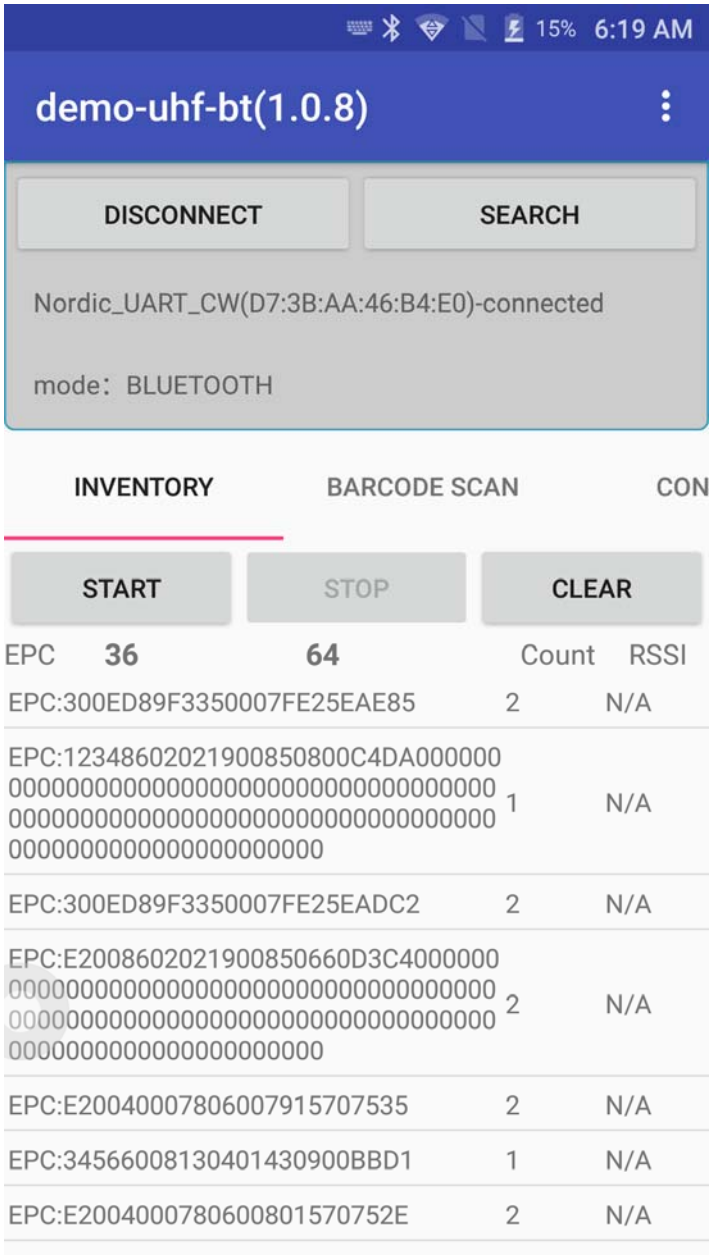
5. Click Nordic_UART_CW to connect.

6. After connecting successfully, user could click 3 dots on top right to check UHF version, battery percentage and UHF module temperature.



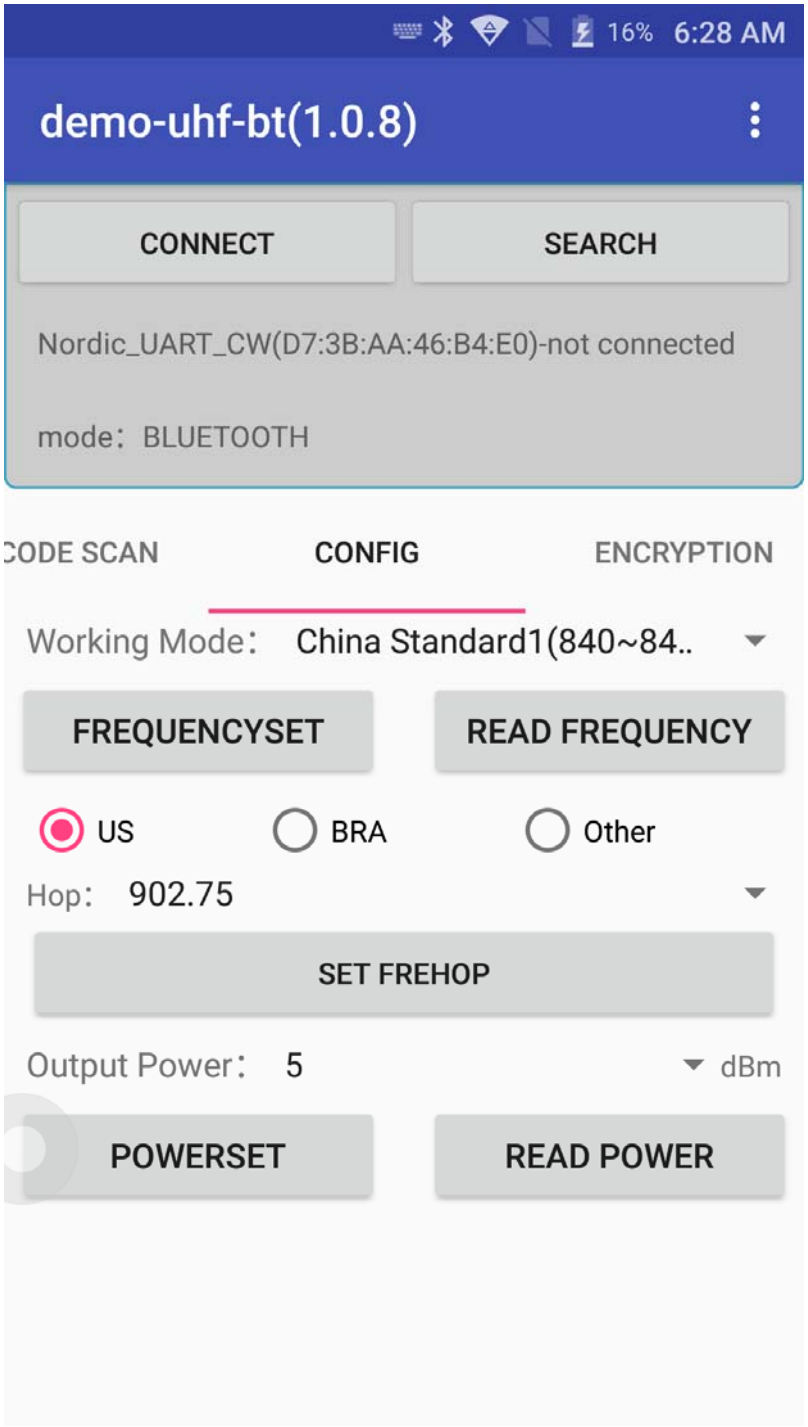
3.3 Scan Function

1. Click START in demo or press SCAN button on R2, the UHF tags could be read.
2. Click STOP in demo to stop reading of UHF tags.
3. Click CLEAR to clean all EPC information.



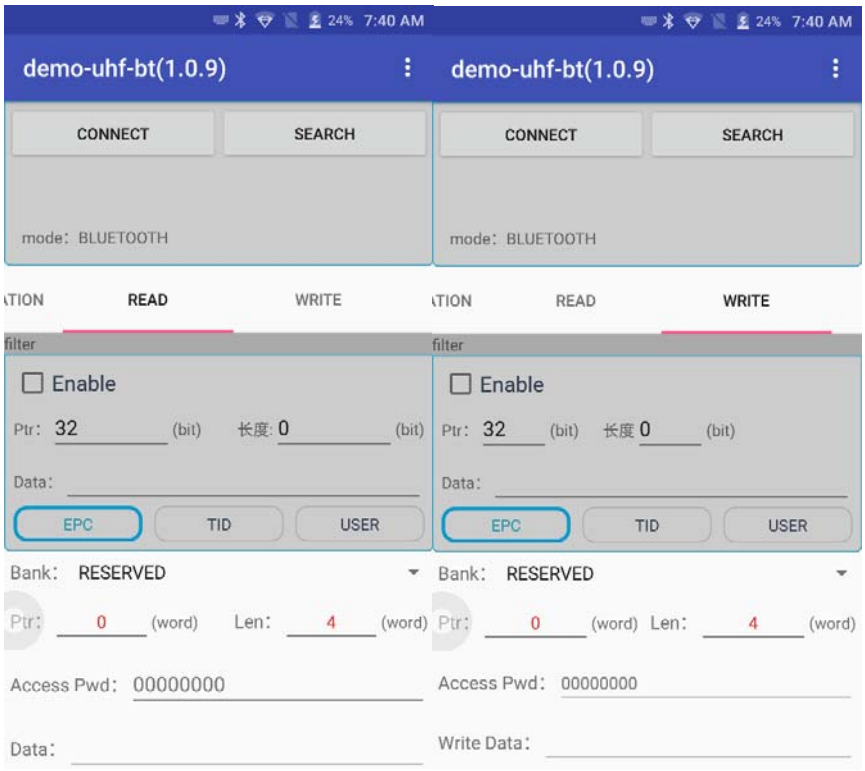
3.4 UHF Configuration

1. Click CONFIG in demo to adjust working mode and output power.



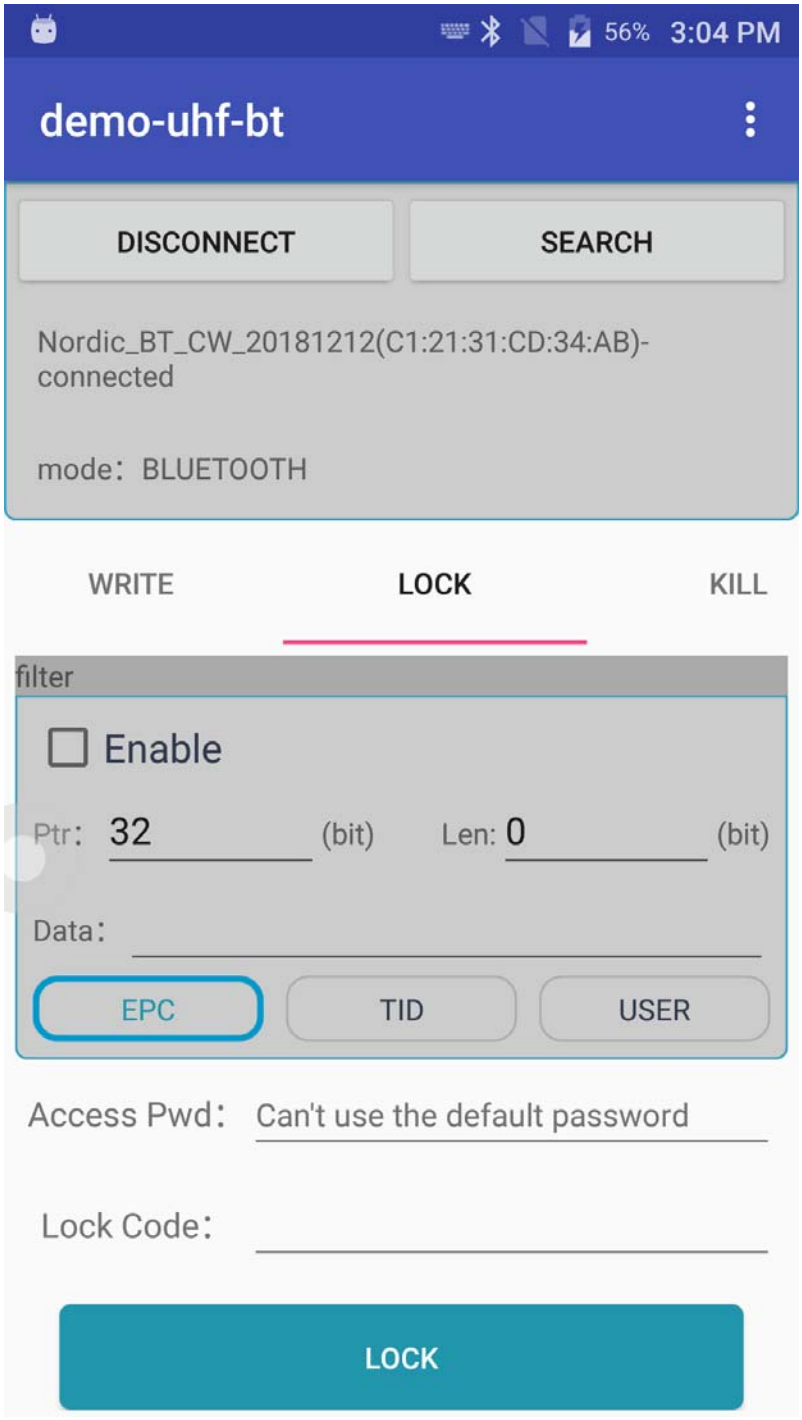
3.5 UHF Tag Reading and Writing

1. The storage of one tag has 4 zones: RESERVED, EPC, TID and USER. Normally, the default password is 00000000. And TID zone can only be read, other zones can be read and written.

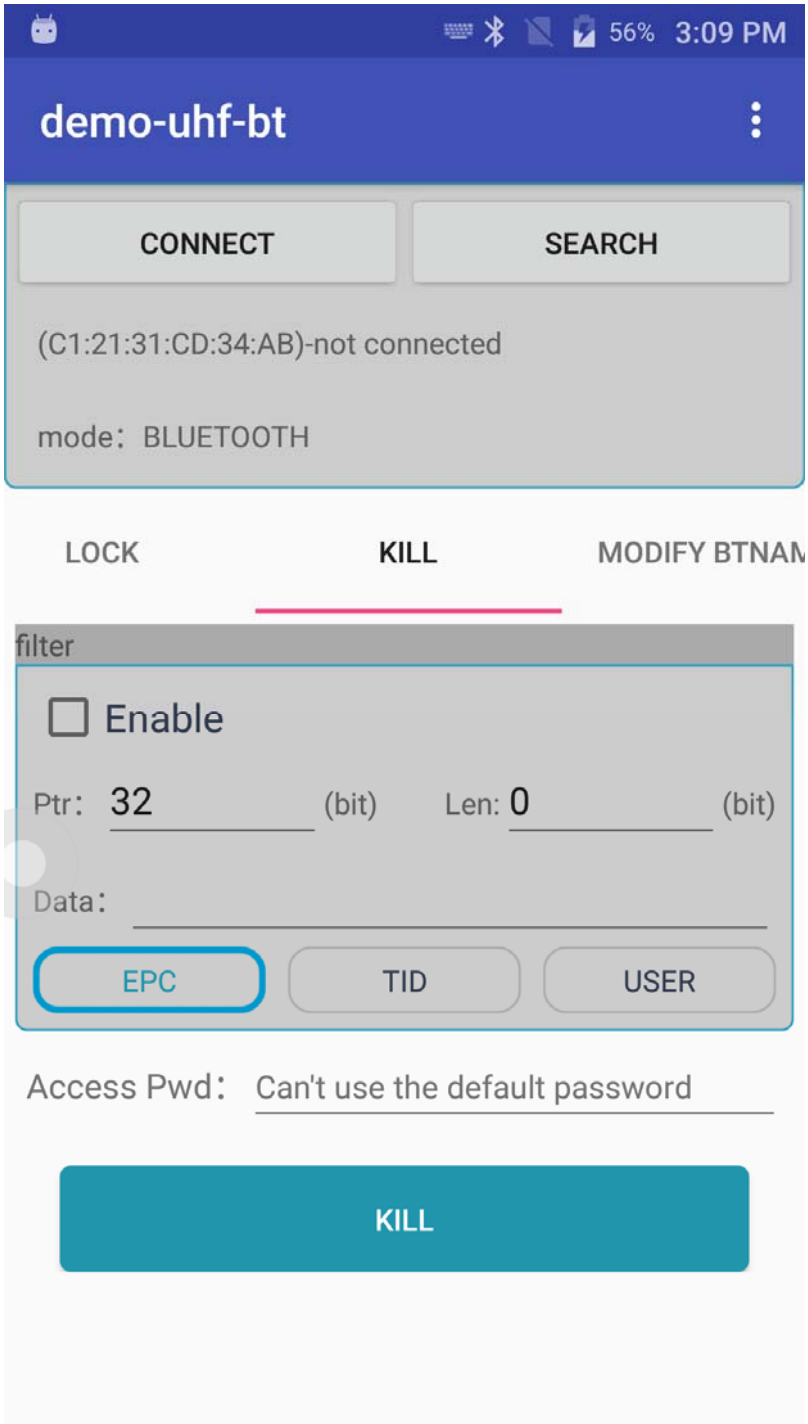


3.6 UHF Tag Lock and Kill

1. Lock Function:
   For example. User could try to lock down EPC zone.

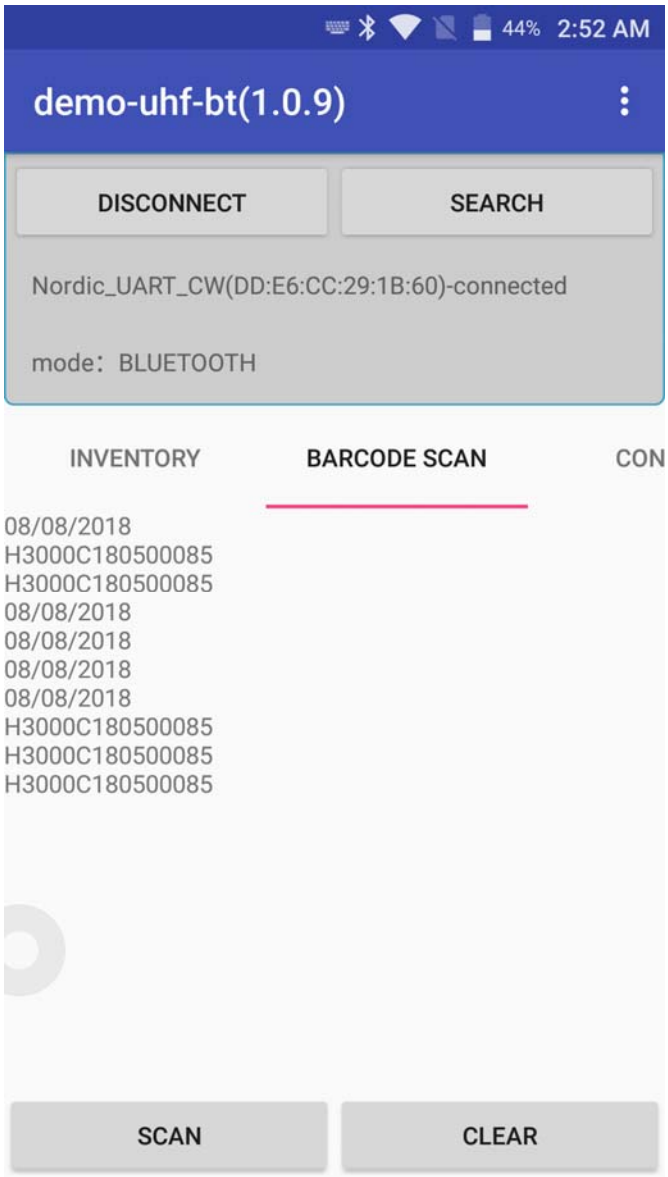


2. Kill Function:
   Kill function can be used to kill the tag permanently. Input the correct access password and click kill.



3.7 Barcode Scan Test

Select BARCODE SCAN in the demo and click SCAN button on the screen to scan barcodes.



Chapter 4 Device characteristic

Physical characteristics

Size	275x117.5x48.5mm
Weight	324g/ 11.43oz (with battery)
Color	White
Appearance material	Plastic
Keypad	PWR button (side), up, down, return, ok, SCAN button (front)
Battery specification	5200mAh 4.35V
Display	1.77 inch, 128X160
Indicator LED	Power, Work, Bluetooth
Buzzer	Support
Interfaces	Micro-USB

Performance

MCU	Cortex-M3/72 MHz
RAM+ROM	64M+4G

User environment

Operating temp.	-20℃ to 50℃
Storage Temp.	-40℃ to 70℃
Humidity	5%RH - 95%RH non condensing

Data collection

2D Imager Scanner	SE2707
1D Symbologies	UPC/EAN, Code128, Code39, Code93, Code11, Interleaved 2 of 5, Discrete 2 of 5, Chinese 2 of 5, Codabar, MSI, RSS, etc.
2D Symbologies	PDF417, MicroPDF417, Composite, RSS, TLC-39, Datamatrix, QR code, Micro QR code, Aztec, MaxiCode; Postal Codes: US PostNet, US Planet, UK Postal, Australian Postal, Japan Postal, Dutch Postal (KIX), etc.

UHF

Antenna	Linear Polarized antenna (4dBi)
Frequency	902-928MHz(US) 865-868MHz(EU)
Protocol	EPC C1 GEN2 / ISO18000-6C
Module power	1W (30dBm), Target
R/W range	>28m(indoors);>12m(open outdoors)
Reading rate	>200tags/s

BLE

Antenna	Chip antenna (0.6dBi)
Frequency	2402-2480MHz
Protocol	EPC C1 GEN2 / ISO18000-6C
Module power	-6.6dBm(EIRP) For EU

3.8 FCC Statement

§ 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.

§ 15.21 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.

§ 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.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

Hereby, Shenzhen Chainway Information Technology Co.,Ltd. declares that the radio equipment type R2 is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following Internet address: http://chainway.cn/

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