

# UHF Swing Reader

## LM-R2 User Manual



# Chapter 1 Installation Instructions

## 1.1 Appearance

LM-R2 back and front appearances are showing as follows:



## Buttons and Indicating Lamps instruction

Buttons and Lamps		Description
Indicating Lamps	WIFI	Display WIFI connection status
	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

## **1.2 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.

# 1.3 Buttons and function area display

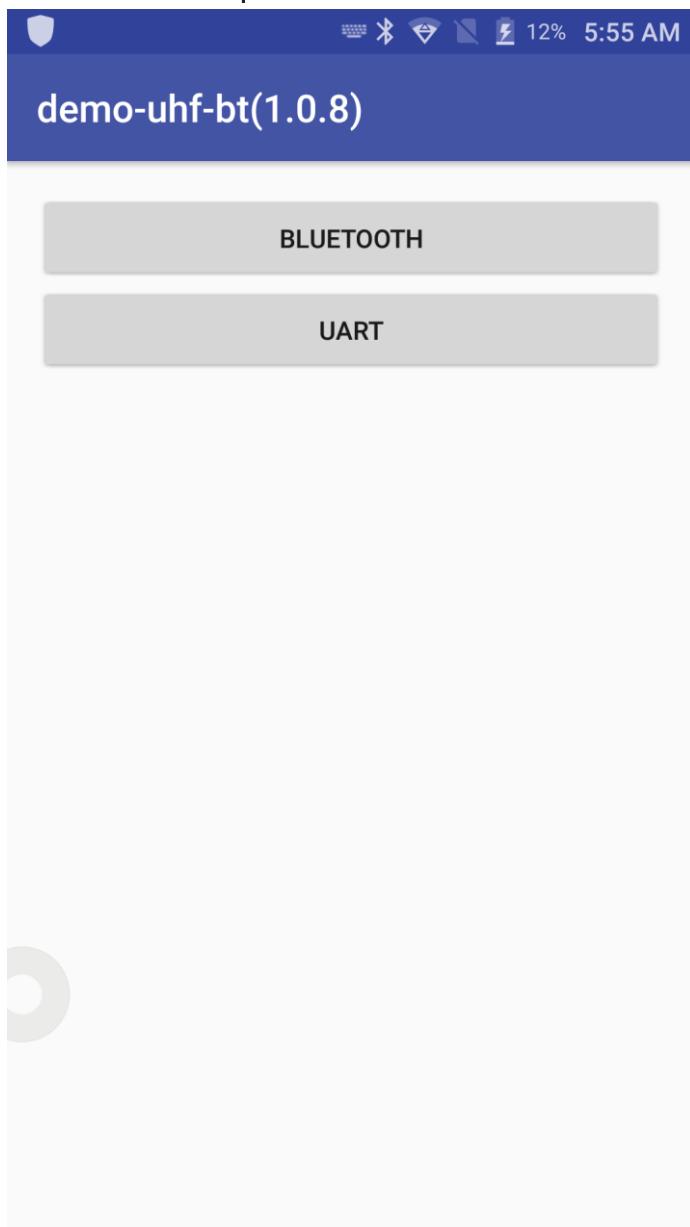
LM-R2 UHF swing reader has 4 function buttons and 1 SCAN button, UHF scanning area, 1 display screen. Power key on the right side.



# Chapter 2 Demo Test

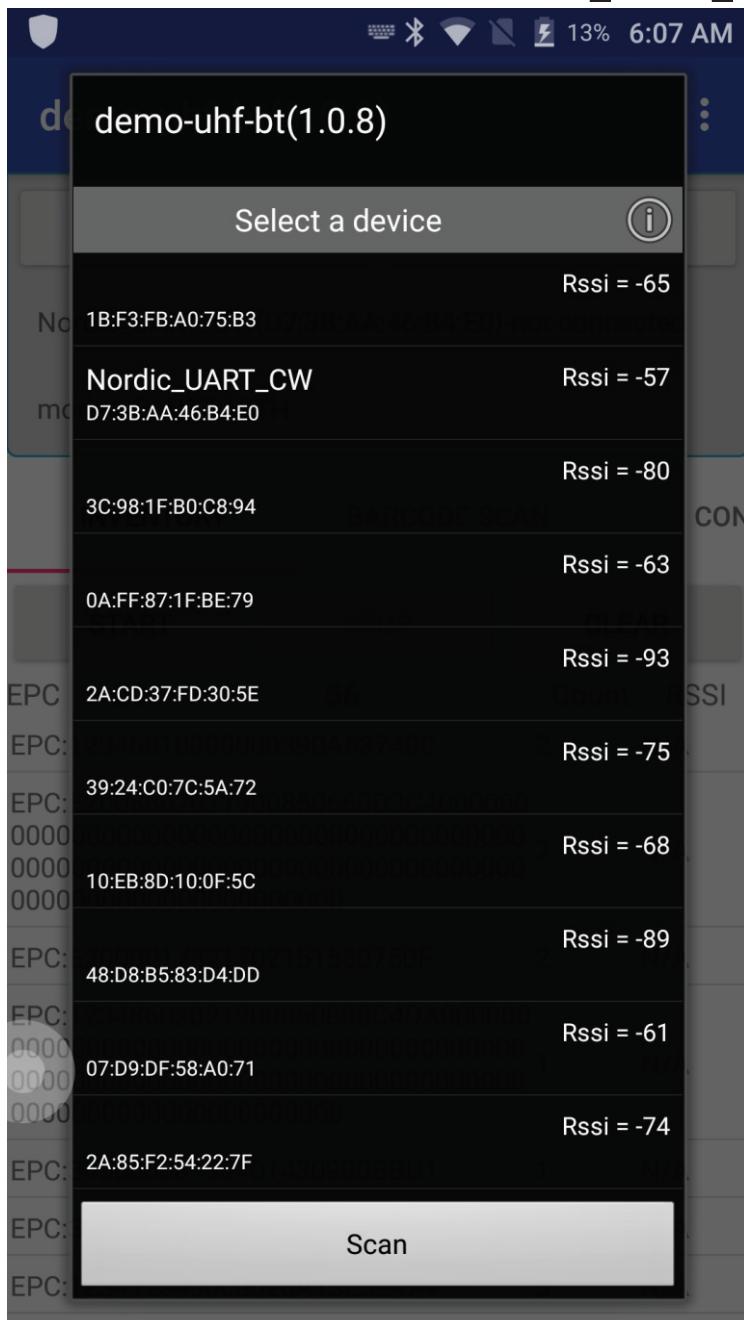
## 2.1 Install demo-uhf-bt (1.0.8)

1. Copy demo-uhf-bt (1.0.8) into internal storage of smart phone or C7x device.
2. Click to install.
3. Click icon to open demo.



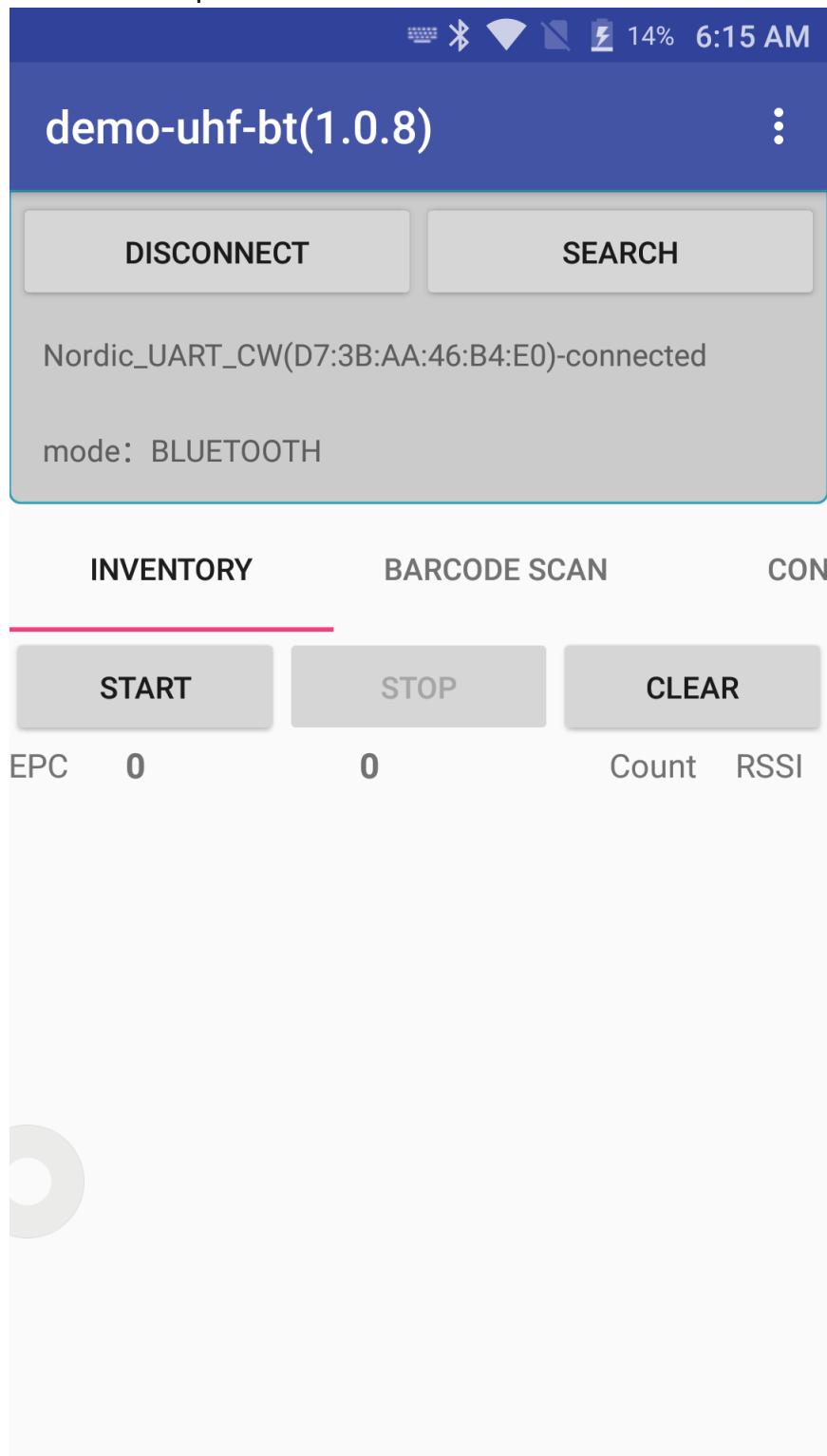
## 2.2 Pairing Device

1. Switch on Bluetooth function of smartphone or C7x device.
2. Power on LM-R2.
3. Click BLUETOOTH in the demo.
4. Click SEARCH to search for Nordic\_UART\_CW.



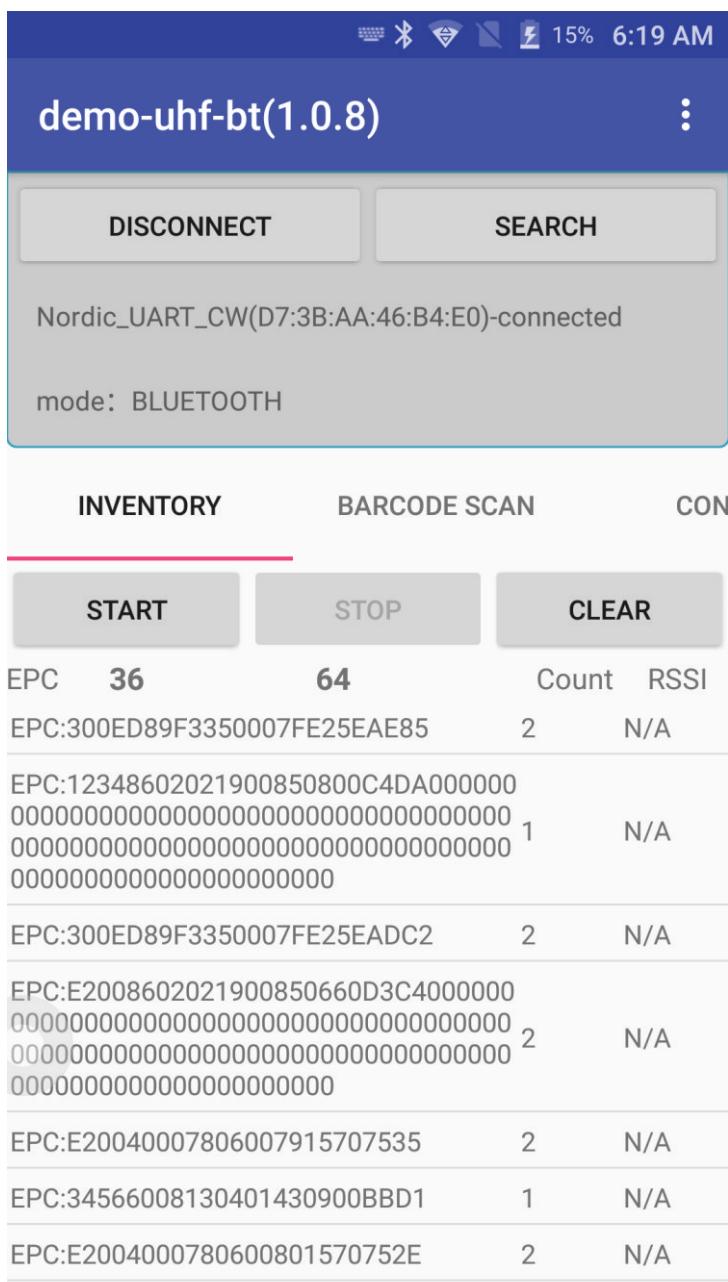
5. Click Nordic\_UART\_CW to connect.

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



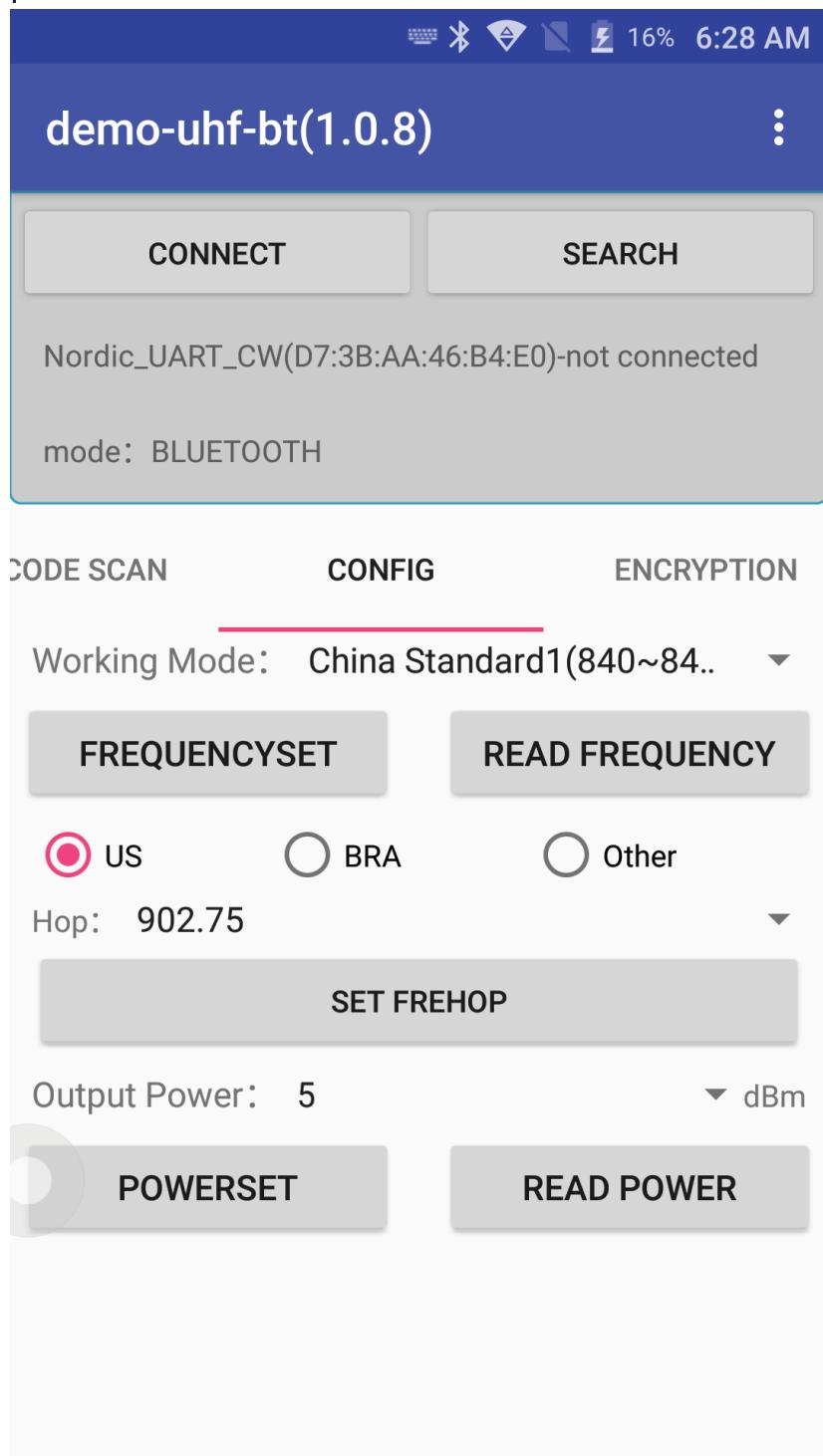
## 2.3 Scan Function

1. Click START in demo or press SCAN button on LM-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.



## 2.4 UHF Configuration

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



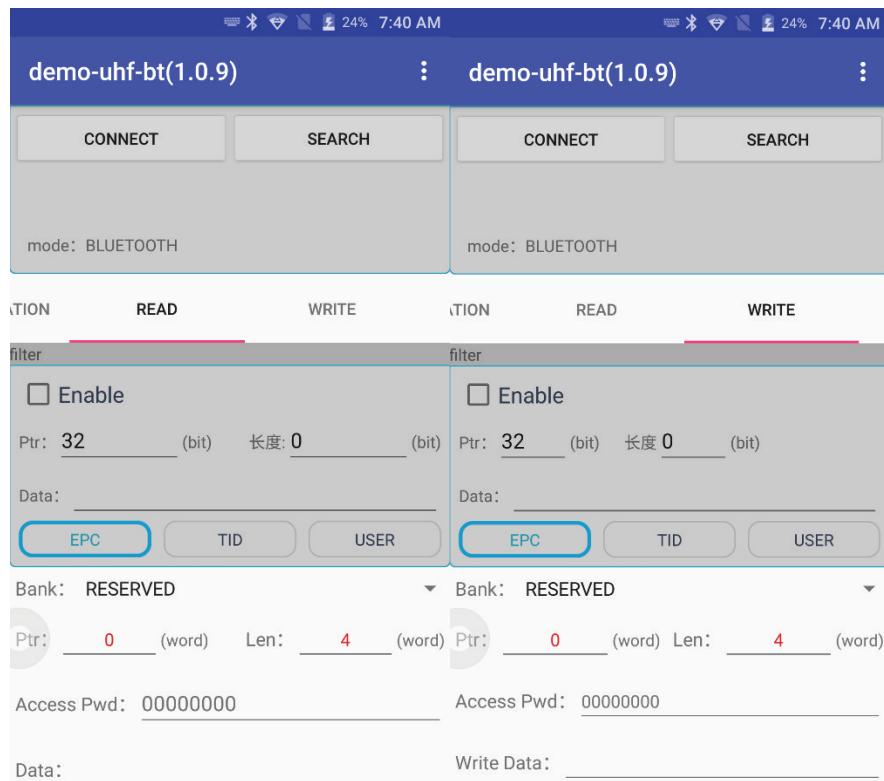
## 2.5 UHF Encryption

1. Click ENCRYPTION to decrypt and encrypt the special zones of UHF tags such as USER, EPC, etc.



## 2.6 UHF Tag Reading and Writing

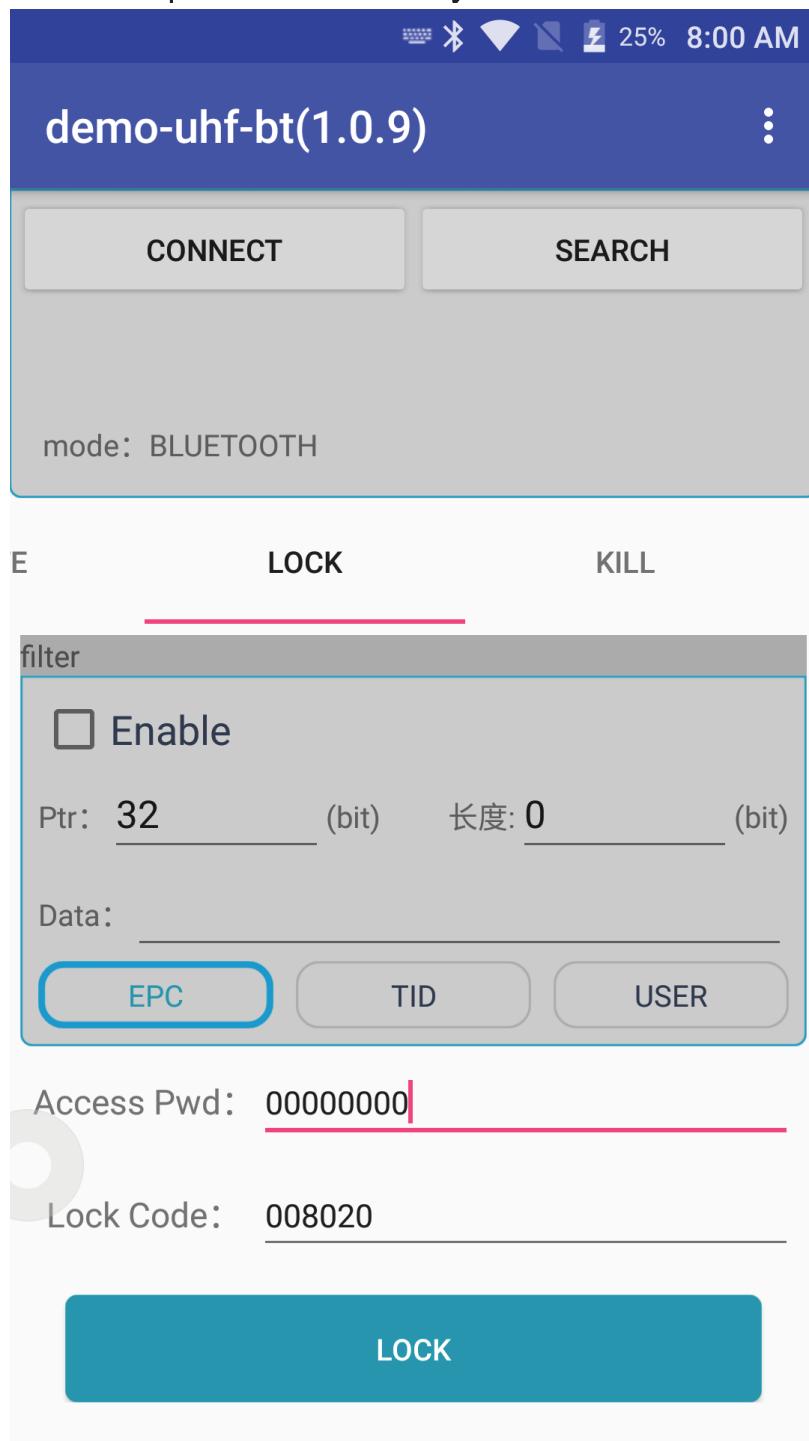
1. The storage of one tag has 4 zones: RESERVED, EPC, TID and USER. Normally, the default password is 00000000. And TID zone can only be read, other zones can be read and written.



## 2.7 UHF Tag Lock and Kill

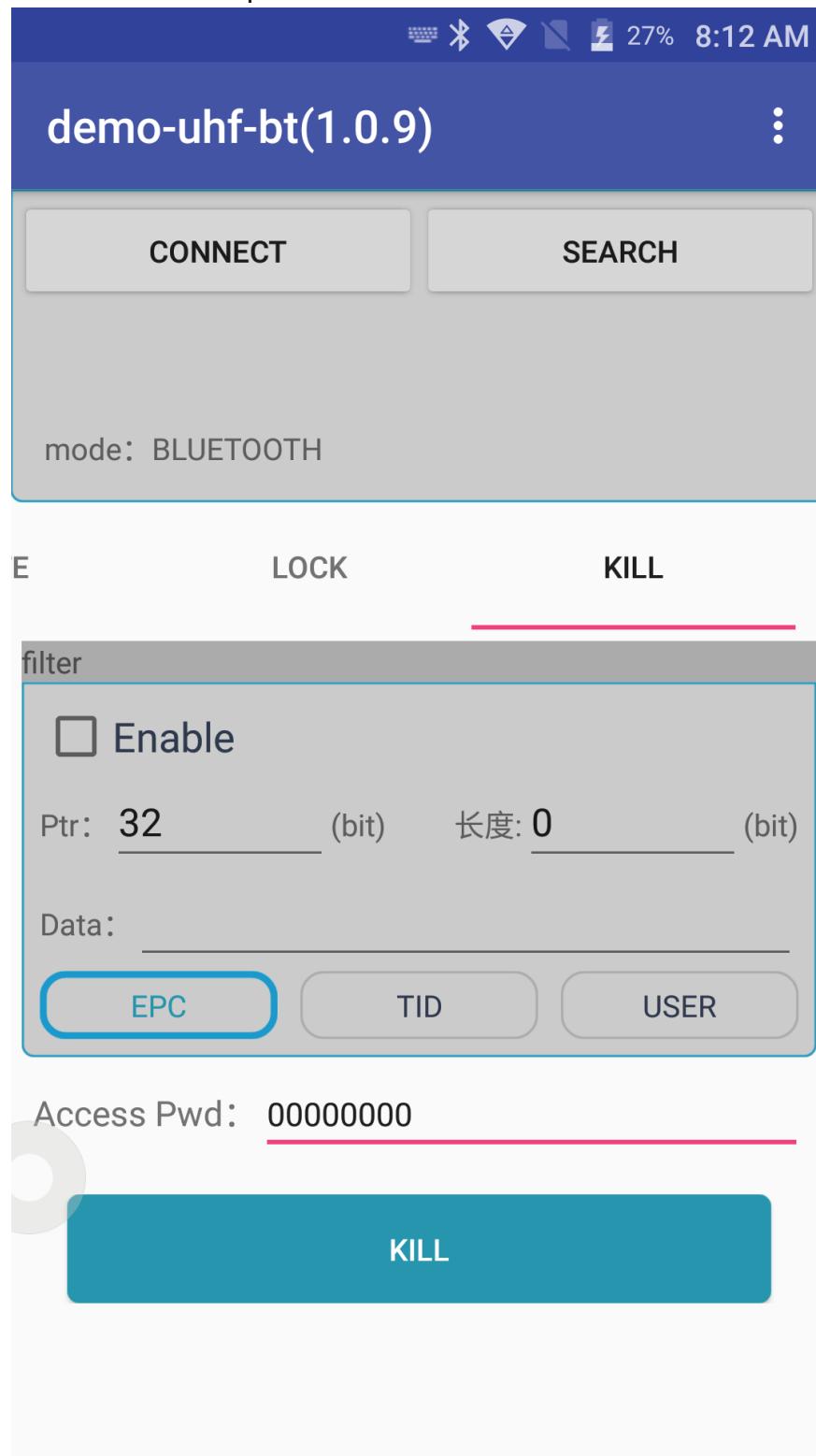
### 1. Lock Function:

For example. User could try to lock down EPC zone.



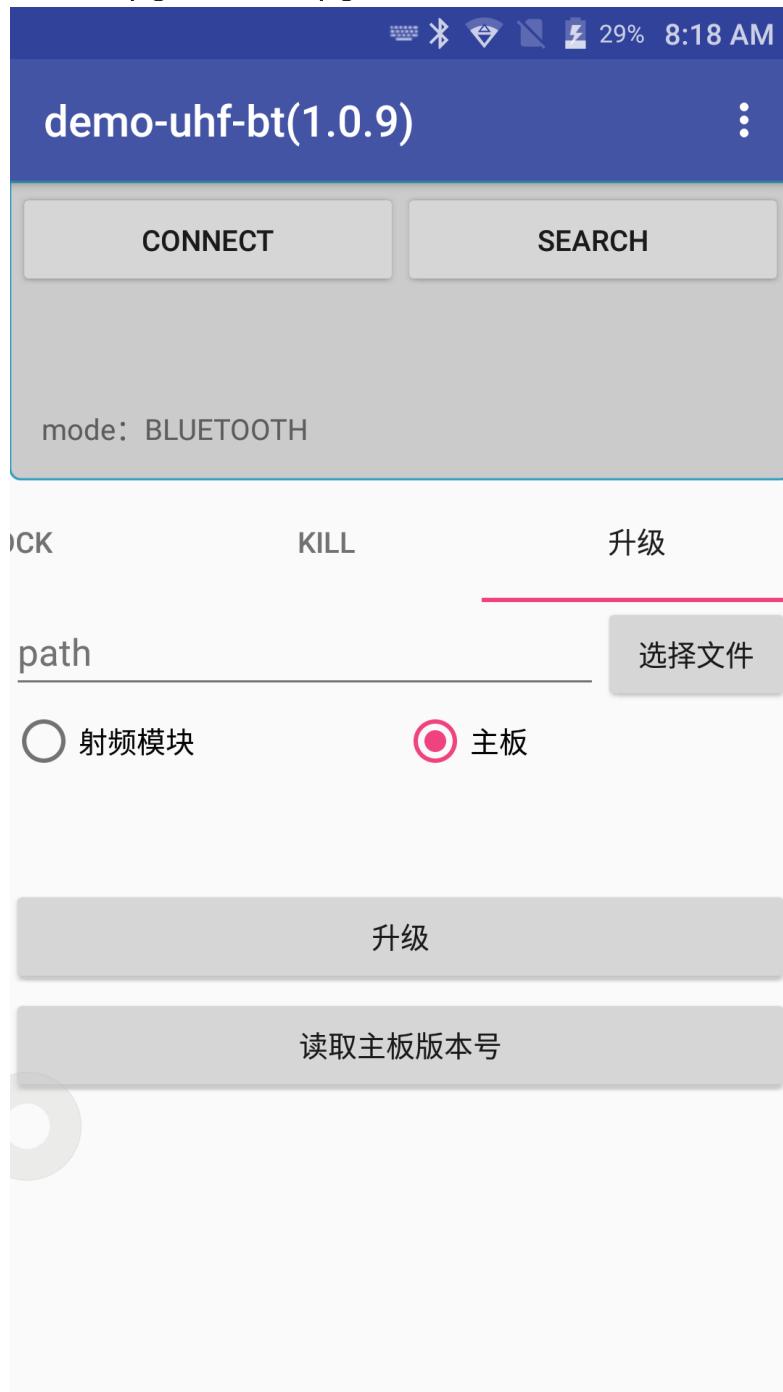
## 2. Kill Function:

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



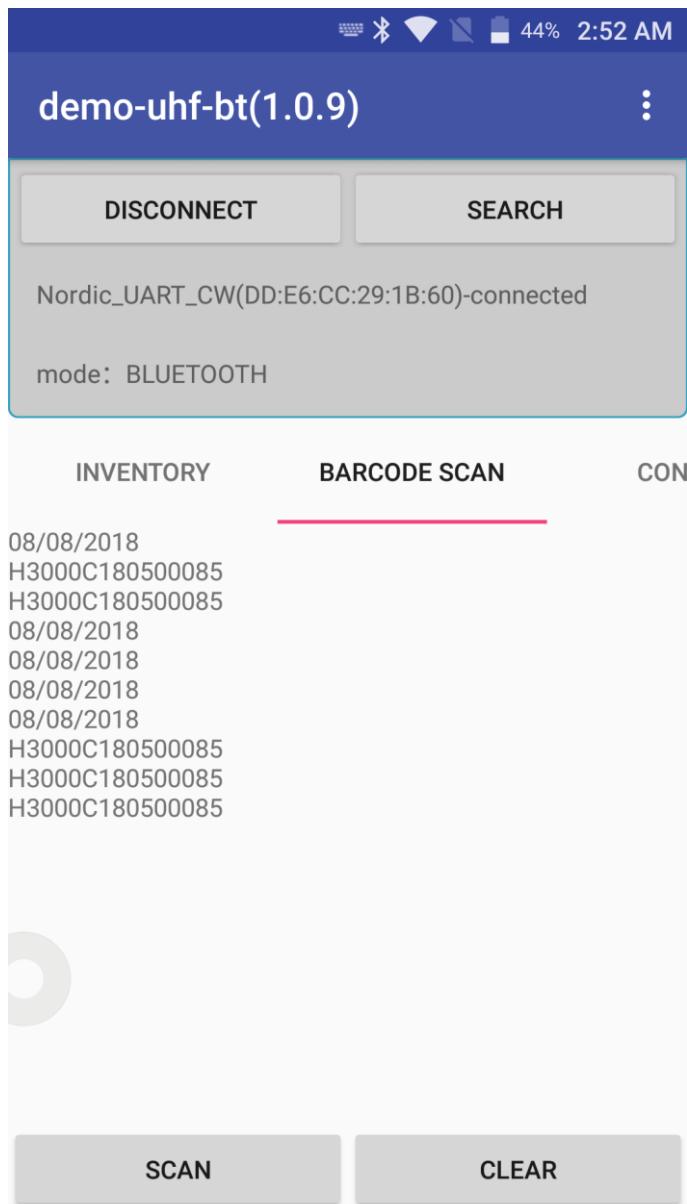
## 2.8 Firmware Upgrade

1. Copy the firmware bin. file into internal storage.
2. Click Select file to search for bin.
3. Click Upgrade to upgrade firmware.



## 2.9 Barcode Scan Test

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



# Chapter 3 Device characteristic

## Physical characteristics

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

## Performance

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

## User environment

<b>Operating temp.</b>	-20°C to 50°C
<b>Storage Temp.</b>	-40°C to 70°C
<b>Humidity</b>	5%RH - 95%RH non condensing

## Data collection

<b>2D Imager Scanner</b>	SE2707
<b>1D Symbologies</b>	UPC/EAN, Code128, Code39, Code93, Code11, Interleaved 2 of 5, Discrete 2 of 5, Chinese 2 of 5, Codabar, MSI, RSS, etc.
<b>2D Symbologies</b>	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

<b>Antenna</b>	Linear Polarized antenna (4dBi)
<b>Frequency</b>	920-925MHz/902-928MHz/865-868MHz
<b>Protocol</b>	EPC C1 GEN2 / ISO18000-6C
<b>Module power</b>	1W (30dBm, support +5~+30dBm adjustable)
<b>R/W range</b>	>28m(indoors);>12m(open outdoors)
<b>Reading rate</b>	>200tags/s