MARSON MR18 UHF Sled Reader User Manual

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User Manual

MR18
UHF Sled Reader
User's Manual

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Chapter 1 Product Intro

MR18 is a new UHF back clip product, featuring the Cortex-M3 STM32 processor with excellent working performance. The device can be used with any Android and IOS device as a host. The device combines powerful UHF (Read and write) functions with 2D scanning for greater sensitivity. It is equipped with a host that is widely used in clothing inventory, warehouse management, vehicle management, financial management, and other fields.

Appearance

MR18 reader has 1 power button and 1 Type-C port, 1 SCAN button.

LED Indication

Indicator LEDs	Description
Power	LED lights up constantly (battery available) LED flashes (low battery)
Bluetooth	Constant light up (Bluetooth connected)
Work	Flash when reading UHF tags

Precaution before using battery

- Do not leave the battery unused for a long time, no matter whether it is in the device or inventory. If the battery has been used for 6 months already, it should be checked for charging function or it should be disposed of correctly.
- The lifespan of a Li-ion battery is around 2 to 3 years, it can be circularly charged 300 to 500 times. (One full battery charge period means completely charged and completely discharged.)

- When a Li-ion battery is not in use, it will continue to discharge slowly. Therefore, battery charging status should be checked frequently and take reference to the related battery charging information in the manuals.
- Observe and record the information of a new unused and non-fully charged battery. On the basis of the operating time of a new battery and compare with a battery that has been used for a long time. According to the product configuration and application program, the operating time of the 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 use it. Replace it with a new battery.
- Store the battery at temperatures between 5 °C and 20 °C (41 °F and 68 °F).

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

Note:
Using the incorrect type of battery has the danger of explosion. Please dispose of the used battery according to the 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 the 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

Charging the battery
With a Type C USB cable, the original adaptor should be used for charging the device. Make sure not to use other adaptors to charge the device.

Installing a smartphone on MR18

1. Insert the smartphone between clamps. Position the smartphone to avoid that the buttons on the edges of the smartphone match the clamp area.

2. Pull one of the clamps to the side, meanwhile push the smartphone down until it is firmly secured.

Removing the battery

1. Rotate the switch at the bottom of the handle counterclockwise.

2. Open the cap at the bottom of the handle and remove the battery.

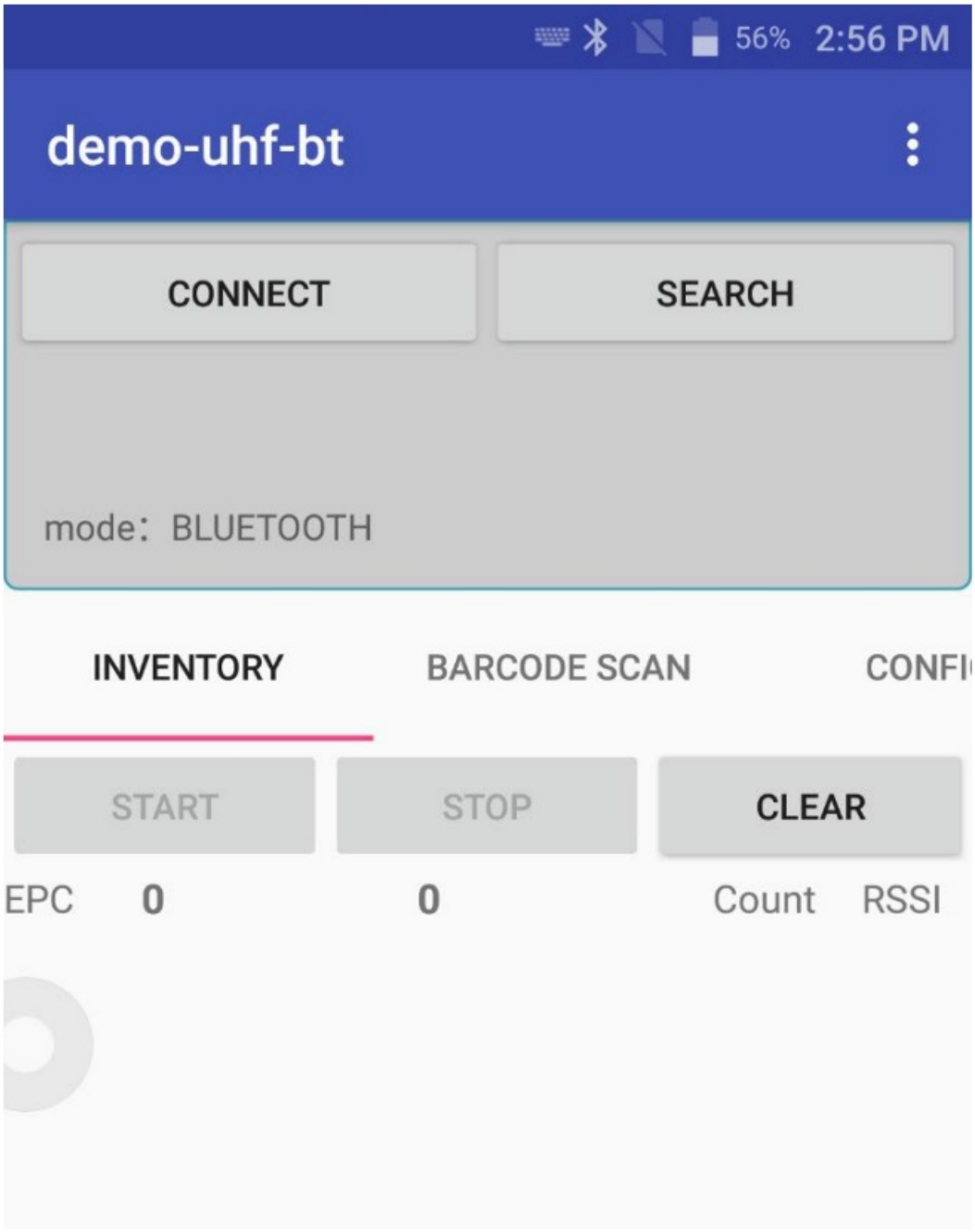
Chapter 3 Demo Test

Install demo-uhf-bt (1.0.8)

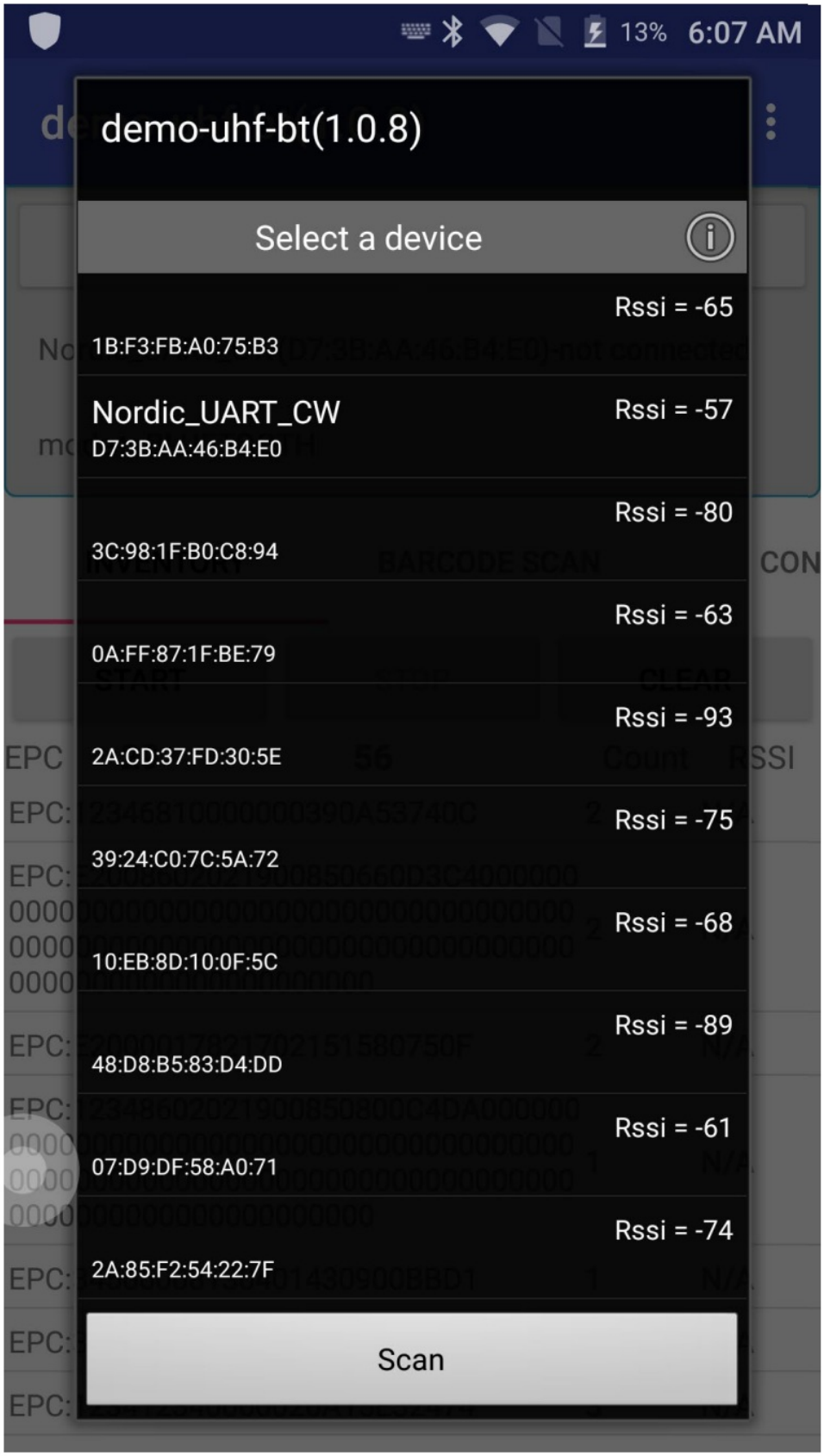
1. Copy demo-uhf-bt (1.0.8) into the internal storage of the smartphone or C7x device.
2. Click to install.
3. Click the icon to open the demo.

Pairing Device

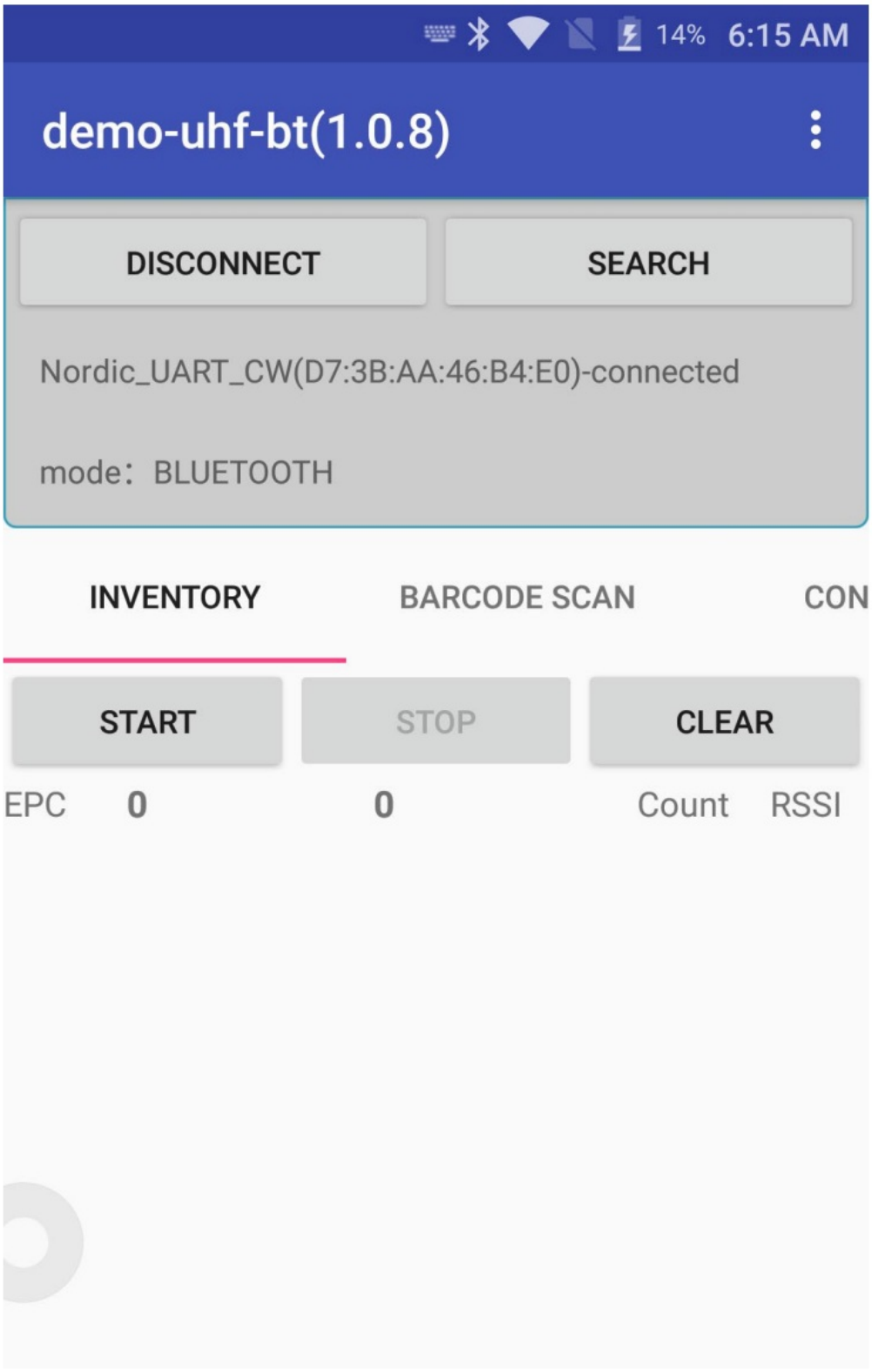
1. Switch on the Bluetooth function of the smartphone or C7x device.
2. Power on MR18.
3. Click BLUETOOTH in the demo.



4. Click SEARCH to search for MAC of MR18.

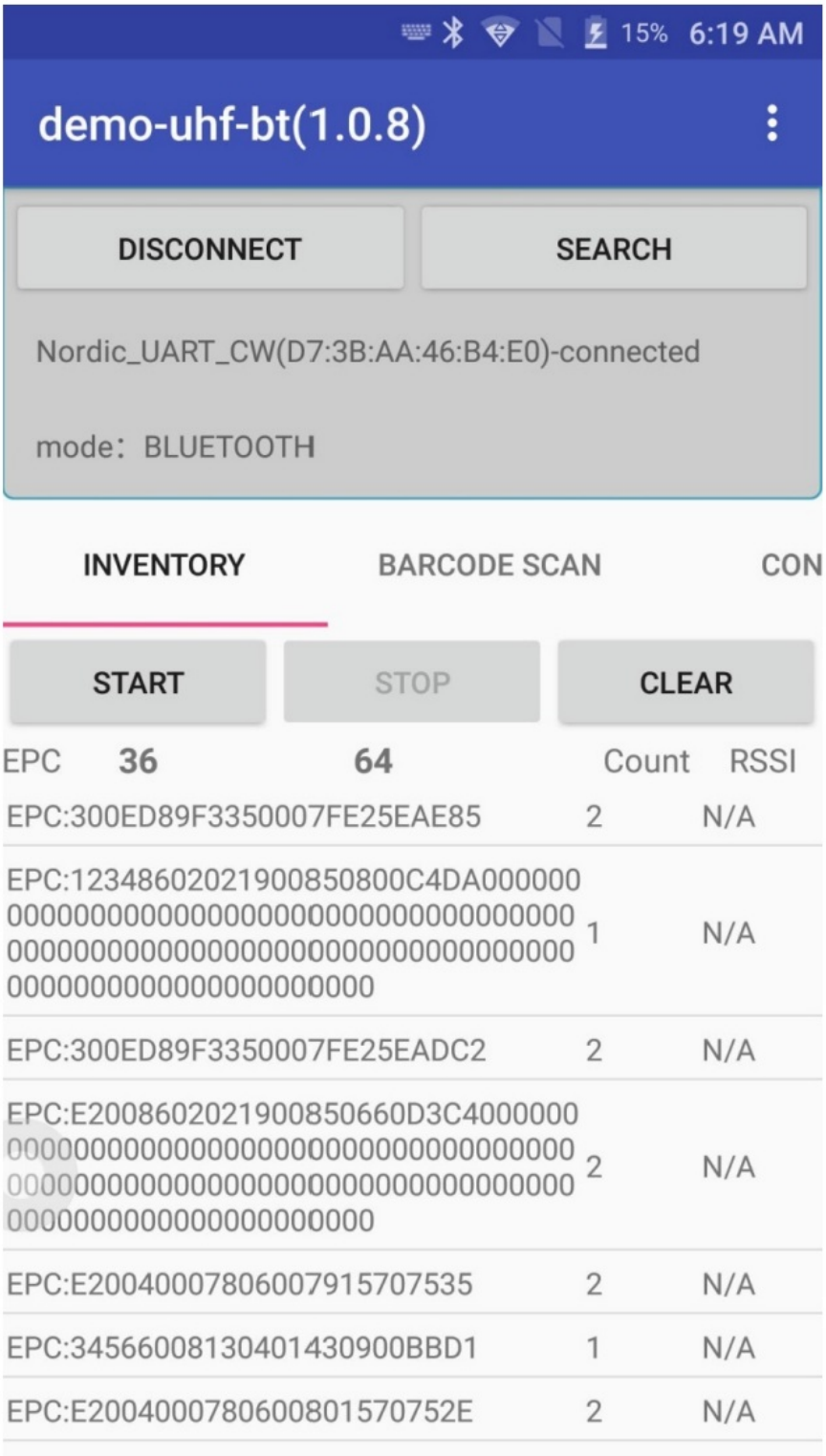


5. Click the correct MAC to connect.
6. After connecting successfully, a user could click 3 dots on the top right to check the UHF version, battery percentage, and UHF module temperature.



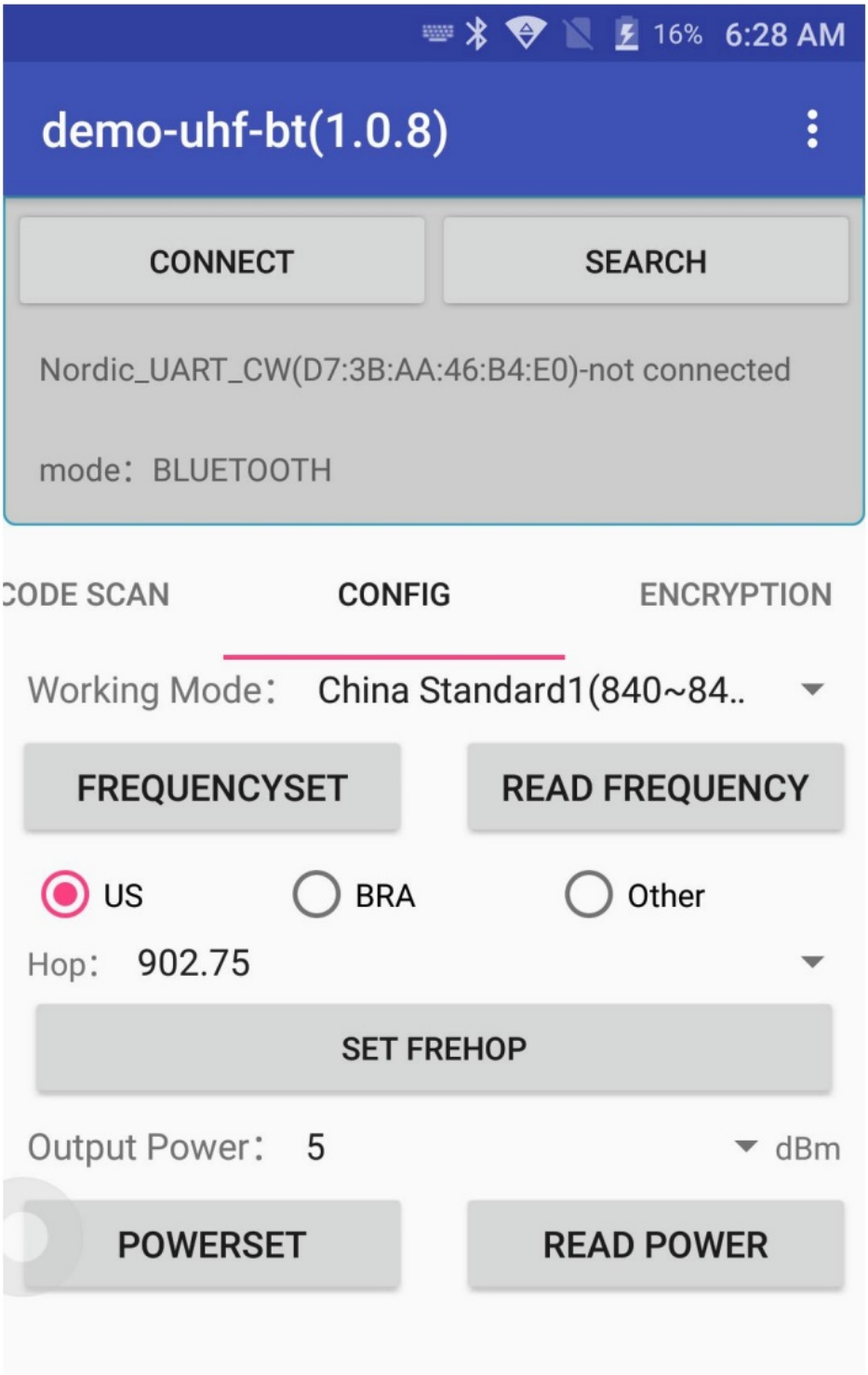
UHF Scan Function

1. Click START in the demo or pull the trigger on MR18, the UHF tags could be read.
2. Click STOP in the demo to stop reading UHF tags.
3. Click CLEAR to clean all EPC information.



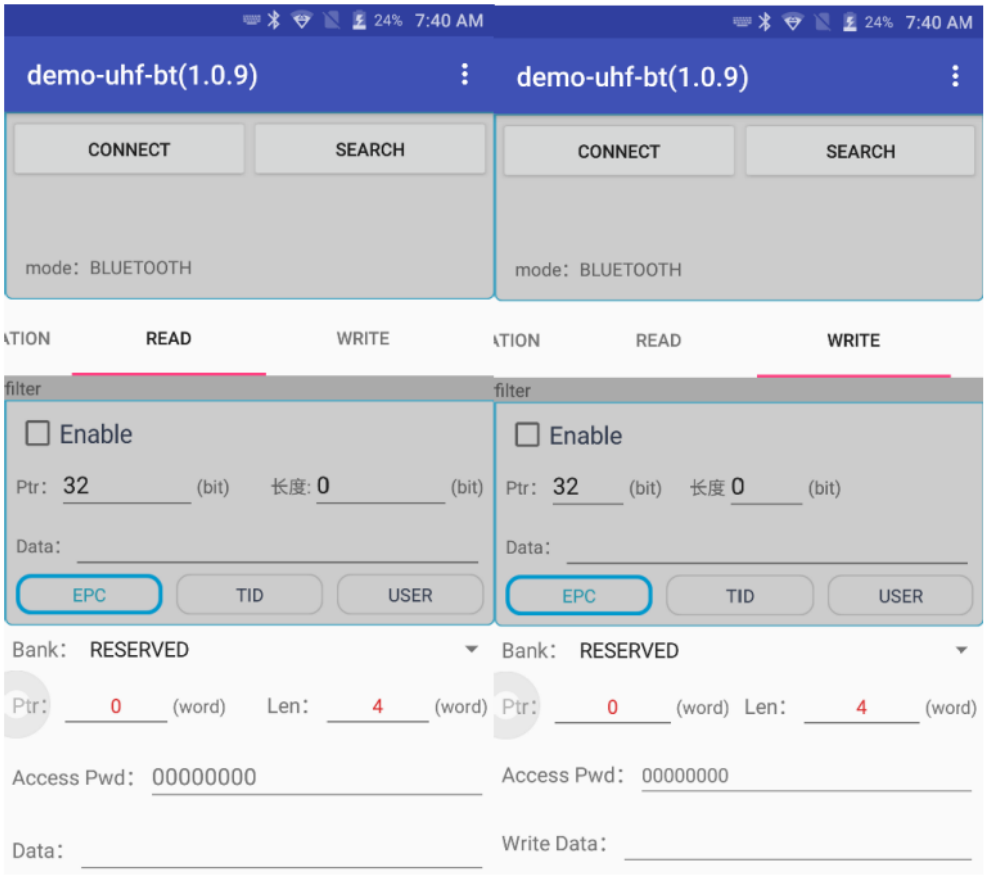
UHF Configuration

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



UHF Tag Reading and Writing

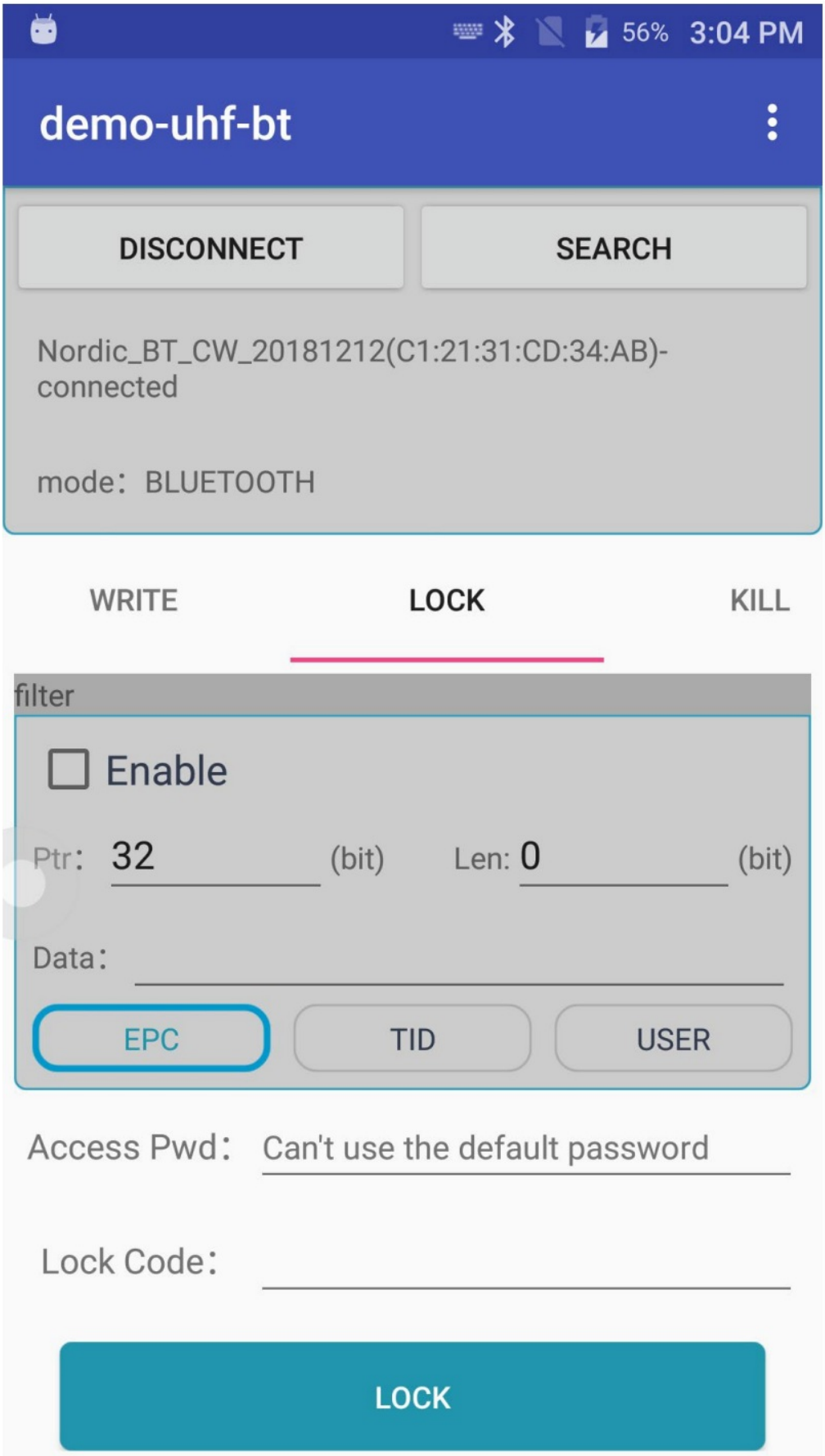
1. The storage of one tag has 4 zones: RESERVED, EPC, TID, and USER. Normally, the default password is 00000000. And TID zone can only be read, other zones can be read and written.



UHF Tag Lock and Kill

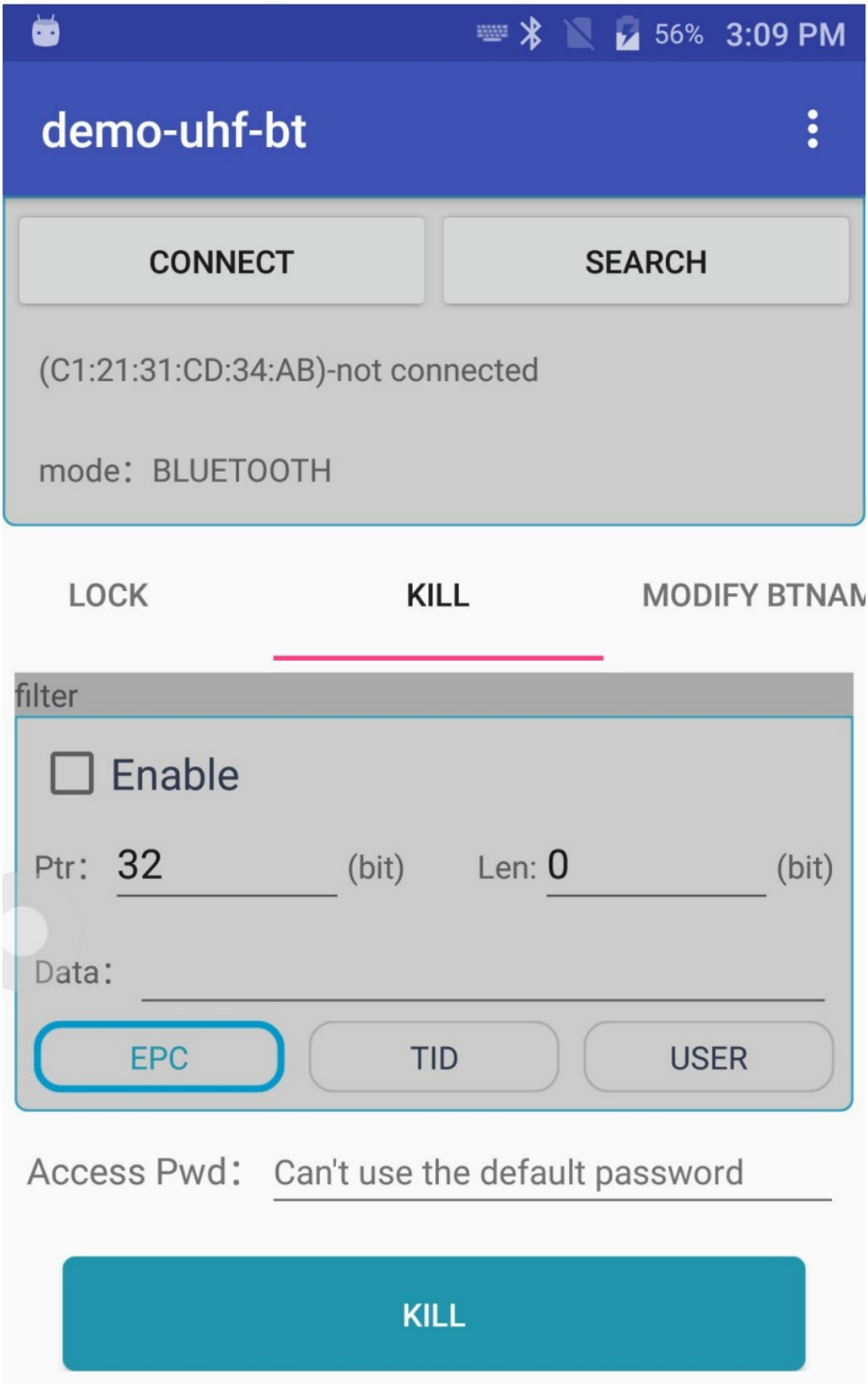
1. Lock Function:

   For example. Users could try to lock down the EPC zone.



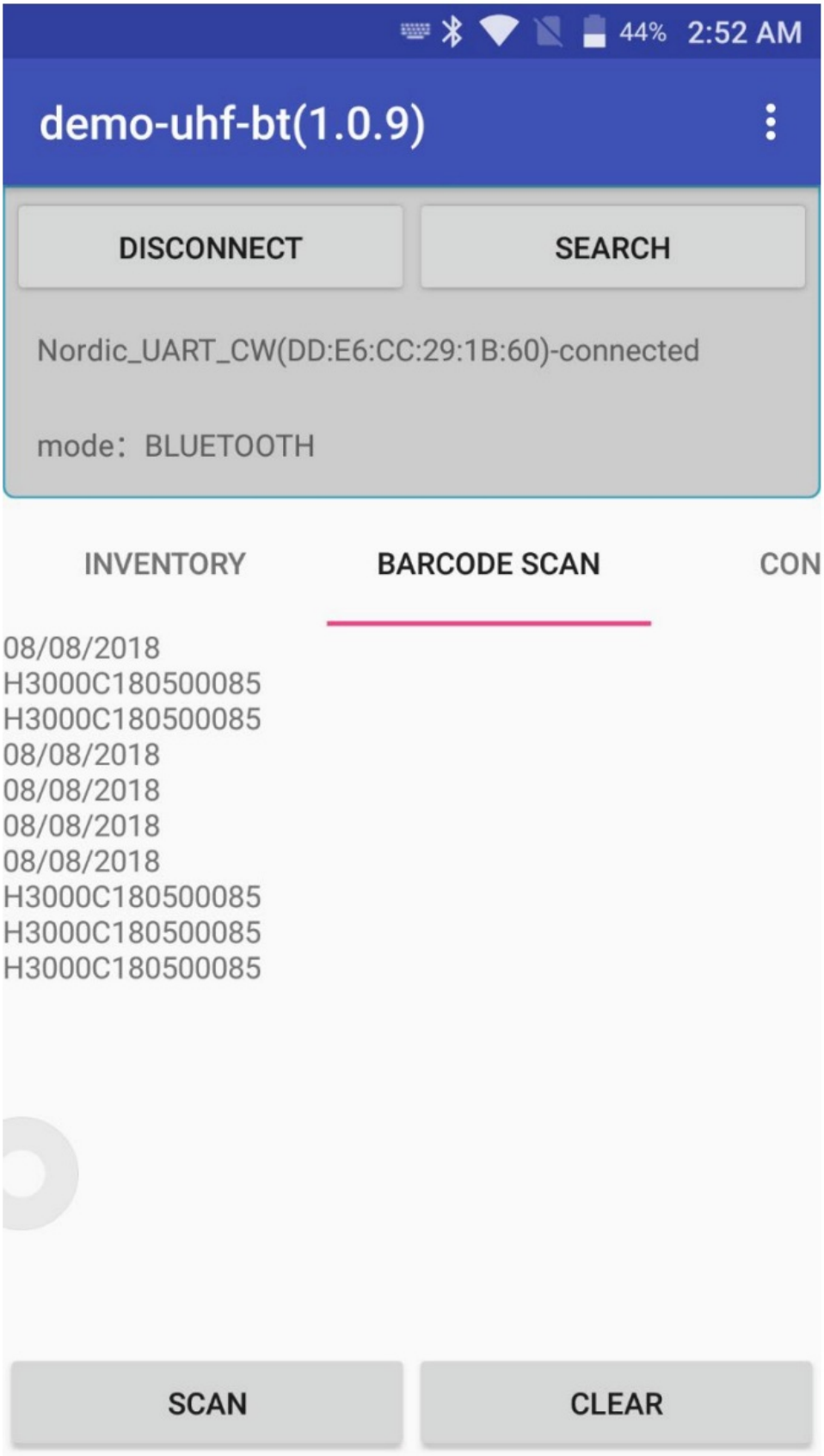
2. Kill Function:

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



Barcode Scan Test

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



Chapter 4 Device characteristic

Physical characteristics	
Size	153.96x76x129.08mm
Weight	445g
Color	Black
Appearance material	Plastic
Product material	Plastic
Battery specification	2600mAh/5200mAh
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 noncondensing
Barcode scanning	
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	Circular Polarized Antenna (3dBic)
Frequency	920-925MHz/902-928MHz/865-868MHz
Protocol	EPC C1 GEN2 / ISO18000-6C
Module power	1W (30dBm, support +5~+30dBm adjustable) 2W Optional (33dBm, for Lati Am erica, etc.)
R/W range	>28m(indoors); >12m(open outdoors)
Reading rate	>200 tags/s * Ranges and rates depend on tags and the environment

Declaration

The simplified EU declaration of conformity referred to in Article 10(9) shall be provided as follows: Hereby, Marson Technology Co., Ltd. declares that the radio equipment type UHF Sled Reader is in compliance with

Directive 2014/53/EU. The full text of the EU declaration of conformity is available in the following.

Documents / Resources

	MARSON MR18 UHF Sled Reader [pdf] User Manual MR18, UHF Sled Reader, MR18 UHF Sled Reader