

MagSled User Guide SPP mode



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1 Révision

| Description | Date | Version | Auteur | Check |
|---------------|------------|---------|----------|-------|
| First release | 2020/11/20 | 1.0 | CLO, FDA | ACA |

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2 Product introduction

2.1 Introduction

The Magsled makes any mobile terminal in a smartphone shape a professional data collection device. **It adapts to any smartphone running under Android or iOS.**

Connect your device and the MagSled very easily in a Bluetooth connection. The MagSled has several features such as powerful UHF RFID reading/writing and 1D/2D barcodes scanning.

2.2 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).

Be careful to check the direction of insertion of the battery: there is no coding.



2.3 Charger

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

2.4 Notes

Note 1:

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

Note 2:

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 3:

The suitable temperature for the product and accessories is 0-10°C to 50°C.

Note 4:

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



3 Installation instruction

3.1 Appearance



Indicating lamp instructions

| | Lamps | Description |
|------------|-----------|---|
| Indiacting | Power | Constant light up (battery available)/Flash (Low battery) |
| Lamps | Bluetooth | Constant light up (Bluetooth connected) |
| Lamps | Work | Flash when read UHF tags |

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3.2 Battery charge

By using USB contact, the original adaptor should be used for charging the device. Make sure not to use other adaptors to charge the device.

3.3 Buttons and function area display

MagSled has 1 power button and 3 indicating lamps.





3.4 Adhesive metal plate for the MagSled

A 40x50mm metal plate with a strong adhesive is delivered with the Magsled. The metal plate needs to be placed on the rear of the PDA/Tablet and interacts with the magnet installed on the upper side of the Magsled.



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4 Demo Test

4.1 Install demo-uhf-bt (1.0.8)

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

4.2 Pairing device

- 1. Switch on Bluetooth function of your smartphone or MBA5-P1x device.
- 2. Power on MagSled.
- 3. Click BLUETOOTH in the demo.

4. Click SEARCH to search for the BLUETOOTH mac address written on the label at the back of the device. Click BLUETOOTH mac address to connect.



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File : MagSled User Guide

Version : V1.0



Your device is connected.

| 10:54.∜ RFID_ios | at ≎ ■) | 10:54.∜ RFID_ios | |
|---------------------|---------------|---|-------------------|
| Disconnect | Search | Disconnect | Search |
| Device: E99936E9B41 | 8-ready | Device: E99936E9B | 418-ready |
| Inventory | New Inventory | Inventory | New Inventory |
| Single Start | Stop Clear | Single Start | Stop Clear |
| EPC 0 0 | Count RSSI | EPC 11 12 | Count RSSI |
| | | 3000aabbccdd11223344555 | 55d82efd47 1 N/A |
| | | 3000330d964a3120028000 | 000003fd54 1 N/A |
| | | 300000000000000000000000000000000000000 | 0000000fd7d 1 N/A |
| | | 34001111222233334444555 | 556666fd59 2 N/A |
| | | 3000e200001b230e0116179 | 055aefddc 1 N/A |
| | | 3000e280689400005004e8 | 562e41ffd27 1 N/A |
| | | 300000000000000000000000000000000000000 | 0000000fd8a 1 N/A |
| | | 3000e200198383060157188 | 305169fd40 1 N/A |
| | | 3000e200001b230e012703 | 106123fd31 1 N/A |
| | | 3000e280689400005006e0 | 0728df8fd39 1 N/A |
| | | 300000000000000000000000000000000000000 | 0000000fd6d 1 N/A |

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4.3 UHF Scan function

- 1. Click SINGLE or AUTO in demo or pull the trigger on MagSled, 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.

| | == ¥ •□• 🗇 🗶 | 84 % | 1:58 PM |
|-------------------|-----------------------|----------|---------|
| demo-uhf-bt | (1.1.5) | | : |
| DISCONNEC | T SI | EARCH | |
| Nordic_UART_CW(| FC:1D:62:01:7D:B8)-cd | onnected | I |
| INVENTORY | BARCODE SCAN | | CONFIG |
| EPC 5 | 104 | Count | RSSI |
| EPC:454C4953524F4 | C3132303032 | 34 | N/A |
| EPC:E2000017690A0 | 185289001AB | 37 | N/A |
| EPC:00000000340 | | 12 | N/A |
| EPC:00B07A13A42D4 | 4B515000061E | 19 | N/A |
| EPC:E200410520120 | 1460600DC32 | 2 | N/A |
| | | | |
| | | | |
| | | | |
| | | | |





4.4 UHF configuration

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

| | * | 4 0 1 😵 🖹 🧵 8 | 34 % 1:58 PM | | | |
|--------------------|---------|----------------------|---------------|--|--|--|
| demo-uhf-bt(1.1.5) | | | | | | |
| DISCONNECT | | SEAF | ксн | | | |
| Nordic_UART_CW(FC | :1D:62: | 01:7D:B8)-conn | ected | | | |
| CONFIG | | READ | WRITE | | | |
| Working Mode: E | urope | Standard(865 | ō~86 ▼ | | | |
| FREQUENCYSET | | READ FRE | EQUENCY | | | |
| Output Power: 30 |) | | ▼ dBm | | | |
| POWERSET | | READ F | POWER | | | |
| Buzzer | | | | | | |
| BUZZER OPEN | | BUZZER | CLOSE | | | |
| | | | | | | |
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|--------|--------------|-----------|---------------------|---------|-------|-------------|------------|----------------------------|----------|
| der | no-uhf-bt | (1.1.5 |) | : | de | mo-uhf-b | ot(1.1.5 | 5) | : |
| | DISCONNEC | т | SEARCH | | | DISCONNE | СТ | SEARC | н |
| Nord | lic_UART_CW(| FC:1D:62: | 01:7D:B8)-connected | ł | Nord | dic_UART_CW | /(FC:1D:62 | 2:01:7D:B8)-connec | ted |
| RY | BARCODES | SCAN | CONFIG | R | ٦Y | BARCODE | SCAN | CONFIG | |
| Work | king Mode: | China S | Standard1(840~84 | 5MHz) | Worl | king Mode: | Europe | e Standard(865~ | 86 |
| FF | REQUENCYS | China S | standard2(920~92 | 5MHz) | F | REQUENCY | SET | READ FREQ | UENCY |
| Outp | ut Power: | Europe | Standard(865~86 | 8MHz) | Outp | out Power: | 25 | | ▼ dB |
| | POWERSET | |)2 028MU-) | , | | POWERSE | 26 | | /ER |
| Buzzer | r | USA(90 | 12-920IVITI2) | | Buzze | r | 20 | | |
| B | BUZZER OPE | Korea(9 | 917~923MHz) | | | BUZZER OP | 27 | | OSE |
| | | Japan(| 952~953MHz) | | | | 28 | | |
| | | | | | | | 29 | | |
| | | | | | | | 30 | | |
| | | | | | | | | | |

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4.5 UHF Tag Reading and Writing

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.

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|--------------------------------|---------------------|----------|--|-------------------|----------------------|
| demo-uhf-bt(1.1.5) |) | : | demo-u | hf-bt(1.1.5) | : |
| DISCONNECT | SEARCH | | DISC | ONNECT | SEARCH |
| Nordic_UART_CW(FC:1D:62: | 01:7D:B8)-connected | ł | Nordic_UAF | RT_CW(FC:1D:62:01 | :7D:B8)-connected |
| CONFIG | READ | WRITE | ONFIG | READ | WRITE |
| filter | | | filter | | |
| Enable | | | 🗌 Enabl | e | |
| Ptr: <u>32</u> (bit) | Len: 0 | (bit) | Ptr: <u>32</u> (bit) Len: <u>0</u> (bit) | | |
| Data: | | | Data: | | |
| ЕРС ТІ | DUSE | ER | EPC | | USER |
| Bank: RESERVED | | • | Bank: RE | SERVED | • |
| Ptr: 0 (word) | Len: 4 | _ (word) | Ptr: | 0 (word) Le | en: <u>4</u> (word) |
| Access Pwd: 0000000 |) | | Access Pwo | d: 00000000 | |
| Data: | | | Write Data: | | |
| RE | AD | | | WRITE DA | ATA |

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4.6 UHF Tag Lock and Kill

4.6.1 Lock Function

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

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|--------------------|---|---------|--|--|--|--|--|--|
| demo-uhf-bt(1.1.5) | | | | | | | | |
| DISCONNECT | SEARCH | | | | | | | |
| Nordic_UART_CW(FC: | Nordic_UART_CW(FC:1D:62:01:7D:B8)-connected | | | | | | | |
| WRITE | LOCK | KILL | | | | | | |
| filter | | | | | | | | |
| Enable | | | | | | | | |
| Ptr: <u>32</u> (| bit) Len: 0 | (bit) | | | | | | |
| Data: | | | | | | | | |
| EPC | TID US | ER | | | | | | |
| Access Pwd: Can't | t use the default passwo | ord | | | | | | |
| Lock Code: | | | | | | | | |
| | LOCK | | | | | | | |
| | | | | | | | | |

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4.6.2 Kill Function

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

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|--|-------------|--|--|--|--|--|--|
| demo-uhf-bt(1.1.5) | | | | | | | |
| DISCONNECT SEA | RCH | | | | | | |
| Nordic_UART_CW(FC:1D:62:01:7D:B8)-con | nected | | | | | | |
| WRITE LOCK | KILL | | | | | | |
| filter | | | | | | | |
| Enable | | | | | | | |
| Ptr: <u>32</u> (bit) Len: <u>0</u> | (bit) | | | | | | |
| Data: | | | | | | | |
| EPC TID | USER | | | | | | |
| Access Pwd: Can't use the default password | | | | | | | |
| KILL | | | | | | | |
| | | | | | | | |
| | | | | | | | |

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4.7 Firmware Upgrade

- 1. Click CHOOSE FILE.
- 2. Click SELECT the file in the internal storage.
- 3. Click UPGRADE to upgrade firmware.

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|--------------------|--------------------|--------------|--|--|--|--|--|--|
| demo-uhf-bt(1.1.5) | | | | | | | | |
| DISCONNECT | SI | EARCH | | | | | | |
| Nordic_UART_CW(FC: | 1D:62:01:7D:B8)-cc | onnected | | | | | | |
| KILL | UPDATE | BT REN/ | | | | | | |
| path | | CHOOSE FILE | | | | | | |
| O R2000 | () STM32 | | | | | | | |
| | | | | | | | | |
| | UPDATE | | | | | | | |
| ST | M32 VERSION | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
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4.8 Barcode Scan Test

Select BARCODE SCAN in the demo and click SCAN button on the screen to scan barcodes. Click CLEAR to clean all information

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|---|---------------------------|--------|---|---|------------|---------|--------|---|
| demo-uhf-bt(1.1.5) | | | | demo-uhf-bt(1.1.5) | | | | : |
| | DISCONNECT SEARCH | | | | DISCONNECT | | SEARCH | |
| Nordic_UART_CW(FC:1D:62:01:7D:B8)-connected | | | | Nordic_UART_CW(FC:1D:62:01:7D:B8)-connected | | | | |
| RY | BARCODE SCAN | CONFIG | R | ٦Y | BARCO | DE SCAN | CONFIG | R |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | default | | |
| | | | | | | utf-8 | | |
| Encod | ing Format default | | | Encodi | na Format | gb2312 | | - |
| LICOU | SCAN | CLEAR | | SCAN (| | CLEAR | | |

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