

# **Beacon / iBeacon / MiniBeacon**

## **Datasheet V2.04**

<b>Model</b>	<b>Description</b>
i3-B	Rectangle shape, black waterproof case with 3M adhesive sticker and screws , CE&FCC certified module including 2 x AA batteries and packaging box, RoHS
i3-W	Rectangle shape, white waterproof case with 3M adhesive sticker and screws , CE&FCC certified module including 2 x AA batteries and packaging box, RoHS

The robust MiniBeacon i3 is an enterprise-level iBeacon with ARM core chipset nRF51822 and leverage BLE 4.0 technology; it has a strong & waterproof case, accurate hardware and robust firmware. It is designed for the commercial advertising and indoor location-based service.

Minew Beacons broadcast 2.4GHz radio signals at regular and adjustable intervals. MiniBeacon can be heard and interpreted by iOS and Android BLE-enabled devices that are equipped with many mobile apps.

## FEATURES

- Programmed MiniBeacon standard firmware
- Powered by 2pcs AA batteries, alkaline
- Omni-directional PCB antenna
- The max. 200 meters advertising distance
- Waterproof IP65
- Ultra-low power consumption chipset nRF51822 with ARM core



i3 Robust MiniBeacon

Image 1

## CERTIFICATIONS

- iBeacon MFi License (iBC-14-00582)
- FCC Regulation (FCC Part 15.)
- CE Regulations (Included EN300328/301489/60950/62479)

## SPECIFICATION

### Compatibility

- Supported iOS 7.0+ and Android 4.3+ system;
- Compatible with Apple iBeacon™ standard;
- Compatible with all Bluetooth 4.0 (BLE) devices;

### Long Battery Lifetime and Battery Level

- 5 years, with the default settings;
- LED will be flashing when battery low;
- Easy to get the real-time battery level notification;

### Soft-reboot

- Reboot the device via command without any tools;

### OTA and J-Link

- Supported upgrade via Over-The-Air;
- Reserved J-Link port on the board for programming;

### Connection Mode

- Advertising mode, non-connectable;
- Configuration mode, connectable;

### Configurable Parameters

- UUID, Major, Minor, Device Name, Password etc.
- Special Configuration APP;

### Transmission Power Levels

- 8 adjustable levels, range from 0 to 7
- Transmission power range: -30dBm to +4dBm;

### Long Range

- The max. Range 200 meters in the open space;
- The range depends on the physical environment;

### Security

- 8 characters password (Lock/Unlock parameters);
- Broadcast the encrypted data if needed;
- AES HW encryption

### Mounting

- 3M branded adhesive for direct mounting to wall;
- Bracket for mounting on non-metal wall by two-screw holds:

**BATTERY ASSEMBLY**

- Please prepare at least 2pcs AA size alkaline batteries;
- **Please do check the polarity of batteries and battery-socket before assembly, see image 2;**
- Please assembly the batteries as the below image 3;
- MiniBeacon will be turned on automatically if batteries were assembly correctly;



Image 2



Image 3

**LOW BATTERY INDICATION**

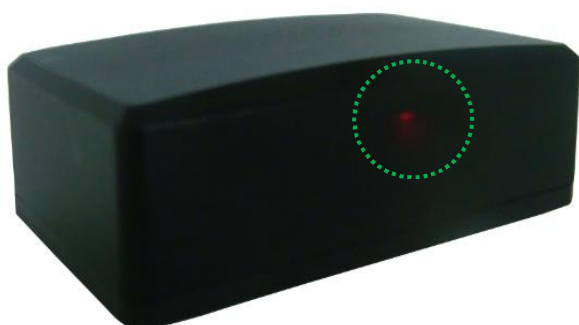


Image 4

- If the battery level lower to 2.3V, the Red LED will flash a time every 5 seconds; MiniBeacon will stop broadcasting automatically once the battery level lower to 2.1 volts. (Image 4)

- We don't provide any batteries for i3 samples, because the heavy of batteries will substantially increase the shipment.

**TECHNICAL SUPPORT**

Item	Version	File Name	Updated Date
Datasheet	V2.04	i3_MiniBeacon Datasheet_2.04.pdf	1 <sup>st</sup> August, 2015
Instruction	V2.03	Instructions_MiniBeacon_V2.03.pdf	25 <sup>th</sup> May, 2015
SDK	V1.0	Android Reference Source Code; iOS Reference Source Code;	28 <sup>th</sup> February, 2015
APP Tools	V2.0	iBeaconCFG; iBeaconDFU;	3 <sup>rd</sup> March, 2015

\* Minew sales team will send you these documents after the sample arrived.

**CONFIGURABLE PARAMETERS**

Characteristic	Item	Default Settings
0xFFFF1	UUID	E2C56DB5-DFFB-48D2-B060-D0F5A71096E0 (Proximity)
0xFFFF2	Major	0
0xFFFF3	Minor	0
0xFFFF4	Measured Power	-59 (0xC5)
0xFFFF5	Transmission Power	6 (0dBm)
0xFFFF6	Change Password	minew123 (Must be 8 characters)
0xFFFF7	Broadcasting Interval	5(500mS)
0xFFFF8	Serial ID	Random (Unique serial ID for beacon)
0xFFFF9	iBeacon Name	MiniBeacon_ (the maximum 14 characters)
0xFFFFE	Connection Mode	0 (connectable, configuration mode)
0xFFFFF	Soft Reboot	minew123 (it is same as the value of Change Password)

**ELECTRONIC PARAMETERS**

Item	Value	Remarks
Case Color	Black, white	Other colors can be customized
Battery Model	2 x AA (LR6)	2pcs Alkaline battery, 2500mAh, 3.0V
Operation Voltage	1.8-3.6V	DC
Transmission Circuit	10.5mA (Max.)	Tested at 0dBm transmission power
Transmission Range	200 meters	Maximum
Antenna	50ohm	On board / PCB Antenna
Accessories	Double adhesive	1pc, high-strength, 3M brand;
	Screws	2pcs screws and 2pcs plastic holders
Net Weight	50.0g	Without battery and package box
Size	72 x 45 x 22MM	Null

**PACKING INFORMATION**

Gift package:

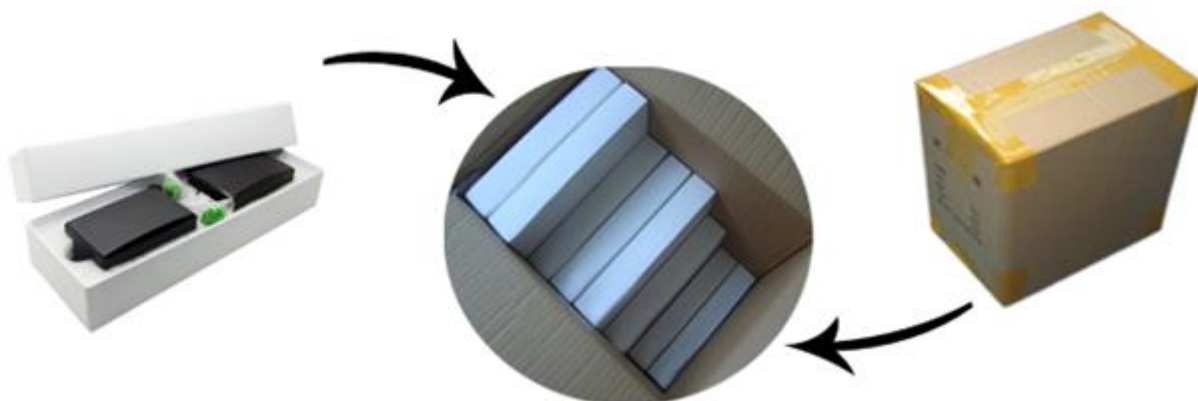


Image 6

Standard package:



Image 7

Details	Min. Package		Carton	
	Gift	Standard	Gift	Standard
Quantity(i3)	2pcs / pack	8pcs /box	80pcs/carton	
Net Weight	100.0g/ pack	400.0g/ box	4.2Kg/carton	
Gross Weight	220.0g/ pack	420.0g/ box	9.5Kg	6.0Kg
Size	21.5 x 7.7x 3.5 CM	32 x 11 x 8 CM	32 x 23 x 40 CM	

**APPDENDIX**

1. J-LINK Programmer Kit;
2. Over-the-Air Function;

Please contact Minew sales team to ask more related information if needed.

**DECLARATION**

The contents of this datasheet are subject to change without prior notice for further improvement. Minew team reserves the right to explain all the terms of this datasheet.

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