Beacon / iBeacon / MiniBeacon

Datasheet V2.03

Model	Description
i1-B	Black waterproof casing, CE&FCC certified module, includes 1pc 1000mAh CR2477 coin battery and gift package box, RoHS
i1-S	Silver waterproof casing, CE&FCC certified module, includes 1pc 1000mAh CR2477 coin battery and gift package box, RoHS

The waterproof MiniBeacon i1 is a waterproof IP66 iBeacon with ARM core chipset nRF51822 and leverage BLE 4.0 technology; it has a IP66 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**
- **Included 1pc 1000mAh coin battery**
- **The max. 100 meters advertising distance**
- **Ultra-low power consumption chipset nRF51822 with ARM core**
- **Waterproof IP66;**

CERTIFICATIONS

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

i1 Waterproof MiniBeacon
Image 1

SPECIFICATION

Compatibility

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

Long Battery Lifetime and Battery Level

- 12 months, 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 100 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;
- Waterproof IP66 for outdoor installation;

TURN ON/OFF MiniBeacon i1

1. Turn on MiniBeacon as below steps before using devices
    1.1 Use a small tool to open the case, and find out the BUTTON as the image 2;
    1.2 Press the BUTTON and keep holding 5 seconds, the Blue LED will Light on 5 seconds and then off;
        it means that MiniBeacon wakes up and starts to broadcasting.

2. Turn off MiniBeacon as below steps if needed
    2.1 Use a small tool to open the case, and find out the BUTTON as the image 2;
    2.2 Press the BUTTON and keep holding 5 seconds, the Blue LED will flash 5 times and then off;
        it means that MiniBeacon is on the sleeping mode and stops broadcasting.

BUTTON (ON/OFF)
Image 2

Image 3

LOW BATTERY INDICATION

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. (Image4)
  - Batteries should be replaced as soon as possible when the LED is flashing;
  - **Please do check the polarity of batteries and battery-clip before replacement, see image 2;**

Image 4

CONFIGURABLE PARAMETERS

Characteristic	Item	Default Settings
0xFFF1	UUID	E2C56DB5-DFFB-48D2-B060-D0F5A71096E0 (Proximity)
0xFFF2	Major	0
0xFFF3	Minor	0
0xFFF4	Measured Power	-59 (0xC5)
0xFFF5	Transmission Power	6 (0dBm)
0xFFF6	Change Password	minew123 (Must be 8 characters)
0xFFF7	Broadcasting Interval	9(900mS)
0xFFF8	Serial ID	Random (Unique serial ID for beacon)
0xFFF9	iBeacon Name	MiniBeacon_ (the maximum 14 characters)
0xFFFE	Connection Mode	0 (connectable, configuration mode)
0xFFFF	Soft Reboot	minew123 (it is same as the value of Change Password)

ELECTRONIC PARAMETERS

Item	Value	Remarks
Case Color	Silver, black	Other colors can be customized
Battery Model	1 x CR2477	1pc CR2477 coin battery, 1000mAh, 3.0V
Operation Voltage	1.8-3.6V	DC
Transmission Circuit	10.5mA (Max.)	Tested at 0dBm transmission power
Transmission Range	100 meters	Maximum
Waterproof	IP66	Null
Antenna	50ohm	On board / PCB Antenna
Accessories	Double adhesive	1pc, high-strength, 3M brand;
Net Weight	31.0g	With battery but without package
Size	61 x 39 x 15mm	Null

TECHNICAL SUPPORT

Item	Version	File Name	Updated Date
Datasheet	V2.03	i1_MiniBeacon Datasheet_2.03.pdf	25th May, 2015
Instruction	V2.03	Instructions_MiniBeacon_V2.03.pdf	25th May, 2015
SDK	V1.0	Android Reference Source Code; iOS Reference Source Code;	28th February, 2015
APP Tools	V2.0	iBeaconCFG; iBeaconDFU;	3rd March, 2015

PACKING INFORMATION

Image 5

Details	PE Bag	Box	Carton
Quantity(i1)	1pc per bag	20pcs per box	200pcs per carton
Net Weight	31.0g	0.62Kg	6.2Kg
Gross Weight	32.0g	0.73Kg	8.0Kg
Size	NULL	30.5 x 11 x 7.5 cm	32 x 23 x 40 cm