

# **Beacon / iBeacon / MiniBeacon**

## **Datasheet V1.0**

<b>Model</b>	<b>Description</b>
E2-B	Rectangle shape, black waterproof case with 3M adhesive sticker and screws , CE&FCC certified module including 4 x AA batteries and packaging box, RoHS
E2-W	Rectangle shape, white waterproof case with 3M adhesive sticker and screws , CE&FCC certified module including 4 x AA batteries and packaging box, RoHS

The robust MaxBeacon E2 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 4pcs AA batteries, alkaline
- Omni-directional PCB antenna
- The max. 200 meters advertising distance
- Waterproof IP65
- Ultra-low power consumption chipset nRF51822 with ARM core

## CERTIFICATIONS

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



E2 MaxBeacon

Image 1

## 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

- More than 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;

## TECHNICAL SUPPORT

Item	Version	File Name	Updated Date
Datasheet	V1.0	E2_MiniBeacon Datasheet_1.0.pdf	1 <sup>st</sup> March, 2016
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	4 x AA (LR6)	4pcs 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	65.0g	Without battery and package box
Size	72 x 72 x 23MM	Null

## 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.

## FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.