

Beacon / iBeacon / MiniBeacon

Datasheet V1.0

The diamond MiniBeacon LPBCN01 is a modern and stylish iBeacon with ARM core chipset nRF51822 and leverage BLE 4.0 technology; it has a stylish case, structured hardware kernel 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 1pcs 1000mAh coin batteries, replaceable
- The max. 100 meters advertising distance
- Ultra-low power consumption chipset nRF51822 with ARM core
- External hidden ON/OFF button
- Weather-proof case suitable for outdoor application



iBeacon

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

- 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

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;

TECHNICAL SUPPORT

Item	Version	File Name	Updated Date
Datasheet	V2.03	LPBCN01_MiniBeacon	25 th May, 2015
SDK	V1.0	Android Reference Source Code; iOS Reference Source Code;	28 th February, 2015
APP Tools	V2.0	iBeaconCFG; iBeaconDFU;	3 rd March, 2015

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

CONFIGURABLE PARAMETERS

Parameters	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	--
0xFFFF6	Change Password	minew123 (Must be 8 characters)
0xFFFF7	Broadcasting Interval	9(900mS)
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	Blue, pink	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
Antenna	50ohm	On board / PCB Antenna
Accessories	Double adhesive	1pc, high-strength, 3M brand;
Net Weight	35.0g	Including the battery but without packing
iBC08 Size	33 x 24 x 15mm	iBeacon kernel, without silicon case
Size	43 x 43 x 21mm	With silicon case

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.

IC NOTE

This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

- (1) This device may not cause interference; and
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil est conforme aux CNR exemptes de licence d'Industrie Canada . Son fonctionnement est soumis aux deux conditions suivantes :

- (1) Ce dispositif ne peut causer d'interférences ; et
- (2) Ce dispositif doit accepter toute interférence , y compris les interférences qui peuvent causer un mauvais fonctionnement de l'appareil.

FCC WARNING

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.

Note: 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 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.

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

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