Datasheet V1.2

Description

The MiniBeacon i3 is developed and produced including hardware and firmware all by MINEW Technologies. i3 is designed on CC2540/CC2541 BLE 4.0 core chipset with high performance on board antenna, the max. advertising range is 180 meters in the open space. Moreover, i3 has packed 2pcs AA batteries, the battery lifetime has 5 years.

About MiniBeacon

- Built-in MiniBeacon firmware
- Built-in 2pcs AA batteries, 5 years lifetime
- Bluetooth low energy technology compatible
- Excellent link budget (up to 97dB)
- The max. 180 meters advertising distance
- Accurate digital RSSI
- High performance and low power 8051 core MCU
- AES security coprocessor

Image 1

Certifications

- iBeacon License
- FCC Regulation (FCC Part 15C)
- CE Regulations (Included EN300328, EN301489, EN60950, EN62479)

Feature & Advantage

- Application for advertisement and proximity location
- Supports both iOS 7.0+ and Android 4.3+ system
- Built-in pairing password to prevent others changing the settings
- MiniBeacon name, UUID, Major, Minor values and broadcasting interval can be changed by customer
- Battery capacity intelligent detecting and notification feature
- Supports soft reboot function, no longer required to take out the battery to reboot the device
- MiniBeacon serial ID can be customized, it will help customer to easily distinguish which one is which
- Placed a power button on the board used to **activate / shutdown** beacon device
- Supports the connectable and non-connectable broadcasting mode
- Supports the OAD function
- Publishes the free upgraded firmware regularly
- Built-in JTAG port for other customized application firmware as a standalone system
- The customer's logo can be printed on the housing if required
- Customized housing and firmware services will be welcomed

Operation Instructions

1. Activate MiniBeacon as below method before using device
   1.1 Use the tool to open the case, take out the module and found out the BUTTON (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 was wakening up and starts to broadcasting.

2. Shutdown MiniBeacon as below method
   2.1 Use the tool to open the case, take out the module;
   2.2 Press the BUTTON and keep holding 5 seconds, the Blue LED will flash 5 times and then off;
      it means that MiniBeacon was on sleeping mode and stop broadcasting.

Low Battery Indication

If the battery level lower than 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 3)
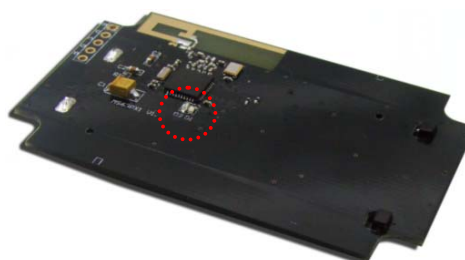
Image 2　　　　　　　　　　　　　　　　　Image 3

Default Setting

Parameters	Item	Default Value
0xFFF1	Proximity UUID	E2C56DB5-DFFB-48D2-B060-D0F5A71096E0
0xFFF2	Major	0x0000
0xFFF3	Minor	0x0000
0xFFF4	Measured Power	0xC5
0xFFF5	Transmission Power	0x00 (0dBm)
0xFFF6	Pairing Password	0x0F0FF3 (the corresponding decimal is 987123)
0xFFF7	Broadcasting interval	0x03(300mS)
0xFFF8	Beacon Serial ID	Random (Unique serial ID for beacon)
0xFFFE	Connection Mode	0x00 (connectable mode)
0xFFFF	Soft Reboot	0x0F0FF3 (the corresponding decimal is 987123)
0x180F	Battery Service	0x64 (100% full capacity of battery)

Federal Communications Commission (FCC) Statement

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 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.

Warning: Changes or modifications made to this device not expressly approved by **Shenzhen Minew Technologies Co., Ltd.** may void the FCC authorization to operate this device.

Note: The manufacturer is not responsible for any radio or tv interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.