H2-iBeacon Datasheet

1. Revision History

Revision	Description	Approved	Date
V1.0	Initial Release	Kevin	2018.04

2. Description

The H2-iBeacon is a portable iBeacon tag with ultra low power ARM chipset **nRF52832** and leverage BLE 4.0 technology; it has a portable case shape, **waterproof structure**, accurate hardware, robust firmware and external push button. It is designed for the commercial advertising and indoor location-based service. H2-iBeacon broadcasts 2.4GHz radio signals at regular and adjustable intervals. H2-iBeacon can be heard and interpreted by iOS and Android BLE-enabled devices that are equipped with many mobile apps.

3. Features

- Programmed Moko standard iBeacon firmware
- Portable H2-iBeacon with external ON/OFF push button;
- The max. 100 meters advertising distance
- Ultra-low power consumption chipset nRF52832 with ARM core
- Easy to print a customization logo/branding on the case.

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4. Specification

Compatibility

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

Replaceable Battery

- High quality replaceable CR2477 coin battery(1000mAh);
- More than 3 years battery lifetime (at default settings);
- Easy to get the real-time battery level notification.

Configurable Parameters

- UUID, Major, Minor, Device Name, Device ID, Password, Advertising Interval, RSSI@0m, Tx Power etc;
- Special Configuration APP(**MokoBeacon**, Pls visit http://doc.mokotechnology.com/index.php?s=/16 for more).

Transmission Power Levels

- 9 adjustable grades;
- Transmission power range: -40dBm 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);
- AES HW encryption.

Low power reminder

- Led flashes every 10 seconds if the battery capcity is under 5%.

Connection Mode

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

Custom made mounting

- Keychain / neck chain;
- 3M sticker.

OTA and DFU

- Supported upgrade via Over-The-Air;
- Nordic official Device Firmware Upgrade(DFU);
- Reserved J-Link port on the board for programming.

5. Turn ON/OFF H2-iBeacon

Turn ON H2-iBeacon:

Press the button (at the side of the device) and keep holding 3 seconds; The red led flashes several times then turns off, it means that the beacon is on and starts broadcasting.

Turn OFF H2-iBeacon: Press the button (at the side of the device) and keep holding 3 seconds; The red led lights on 2 seconds then turns off, it means that the beacon is off and stops broadcasting.

6. Configurable parameters

Characteristic	Item	Default Setting
0xFF01	UUID	E2C56DB5-DFFB-48D2-B060-D0F5A71096E0
0xFF02	Major	0
0xFF03	Minor	0
0xFF04	Measured Power (RSSI@1m)	-80dBm
0xFF05	TX Power	-4dBm
0xFF06	Password	Moko4321
0xFF07	Advertising Interval	1000ms
0xFF08	Serial ID	00000-99999，5 numbers
0xFF09	Device Name	MkiBeacon_
0xFF0E	Connection Mode	0（Connectable）
0xFF0F	Soft Reboot	Moko4321（It is same as the value of password）

7. Electronic parameters

Item	Value	Remarks
Case Color	White	Other colors can be customized
Battery Model	CR2477	Coin battery, 1pc, 1000mAh
Operation Voltage	1.8-3.6V	DC
Waterproof level	IP67	
Transmission Current	2.5mA	Tested at -4dBm transmission power and 900ms Advertising Interval
Average Current	20uA	Tested at -4dBm transmission power and 900ms Advertising Interval

Item	Value	Remarks
Transmission Range	80m(+4dBm)	The range depends on the physical environment
Antenna	50ohm	On board/PCB Antenna/Ceramic Antenna
Size	Φ48*13.89mm	--
Net Weight	24g	With battery

8. Technical support

Item	File Name	Remarks
Configure APP for IOS&Android	MokoBeacon	http://doc.mokotechnology.com/index.php?s=/page/38
SDK for APP	--	http://p29zydyfu.bkt.clouddn.com/MokoBeacon%20APP%20SDK20180122.rar
User Mannul	H2-iBeacon User Manual	http://doc.mokotechnology.com/index.php?s=/page/102
Datesheet	H2-iBeacon Datasheet	http://doc.mokotechnology.com/index.php?s=/page/104

FCC Statement

1. 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.
2. The statements should be displayed in the user manual: changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
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.

Declaration

The contents of this datasheet are subject to change without prior notice for further improvement. MOKO team reserves all the rights for the final explanation. Please contact MOKO sales team or visit http://www.mokosmart.com to get more related information if needed.

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