

H1

1. Description

The H1-BeaconX is a portable **iBeacon & Eddystone** 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.

H1 2.4GHz radio signals at regular and adjustable intervals. H1 can be heard and interpreted by iOS and Android BLE-enabled devices that are equipped with many mobile apps.



2. Features

- Programmed Moko standard BeaconX firmware;
- Portable H1-BeaconX with external ON/OFF push button;
- Ultra-low power consumption chipset nRF52832 with ARM® core;
- Easy to print a customization Logo/branding on the case or the button.

3. Specification

Compatibility

- Supported iOS 7.0+ and Android 4.3+ system;
- Compatible with **Apple iBeacon** standard and **Google Eddystone** standard;
- Compatible with all Bluetooth Low Energy® 4.0 devices.

Replaceable Battery and Battery Level

- Replaceable coin battery (CR2032 230mAh) ;
- 6 months battery lifetime (at default settings);
- Easy to get the real-time battery level notification.

Configurable SLOTS and parameters

- Up to 5 configurable SLOTS;
- Each SLOT can be set to iBeacon, UID, URL or TLM;
- Device Name, Password, Connection Mode, Tx Power, RSSI@1m and Advertising Interval are configurable;
- Special Configuration APP (**MokoBeaconX**, Pls visit <http://doc.mokotechnology.com/index.php?s=/16> for more).

Transmission Power Levels

- 8 adjustable grades;
- Transmission power range: -40dBm to +4dBm.

Long Range

- The max. Range 60 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 capacity is under 5%.

Connection Mode

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

Custom made mounting

- Keychain / neck chain;
- 3M sticker;
- Logo and color customizable;
- Provided with your own configuration.

OTA and DFU

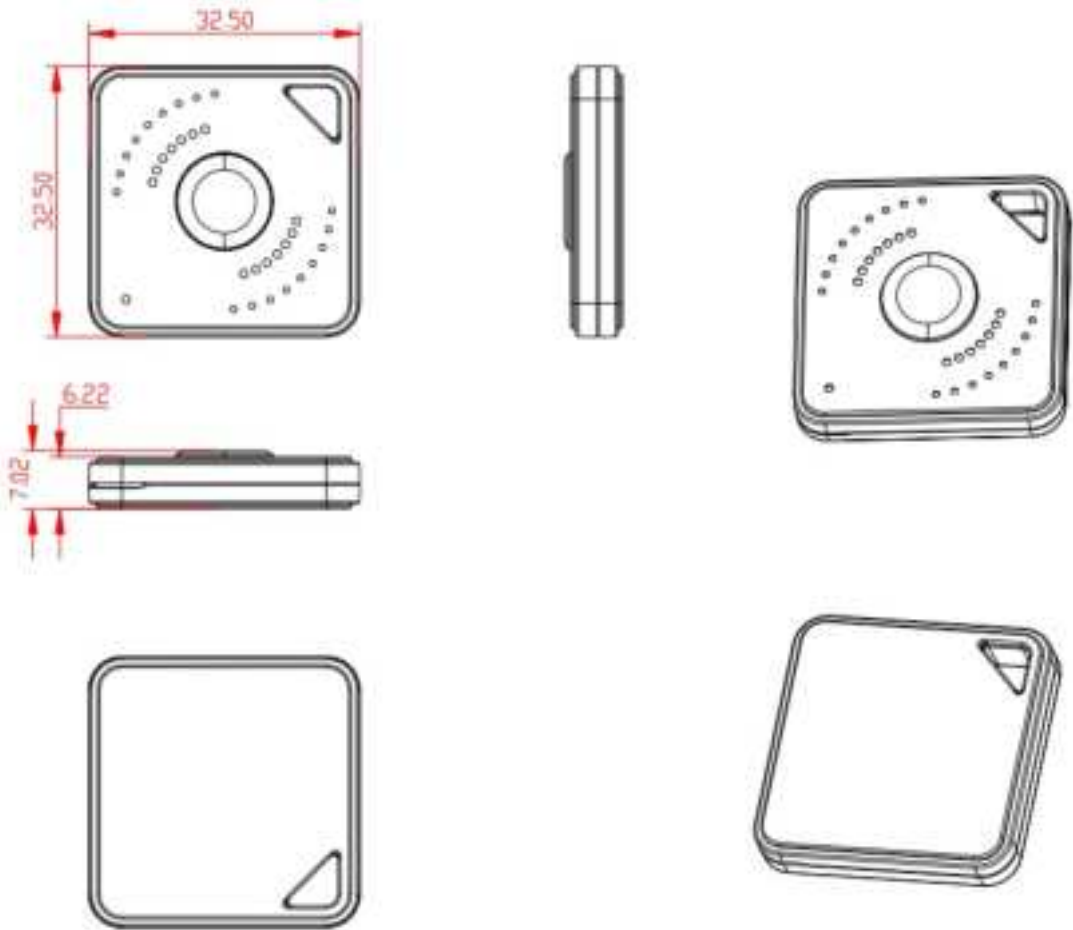
- Supported upgrade via Over-The-Air;
- NORDIC® official Device Firmware Upgrade(DFU);
- Reserved J-Link port on the board for programming.

4. Electronic parameters

Item	Value	Remarks
Case Color	White	Other colors can be customized
Main material	ABS	
Battery Model	CR2032	Coin battery, 1pc, 230mAh
Operation Voltage	1.8-3.6V	DC
Waterproof level	IP67	
Average Current	50 uA	Tested at 0dBm transmission power and 1000ms Advertising Interval
Transmission Range	Up to 60m(+4dBm)	Depending on the environment where the H1 is placed these value might differ.

Antenna	50ohm	Ceramic Antenna	
Size	32.5 x 32.5 x 6.22mm	Refer to H1-iBeacon mechanical draws for details.	
Net Weight	7.8g	With battery	
Operating Temperature	-25 to +60°C		
Storage Temperature	20 to +30°C		

5. H1-iBeacon mechanical draws



All dimensions is mm

6. Configurable parameters

Item	Value	Default Setting	Remarks
iBeacon	UUID	E2C56DB5-DFFB-48D2-B060-D0F5A71096E0	16bytes
	Major	0	0-65535
	Minor	0	0-65535
UID	Namespace	-	10bytes

	Instance ID	-	6bytes
URL	Encoded Scheme Prefix	http://www.	4types: http://www. ; https://www. ; http:// ; https://
	Encoded URL	mokosmart.com	2-17 bytes
TLM	-	-	Up to 1 SLOT can be set to TLM
Advertising Interval	-	1000ms	100-4000ms, Unit:100ms
Tx Power	-	0dBm	-40dBm to 3.92dBm, 8 adjustable grades
Device Name	-	BeaconX	Up to 8 characters
Password	-	Moko4321	8 characters, only letters and numbers
Connection Mode	-	Connectable	Connectable/Unconnectable

7. Technical support

Item	File Name	Remarks
Configure APP for IOS&Android	MokoBeacon	http://doc.mokotechnology.com/index.php?s=/page/38
User Mannul	H1- User Manual	http://doc.mokotechnology.com/index.php?s=/page/45
SDK for Android APP	--	https://github.com/MokoBeaconX/mokoBeaconX_Android
SDK for IOS APP	--	http://p29zydyfu.bkt.clouddn.com/MokoBeaconX%20APP%20SDK20180314.rar
Datesheet	H1-BeaconX Datasheet	http://doc.mokotechnology.com/index.php?s=/page/44

8. 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.

9. Contact Information

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Revision History

Revision	Description	Approved	Date
V1.0	Initial Release	Kevin	2018.04

V1.1	Specifications updated Added mechanical draws	Kevin	2018.07.21
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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.

(2) This device must accept any interference received, including interference that may cause undesired operation.

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

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.

FCC Radiation Exposure Statement This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 5mm between the radiator & your body.