

MBS02 Location Beacon

Datasheet



Product Overview

MBS02, Location Beacon, is designed by Minew mainly for indoor information pushing, route guiding and clock-in management. It has superior RF performance built with Bluetooth® LE 5.0 chip. Also, it can achieve 6.5 years using time due to its large capacity battery and replaceable design. This device is strongly suitable for deploying in scenarios like Indoor building, hospital, retailing and shopping malls because of its industry design.

Product Features

6.5 Years Battery Life

150 m Broadcast Range

IP67 Waterproof & Dustproof

Superior RF Performance

Multiple Deployment Options

Note: The average power consumption of this product is 36% lower than similar products in the market.

Application Scenarios

Indoor Navigation

Precise Marketing Promotion

Clock-in Management

Product Parameters

Basic Parameters

Material	ABS+PC
Color	White
Size	Φ55.6*23.1 mm
Weight	40.9 g
Battery Capacity	2400 mAh
Battery Life	6.5 years (default setting)
Protection	IP67
Button	Yes
Sensor	Accelerometer supported
LED	Blue/Red light
OTA	Yes

Configuration App	BeaconSET+
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Technique Parameters

Chip	nRF52 series
Bluetooth Protocol Supported	Bluetooth® LE 5.0
Broadcast Interval	100 ms - 5000 ms
Broadcast Range	150 m (open area)
Working Temperature Range	-20 °C ~ 60°C
Working Humidity Range	0 - 95 %RH, non-condensing
Security	Supports changing passwords, anti-malicious connection

Broadcast Parameters

Type	Item	Default Setting
iBeacon (On)	UUID (16 bytes)	E2C56DB5-DFFB-48D2-B060-D0F5A71096E0 (Proximity)
	Major (2 bytes)	0
	Minor (2 bytes)	0
	Measured Power	-59dBm
	Tx Power	0dBm
	Interval(ms)	900ms

UID (On)	NameSpace	00112233445566778899
	Instance	random
	Measured Power	-59dBm
	Tx Power	0dBm
	Interval(ms)	900ms
URL (On)	Link	https://www.minew.com/
	Measured Power	-24dBm
	Tx Power	0dBm
	Interval(ms)	2000ms
TLM (On)	Tx Power	-24dBm
	Interval(ms)	2000ms
	Device name	MBS02
	Measured Power	-24dBm
INFO (On)	Tx Power	0dBm
	Interval(ms)	2000ms

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Compatibilities

Supported systems	Supported models
iOS 7.0 and above	iPhone6 /6 Plus /6S/ 6S Plus /7 /7 Plus /8 /8 Plus /x /xr /xs /xs max /SE /SE2 /11 /11 pro /11 pro max.
Android 4.3 and above	Samsung, Xiaomi, Google Pixel, Honor, OnePlus, OPPO, VIVO, Huawei, etc.

Device Operations

Power-on/off

Power-on: press the button in the middle of the device for 3.6 seconds until the blue light on.

Power-off: the standard one can only be turned off by BeaconSET + App. The blue light will flash 5 times when the device is off.

Low Battery Reminding:

The red light will flash one time every 5 seconds when the battery is low.

Device Deployment

Double-sided Tapes & with Glue Deployment



- Recommended Deployment Surface
The surface should be smooth and dry, such as ceramics, glass/epoxy resin, acrylic acid, PBT, ABS, PC, hard PVC. Due to the material difference of double-sided tapes, it is recommended using installation on surface such as cement, plasterboard to be installed using double-sided tapes and glue for a better stability.



- Recommended Deployment Temperature
10°C or above.



- Beacons deployment should avoid the metal, glass shield or other obstructions, and avoiding the corner.

► Double-sided Tapes Step Detail



- Before deployment, the surface to be installed should be clean and have no dust.



- When pasting, press beacon with the double-sided tapes for 5 seconds and repeat.

Common Deployment Scenarios: surface to be installed such as office walls, glass window & door, desk, wood, tile, etc.

► Double-sided Tapes & Glue Deployment Step Detail



- Before deployment, the surface to be installed should be clean and have no dust.



- Stick the double-sided tape with the device by hand or tool first, and press it for 5 seconds. Then tear the middle part of the double-sided tape by hand, and add glue, finally installed the whole device on the surface to be installed.

Common Deployment Scenarios: surface to be installed such as cement walls, plasterboard walls, and other rough walls.

Screw Deployment

► L-shaped Bracket & Double-sided Tapes Deployment



■ Recommended Deployment Surface

The surface to be installed should not be the ceramic, glass, fragile plastic materials, crack-prone partitions or walls, etc. to avoid the risk of dislodging and the risk of falling.



- Recommended Deployment Temperature
10°C or above.



- Devices deployment should avoid the metal, glass shield or other obstructions, and avoiding the corner.

Common Deployment Scenarios: walls need to be side-mounted in the larger & more open indoor halls; walls need to be side-mounted in the narrower & taller office corridor.

● Step Detail



- 1 Before deployment, the surface of the L-shaped bracket to be installed should be clean and have no dust.



- 2 Pasting beacon on the L-shaped bracket with the double-sided tapes, and press for 5 seconds.



- 3 Drill screw holes on the surface of a hard surface to be installed.



- 4 Put the green expansion plug into the screw holes on the hard surface to be installed.



- 5 Using screws fix the L-shaped bracket, and install the device in the direction of screw holes.

Precautions

1. It is recommended to set lower transmitting power and longer broadcast intervals to achieve a longer service

life.

2. It is not recommended to using the device in a highly humid environment for long time even though it has a certain water performance.
3. Avoid being exposed to direct sunlight for an extended period to mitigate shell aging risk.
4. Do not use the product over the recommended working temperature to avoid damage. It is recommended that to store the product in a normal temperature environment (20°C ~ 30°C) when not use.
5. Minew will not be responsible for any damage or injury caused by disassembling the main casing without appropriate operations.
6. If you have any other questions, please contact our sales team or technical support team.

Certifications

CE/FCC

*The certification code can be provided if needed, please contact our sales team or technical support team for relevant information.

FCC warning

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

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.

To maintain compliance with FCC's RF Exposure guidelines, This equipment should be installed and operated with minimum distance between 20cm the radiator your body: Use only the supplied antenna.

Packaging Information

Basic Information	Inner carton(battery included)	Outer carton(battery included)
Picture		
Quantity	15 pcs	150 pcs
Size	305*110*72 mm	32*23.5*40 cm
Gross weight	693 g	7.4 kg

Note: the weight of bracket is excluded.

Quality Assurance

The factory has already obtained the certification of ISO9001 Quality System. Each product has been strictly tested (tests include transmission power, sensitivity, power consumption, stability, aging, etc.).

Warranty Period: 12 months from the date of shipping (battery and other accessories excluded).

Declarations

Statement of Rights:

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Disclaimer:

Minew team reserves the right to the final explanation of the document and product differences. The Minew group is not responsible for liability of property or personal injury with the wrong operation if users develop related products without checking the technical specifications of this manual.

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