



Datasheet

Ultra-Long Range Beacon

Model: MBM01

Version: 001



0ft
(0m)

656ft
(200m)

1968ft
(600m)

BRIEF INTRODUCTION

MBM01, equipped with the ultra-low power nRF52833 chip supporting multiprotocol SoC with Bluetooth 5.1 direction finding radio, is a Bluetooth location beacon dedicated to positioning and marketing. The broadcast distance can reach up to 1968ft(600m) or more on 125Kbps setting, which can be reasonably deployed in public places such as airports and railway stations to manage the human traffic, respond to emergency happening, and push marketing information by cooperating with the BLE gateway.

KEY FEATURES



BLE 5.1 & nRF52833
(nRF52840 Optional)



Up to 10 years
Service Lifetime



Up to 1968ft(600m)
Broadcasting Distance



Compatible with
1Mbps/125Kbps



IP67 Waterproof &
Dustproof



External Operation
Button

APPLICATION SCENARIOS



Shopping Habits Analysis & Precision Marketing

Based on the Bluetooth positioning technology and relative software development, users can collect data of customer shopping habits & behaviors for precision marketing. Also, the collected data can help users to adjust the commodity category or display to improve the economic profits.



Information Pushing & Indoor Navigation

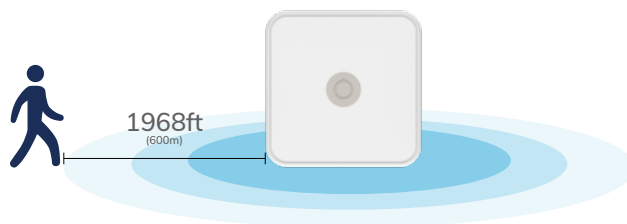
Through the reasonable installation of MBM01 in airports, helping passengers save time to find the right boarding gate or proximity shops. Likewise, the admins can push information, such as flight or promotion information, to the user's mobile phone for message notification and proximity marketing.



Medical Consultation Tracking & Safety Responding

In a general hospital, based on the indoor positioning technology and relative software development, the admin can collect data of daily medical consultation for the reasonable arrangement of medical resources. Also, through the reasonable installation of MBM01 in hospitals, the admin can locate every safe-guard's positions for fast responding once emergency happening.

DEVICE SPECIFICATIONS



BASIC PARAMETERS

Material	Plastic PC+ABS	Null
Color	White	Null
Dimensions (L*W*H)	72*72*23mm	Null
Protection	IP67	Null
Net Weight	129g / 153.4g	Lithium / Alkaline Battery Included
Battery	Lithium / Alkaline Battery	Total capacity: 10800mAh / 5800mAh
Battery Lifetime	6 years (125Kbps) / 10 years (1Mbps)	Default setting: 8dBm, 900ms
Chip Model	nRF52833	nRF52840 Optional
Bluetooth Protocol	iBeacon & Eddystone & Senor Data	Null
Configuration App	BeaconSET +	Null
Sensors	No	Accelerator Optional
OTA	Yes	Null
NFC	No	Null
LED	Yes	Red / Green / Blue Light
Operating Temperature	-20°C~65°C / -18~50°C	Lithium / Alkaline Battery

* **Remark:** *Customization can be provided including button color , etc.

TYPICAL CONFIGURATIONS VS BATTERY LIFE

Battery Type	Data Rate	Transmit Power	Broadcast Interval	Battery Lifetime
Lithium Battery (10800mAh)	125Kbps	8dBm	900ms	6 years
	1Mbps			10 years
Alkaline Battery (5800mAh)	125Kbps			3 years
	1Mbps			10 years

* **Remark:** Battery lifetime calculating above only can be a reference. Users can extend the lifetime by configuring the broadcast parameters reasonably in realistic applications.

DEFAULT BROADCASTING PARAMETERS(BEACONPLUS FIRMWARE)

iBeacon (On)	UUID(16bytes)	E2C56DB5-DFFB-48D2-B060-D0F5A71096E0
	Major(2bytes)	0
	Minor(2bytes)	0
	Measured power	-59dBm(0xC5)
	Tx power	8dBm
UID (Off)	Interval(ms)	900ms
	Instance ID	Random
	Namespace ID	Random
	Measured power	-24dBm(0xE8)
	Tx power	8dBm
URL (Off)	Interval(ms)	900ms
	URL	http://www.minew.com/
	Measured power	-24dBm(0xE8)
	Tx power	0dBm
TLM (Off)	Interval(ms)	2000ms
	Electricity mV	By default
	PDU packets	By default
	Boot-time	By default
	Measured power	-24dBm(0xE8)
INFO (Off)	Tx power	0dBm
	Interval(ms)	4000ms
	Device Name	MBM01
	Electricity	By default
	MAC Address	Factory setting
Extra Function	Measured power	-24dBm(0xE8)
	Tx power	-8dBm
	Interval(ms)	4000ms
	Password	minew123(configurable)
	Connectable	Yes(it is configuration mode)
	Reset factory	available
	Update firmware	available

COMPATIBILITY

SYSTEMS SUPPORT

iOS 10.0 and above(1Mbps)

Android 4.3 and above(1Mbps)

VERSION SUPPORT

iPhone 5/5C/5S, iPhone 6/6Plus/6S/6S Plus,iPhone 7/7Plus, iPhone 8/8Plus/
iPhone x/xr/xs/xs max, iPhone SE/SMBM01, iPhone 11/11 pro/11 pro max...

SAMSUNG, MIUI, HUAWEI, ONEPLUS, VIVO, OPPO,etc.

* **Remark:** iOS system cannot receive 125Kbps but 1Mbps currently. Android system can receive both 1Mbps and 125Kbps, but the mobile devices should be compatible with BLE 5.0 & Android 8.0 and above. More details please contact our sales team.

PRODUCT APPEARANCE



CERTIFICATIONS

CE Regulation
FCC Regulation

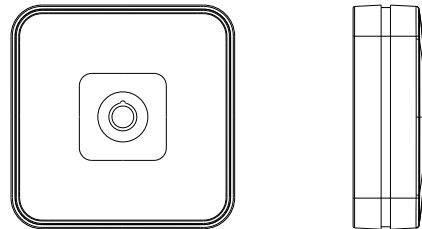


INSTALLATIONS

Methods: Double-side adhesive tape & Screw bracket installation

Double-side adhesive notes:

- * **Recommended Installation Environment:** The material surface should be Aluminum, galvanized steel, enamel steel, stainless steel, ceramic, glass/epoxy resin, acrylic, PBT, ABS, PC, hard PVC, etc.
- * **Requirements:** No dust on the material surface and clean it before installation. Before pasting, increasing the viscosity with a hairdryer, or sticking it over half-hours at a reasonable temperature and then pressing for seconds and repeat for better stability.



The arrow of button pointing up is the direction of the antenna, please install the device as the picture shown for better broadcast signal.

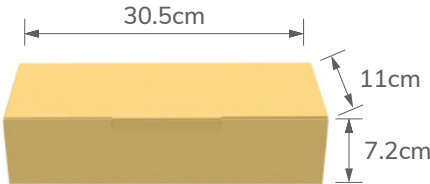
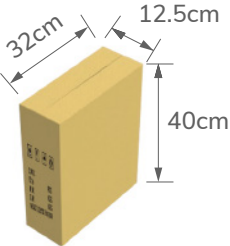
Screw bracket notes:

- * **Recommended Installation Environment:** Screws installation should be on a hard surface, such as a wall where is not loose.
- * **Detail Steps:**
 - ① Put the MBM01 into the installation bracket.
 - ② Drill screw holes on the surface of a hard surface to be installed.
 - ③ Put the green expansion plug into the screw holes on the hard surface to be installed.
 - ④ Put the screws into the green expansion plug, and install the product in the direction of screw holes.

CAUTIONS

- * Press and hold button for 3.6s until the blue light shine for 3s to turn it on; turn it off through the “shut-down” button on the BeaconSET+ APP, and the blue light will flash 5 times.
- * The blue light flashes 2 times when BeaconSET+ connects the devices successfully; flashes 3 times to show the disconnection with BeaconSET+ APP.
- * Click the button to re-enter into the configurable page to connect the device after the unconnectable mode.
- * Decreasing the power and increasing the broadcasting interval can extend the lifetime of BLE beacons if it is used in a proper environment.
- * The device will be shut-down for shipping.
- * Please use the device on the suggested working temperature for safety.
- * Minew will not be responsible for the damage caused by disassembling the product.
- * It is not recommended to disassemble the shell repeatedly for many times during deployment, which will easily cause the screws slip and thus affect the waterproof performance; if the battery needs to be replaced manually at a certain time of use, it is recommended to pay attention to the consistency of the screw force (1.6kgf-1.7kgf), to ensure the waterproof performance of the product.

PRODUCT PACKAGE

Items	Inner Box(Battery included)	Outer Box(Battery included)
Package Picture		
Quantity	8 Pcs / box	40 Pcs / box
Dimensions	30.5 x 11 x 7.2 cm	32 x 12.5 x 40 cm

QUALITY ASSURANCE

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

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

DECLARATION

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