



MTB 12

Waterproof Replaceable
Battery Tag

Datasheet



PRODUCT INTRODUCTION

MTB12 is a replaceable battery Bluetooth tag designed for asset tracking applications. It features a compact form factor, enabling fast deployment on various equipment and logistics carriers. Despite its small size, it balances protection, battery life, and wireless communication performance, making it suitable for warehousing, logistics, and tool management scenarios.

The device supports Bluetooth Advertising and positioning applications, serving as a data acquisition node in asset management systems to enable asset status identification and location tracking, improving management efficiency. With stable signal coverage, MTB12 meets mid-to-long range identification requirements and is suitable for large-scale asset deployments.

The product adopts a replaceable battery design, allowing quick on-site maintenance and battery replacement, which helps extend service life and reduce maintenance costs. It also supports IP67 protection. The device supports wireless installation, enabling flexible deployment in indoor and outdoor environments, and is suitable for long-term tracking and management of pallets, turnover boxes, tools, and various production assets.



KEY FEATURES



IP67 protection,
suitable for harsh
environments



Replaceable battery
design, reducing
maintenance cost



Compact design
with stable signal
coverage

PRODUCT VALUE

IP67 Protection for Harsh Environments

MTB12 features IP67 protection, effectively preventing dust ingress and exposure to rain. It is suitable for warehousing, logistics, and certain outdoor asset management scenarios. Reliable protection helps reduce failures and replacements caused by environmental factors, improving overall system reliability.

Replaceable Battery Design, Lower Maintenance Cost

MTB12 adopts a replaceable battery design, enabling quick on-site maintenance. Combined with low power consumption, it supports long-term standalone operation. When the battery is depleted, only the battery needs to be replaced instead of the entire device, significantly reducing replacement and maintenance costs. It is suitable for long-term fixed deployments and helps improve overall ROI.

Compact Design with Stable Signal Coverage

MTB12 has a compact structure, allowing easy installation on pallets, turnover boxes, and various tools, adapting to different asset types. With optimized wireless communication performance, it provides stable coverage for identification, meeting mid-to-long range asset tracking requirements and improving deployment flexibility and system efficiency.

APPLICATION SCENARIOS



Warehousing & Logistics | Inventory Flow and Operational Efficiency

MTB12 can be deployed on pallets, turnover boxes, and various logistics carriers to help track inventory distribution and asset flow. In dynamic warehouse environments with frequent location changes or fast operations, it reduces manual searching and verification, improving inbound, sorting, and outbound efficiency. Its compact design enables flexible installation across different warehouse assets, supporting various operational models and layouts.



Industrial Tools | On-site Operation and Resource Allocation

In manufacturing and construction scenarios, MTB12 can be applied to tools and auxiliary equipment to support resource allocation and usage status identification, improving on-site operational efficiency. By assisting in tracking tool usage locations and movement, it helps reduce redundant allocation and idle resources, optimizing production and construction workflows.



Equipment Maintenance | Inspection and Maintenance Support

MTB12 can be deployed on production equipment or critical assets to support structured inspection processes. In scenarios with widely distributed equipment or frequent inspection tasks, it enables maintenance personnel to quickly identify inspection targets and coverage, improving execution efficiency. It also helps establish clearer maintenance workflows, enhancing standardization and overall management transparency.

PRODUCT SPECIFICATIONS

BASIC PARAMETERS

Model	MTB12
Chip	Low-power Bluetooth chip
Bluetooth Version	BLE 5.0
Material	PC
Color	White
Dimensions (L × W × H)	41.6*25.6*6mm
Weight	8g
Protection Rating	IP67
Battery	225mAh Replaceable Battery
Battery Life	Up to 5 years (default settings: INFO frame only, 0 dBm, 4000 ms)
Operating Temperature	-20°C ~ 60°C
Operating Humidity	0% ~ 95% RH(non-condensing)
Tx Power	-54~4dBm(not configurable after factory)
Advertising Interval	100ms~10s(not configurable after factory)
Advertising Range	Up to 150 m (open environment)
LED	1*blue LED
Button	None
APP	BeaconSETPlus App(view only)
Installation	Double-sided tape / mounting hole
Connectivity	Non-connectable
OTA	Not supported

* Note: A factory water resistance test report for IP67 is available.

ADVERTISING PARAMETERS

Type / Channel	Field	Value
iBeacon	UUID	E2C56DB5-DFFB-48D2-B060-D0F5A71096E0
	Major	0
	Minor	0
	Measured Power	-59dBm
	Tx power	0 dBm
	Interval(ms)	1000ms
INFO	MAC Address	Factory Assigned
	Battery Level	System default
	Device Name	MTB12
	Tx power	0 dBm
	Interval(ms)	4000ms
Combination	Temperature	Temperature Data
	Battery Level	System default
	MAC Address	Factory assigned
	Tx power	0 dBm
	Interval(ms)	4000ms




* PS: MTB12 supports optional sensor configurations based on requirements.

If no sensor is mounted, the INFO frame is enabled by default.

If an ACC sensor is mounted, the INFO frame is enabled by default; when motion is detected, the iBeacon frame is triggered with a 1 s Advertising Interval for 10 s.

If a temperature sensor is mounted, the Combination frame is enabled by default.

DEVICE OPERATIONS

-  **Power-on**
Remove the insulation tab to power on; the blue LED stays on for 3 s. No need to remove the battery holder when removing the tab.
-  **Power off**
Remove the battery to power off.
-  **Advertising Check**
Use the BeaconSET Plus App to check if the device is advertising.

NOTES

- The device operates in Advertising mode after power-on and is non-connectable.
- All firmware settings are configured during manufacturing.
- To extend battery life, it is recommended to select lower Tx Power and longer Advertising Interval before shipment.
- Operation outside the specified temperature range may damage the device.

For further inquiries, please contact the sales or technical support team.

BATTERY SAFETY PRECAUTIONS

- Replacement of a battery with an incorrect type that can defeat a safeguard;
- Disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a battery, that can result in an explosion;
- Leaving a battery in an extremely high temperature surrounding environment that can result in an explosion or the leakage of flammable liquid or gas;
- A battery subjected to extremely low air pressure that can result in an explosion or the leakage of flammable liquid or gas.

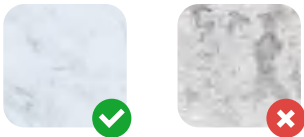
CAUTION

Risk of fire or explosion if the battery is replaced by an incorrect type

DEPLOYMENT INSTRUCTIONS

Double-sided Tape Mounting

■ Recommended Surface

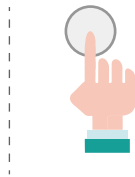


- The surface should be smooth and dry, such as ceramic, glass/epoxy, acrylic, PBT, ABS, PC, or rigid PVC.

■ Installation Steps



- Clean the surface before mounting.



- Apply the tape and press firmly for 5 seconds, then repeat several times.

CERTIFICATIONS



* Note: Certification numbers are available upon request. For additional certifications, please contact our sales team.

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.

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.

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.

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

PACKAGING INFORMATION

Items	Inner Box	Outer Carton
Picture		
Quantity	70PCS	700pcs
Net Weight	567g	5.76kg
Gross Weight	649g	7kg
Dimensions	305*110*72mm	320*235*400mm

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).

DECLARATION

Statement of Rights:

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