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**MTB02 Paper Asset Tag**

# MINEW MTB02 Paper Asset Tag User Guide

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## MINEW MTB02 Paper Asset Tag

## PRODUCT OVERVIEW

Paper Asset Tag built in cost-effective hardware and supporting encrypted protocol broadcast is the first general ultra-thin wireless asset tag of Minew. Due to its eco-friendly design, the tag can be used in many scenarios such as, warehouse, logistic transportation, retail store, museum, smart office, etc. Solving the problem of process tracking of the passive label in the market.

## KEY FEATURES

| 2.1 mm Ultra-thin Design | 50 m Broadcast Transmission Distance | 6 Months Battery Life | Cost-effective | Eco-friendly & Portable |

## APPLICATION SCENARIOS



**Warehouse Asset Management**

- The MTB02 is ultra-thin and cost-effective that is ideal to be deployed on logistic, warehouse and museums' assets. Customers can know the location and stock status of these scenarios along with related technologies, to achieve efficiency manage-ment of assets.



**Freight Shipment Tracking**

- MTB02 can be deployed on parcel assets transported by air and road. By cooperating with nearby asset trackers and combining certain algorithms and solution platforms, it can ultimately realize the histori-cal status monitoring and location tracking of assets throughout the logistics and transportation process to avoid asset

damage or loss.

**Note:**

- Application cases above are only as a reference, more applications realized are based on users' software algorithm ability.

## PRODUCT SPECIFICATIONS

- **Material** Paper
- **Color** White
- **Size (L * W * H)** 62*53.5*2.1 mm
- **Weight** 4 g battery included
- **Battery capacity** 40 mAh
- **Service life** 6 months (default settings)
- **Sensor** /
- **LED** /
- **Button** /
- **NFC** Yes
- **Information view app** MSensor

## TECHNICAL SPECIFICATIONS

- **Broadcast power Options:** -20, -16, -11, -7, -3, 0, 3 dBm Default 0 dBm
- **Broadcast interval** Default 3000 ms
- **Broadcast distance** 50 m (open space)
- **Recommended Working temperature** -20℃ ~ 50℃
- **Recommended Storing temperature** 20℃ ~ 35℃
- **Security** Non-connectable mode, data cannot be altered

## BROADCAST SPECIFICATIONS

| Type/ channel | Item | Default settings |
| --- | --- | --- |
| Label (Activated by default) | Company ID | Minew |
| | Product ID | MTB02 |
| | Product serial number ID | Factory default |
| | Battery voltage | Units: mV |
| | SOC Temperature | Units: ℃ |
| | Measured power | -59 dBm |
| | Tx power | 0 dBm |
| | Interval (ms) | 3000 ms |

**Note:**

- The product only supports 2 broadcast frames, which can be selected from Label, iBeacon, MBeacon INFO,

UID, URL, and TLM, and the broadcast power must be consistent.

- The parameters of the finished product need to be determined at the time of production. Once programmed into the chip, the parameters cannot be modified.
- Broadcast parameters list above only as a reference, please ask our sales team or technique team for more broadcast detail

| SUPPORT SYSTEMS | SUPPORTED MODELS |
| --- | --- |
| iOS 10.0 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, etc. |
| Android 4.3 and above | LG, Samsung, Xiaomi, Huawei, Honor, OnePlus, Google Pixel, etc. |

**DEVICE OPERATIONS**

**Power on**

- Phone with NFC or 13.56 MHz NFC device can turn the tag on.

**Shutdown**

- Not supported.

**Device information viewing**

- Check the device's information by Msensor App.

Please use nRFconnect or MSensor to check if it is power on successfully



NFC Scan Here

**CAUTIONS**

- After the product is powered on, it will be in broadcast mode and cannot be connected.
- The finished product does not support burning firmware provided by customers.
- If the operating temperature is exceeded, there could damage the product.
- If you want to store the tag for a period of time before using it, please avoid the storage environment around the devices containing NFC function, which may cause the tag to be turned on by mistake, affecting the service life of the tag.

- To extend the battery life if needed, it is recommended to choose a low broadcast power and a long broadcast interval firmware version at the manufacturing stage.
- Please avoid direct sunlight for an extended period to avoid aging of the shell when in use.
- Minew will not be responsible for any damage resulting from disassembling manually.

**FCC warning:**

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

- This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.

**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, t he 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**

| Details | Internal carton | External box |
|---|---|---|
| Pictures | | |
| Units | 175 pcs | 1750 pcs |
| Sizes | 30.5 * 11 * 7.2 cm | 32 * 23.5 * 40 cm |

**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:**

- The contents of this manual belong to the Manufacturer of Minew Technologies Co., LTD, Shenzhen, and are protected by Chinese laws and applicable international conventions related to copyright laws. The contents can be revised by the company according to the technological development without prior notice. Anyone, companies, or organizations cannot modify the contents and cite the contents of this manual without Minew's permission, otherwise, Violators will be held accountable according to law.

**Disclaimer:**

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

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## Frequently Asked Questions

**Q: Can the broadcast frames be changed?**
A: The product supports 2 broadcast frames that can be selected from a predefined list and cannot be altered once programmed into the chip.

**Q: What is the recommended service life of the battery?**
A: The default service life of the battery is 6 months under default settings.

## Documents / Resources

**MINEW MTB02 Paper Asset Tag** [pdf] User Guide
MTB02 Paper Asset Tag, MTB02, Paper Asset Tag, Asset Tag, Tag

## References

- **Minew Official Website | IoT Devices Manufacturer**
- **IoT Device Shop: BLE Beacon, Bluetooth LoRa Gateway Sensor**
- **User Manual**