



MOKO SMART



# Product Specification

## *M6 Industrial Tag*

*Version 1.0*

# Revision History

Version	Data	Notes	Contributor(s)
V1.0	Nov 29, 2024	Initial version	Carl

## About document

This **product specification** was designed to help users to know the hardware overview and feature instructions of **M6 Series Products**. Through this document, users will be initial to understand the application scenarios, hardware specifications, basic instructions as well as packaging information of product.

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# 1. Overview

This *Product specification* is mainly applicable for MOKO **M6 Series Products**, which contains:

M6 series products - Overview					
Product model	Use cases	Applicable series firmware	Applicable configuration APP	Battery	Operating temperature
M6A	Asset tracking	BXP-T series	MK Tag	3200mAh (Alkaline)	0° C to 40° C
M6H				5200mAh (Li-SOCl2)	-20° C to 60° C

**Table 1:** Overview of M6 series products

The product specifications shall be similar and mainly contained below parts:

- [Product brief](#)
- [General specifications](#)
- [Basic instructions](#)
- [Ordering information](#)
- [Package information](#)

For more information about user guidance of product functions and configuration APP, please contact our sales team directly for official document.

## 2. Product brief

The M6, a high-performance Bluetooth asset tracking tag, is designed for industrial applications, offering exceptional structural and installation advantages.

Equipped with a large 5200mAh battery, this product boasts an exceptionally 10+ years lifespan. Additionally, its moderate size allows for easy deployment on a wide range of industrial assets.

With its water-resistant design, unparalleled broadcasting range and longest battery life, M6 tag can be one of the best choices for asset tracking in warehouse, constructions and logistics.



**Figure 1:** Appearance overview of M6 series products. Front view(left) Side View(right)

## 3. General specifications

### 3.1 Hardware specifications

Specs	M6A	M6H
Dimension	97.0 * 53.5 * 28.0mm	
Material	PC + ASA	
Shock resistance	IK08	
Waterproof	IP67	
Color	Gray	
Installation	Sticker   Zip Tie   Screw Magnetic mounting (Optional)	
Bluetooth	BLE 5.1	
MCU	Silicon Labs BG22 series	
Maximum Tx Power	+6dBm	
Long range mode*	Yes	
Transmission range*	Legacy mode - 150 meters Long range mode – 350 meters	
Accelerometer sensor	Yes	
Magnetic switch	Yes	
Temperature sensor	Optional	
External Flash	Optional	
LED	Red	
Battery capacity	3200mAh (Alkaline)	5200mAh (Li-SOCI2)
Operating temperature	0° C to 40° C	-20° C to 60° C
Battery lifespan*	5 years (Alkaline)	10+ years (Li-SOCI2)
Replaceable battery	Yes	
Certifications	FCC   CE   RoHS   REACH	

**Table 2:** Hardware specifications of M6 series products

\*Transmission range tested in the open area and no obstacles in the route.

\*Long range mode means “Coded PHY advertising mode”.

\*Battery lifespan estimated based on standard firmware default settings under 25°C conditions.(0dBm Tx Power | 1000ms ADV interval | iBeacon advertisement)

### 3.2 Lifecycle estimation

Please refer to documents – “**MOKO Beacon\_Battery Lifecycle summary**” for more details on battery lifecycle.

**Remark: M6 series products can be applicable for different series firmware, please double check before battery lifecycle calculations.**

### 3.3 LED functionality

Here we have described the LED response status in some common situations.

LED response status		
Scenarios	LED color	Response
Power ON	Red	Blinking for 3 seconds
Device connect	Red	Blinking twice
Power OFF	Red	Solid for 3 seconds
Factory restore	Red	Solid for 3 seconds and then device reboot
DFU upgrade	Red	Blinking during DFU upgrade, and solid for 3 seconds after finished, then device reboot
Low battery	Red	Blinking twice every 10 seconds
LED notification	Red	Blinking once --- Trigger mechanism applied

**Table 3:** LED response status in various situations

## 4. Basic instructions

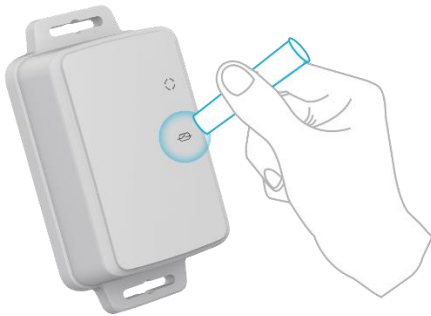
### 4.1 How to install device?

#### Multiple adaptive installation



Figure 2: How to install M6 series products?

### 4.2 How to power ON/OFF device?



The M6 series products do not reserve the external mechanical button but with inner mechanical button, and the magnetic switch is an optional equipment, so you can follow up below steps to power ON/OFF device.

**Power ON:** Long press inner button (or take the magnet to approach to the magnetic switch positions if hardware contains the magnetic switch), hold on for 3 seconds and then Red LED will **keep blinking** for 3 seconds to indicate device power on status.

**Power OFF:** Long press inner button (or take the magnet to approach to the magnetic switch positions if hardware contains the magnetic switch), hold on for 3 seconds and then Red LED will **keep solid** for 3 seconds to indicate device power off status.

**Remark:** If the product does not have the magnetic switch icon, then it means that this product does not contain the magnetic switch, and you will need to power on/off device through the inner button.



## 4.3 How to restore factory settings

There have two ways to restore factory settings.

- **Software reset:** Connect with device through configuration APP and then execute “Reset Beacon” operations to finish the software reset.

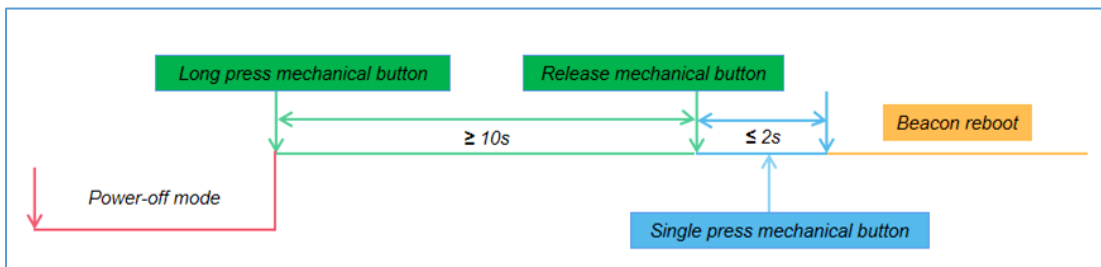
- **Hardware reset:**

**Step 1:** Keep the device power ON.

**Step 2:** Long press inner button (or take the magnet to approach to the magnetic switch positions) , hold for more than 10 seconds, during that device will power on and LED start flashing for 3 seconds.

**Step 3:** After Long press inner button (or take the magnet to approach to the magnetic switch positions) for more than 10 seconds, release button (or take away the magnet) and then single press button (or approach to magnetic switch) again within 2 seconds, then device will proceed on factory reset, along with the LED solid for 3 seconds.

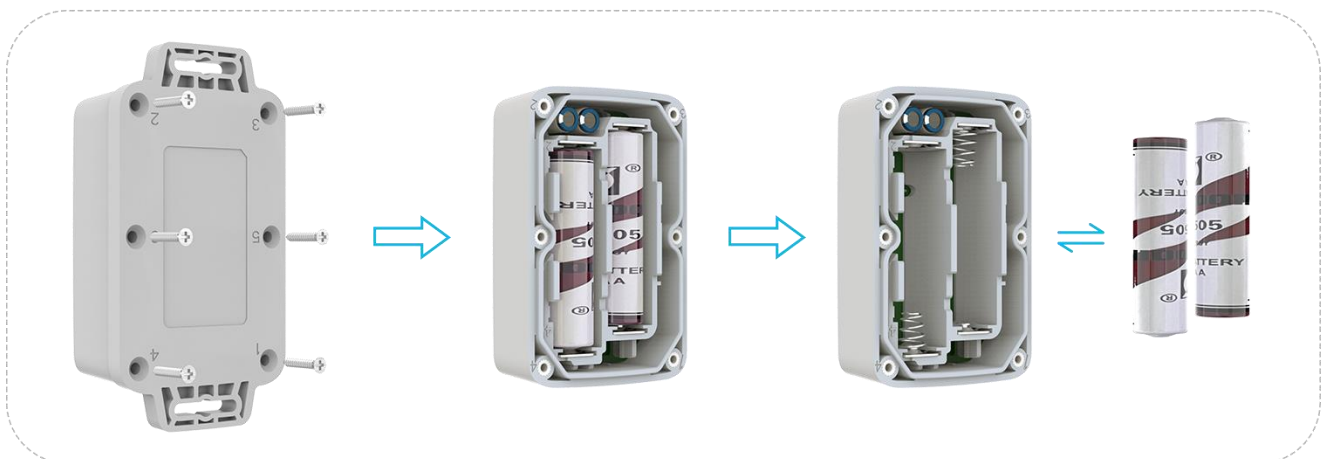
**Step 4:** Device will reboot and LED start flashing for 3 seconds to indicate the factory reset success.



**Figure 3:** How to reset M6 Series Products



**Remark:** Software reset won't reset connection password.

## 4.4 How to replace battery

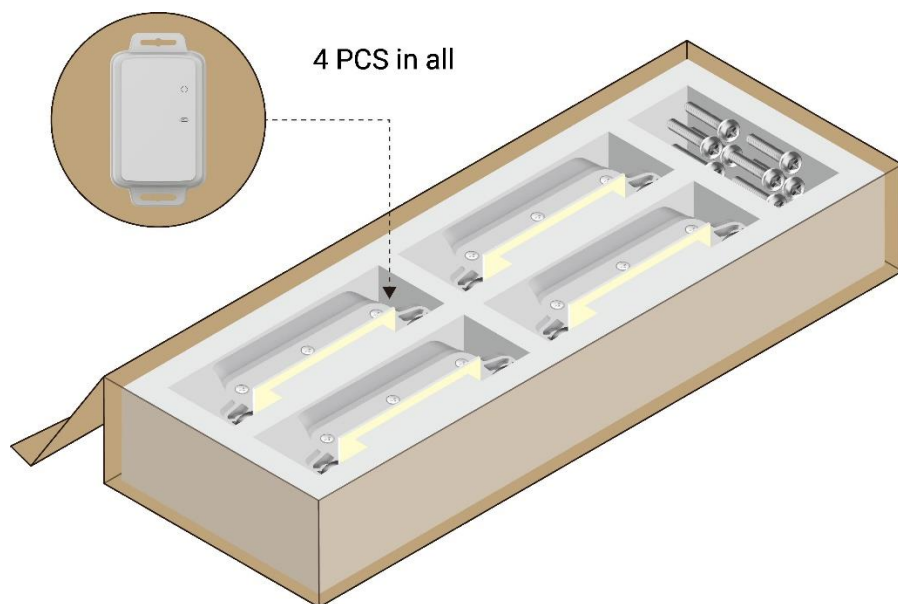


**Figure 4:** How to replace the battery of M6 series products

## 5. Ordering information

Ordering model	3axis-Acc sensor	Magnetic switch	Battery	Product ID
M6A	Yes	Yes	Alkaline	
M6H	Yes	Yes	ER14505	

## 6. Package information



**Figure 5:** Packaging information of M6

Package information			
Ordering model	Item	Giftbox	Carton box
M6 series	M6 Device	4pcs/Giftbox	10pcs/Carton
	3M sticker	4pcs/Giftbox	10pcs/Carton
	Screw (package unit)	4pcs/Giftbox	10pcs/Carton

**Table 4:** Package information of M6 series products

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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.

RF warning statement:

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

## Contact

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