



MOKO SMART



Product Specification

M1P LED Tag

Version 1.1



MOKO TECHNOLOGY LTD.

Revision History

Version	Data	Notes	Contributor(s)
V1.0	Nov 14, 2024	Initial version	Carl
V1.1	Feb 5, 2025	1. Add the “transmission distance” in long range mode.	Daniel

About document

This **product specification** was designed to help users to know the hardware overview and feature instructions of **M1P LED Tag**. 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 **M1P Series Products**, which contains:

- ❖ M1P – LED Tag, with [Silicon Labs BG22](#) series MCU, compatible with accelerometer sensor, temperature sensor, high brightness LED and buzzer.
- ❖ M1PI – Asset tag, with [INPLAY IN100](#) series MCU, **NOT** compatible with accelerometer sensor, temperature sensor, high brightness LED and buzzer. (****This product will be described in separate specification document****)

M1P Series Products - Overview			
Product model	Use cases	Applicable series firmware	Applicable configuration APP
M1P	Asset tag	BXP-S	BeaconX Pro >>> MK Sensor Series
M1PI	Asset tag	NanoBeacon	BeaconX Pro >>> NanoBeacon Series

Table 1: Overview of M1P Series Products

The product specifications 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 **M1P LED Tag**, powered by Bluetooth Low Energy technology and coin-sized designed especially for the asset management in the warehouse.

Adopting an edge antenna design, M1P excels in long broadcast range and robust anti-interference capabilities. When connected to a smart device, users can control the LED light for quick and effortless asset location within close proximity. Furthermore, it features a built-in temperature logger, making it ideal for use in cold chain transportation or storage environments.

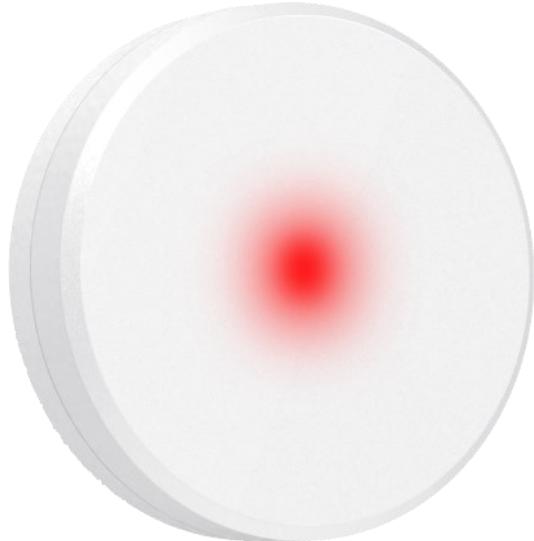


Figure 1: Appearance overview of M1P product

3. General specifications

3.1 Hardware specifications

General specification	
Main Chip	Silicon Labs BG22 series
Bluetooth	BLE 5.1
Dimension	Φ30*8mm
Transmission range	150 meters in legacy mode 350 meters in long range mode
Weight	6.2g (with battery)
Material	ABS
Color	White
Installation	3M Sticker
LED	Red (high brightness)
Sensor	3-axis accelerometer sensor Temperature logger(optional) Buzzer(optional)
Operating temperature	-20°C / + 60°C
Storage temperature	-20°C / + 70°C (without battery) 10°C / + 25°C (with battery)
Storage Humidity	0% ~ 95% (non-condensing)
Antenna Type	PCB onboard antenna
Power supply	Replaceable 220mAh CR2032 battery
Battery life	1.5 years (Default – 1 slot, 1000ms ADV interval, 0dBm)

Table 2: Hardware specifications of M1P series products

3.2 Lifecycle estimation

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

Remark: M1P LED Tag 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?

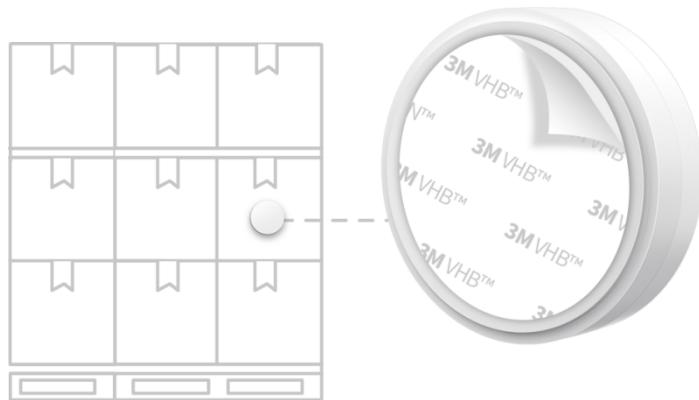


Figure 2: How to install M1P LED Tag

4.2 How to power ON/OFF device?

Power ON: Remove the battery insulation sheet.

Remark: This product cannot be power off remotely by the APP as M1P do not have the external button to power on again.

4.3 How to restore factory settings?

M1P doesn't have a physical button, it can be reset from the configuration APP.

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

Remark: Software reset won't reset connection password.

4.4 How to replace battery?

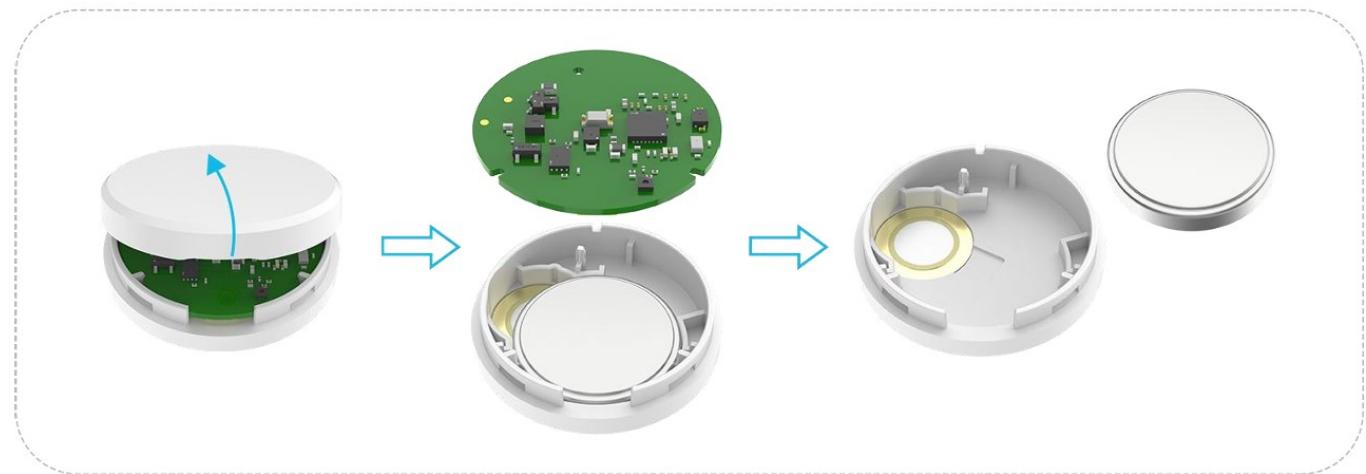


Figure 3: How to replace the battery of M1P LED Tag

5. Ordering information

Ordering information		
Ordering model	3-axis accelerator sensor	Product ID
M1P	Yes	

6. Package information

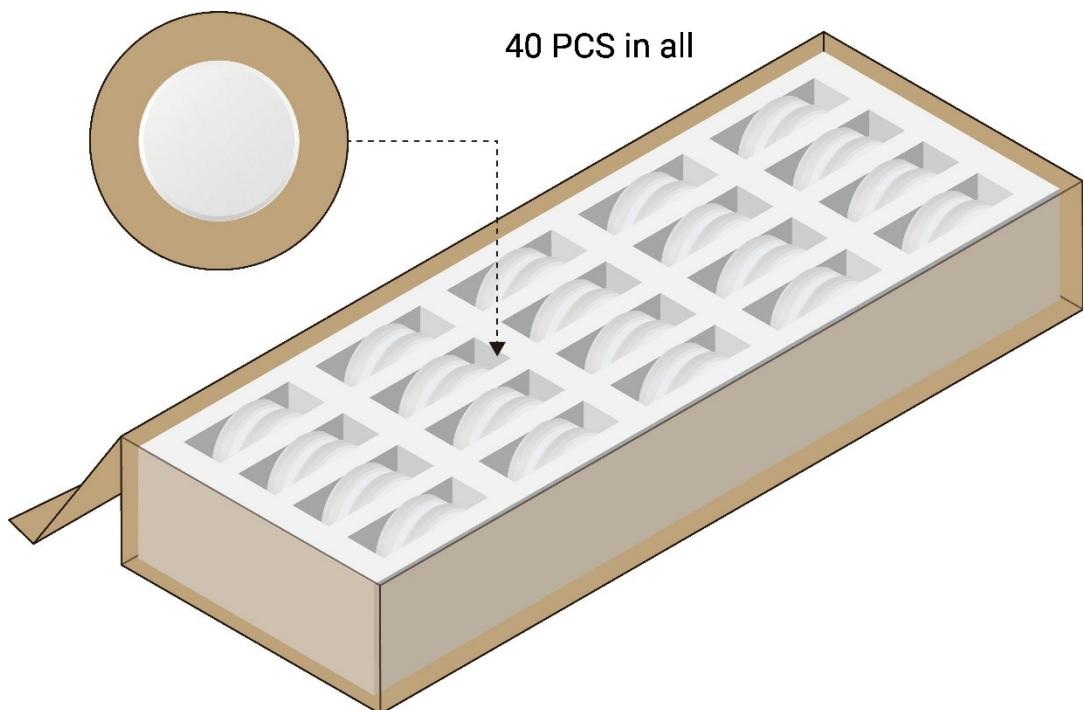


Figure 4: Packaging information of M1P LED Tag

Package information			
Ordering model	Item	Giftbox	Carton box
M1P	M1P Device	40pcs/Giftbox	10pcs/Carton
	3M sticker	40pcs/Giftbox	10pcs/Carton

Table 4: Package information of M1P LED Tag

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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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