Product Specification

M11 Pallet Tracking Tag

Version 1.0

Revision History

Version	Data	Notes	Contributor(s)
V1.0	April 24, 2026	Initial version	Daniel

About document

This ***product specification*** was designed to help users to know the hardware overview and feature instructions of ***M11 Pallet Tracking 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 ***M9/M9A Rugged Asset Tag***, which contains:

- ***Product brief***
- ***General specifications***
- ***Basic instructions***

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

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2. Product brief

The ***M11 Pallet Tracking Tag*** is engineered to redefine durability in the demanding world of logistics and supply chain management.

Built to withstand the rigors of real-world warehouse environments, this high-performance BLE tag features a ruggedized, low-profile design specifically optimized to resist the frequent collisions and heavy-duty handling typical of pallet transport. Its unique form factor allows the device to be seamlessly embedded into typical pallets or skids, providing a flush fit that minimizes exposure to external damage.

Combined with an IP67 waterproof rating and IK08 impact resistance, the M11 thrives in the harshest conditions, ensuring your assets remain visible and your hardware stays protected.

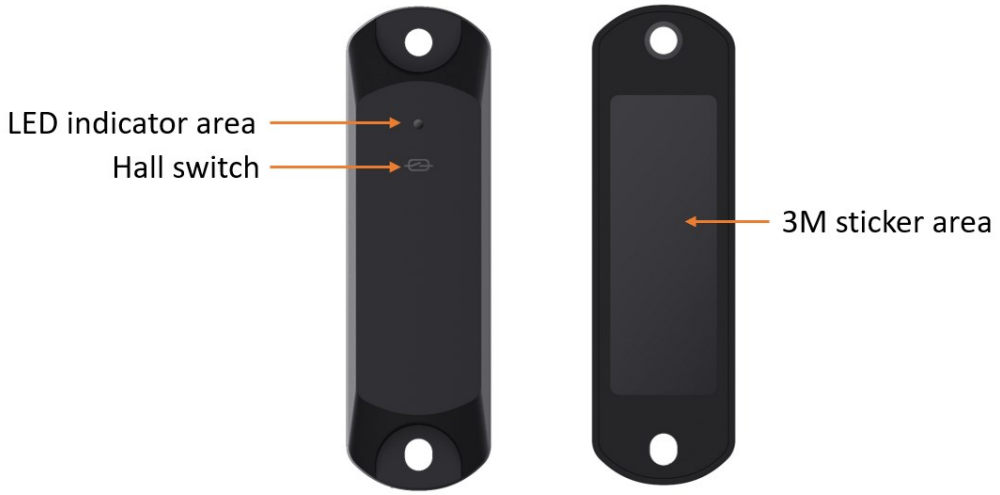

Figure 1: *Appearance overview of M11*

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3. General specifications

3.1 Hardware specifications

Item	Property	M11
Physical	Appearance ID	
	Dimensions (L*W*H)	112.0*33.5*14.7mm
	IP rated	IP67
	Shock resistance rated	IK08
	Color	Black
	RFID	Optional
	Installation	Screw/3M tape/Zip Tie
Connectivity	Bluetooth	BLE 5.0
	Maximum Tx Power	+6dBm
	Long range mode*	Supported
	Transmission range*	150m (Legacy mode) 350m (Long range mode)
	Accelerometer sensor	Yes
	Temperature sensor	Optional
	Power on	Magnetic switch
	LED	Red
	Battery capacity	1000mAh
	Replaceable battery	No
	Lifespan (default settings*)	5 years
	Operating temperature	-20°C / +60°C
Regulatory	Certifications	FCC | CE | RoHS | WEEE

Table 1: *Hardware specifications of M11*

**Long range mode: It means "coded PHY" advertisement.*

**Transmission range: Tested in the open area and no obstacles in the route.*

**Default settings: 0dBm Tx Power | 1000ms ADV interval | No Accelerometer Sensor | 25°C conditions*

3.2 Lifecycle estimation

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

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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

Table 2: *LED response status in various situations*

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4. Basic instructions

4.1 How to power ON/OFF device?

The *M11 Pallet Tracking Tag* do not reserve the external mechanical button, but equipped with magnetic switch, so you can follow up below steps to power ON/OFF device.

- **Power ON:** Take the magnet to approach to the hall switch positions, hold on for 3 seconds and then red LED will keep blinking for 3 seconds to indicate device power on status.
- **Power OFF:** Take the magnet to approach to the magnetic switch positions, hold on for 3 seconds and then red LED will keep solid for 3 seconds to indicate device power off status.

4.2 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 OFF.

  Step 2: Take the magnet to approach to the hall switch positions, hold for more than 10 seconds, during that device will power on and LED start flashing for 3 seconds.

  Step 3: After magnet hold positions for more than 10 seconds, take away the magnet and then approach to hall 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.

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

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Warning Message

>Unless specifically indicated that it is safe to do so in the user guide or instruction manual do not use this device in an environment that exceeds the recommended low or high temperature
>Unless specifically indicated that it is safe to do so in the user guide or instruction manual, avoid exposing your device to direct sunshine or excessively wet environments.
>The recommended temperature range for devices and accessories is -20°C to 60°C
>Do not use the product in any way other than described herein in order to avoid personal injury or property damage.
>User should comply with the laws and regulations of the corresponding countries and regions where the equipment is used, abide by professional ethics, pay attention to safety obligations, and strictly prohibit the use of our product or equipment for any illegal purposes.Our company will not be responsible for any violators'legal liability under any circumstances.
>Replacing a battery with an incorrect type may bypass safeguards and create danger;
>Disposal of a battery in a fire or other source of significant heat, or by crushing, or cutting, may result in an explosion as well as leakage of flammable liquids and gases;
>Leaving a battery in an extremely hot environment may result in an explosion as well as leakage of flammable liquids and gases;
>A battery subjected to extremely low air pressure may result in an explosion as well as leakage of flammable liquids and gases.

a)Remove and immediately recycle or dispose of used batteries according to local regulations and keep away from children.Do NOT dispose of batteries in household trash or incinerate.
b)Even used batteries may cause severe injury or death.
c)Call a local poison control center for treatment information.
d)The compatible battery type is CR2450.
e)The nominal battery voltage is 3V.
f)Non-rechargeable batteries are not to be recharged.
g)" Do not force discharge,recharge,disassemble,heat above(manufacturer's specified temperature rating)or incinerate.Doing so may result in injury due to venting,leakage or explosion resulting in chemical burns.

FCC Radio Frequency Exposure Statement

The device has been evaluated to meet general RF exposure requirements.The device can be used in fixed/mobile exposure condition.The min separation distance is 20cm.

FCC Statement:

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 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:(1)Reorient or relocate the receiving antenna
(2)Increase the separation between the equipment and receiver.
(3)Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
(4)Consult the dealer or an experienced radio/TV technician for help.

Warning: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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