



MOKO SMART



# Product Specification

*B2R Smart Badge*

*Version 1.0*



MOKO TECHNOLOGY LTD.

# Revision History

Version	Data	Notes	Contributor(s)
V2.0	2025.09.23	Initial version	Daniel

## About document

This **product specification** was designed to help users to know the hardware overview and feature instructions of **B2R Smart Badge**. 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 **B2R Smart Badge**, which contained below parts:

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

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

## 2. Product brief

The **B2R Smart Badge** is a smart badge integrating ID card slot with BLE communication in a compact design. With 4 replaceable coin batteries, the badge will reach a lifespan to five years.

Featuring an enlarged SOS button and IP66 waterproof rating, B2R is ideal for safeguarding personnel safety in various environments, including construction sites, hotels, healthcare facilities, and more. Moreover, B2R is equipped with buzzers and LED notifications to enable immediate alerts and location-based services, like geo-fencing, access control, etc.



**Figure 1:** Appearance overview of B2R Smart Badge

### 3. General specifications

#### 3.1 Hardware specifications

Item	Property	H3
Casing	ID Appearance	
	Dimensions (L*W*H)	98.0*65.2*8.6mm
	Material	PC
	Waterproof	IP66
	Color	White (Body) Red (Button)
	Mounting	Lanyard
	Power on	Mechanical button
	IC Card slot	CR80 standard
Connectivity	Bluetooth	BLE 5.0
	Maximum Tx Power	+4dBm
	Long range mode*	Not support
	Transmission range*	150m
Hardware	Accelerometer	Yes
	RFID/NFC	Yes
	Buzzer	Yes
	LED	Red
	Battery capacity	880mAh
	Replaceable battery	Yes
	Lifespan (default settings)	5 years
	Operating temperature	-20°C / +60°C
Regulatory	Certifications	FCC CE RoHS WEEE

Table 1: Hardware specifications of B2R Smart Badge

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

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

#### 3.2 Lifecycle estimation

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

### 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 2: LED response status in various situations*

## 4. Basic instructions

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

**Power ON:** Long press button for more than 3 seconds, and red LED will **keep blinking** for 3 seconds to indicate device power ON status.

**Power OFF:** Remote power off device through the configuration APP, and 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.

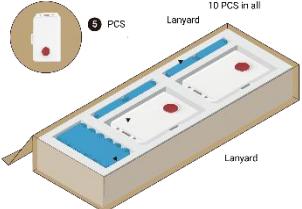
**Step 2:** Long press the button for more than 10 seconds, during that device will power on and LED start flashing for 3 seconds.

**Step 3:** After long press duration more than 10 seconds, release the button and then single press the button 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.

## 5. Package information

Model	Package information	Gift box	Carton box
H3		10pcs/Gift box	100pcs/Carton box
Lanyard		<p><i>Remark:</i> Lanyard is an optional accessory which is excluded in standard products delivery. You can contact with our sales team for more type of lanyard accessories.</p>	

**Table 3:** Package information of B2R Smart Badge

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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

**MOKO TECHNOLOGY LTD.** An original manufacturer for IoT smart devices

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