

## BH-01 UHF RFID Reader



### **Introduction**

BH-01 is a multifunctional UHF RFID handheld reading and writing device that supports ISO18000-6C protocol. The working frequency band covers CHN: 920MHz ~ 925MHz, FCC: 902MHz ~ 928MHz and ETSI: 865MHz ~ 868MHz. The output power is 0dBm ~ 30dBm optional. The device can quickly locate electronic tags and supports three wireless communication methods: Bluetooth and WiFi. It can communicate with smart terminals such as mobile phones and tablets via Bluetooth, and can also interact with background systems through WiFi.

Compared with traditional handheld readers and writers, this device has the advantages of being lightweight, capable of rapid positioning, and long identification distance. At the same time, it also has excellent performance in terms of reading speed, accuracy, anti-interference ability, and protection performance. It can be widely used in many fields such as library and archive management, logistics management, warehousing management, asset management, and commercial retail.

### **Features**

- The built-in circularly polarized antenna supports manual and fast switching between high and low power, which can meet the needs of long-distance reading and short-range

precise positioning. It is especially suitable for quick search of single products in books, logistics, retail and other fields;

- Built-in orientation sensing sensor, using patented algorithm to quickly lock the current tag's position;
- Storage capacity is optional, supporting up to 50,000 pieces of tag data;
- It can work independently or collaborate with smart terminals via Bluetooth, which is convenient and fast;
- Direct data delivery via WiFi communication and backend management system;
- Supports UHF RFID and scanning engine at the same time;
- Using industry-leading high-performance radio frequency chips, it has excellent reading and writing performance;
- Independent mold opening, stylish appearance and simple operation interface;
- Supports voice prompts and vibration motor prompt functions.

### **Applications**

- Books, file management, warehousing, logistics management, etc.
- Supply chain management, production automation, visual management, etc.
- Retail store management, hotel management.
- Intelligent vehicle management such as vehicle access control, parking lot, automatic vehicle weighing industry, etc.
- Asset inbound and outbound management, etc.

### **Main technical performance indicators**

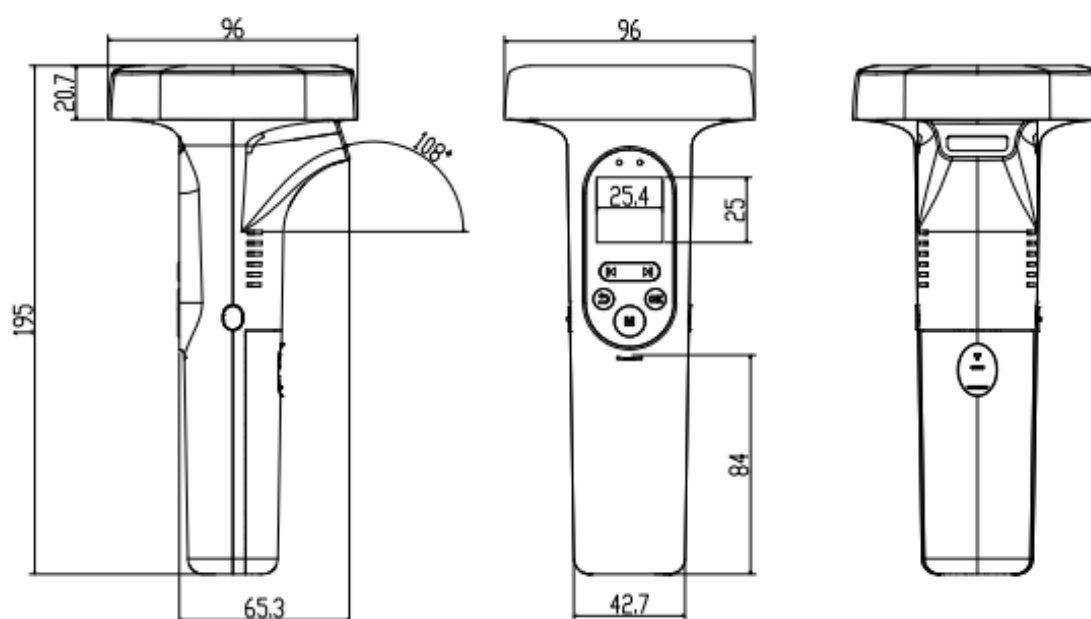
<b>Physical parameters</b>	
Size	195mm × 96mm × 96mm
Weight	400g
Shell material	Engineering plastics
Display	1.4 inches, 240*240 pixel
Speaker	1, support
Indicator light	2, Power, network status
Keyboard	SW key (side), PWR key (side), up, down, cancel, enter, SCAN key (main)
<b>Main function</b>	
Air interface protocol	EPC C1G2/ISO18000-6C
Communication Interface	Bluetooth 4.2

Charging and programming port	USB Type-C
Operating mode	Fixed frequency/frequency hopping optional
Features	Supports intensive reading and writing, supports firmware online upgrade, and supports RSSI: perceptible signal strength
<b>Performance parameters</b>	
working frequency	CHN: 920~925MHz; FCC: 902~928MHz; ETSI: 865~868MHz
RF output power (port)	30 dBm (MAX)
Output power adjustment	1dB step
Channel occupied bandwidth	<200KHz
Antenna	Circularly polarized antenna
Reading distance	0~ 15 m (related to factors such as transmission power, antenna type, tag type and application environment)
Writing distance	0~ 10 m (related to factors such as transmission power, antenna type, tag type and application environment)
Tag recognition speed	>500 times/second
<b>Scan engine performance parameters</b>	
Reading 1D barcodes	Code 128, EAN-13, EAN-8, Code 39, UPC-A, UPC-E, Codabar, Interleaved 2 of 5, ITF-6, ITF-14, ISBN, ISSN, Code 93, UCC/EAN-128, GS1 Databar, Matrix 2 of 5, Code 11, Industrial 2 of 5, Standard 2 of 5, AIM128, Plessey, MSI-Plessey
Reading 2D barcodes	PDF417, QR Code, Micro QR, Data Matrix
Reading accuracy	≥3mil
Focus	Red light 625nm
<b>Working environment</b>	
Operating temperature	-20℃~+50℃
Storage temperature	-40℃~+70℃
Working humidity	10%~95%RH non-condensing

## Product photo



## Dimensions



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.

Any 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.

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

Specific Absorption Rate (SAR) information:

This product meets the government's requirements for exposure to radio waves. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons regardless of age or health.

FCC RF Exposure Information and Statement The SAR limit of USA (FCC) is 1.6 W/kg averaged over one gram of tissue.

Device type: BH-01 (FCC ID: 2BM3H-BH01) was also tested against these values. The highest SAR value for accessories worn on the body is 0.60 W/kg. The device tested typical body wear operations with the back of the product 0mm from the body. To meet FCC RF exposure requirements, use accessories that maintain a separation distance of 0mm between the user's body and the back of the product. The use of belt clips, holsters and similar accessories should not contain metallic components in its assembly. The use of accessories that do not satisfy these requirements may not comply with FCC RF exposure requirements, and should be avoided.

The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.