🏠   Hub   Home Security Hub (Station)   Specification

Home Security Hub (Station)

Download Spec

Smart Hub is the powerful brain of RoomBanker Secuiry & Automation system, enabling you to connect a variety of sensors and peripherals and then DIY your own security solution in a flexible and easy-to-use way.

Note: the external antennas need to be purchased separately.

1. Capacity

Wireless peripheral (including RBF, Zigbee 3.0, Bluetooth devices)

- Supports up to **128** peripherals (RBF, Zigbee, BLE devices)

  Specifically, up to 2 alarm keypad, 4 sirens, 32 keyfobs, 2 repeaters

Users

- Up to 69

User Type	Quantity
Super Admin	× 1
Admin	× 4
App User	× 32
Local User	× 32

Automation scenes

- Up to **64** custom scenes *Alarm responses / Scheduled actions / Security mode changing reactions / Temperature changing reactions / Humidity changing reactions / Reactions to pressing Button*

Rooms

- Up to **64** rooms

2. Wireless communication

RBF communication technology

Innovative and Proprietary wireless communication technology to transmit information.

Key features:

- Ultra-long communication range.(868MHz: Up to 3.5km@open area)
- Two-way communication.
- AES-CCM encryption featuring a random key.
- OTA by wireless.
- Instant notifications.
- Remote control via RB Link App.

Frequency bands

- **868 MHz version**: 863 ~ 870 MHz
- **915 MHz version**: 902 ~ 928 MHz *Depends on sales region.*

Wireless signal modulation

- FSK / DSSS

Wireless signal range

- 868MHz: Up to **3,500m** in open space Between the hub and connected devices. *Maximum range depends on the connected device.*

Encrypted communication

All the data transmitted are protected by AES-CCM encryption with a random key.

Frequency hopping (FHSS)

- up to 50 channels available to prevent radio interference and radio signal interception.

Time division multiple access (TDMA)

- With the help of clock synchronization technology, hub will slice time into different division for different RBF wireless devices. In this way, all devices will communicate with hub in a sequence.

3. Internet connection

Ethernet

- 1 × RJ45 Ethernet connector: 10/100 Mbps.

Cellular

- 1 × Standard SIM slot

- Cellular Band (LTE Cat1)

Region	LTE-FDD Band	LTE-TDD Band	GSM Band
EMEA / ASIA / Australia / New Zealand	B1/ 3/ 5/ 7/ 8/ 20	-	B2/ 3/ 5/ 8
USA	B2/B4/B5/B12/B13/B14/B66/B71	-	
Latin America	B2/ 3/ 4/ 5/ 7/ 8/ 28/ 66	-	B2/ 3/ 5/ 8
China	B1/ 3/ 5/ 8	B34/ 38/ 39/ 40/ 41	B3/ 8

> Note: Select the right LTE region before ordering a hub.
>
> *External antenna optional for places where built-in antenna signal is bad or no signal.*

Wi-Fi

- 2.4G, 802.11 b/g/n

Communication channels prioritization

1. Ethernet

2. Wi-Fi

3. Cellular connection

   Backup between Ethernet, Wi-Fi and SIM.

4. Notifications

Supported notification types

- App notification Push / SMS / Phone Calls

5. Power Supply

External plug

- Type-C, DC5V, 2A

Backup Battery

- Built-in backup battery: 1 × 18650 lithium battery，2600mAh *Up to 8 hours backup time*

6. Anti-sabotage

Tamper alarm

The system receives notifications about attempts to detach the device from the surface or remove it from the mounting panel.

Anti-jamming

The users receive notifications in case of jamming or when the hub loses connection with the devices.

7. General

Dimension

- 150mm × 150mm × 37mm

Weight

- 320 g

Operating temperature range

- from −10°C to +45°C

8. Complete set

Product	Quantity
Home Security Hub with mounting panel	× 1
Power Plug with Type-C cable (1m)	× 1
Ethernet cable (1m)	× 1
Screw package	× 1
Quick Start Guide	× 1
SIM Card Tray	× 1
screwdriver	× 1

9. Additional information

Available models

Hub	Model Name	RBF	Zigbee	Ethernet	Wi-Fi	GPRS	LTE
Station-GPRS	RBGW-201-868	√	√	√	√	√	×

Hub	Model Name	RBF	Zigbee	Ethernet	Wi-Fi	GPRS	LTE
	RBGW-201-915						
Station-LTE	RBGW-202-868 RBGW-202-915	√	√	√	√	×	√

> Note：Station-LTE needs to select LTE region.
>
> - Region 1: EMEA / ASIA / Australia / New Zealand
> - Region 2: USA
> - Region 3: Latin America
> - Region 4: China

Certifications

- CE, CB
- FCC
- ICASA
- LOA
- RCM
- NOM
- Anatel

User manual

- Roombanker User Manual

Warranty

- Replacement and repair within 24 months of the date of sale.

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.

To comply with RF exposure requirements, a minimum separation distance of 20cm must be maintained between the user's body and the device, including the antenna.