Home Security Hub (Station)

Skip to main content

Download Spec

Last update: January 8th, 2024.

Smart Hub is the powerful brain of Roombanker Secuiry & Automation system, enabling you to connect a variety of sensors and peripherals.

Note: the external antennas need to be purchased separately.

1. Capacity

Wireless peripheral (including RBF, Zigbee 3.0)

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

  Specifically, up to 8 alarm keypad, 12 sirens, 32 keyfobs

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.(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

- 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，2,500mAh
  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	LTE
Station-B	RBGW-201-868-B	√	×	√	√	×
Station-B	RBGW-201-915-B	√	×	√	√	×
Station	RBGW-202-868	√	√	√	√	√
Station	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

- FCC

User manual

- Roombanker User Manual

Warranty

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