

REXENSE
Product Datasheet
Smart Home Gateway
V3.0

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Version Update

V1.0.0	20180130	Initial version
V3.0.0	20210419	Change some descriptions

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1. Overview

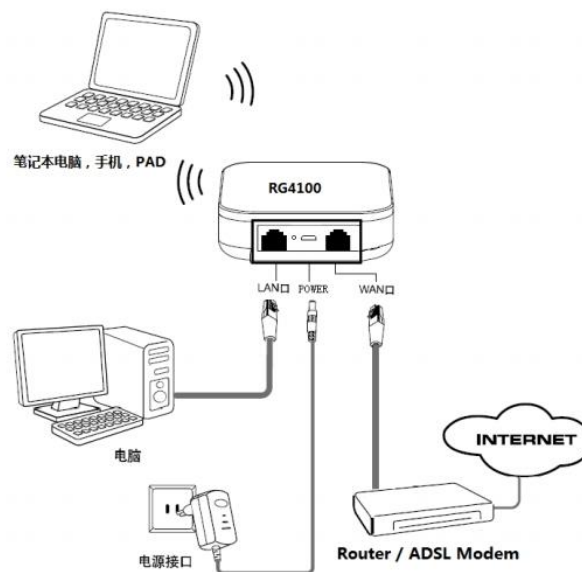
The Rexense RG4100+ is a powerful, ultra compact, multifunction smart home automation gateway utilizing the latest research and development from Raying IoT Technology Co. Limited. The advanced wireless design of the RG4100+ integrates Zigbee (or Bluetooth), Ethernet and Wi-Fi communications.



Our new plug and play design does not require users to understand any configuration information. They may simply connect to an existing router using a network cable for proper operation. The RG4100+ may also replace the home wireless router in providing the ability to simultaneously browse, engage in smart home control, or access other functionality.

2. RG4100+ Components

The RG4100+ consists of a high performance Wi-Fi SOC baseband processor running Linux OpenWRT operating system, a Zigbee/Bluetooth combined module, and a mother board providing LAN(Local Area Network) access, WAN(Wide Area Network) access, buttons and LEDs.



3. Field Application for the RG4100+

- Smart home gateway
 - Light control
 - Security system
 - Air quality monitoring
 - Smart lock
 - Motorized curtain
 - Air-conditioning, heating and ventilation
 - Scenario automation
- Building automation and monitoring
- HVAC monitoring and control
- Industrial monitoring
- Wireless meter reading

4. Product Features

1. Compact, Reliable, Powerful Technology, With Complete Regulatory Approvals

Despite its small physical size, the RG4100+ offers a combination of advanced technologies with outstanding reliability. Using the finest components, we utilize the most technically sound assembly techniques at our state of the art manufacturing facility.

RG4100+ has an array of safety and communication regulatory approvals for development in a variety of global markets. Without limiting the foregoing this includes FCC, IC, UL and CE Approvals.

2. Plug and Play Operation Without Configuration^①

Unlike other products in the market which require complex configuration, the RG4100+ only needs access to the internet through the use of a LAN cable plugged into an existing router with DHCP functionality.

3. Multi Network Integration

The RG4100+ provides the integration of three wireless communication technologies including Zigbee3.0, Bluetooth SigMesh, and Wi-Fi b/g/n. Not only does this make our device a powerful smart home controller, it is also able to function as a wireless router supporting a connection to the internet with a speed of 150MB for high speed surfing.

4. Powerful core processor running Linux OpenWRT operating system

Powerful 600MHz core processor running Linux OpenWRT operating system makes development work on RG4100+ very simple. Multiple standard developing tools could be utilized, such as Python, Database, MQTT etc.

All the outstanding features make RG4100+ not only a IoT gateway, but also a multi-function edge computing device.

5. Exceptional Security and Privacy Protection

RG4100+ allows the use of high-level encryption related to the transmission of information. This is why governments everywhere are turning to the use of ZigBee technology to ensure that their critical networks are secure from malicious intrusion. A good example is the use of ZigBee technology associated with the operation of utility networks.

6. International Standard Accepted Worldwide

Rexense is a member of the ZigBee Alliance. The RG4100+ complies with the global ZigBee3.0 and Bluetooth SigMesh protocol which allows it to be compatible with other manufacturers sensors and accessory devices. This greatly expands the potential integration of the RG4100+ in an environment where other manufacturers accessory devices are deployed.

① Plug and play function requires the main router to open the DHCP function

5. Product Specifications

Physical Characteristics	
Dimension	Length * Width * Height = 90.0 * 90.0 * 22.0mm
Weight	93g(N.W.)
Status Indicator	5*LED
Operation Button	1 button
Power Supply	MicroUSB DC5V
Working Current	< 0.37A

AC Adapter	Input 100V-240V 50/60Hz 0.25A Output 5V 1.0A		
Operating System	Linux Open WRT		
RAM	64MB		
Flash	16MB		
Processor	MT7688		
Operation Temperature	-10-55°C		
Operation Humidity	10% - 90%RH (None-condensing)		
Storage Temperature	-20 - 60°C		
Storage Humidity	5% - 95%RH (None-condensing)		
Hardware Interface	2 x 10/100M RJ45 Ethernet interfaces (WAN+LAN)		
Wireless Technology	Wi-Fi 802.11b/g/n		
	802.15.4/ZigBee, or Bluetooth 5.0 / SigMesh		
Antenna Type	Built in antenna		
RF Features			
	ZigBee	Bluetooth	Wi-Fi
Radio Frequency	2.4GHz	2.4GHz	2.4GHz
Network Standard	ZigBee3.0	Bluetooth 5.0 Bluetooth Sigmesh	802.11b/g/n
Transmit Power	20dBm	10dBm	12-15dBm
Channel Number	16	40	14

Transmission Speed	250kbps	2Mbps	150Mbps@11n 54Mbps@11g 11Mbps@11b
Network Features			
Wireless Encryption	64/128/152 bit WEP encryption WPA-PSK/WPA2-PSK, WPA/WPA2 security mechanism		
Network Management	Web management		
Max. connections	UDP/TCP > 20		

6. Packing List

RG4100+ ZigBee/ Ethernet Gateway * 1

DC5V power * 1

Ethernet cable * 1

Product description * 1

Product Guide * 1



9. Contact Us

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