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# RG-EW1200G PRO

## 1300M Dual-band Gigabit Wireless Router (Enhanced Edition)

### Datasheet

### V1.1

Ruijie Networks Co., Ltd.

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## R e v i s i o n R e c o r d

Revision date	Version	Revised section	Details	Author
2020/4/24	1.0	All	First draft	Lei Lin
2020/7/22	1.1	All	Second draft(Logo change, Re-name Reyee Mesh, delete unavailable contents such as reyee app, wechat function, etc)	MJ

## P r e f a c e

This document includes the product pictures, overview, features, technical specifications, typical applications and ordering information of RG-EW1200G PRO 1300M Dual-band Gigabit Wireless Router (Enhanced Edition) for marketing purpose.

Note:

This document can be used directly for product datasheet printing by the Marketing Department.



If you have any enquiries, please contact the document author.

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# 1 Product Photo



RG-EW1200G PRO

## 2 Product Overview

Ruijie Reeye RG-EW1200G PRO is a Gigabit dual-band wireless consumer router designed for one-story homes, villas, small shops, SOHO and other scenarios. The device can meet the needs of Gigabit Internet access with its excellent performance, while providing strong signals and coverage. Integrated with Ruijie's exclusive Reeye Mesh Technology, it eliminates the configuration difficulties of multi-device networking and adding new equipment to the network. The simple app management coupled with features such as children's Internet protection, gaming mode, and smart home Wi-Fi makes it a practical and easy-to-use wireless router for men, women and children.

The router offers 1 10/100/1000Mbps WAN port and 3 10/100/1000Mbps LAN ports, with maximum access bandwidth of 1000Mbps. The recommended number of clients is 64, including 32 wireless terminals.

The device supports both 2.4GHz and 5GHz, offering maximum wireless rate of 400Mbps at 2.4G, 867Mbps at 5G and 1267Mbps per router. Equipped with the 802.11ac Wave2 chip, the device supports MU-MIMO, which can support more terminals, provide faster wireless speed and more stable connection, thereby improving the terminals' Internet access performance and users' Internet experience.

In addition to Reeye Mesh Technology, the router also supports network deployment with Ruijie Reeye Series enterprise gateways and APs for unified management and configuration. No matter which networking method is used, the RF adjustment algorithm applied to millions of Ruijie enterprise-grade APs can provide seamless roaming between devices and fast switching between 2.4GHz and 5GHz. Users can move around the Wi-Fi coverage area without service interruption thanks to the seamless roaming.

Collaborative management can be authorized to others temporarily or permanently. Local or remote management and configuration can be performed via various methods such as local web, Ruijie Cloud app, etc. to achieve fault diagnosis and maintenance, providing multi-end management on mobile phone and PC anytime anywhere, and offering worry-free maintenance.

## 3 Product Features

### High-performance Gigabit Routing

The device supports 4 Gigabit Ethernet ports and wireless access rate of up to 1267M. The powerful dual-core hyper-threading CPU, combined with the hardware NAT feature, performs high-speed data forwarding and maximizes the broadband performance. For gigabit broadband speed test of the wired network port, after deducting the basic network overhead, the measured network speed can reach more than 980M.

### 1267M Dual-Band Integration Offering Low Interference and Fast Internet Speed

Affected by the actual application environment, the 2.4GHz frequency band has high interference and the testing speed is usually only 40 to 50M, which is unlikely to reach 100M. RG-EW1200G PRO provides both 2.4GHz and 5GHz wireless frequency bands at the same time. The 2.4GHz frequency band offers good penetration, long transmission and wide coverage, providing good basic signal coverage. The 5GHz frequency band features low interference, high speed, and low latency, providing better experience when watching HD videos and playing online games. The SSIDs of 2.4GHz and 5GHz can be set separately, or the two can be combined into one, offering dual-band concurrent access, 5G priority and smart identification, which provides better Internet experience.

### Optimize 2.4G to Increase the Limit of Smart Terminal Connections

In view of the widespread adoption of smart terminals such as smart homes and wireless cameras, the device has applied the Wi-Fi 5 chip for Wi-Fi 4 device access to increase the maximum access rate of the 2.4GHz band from 300Mbps to 400Mbps, and provide a higher limit for the number of smart terminal connections. An independent Wi-Fi signal for smart home can be set up for secure and reliable connection.

### MU-MIMO Offers Higher Transmission Efficiency

The device supports 802.11ac Wave2 MU-MIMO (multi-user, multiple-input, multiple-output), changing the previous inefficient transmission method in which only one terminal can occupy the channel at a time. MU-MIMO allows the device to transmit data to multiple terminals concurrently. Multi-terminal concurrent transmission is no longer in competitive mode, which improves the multi-user experience by 50% and offers extremely fast Internet access for all users.

### Professional RF Design Multiplies the Coverage Distance

The quad-stream independent FEM design ensures that the LNA amplifies the received signal power during signal transmission to effectively improve the receiving sensitivity and to a certain extent reduce the problems caused by the unbalanced power between the router and

the Wi-Fi terminal, such as false signal and terminal signal unable to transmit back to the router. In addition, the external omnidirectional antennas also further ensure the Wi-Fi signal coverage.

### **Exclusive Reyee Mesh Technology Enables Zero-configuration Networking for Multi-Devices**

Reyee Mesh is a networking technology self-developed by Ruijie for multiple wireless routers' connection, which supports both plug-in and one-key pairing. Without requiring any pre-configuration, you can complete the multiple devices pairing process, additional equipment installation, and coverage optimization with zero threshold. Multiple wireless routers connected by Reyee Mesh Technology can intelligently identify the connection status and automatically switch between wireless relay and wired relay modes to improve network reliability.

### **Reyee Mesh Technology Offers Seamless Roaming without Disconnection**

The Reyee Mesh Technology supports wired or wireless networking of multiple devices. The RF adjustment algorithm applied to millions of Ruijie enterprise-grade APs can provide seamless roaming between the equipment and fast switching between 2.4GHz and 5GHz. When users walk around under the Wi-Fi signal coverage, the optimal frequency band selection and network switching will be automatically performed without service interruption.

### **Parental Control Allow Parents to Monitor Their Child's Internet Use**

Users can control the Internet access authority of the specified terminal through the Ruijie Cloud App and set rules to limit the online duration of the specified terminal.

### **Wi-Fi Acceleration Mode Put You One Step Ahead of Other Players**

The Wi-Fi acceleration mode improves the anti-interference of the device and the wireless channel efficiency under high-interference environment, thereby reducing game delays and putting you one step ahead of other players.

### **Temporary Authorization for Remote Management**

Users can use the Ruijie Cloud App for smart network inspection to determine the current network failures. Users can also temporarily grant network authorization and share network to technical personnel who can do remote-diagnosis through various technical tools such as Ruijie Cloud app and MACC cloud platform, to avoid unnecessary on-site services.

### **Professional Heat Dissipation Design for Long-Term Stable Operation**

The CPU uses metal sheet for heat dissipation, offering heat dissipation coefficient close to 200W/m<sup>2</sup>\*K, which is 20 times that of the traditional ceramic heat-sinks. With an excellent aerodynamic heat dissipation structure design, the internal temperature of the equipment is greatly reduced. Long-term high-speed operation is stable and reliable, avoiding stability problems such as speed reduction and crashes caused by excessive temperature.

### **Enterprise-grade product design supporting connection with enterprise-grade equipment**

The device can be deployed with Ruijie Reyee enterprise-grade gateway and AP for hybrid deployment, unified management, unified configuration, and seamless roaming.



## 4 Hardware Specifications

Wireless specifications	2.4GHz 2*2: maximum rate 400Mbps; 5GHz 2*2: maximum rate 867Mbps
	Antenna: External 6dBi non-removable omnidirectional antennas
	Support 802.11a/b/g/n/ac/ac Wave2, MU-MIMO
	Frequency band: Independent 2.4GHz and 5GHz modules, supporting dual frequency integration
	Support beamforming
	Wi-Fi channel: 2.4GHz Channel : 1,2,3,4,5,6,7,8,9,10,11,12,13 5GHz Channel : 36,40,44,48,149,153,157,161,165
Ports	1 10/100/1000M WAN port ( Auto MDI/MDIX )
	3 10/100/1000M LAN ports ( Auto MDI/MDIX )
	1 blue system LED indicator, 4 network port LED indicators
	1 device pairing/factory reset button
	1 power input interface
Physical specifications	Dimensions : 220x140x36mm (WxDxH, excluding antennas)
	Weight : 0.98kg ( entire equipment including packaging )
Power supply	Power specification: DC12V 1.5A
	Maximum power: <14W
Certification	CCC , SRRC
Operating environment	Operating temperature: 0-45°C
	Storage temperature: -40-70°C
	Operating humidity: 5%-95%RH (non-condensing)
	Storage humidity: 5%-95%RH (non-condensing)

## 5 Software Specifications

Main features	<p>Routing mode: PPPoE / DHCP / static IP; relay mode: wired relay / wireless relay</p> <p>Obtain PPPoE account from the old router</p> <p>Wi-Fi dual-band separation/ integration</p> <p>Guest Wi-Fi; smart home Wi-Fi; wireless network isolation</p> <p>Static DHCP address</p> <p>Virtual server: port mapping, DMZ, etc.</p> <p>DDNS: Oray</p> <p>UPnP</p>
Network security	<p>Wireless security: WPA-PSK/WPA2-PSK encryption</p> <p>ARP protection: IP/MAC binding</p> <p>SSID hiding</p> <p>Preventing rogue devices (Blacklist/whitelist)</p> <p>Internet access control</p>
Advanced features	<p>Reyee Mesh: Supports zero-configuration networking of multiple devices, and supports automatic switching between wired and wireless networking for multiple devices</p> <p>Wi-Fi optimization: Wi-Fi roaming, 5G priority, acceleration mode, channel adjustment, power adjustment, roaming sensitivity adjustment</p> <p>Bandwidth management: hardware NAT, intelligent bandwidth allocation</p> <p>Auto network inspection, fault diagnosis</p> <p>Software upgrade: Automatic &amp; manual cloud software upgrade</p>
Management mode	<p>Local web page</p> <p>Cloud management: MACC cloud platform</p> <p>Ruijie Cloud app: iOS version, Android version</p>

## 6 Typical Applications

RG-EW1200G PRO is an ideal choice for wireless network deployment in one-story houses, villas, small shops, and SOHO. RG-EW1200G PRO can realize flexible networking and seamless roaming for multi-device via the Reyee Mesh Technology, providing stable and high-speed wireless experience.



## 7 Ordering Information

Model	Description
RG-EW1200G PRO	1300M dual-band Gigabit wireless home router (enhanced edition), enterprise-grade chip, Gigabit broadband access, dual-core hyper-threading CPU, support hardware NAT, wireless: dual-band 1267Mbps, wired: 4 Gigabit Ethernet ports including 1WAN+3LAN, 802.11ac Wave2, exclusive ReYee Mesh networking technology for multi-device, support Wi-Fi seamless roaming, equipped with intelligent hardware NAT forwarding technology, management via Ruijie Cloud App on mobile phones