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RG-EG210G-P

10-port Gigabit PoE Router

Datasheet

V2.0

Ruijie Networks Co., Ltd.

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

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2019/6/11	V1.0	All	First draft	Lei Lin
2020/2/27	V2.0		Revised the number of WAN ports and unified controller function	Lei Lin
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1 Product Photo



Fig.1 RG-EG210G-P 10-port Gigabit PoE Router

2 Product Overview

Ruijie Real-easy Series RG-EG210G-P Router is a high-performance PoE router designed for villas and large-scale smart home deployment, small business in food and beverage industry, small enterprise offices, small lodging establishments and small hotels, offering 600M bandwidth and supporting 200 terminals.

RG-EG210G-P offers 10 10/100/1000M ports, including up to 4 WAN ports. The router offers 1 fixed non-PoE WAN port, 1 non-PoE LAN/WAN port, and 8 ports supporting PoE 802.3af/at (2 of which support LAN/WAN), with maximum PoE output of 30W per port and 70W per device, which is sufficient to power various models of Real-easy Series indoor APs as well as commonly used mainstream PoE surveillance cameras.

RG-EG210G-P supports policy-based routing of multiple WAN ports, providing a wealth of online behavior management policies and network authentication methods. It can perform per-port VLAN configuration to achieve port isolation, integrate with smart flow control to achieve comprehensive network planning, perform local and remote network diagnosis, and provide enterprise-grade features such as VPN server and client.

The built-in network controller of RG-EG210G-P can centrally manage up to 150 Ruijie Real-easy Series EAPs and RAPs which support smart networking feature and up to 128 Ruijie Real-easy Series ES2xx smart switches. RG-EG210G-P realizes the industry-leading auto-discovery and auto-networking features for gateways, switches and wireless, offering unified configuration, remote management and remote fault diagnosis of the entire network via the Ruijie Cloud app.

3 Product Features

3.1 Performance

Multiple WAN Ports

RG-EG210G-P offers 10 10/100/1000M ports, including 1 fixed non-PoE WAN port, 1 non-PoE LAN/WAN port, and 8 LAN ports supporting PoE 802.3af/at (2 of which support LAN/WAN). Up to 4 WAN ports are supported for RG-EG210G-P.

High Power

RG-EG210G-P supports maximum PoE output of 30W per port and 70W per gateway, which is sufficient to power various models of Real-easy Series indoor APs as well as commonly used mainstream PoE surveillance cameras.

Large Bandwidth

When flow control is disabled, the recommended downlink bandwidth is 600M, which can meet the requirements of most application scenarios.

High Concurrency

200 terminals are supported per device, which is sufficient for most scenarios with wired / wireless terminals, Wi-Fi smart homes and smart appliances.

Data Pairs for Power Supply

Pins 1,2 and 3,6 are used for power supply, realizing 4-core power supply at 100M.

System Hang Prevention

The built-in watchdog timer automatically restarts the device when fault occurs to guarantee user

experience.

Compact Size

The dimensions of the equipment are only 202*107*28mm, which is suitable to be installed in the ELV box.

3.2 Features

Port Isolation

RG-EG210G-P supports per-port VLAN and network segment division, and provides a cascade port for surveillance switch expansion, isolating the surveillance network and data network.

Multiple WAN Policies

RG-EG210G-P supports PPPoE, static IP, dynamic IP, and other WAN port connection modes, as well as smart routing based on the carrier address database, and policy-based routing for load balancing and active/standby switching. It also supports load balancing based on source addresses so that services such as online banking login will no longer fail due to IP conversion.

Online Behavior Management

RG-EG210G-P supports online behavior management such as application control, website filtering, terminal restriction, etc.

Authentication Policies

RG-EG210G-P supports multiple authentication methods such as SMS authentication, one-click authentication, password authentication, voucher authentication and QR code authentication to ensure secure and reliable Internet access.

Single-cable IPTV

Integrating with EAP1xx / RAP1200 series wall plate AP, it supports single-cable transmission for

both Internet data and IPTV data from the modem. The data is separated at the wall plate AP, and then sent to the IPTV set-top box and used to provide the Internet Wi-Fi service respectively.

Copying the Dial-up Password

By obtaining the dial-up account password from the existing router, users do not have to worry about forgetting the password when replacing the router.

Smart Flow Control

With the bandwidth guarantee policy, the terminal bandwidth is intelligently adjusted according to the access bandwidth and the number of users to ensure that each user can enjoy better network experience.

VPN

RG-EG210G-P supports VPN server and client features such as IPsec.

Device Status Monitoring

RG-EG210G-P supports checking of terminal information, Internet traffic, PoE status, etc.

3.3 Network Maintenance

One-click Networking in 3 Minutes Using the App

RG-EG210G-P can automatically discover the devices of the entire network, and easily complete the configurations via the one-click configuration of the mobile app without any technical threshold.

Unified Network Controller

When the device is used as an egress gateway, it can also serve as a unified controller for the entire network. The industry-leading unified network controller for gateway + switch + wireless can manage up to 150 EAPs, RAPs or managed switches which support smart networking feature and up to 128 ES2xx

Series smart switches.

The device can also be configured as controller mode only without serving as an egress gateway. Under this setting, it can manage up to 500 EAPs, RAPs or managed switches which support smart networking feature and up to 128 ES2xx Series smart switches, offering greater management capacity.

Wi-Fi Control

Individual SSID management: Support 8 Chinese or English SSIDs. The frequency band, encryption mode, VLAN and address segment can be configured individually based on the SSID.

Wireless experience optimization: In strong interference environment, the wireless competitive mode can be applied to increase channel occupancy and improve network experience. 5G priority is supported to access 5G networks at higher priority for higher speed and less interference.

Wireless access security: Support viewing of wireless user information, as well as blacklist and whitelist access control for wireless terminals.

Health mode: The Wi-Fi power can be reduced based on the time period, so that the radiation is smaller, and the power consumption is lower.

Multiple Management Methods

Local or remote management and configuration of the entire network for EG + EAP networking can be performed using the Ruijie Cloud app or Ruijie Cloud platform so that fault can be discovered and handled in time. With the mobile app, it also supports features such as QR code authentication for Wi-Fi, terminal status checking, Wi-Fi setting, parental control, and device restart.

Network Planning

The rich network planning features can isolate the network for different services, and plan the bandwidth according to the network segment, terminal, etc., to ensure the network quality of key equipment and core services and avoid IP address conflicts.

Network Diagnosis

RG-EG210G-P supports diagnosis and repair suggestions for more than 30 common network anomalies including DHCP conflicts, abnormal negotiation rates, excessive traffic, AP disconnection and device interference.

* Note: For device models and versions that support the smart networking feature, please consult Ruijie customer service or the distributors.

4 Technical Specifications

Model	RG-EG210G-P
Basic specifications	
Fixed ports	10 10/100/1000M Base-T ports, supporting up to 4 WAN ports (Default: 1 WAN port and 9 LAN ports LAN8, LAN7 and LAN6 can be switched to WAN ports)
RAM	256MB
Flash	16MB
PoE	External power adapter, maximum PoE output: 70W Support standard 802.3 af/at Support up to 8 LAN ports as PoE ports
Maximum number of clients	Up to 200 concurrent clients
Recommended bandwidth	600M asymmetric bandwidth (flow control disabled) 500M asymmetric bandwidth (flow control enabled)
Local power supply	Support 220V AC local power supply
Power consumption	<80W
Basic network features	
Network access	PPPoE dial-up, DHCP client, static IP, automatic identification of access methods, automatic avoidance of WAN port address conflicts, MAC cloning, obtaining account passwords from existing routers
Routing	Static routing, policy-based routing, carrier address routing, active/standby mode, load balancing based on source address, flow-based load balancing, port-based weighted load balancing of data streams
Security	ACL, IP-MAC binding, MAC address filtering, dynamic ARP, static ARP binding, NAT, NAPT, port mapping
Other protocols	DHCP Server, DHCP Client, DHCP Option43 / 138, DNS Client, DNS Server, DNS Proxy, TFTP, NTP, DDNS
Gateway	
Flow control	Support custom flow control policies, IP-based automatic bandwidth assignment
Traffic audit	Real-time traffic audit, IP traffic visualization
Behavior management	Time-based and IP policy-based application blocking, website filtering
VPN	IPsec VPN (8 tunnels) server and client

Authentication	Marketing authentication: WeChat authentication (through external server), wifidog (SMS authentication, one-click authentication) Local authentication: password authentication, QR code authentication, voucher authentication
Wireless management	
Management capacity	In AC mode, the maximum management capacity is 500 In gateway mode, the maximum management capacity is 150
AP management	Support multi-SSID configuration, SSID hiding, channel setting, power setting, AP wired port setting, AP online upgrade, STA quantity setting, STA blacklist and whitelist
Roaming	Support local forwarding roaming, Layer 2 roaming, Layer 3 roaming between APs, viewing of STA roaming track
Switch management	
Management capacity	Maximum manageable switches for ES2 series: 128
Port management	Loop protection, port mirroring, port isolation, port configuration, PoE configuration, port limit, storm control, static MAC, MAC search
Status display	Port statistics, monitoring information, cable detection, VLAN configuration, MAC list
Device management	Per-device upgrade, batch upgrade
Special features	
Featured solutions	Single-cable IPTV solution, port service VLAN and network segment isolation solution, smart fault diagnosis solution, intranet penetration solution, auto-networking solution
Flexible management	Ruijie Cloud app management, Ruijie Cloud platform management, local management, DDNS-free remote web management, multi-user collaboration management
Physical specifications	
Dimensions	202×107×28 (mm)
Weight	1.5kg
Temperature	Operating temperature: 0 ~ 40 °C Storage temperature: -10 °C ~ 70 °C
Humidity	Operating humidity: 10% ~ 90% (non-condensing) Storage humidity: 5% ~ 95% (non-condensing)

5 Typical Applications

Wireless Networking for Small Offices/ Stores

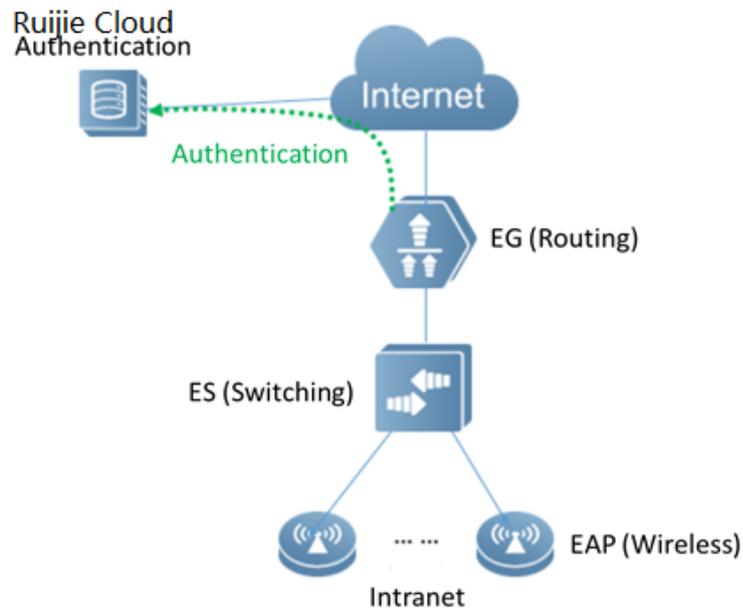


Fig 1 Individual store or office

Headquarters and Branches Solution

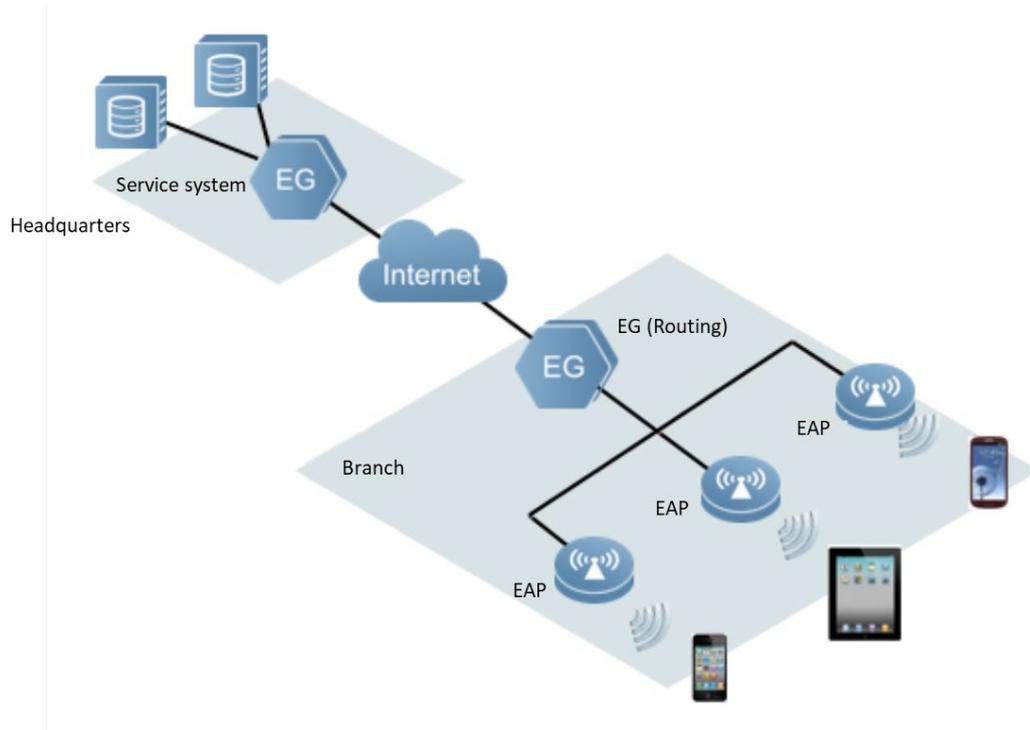


Fig 2 Headquarters and branch offices/ chain stores

6 Ordering Information

Model	Description
RG-EG210G-P	10-port Gigabit PoE router with metal casing, supporting up to 200 terminals and 600M bandwidth; 10 Gigabit Ethernet ports including 1 WAN port, 3 LAN/WAN port and 8 802.3af/at 1000Base-T ports, up to 70W PoE power output per device; integrated with unified network controller feature, managing up to 150 EAPs, RAPs or managed switches which support smart networking feature and up to 128 ES2xx Series smart switches in gateway mode, managing up to 500 EAPs, RAPs or managed switches which support smart networking feature and up to 128 ES2xx Series smart switches in controller mode only