

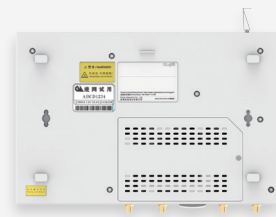
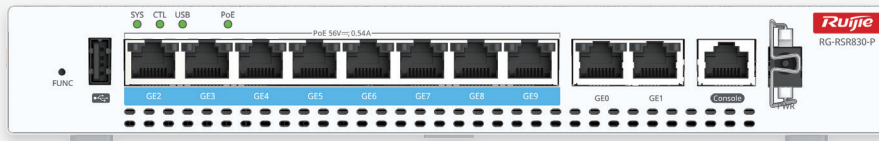
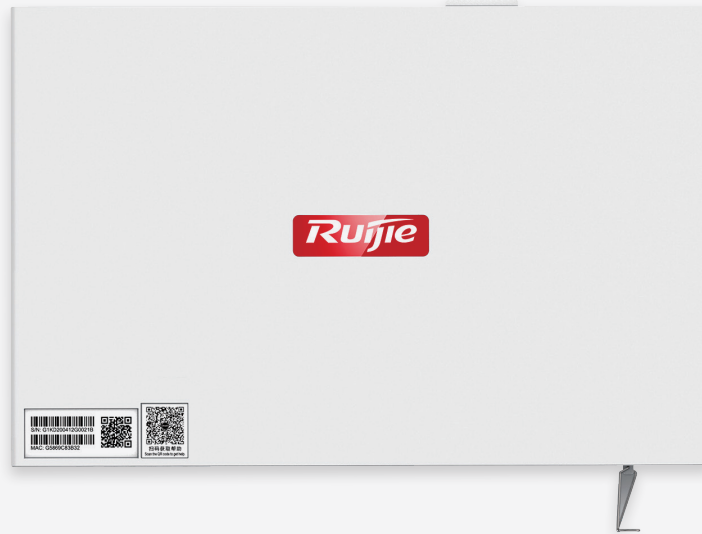
# RG-RSR830 Series



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**Ruijie**

# Product Pictures



RG-RSR830 Series

## Expansion Module



SIC-LTE-GD



SIC-5G-G



SIC-LTE-GS



SIC-2SFP

## Product Overview

The RG-RSR830 Series routers are the new generation of networking products launched by Ruijie Networks for global industrial organizations and multi branch scenarios. It integrates multiple network applications such as routing, switching, 4G/5G transmission, etc. To meet the individual needs of users in different application environments. Meanwhile, it offers rich software features, supports VPN, MPLS and other application technologies, provides rich backup solutions and H-QoS features, and is suitable for retail, logistics, office and other access services.

The RG-RSR830 Series routers support built-in radio module, support TD-LTE, FDD-LTE 4G network standard, backward compatible with TD-SCDMA, WCDMA, CDMA2000, CDMA, GSM and other standards, and support 802.11 b/g/n/ac/ax Wi-Fi access. Providing users with flexible, cost-effective SD-WAN access solutions.

# | Product Highlights

## Flexible and Reliable Links

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The RG-RSR830 Series routers are equipped with an integrated 4G/5G plug-in access function to serve customer CPE. This feature enables unified scheduling and management of WAN-side traffic for customer equipment. In addition, the router supports versatility and flexibility in access methods, either a single wired link or a single wireless link (4G/5G), or a combination such as wired+wired, wired+wireless and wireless+wireless. In terms of connectivity, the router supports both master-standby and load-sharing modes for greater reliability and performance optimization.

## Service Experience and Security

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In some scenario, the packets maybe loss during the link problem. For some important service, RG-RSR830 Series provides FEC (forward error correction) to improve the service quality.

The RG-RSR830 Series provides Deep Packet Inspection (DPI), which can identify the application of the traffic and help customer to schedule the traffic based on link SLA.

The security is integrated at RG-RSR830. It supports the blacklist and whitelist for some special traffic based on sIP, sPort, dIP, dPort and protocol number. Beside these, it also supports IDS/IPS, URL filtering, anti-malware.

## Simplified Deployment, O&M, and Troubleshooting

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The RG-RSR830 Series provides convenient configuration

and remote deployment. It can be managed by the controller UNC providing USB-based and email deployment, making it easy and flexible to configure and manage the service.

The UNC can be deployed on-premise or cloud which can provide the service fast provision, network topology, device state and traffic monitor, alarm management and notify through email or whatsapp.

RG-RSR830 also integrated the web management to simply the device management and cost of learning.

## Rich Software Features

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The RG-RSR830 series routers are suitable for numerous network environments.

- Provide twisted pair RJ45 interface, support Ethernet protocol, ARP protocol and 802.1Q protocol.
- Support for TCP/IP protocol clusters on the network layer.
- Implemented protocols such as IP, ICMP, IGMP, TCP, and UDP.
- Supports multiple dynamic routing protocols over IP: RIP (V1/V2), OSPF (V1/V2), ISIS, BGP policy routing, etc.
- Supports MPLS VPN, IPSec, L2tp,
- Support network management protocol SNMP. Support TELNET, reverse TELNET.
- Support DHCPv4 and v6, DHCP Server, DHCP Client, DHCP Relay, DHCP snooping, DNS client, proxy, etc.
- Supports backup, VRRP protocol to provide high reliability.
- Support SNMP, Netconf, ftp/tftp, telnet, ssh, TACACS+, AAA.
- Support NAT, ACL and QoS.

# Specifications

## Hardware Specifications

Hardware Specifications	RG-RSR830	RG-RSR830W	RG-RSR830-P	RG-RSR830W-P
Forwarding performance	0.5 Mpps	0.5 Mpps	0.5 Mpps	0.5 Mpps
Fixed service port	Uplink WAN ports: 2 x 10/100/ 1000BASE-T ports Downlink LAN ports: 8 x 10/100/ 1000BASE-T ports, which can be switched to WAN ports	Uplink WAN ports: 2 x 10/100/ 1000BASE-T ports Downlink LAN ports: 8 x 10/100/ 1000BASE-T ports, which can be switched to WAN ports	Uplink WAN ports: 2 x 10/100/ 1000BASE-T ports Downlink LAN ports: 8 x 10/100/ 1000BASE-T ports, which can be switched to WAN ports LAN ports 2 to 9 support PoE/PoE+	Uplink WAN ports: 2 x 10/100/ 1000BASE-T ports Downlink LAN ports: 8 x 10/100/ 1000BASE-T ports, which can be switched to WAN ports LAN ports 2 to 9 support PoE/PoE+
Fixed management port	1 x RJ45 console port	1 x RJ45 console port	1 x RJ45 console port	1 x RJ45 console port
USB	1 x USB 2.0 port, for connecting to the USB flash drive	1 x USB 2.0 port, for connecting to the USB flash drive	1 x USB 2.0 port, for connecting to the USB flash drive	1 x USB 2.0 port, for connecting to the USB flash drive
Memory	2 GB	2 GB	2 GB	2 GB
Flash Memory	4 GB	4 GB	4 GB	4 GB
VPN performance (256-bit AES encryption)	400 Mbps	400 Mbps	400 Mbps	400 Mbps
Number of IPsec VPN Tunnels	100	100	100	100
Expansion Module	<ul style="list-style-type: none"> <li>● SIC-LTE-GS LTE card (Cat-6, 2 x SIM, active-standby)</li> <li>● SIC-LTE-GD LTE card (Cat-6, 2 x SIM, active-active)</li> <li>● SIC-5G-G 5G NR in global bands single card, small plug-in card</li> <li>● SIC-2SFP Expansion gigabit optical module plug-in card</li> </ul>			
Wi-Fi Port	N/A	802.11 b/g/n/ac/ax	N/A	802.11 b/g/n/ac/ax

Hardware Specifications	RG-RSR830	RG-RSR830W	RG-RSR830-P	RG-RSR830W-P
Unit Dimensions (W x D x H)	260 mm × 170 mm × 38 mm (10.24 in. x 6.70 in. x 1.50 in.)	Without external antennas: 278 mm x 171 mm x 38 mm (10.94 in. x 6.73 in. x 1.50 in.) With external antennas: 350 mm x 171 mm x 88 mm (13.78 in. x 6.73 in. x 3.46 in.)	260 mm × 170 mm × 38 mm (10.24 in. x 6.70 in. x 1.50 in.)	Without external antennas: 278 mm x 171 mm x 38 mm (10.94 in. x 6.73 in. x 1.50 in.) With external antennas: 350 mm x 171 mm x 88 mm (13.78 in. x 6.73 in. x 3.46 in.)
Unit weight	0.95 kg (2.09 lbs)	1.04 kg (2.29 lbs)	1.05 kg (2.31 lbs)	1.14 kg (2.51 lbs)
Maximum Power Consumption	36 W (including module power)	36 W (including module power)	150 W (including PoE power and module power)	150 W (including PoE power and module power)
Input power supply	36 W Power Adapter: ● Input: 100 V AC to 240 V AC, 50 Hz to 60 Hz, 0.9 A max. ● Output: 12 V DC, 3 A max, 36 W	36 W Power Adapter: ● Input: 100 V AC to 240 V AC, 50 Hz to 60 Hz, 0.9 A max. ● Output: 12 V DC, 3 A max, 36 W	150 W Power Adapter: ● Input: 100 V AC to 240 V AC, 50 Hz to 60 Hz, 2 A max. ● Output: 56 V DC, 2.68 A, 150 W	150 W Power Adapter: ● Input: 100 V AC to 240 V AC, 50 Hz to 60 Hz, 2 A max. ● Output: 56 V DC, 2.68 A, 150 W
Recommended number of user	300	300	300	300
External Power Supply	N/A	N/A	Each port provides up to 30 W of power. The device provides up to 110 W of power.	Each port provides up to 30 W of power. The device provides up to 110 W of power.
Temperature	Operating temperature: 0°C to 45°C (32°F to 113°F) Storage temperature: -40°C to +70°C (-40°F to +158°F)	Operating temperature: 0°C to 45°C (32°F to 113°F) Storage temperature: -40°C to +70°C (-40°F to +158°F)	Operating temperature: 0°C to 45°C (32°F to 113°F) Storage temperature: -40°C to +70°C (-40°F to +158°F)	Operating temperature: 0°C to 45°C (32°F to 113°F) Storage temperature: -40°C to +70°C (-40°F to +158°F)
Humidity	Operating humidity: 10% RH to 90% RH (non-condensing) Storage humidity: 5% RH to 95% RH (non-condensing)	Operating humidity: 10% RH to 90% RH (non-condensing) Storage humidity: 5% RH to 95% RH (non-condensing)	Operating humidity: 10% RH to 90% RH (non-condensing) Storage humidity: 5% RH to 95% RH (non-condensing)	Operating humidity: 10% RH to 90% RH (non-condensing) Storage humidity: 5% RH to 95% RH (non-condensing)

Hardware Specifications	RG-RSR830	RG-RSR830W	RG-RSR830-P	RG-RSR830W-P
Altitude	Operating altitude: -500 m to +4000 m (-1640.42 ft. to +13123.36 ft.) Storage altitude: -500 m to +5000 m (-1640.42 ft. to +16404.20 ft.)	Operating altitude: -500 m to +4000 m (-1640.42 ft. to +13123.36 ft.) Storage altitude: -500 m to +5000 m (-1640.42 ft. to +16404.20 ft.)	Operating altitude: -500 m to +4000 m (-1640.42 ft. to +13123.36 ft.) Storage altitude: -500 m to +5000 m (-1640.42 ft. to +16404.20 ft.)	Operating altitude: -500 m to +4000 m (-1640.42 ft. to +13123.36 ft.) Storage altitude: -500 m to +5000 m (-1640.42 ft. to +16404.20 ft.)
IP rating	IP30	IP30	IP30	IP30

## Software Specifications

RG- RSR830 Series	
Item	Description
Ethernet	Jumbo frame forwarding (max. size: 1974) Frame format: Ethernet II Change of the MTUs (link MTU and IP MTU) in the forwarding plane Forcibly converting the 1000M optical port into the electrical port in auto-negotiation mode (100M/1000M)
	LAN/WAN switching Interface auto-negotiation factor Interface WAN/LAN mode switching
ACL and QoS	IP standard ACL IP extended ACL Association with the egress ACL based on a Layer 3 interface (SVI/routed port/L3 AP) HQoS: DSCP/IP-PRE/COS HQoS: PQ\WFQ\LPQ methods of congestion scheduling
IPv4 application protocol features	DHCP client Option 43/52/138x
	DHCP server Option 138 Option 43 Option 82 Large address pool Alarm (Syslog)
	Configuring DHCP snooping in a VLAN Configuring DHCP snooping on a logical interface (including the physical interface and aggregate interface) Trusted interface

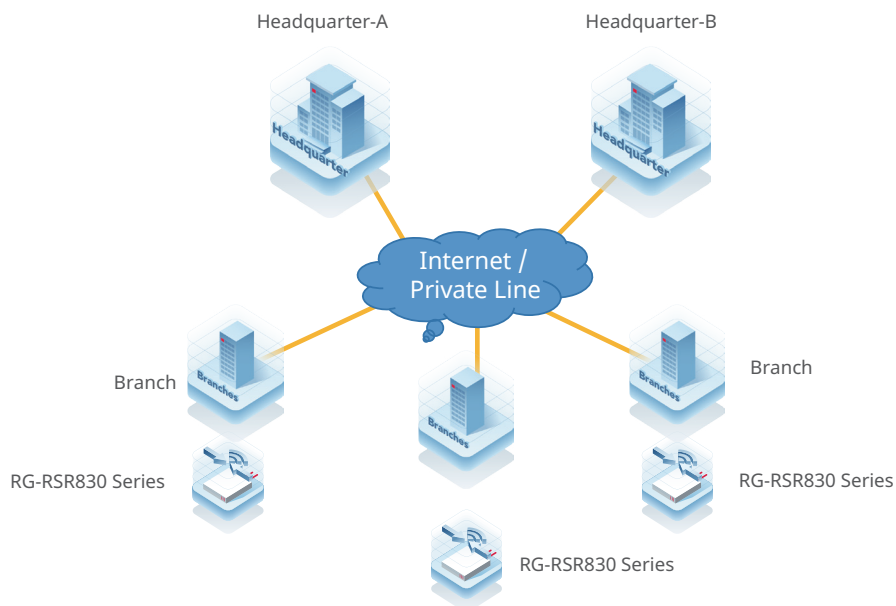
RG- RSR830 Series	
Item	Description
IPv4 application protocol features	DNS DNS client
	FTP client
	NTP client NTP server TFTP client TFTP server
IPv6 application protocol features	DHCPv6 client Option 18 Option 37
	DHCPv6 server Option 52 DHCPv6 Snooping ND Snooping
	FTP server TFTP server TFTP client NTP server NTP client
Layer 2 features	LLDP
	MAC address filter Interface-based MAC address learning Static MAC address Global MAC address learning Enforcing deletion of a MAC address using a command MAC address aging time Port based VLAN Spanning Tree Protocol
Layer 3 features	Proxy ARP ARP entry aging
	Ping Traceroute
	GRE tunnel PBR/ACL/QoS/NAT for IPv4 & IPv6 services on a GRE interface Inner and outer VRF configuration
	IPv4 & IPv6 VRF



RG- RSR830 Series	
Item	Description
Layer 3 features	BGP4/BGP4+ IS-IS v4/v6 OSPF v2/v3 RIP v1/v2 PBR
VAG	Intelligent routing Load balancing
	Active/Standby scheduling for undefined applications Controller management Disaster recovery
WLAN features	WLAN services: SSID configuration SSID-based VLAN configuration UTF8 SSID
	Wireless security: WPA3 User isolation: Layer 2 isolation
	RF resources: Channel configuration Channel width configuration Power configuration Automatic RF optimization (channel, channel width) WMM configuration 802.11 b/g/n/ac/ax
Security features	AAA and web authentication
	EXEC authorization, RADIUS, interworking with the SAM/SMP/ACS server, and specifying the source IP address (through the source interface)
	Account allocation by user and login authentication (password, none)
	Encrypted transmission and storage of static passwords, password lifetime check, and reuse limitation
	Application identification, url Filtering, IDS/IPS, blacklist and whitelist
Management features	CPP and NFPP
	gRPC framework
	NETCONF
	TACACS
	SNMP v1/v2/v3

RG- RSR830 Series	
Item	Description
Management features	SSH
	Syslog
	IPv4 supported by the Telnet server
	HTTP server V1.1 HTTPS server Out-of-the-box web management
	Eweb 2.0
	Hostname configuration YANG model
	USB-based deployment
	Obtaining device information through gRPC

## Typical Applications



# Ordering Information

## Chassis

Model	Description
RG-RSR830	2x GE WAN ports, 8 x GE RJ45 LAN ports
RG-RSR830W	2x GE WAN ports, 8 x GE RJ45 LAN ports, supporting 802.11 b/g/n/ac/ax WIFI
RG-RSR830-P	2x GE WAN ports, 8 x GE RJ45 LAN ports, supporting PoE power supply, and maximum PoE output power of 110 W
RG-RSR830W-P	2x GE WAN ports, 8 x GE RJ45 LAN ports, supporting 802.11 b/g/n/ac/ax WIFI, supporting PoE power supply, and maximum PoE output power of 110 W

## Expansion Module

Model	Description
SIC-5G-G	5G NR small-sized card, supporting dual SIM single standby, 4 x SMA-K antenna interfaces
SIC-LTE-GD	4G LTE small-sized card, supporting dual SIM dual standby and global D band (double)
SIC-LTE-GS	4G LTE small-sized card, supporting dual SIM single standby and global S band (single)
SIC-2SFP	GE expansion card of optical modules, 2 x 1GE SFP ports

# Warranty

For more information about warranty terms and period, contact your local sales agency:

- Warranty terms: <https://www.ruijienetworks.com/support/servicepolicy>
- Warranty period: [https://www.ruijienetworks.com/support/service\\_41](https://www.ruijienetworks.com/support/service_41)

Note: The warranty terms are subject to the terms of different countries and distributors.

# | More Information

For more information about Ruijie Networks, visit the official Ruijie website or contact your local sales agency:

- Ruijie Networks official website: <https://www.ruijienetworks.com/>
- Online support: <https://www.ruijienetworks.com/support>
- Hotline support: <https://www.ruijienetworks.com/support/hotline>
- Email support: [service\\_rj@ruijienetworks.com](mailto:service_rj@ruijienetworks.com)



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