



Ruijie Networks Product Catalogue

2016

(3rd Edition)

Product Catalogue



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About Ruijie

Ruijie Networks (stock code: 002396) is a leading network solution supplier of China. We focus on customer benefits and strive to improve the network application experience of our customers through continuous technological innovation. Ruijie Networks provides end-to-end network solutions for telecom carriers, financial services, government agencies, education and enterprises to create values for customer networks.

Ruijie Networks has 40 branches with sales and service covering Asia, Europe, North America, and South America. Currently, we have more than 4,000 employees, of which 2,000 are R&D engineers working in 5 R&D centers located in Fuzhou, Beijing, Shanghai, Chengdu, and Tianjin.

Ruijie Networks is the only company of data communication to be certified as an innovative enterprise in China. Every year, 15% of sales income is invested in R&D, and 30% of R&D funds in high-tech pre-research. In 2000, Ruijie Networks introduced the first domestic-made modularized switch and the full suite of gigabit switches, which promotes the successful rise of indigenous network brands in China. In 2011, Ruijie Networks rolled out China's first cloud-computing data center switch family, which makes Ruijie Networks a pioneer on the cloud-computing network platform. With continuous improvement on the innovative road of independent R&D, Ruijie Networks leads and promotes the development of cutting-edge network technologies in China.

In the network economy era, we believe that each progress in network technology changes people's life, work, and education. Future-oriented, Ruijie Networks embraces the missions of promoting network technology development, achieving technology and application convergence, and advancing social progress, thereby helping our customers and partners benefit from the new era.

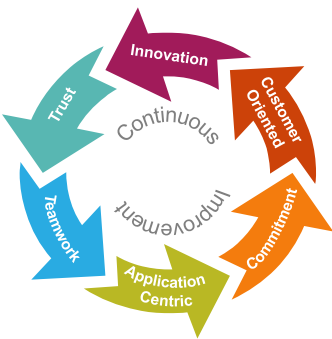
Company Vision and Mission

VISION

To be the world-class leading ICT enterprise brand and create a better life of living for our stakeholders.

MISSION

With continuous innovation, we are committed to providing a customer-oriented full suite of ICT solutions to help our customers face the evolving needs and pave the way for greater success.



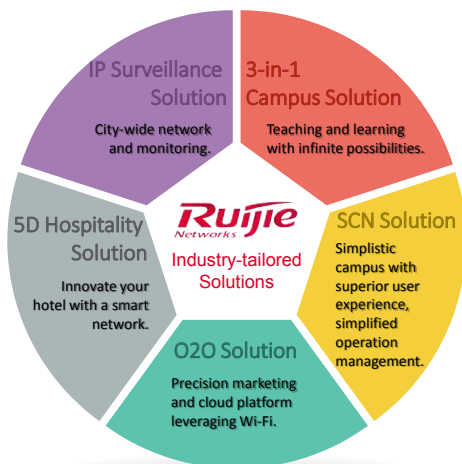
Ruijie Product Family Diagram



Industry-tailored Solutions



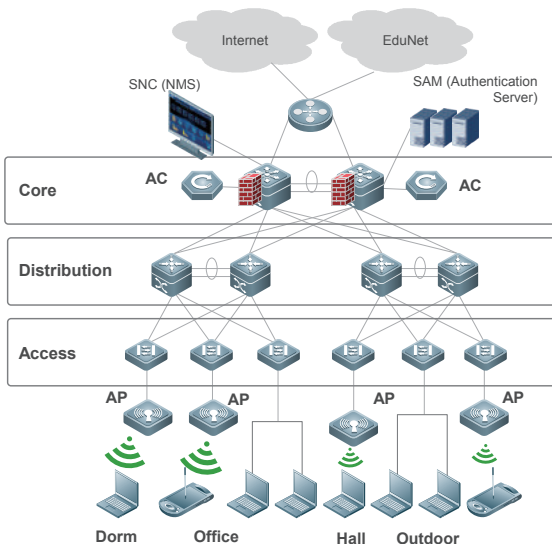
Ruijie is focusing on industries, forming more than 40 teams for the development of the various solutions, in order to provide advanced and fit-to-scenarios solutions to our clients. Our highly customizable solutions cater for the needs of the following industries and beyond.



To meet the evolving e-Learning needs, 3-in-1 Campus Solution and SCN (Simplistic Campus Network) Solution are designed for schools to support simplified network management. The O2O Solution helps the commerce sector transforms Wi-Fi into a precision marketing tool for maximized revenue. We have also orchestrated a 5D Hospitality Solution for hotel chains to achieve smart network deployment. Last but not least, the IP Surveillance Solution offers city-wide network and monitoring services.

SCN Solution

SCN (Simplistic Campus Network) Solution is designed for higher education to achieve ubiquitous wireless, simplified operation, fast internet and simplified maintenance.



O2O Solution

The O2O Solution empowers businesses to improve customer engagement and monetize the high-quality Wi-Fi services. In collaboration with Ruijie MCP (Marketing Cloud Platform), you can easily access customers' information and promote your brand.



Full Wi-Fi Coverage

Fast Wi-Fi experience improves customer satisfaction

Promotion Broadcast

Precise advertisement broadcasting optimizes promotional value

Customer Analytics

Remarketing with the customer analytics database

Big Data Mining

Analyze customers' behavior for big data marketing

Client Portal

Client portal promotes your brand image



Ultra-speed Wireless Experience

- 1750Mbps+ high-speed Wi-Fi service
- 3 times better signal coverage than traditional wireless router
- 100+ concurrent users
- Traffic control on 1000+ applications
- Carrier-class reliability



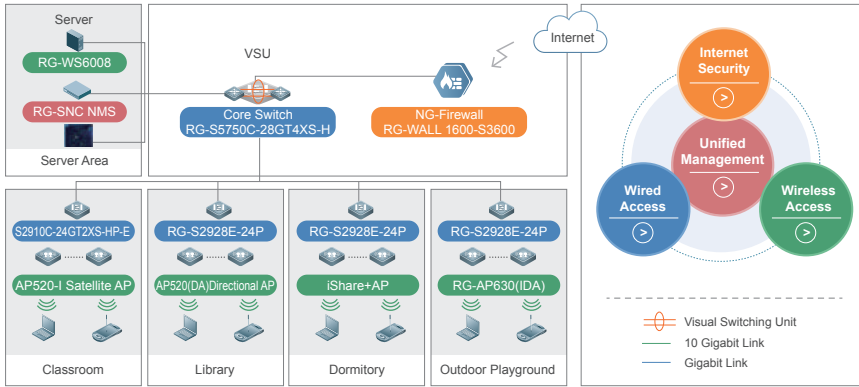
- Interconnected users with Social Networking
- Full display of content
- 3mins to set up micro portal
- P2P sharing
- Data on user behaviour

Precision Wi-Fi Marketing

3-in-1 Campus Solution



Ruijie 3-In-1 Campus Solution consists of three components - Internet Security, Wired Access, and Wireless Access - together they achieve unified network management for schools with ease.



Proven

- ✓ No. 1 Education Vendor in China
- ✓ Covering 42K+ Schools, Colleges and Universities

Easy Management

- ✓ Unified & Centralized Management
- ✓ Real-time Monitoring

Ubiquitous Wi-Fi

- ✓ X-Sense Zero Dead Zone Coverage
- ✓ Tolly Certified Performance

Strong Security

- ✓ Robust Internet Application Control & Audit
- ✓ Patented NFPP Protection

Cost Saving

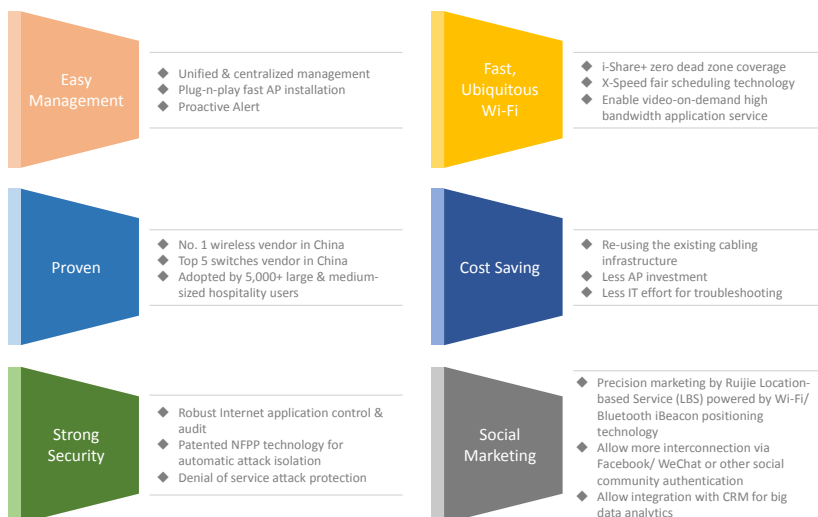
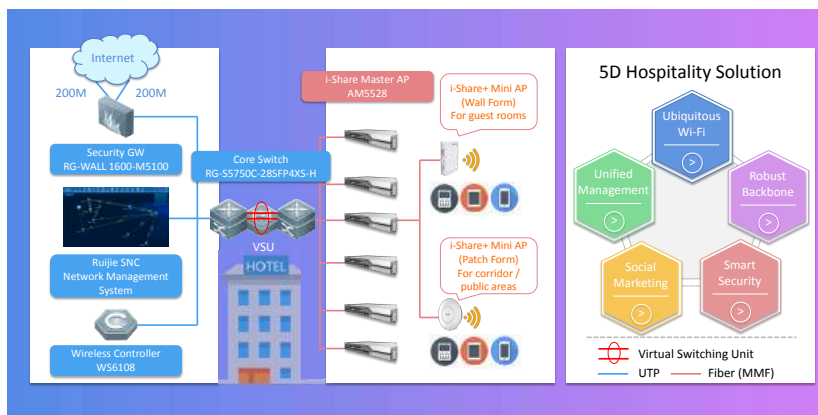
- ✓ Less APs Investment
- ✓ Less IT Effort for Troubleshooting

High Density

- ✓ 100+ Concurrent Users
- ✓ Unique Satellite AP Design

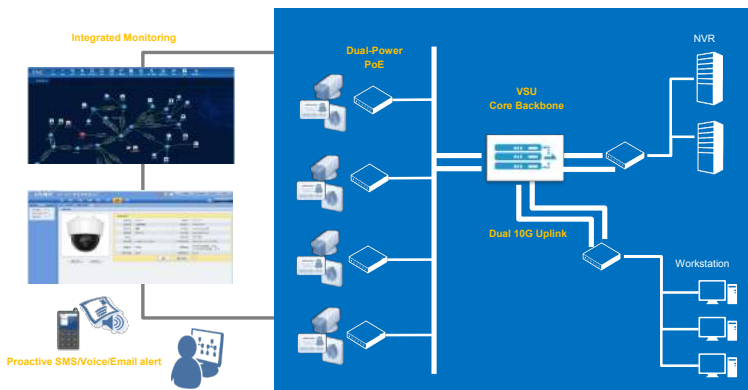
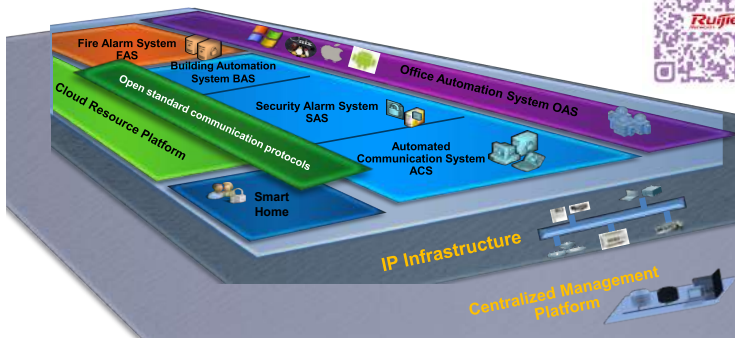
5D Hospitality Solution

Ruijie helps you to innovate your hotel with a smart network. Our 5D Hospitality Solution features ubiquitous Wi-Fi, robust backbone, smart security, social marketing and unified management to transform your hotel network into a competitive edge as well as an revenue-generating asset

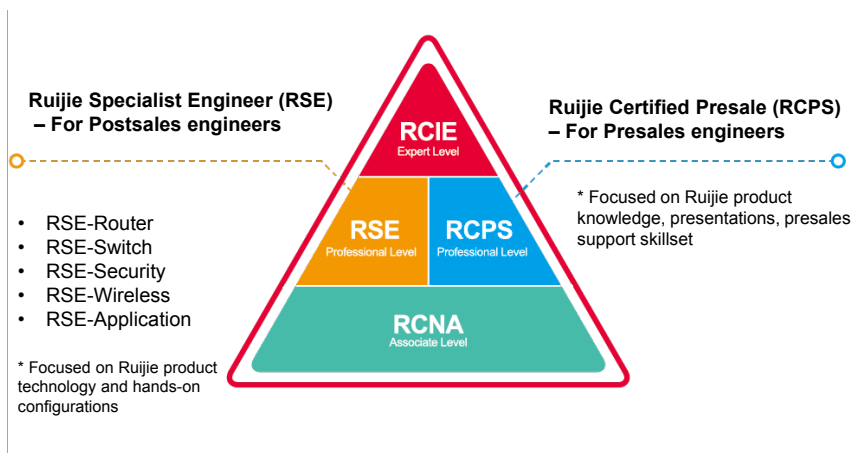


IP Surveillance Solution

Ruijie, in collaboration with third-party surveillance and storage vendors, is proud to present a comprehensive City-wide IP Surveillance Solution to meet your specific needs. The solution consists of three parts – video surveillance system at the frontline, transmission network in the middle and backend operation platform – all work together to ensure a smarter and safer city. The video surveillance system meets all kinds of application scenarios in the city. The high-speed network offers smooth and stable transmission performance. The backend platform supports unified management of all the surveillance devices like IP cameras, servers, storage devices, etc. Ruijie City-wide IP Surveillance Integrated Network and Monitoring Solution delivers outstanding performance, ease of management and maximum cost savings to protect your city.



Training Service & Curriculum



Ruijie Certified Internetwork Expert (RCIE), the top-class certificate for Ruijie network expert, is oriented at the design, implementation, management, and maintenance of large-scale campus networks.

Ruijie Specialized Engineer (RSE), the professional level certificate for senior postsales engineers, is oriented at the implementation, management, and maintenance of medium and large-scale campus networks on the following different tracks.

Ruijie Certified PreSales (RCPS), the professional level certificate for presales engineers, is oriented at planning and design the campus networks with various scales. It focuses on features of industry solutions, products and improvement of presales skillset .

Ruijie Certified Network Associate (RCNA), the fundamental certificate for Ruijie associate network engineers, is oriented at the basic networking technologies, as well as implementation, and maintenance of small and medium-scaled network containing 100 nodes or less.

Service Policy



Excellent Service



1-to-1 Exchange Guarantee ^{2*}



24-Hour Support ^{1*}



3 Year Warranty ^{3*}

***1** Round the clock instant technical queries at online regarding any equipment operation, configuration or documentation

***2** Selected product sold for IBD will entitle 1st year 1-to-1 hardware exchange

***3** All product sold for International Market entitled for 3 year RMA services

For details on Ruijie support & service, please visit: <http://www.ruijienetworks.com/service>

Data Center Switch

RG-N18000 Switch Series



OVERVIEW

Ruijie Newton 18000 Switch Series (RG-N18000) is industry leading in supporting cloud data center with a broad spectrum of specialized campus network features. The RG-N18000 core switches achieve cloud network integration, virtualization, and flexible deployment to fulfill the evolving next-gen cloud architecture requirements.

KEY FEATURES

- Ideal For Ultra-Large Campus and Data Center Networks with up to 512K MAC And 170K ARP Table
- Ideal for High-Performance Computing with Ultra-Low Latency of up to 0.5μs
- CLOS Non-Blocking Architecture with up to 2T Bandwidth Per Slot
- Scalable Capacity for Future Expansion: up to 1,152 10GE and 288 40GE Ports
- Ready for Future-Support 100G Ethernet and SDN/Openflow



Ultra-Simplified Solution

To meet new challenges from evolving application environments, the market-leading RG-N18000 series delivers an innovative heterogeneous solution to power both campus and data center networks. The RG-N18000 operates as the core of unified authentication and gateway in the ultra-simplified network solution. The switch achieves centralized authentication of wired and wireless networks on the core device via the built-in/external 802.1X/Portal authentication system. The RG-N18000 supports $\geq 170K$ ARP capacity and concurrent $\geq 90K$ IPv4/IPv6 dual stack devices with centralized authentication. Feature highlights supported by the respective sub-solution are illustrated in the figure below.

	Campus Network	Data Center
N18000 Series Ultra-Simplified Solution	<ul style="list-style-type: none">• L2/L3, QinQ, IPv6• MPLS, Multicast• Tunnel, ACL• QoS, BFD• IPFIX, sFlow• Hot Backup, ISSU• Unified authentication• Large table size• Unified management mode (One Switch One Network)• SDN and more...	<ul style="list-style-type: none">• FCoE• DCB• TRILL• Security policy migration• VSU (4 to 1)• VSD (1 to 12)• High density/High bandwidth• Low latency• Ultra-large buffering• L2-GRE and more...
Platform Features	Hardware: CLOS architecture, 1.28Tbps per slot (unidirectional) Software: Multi-processing modular OS, ISSU and process backup	

CLOS Architecture

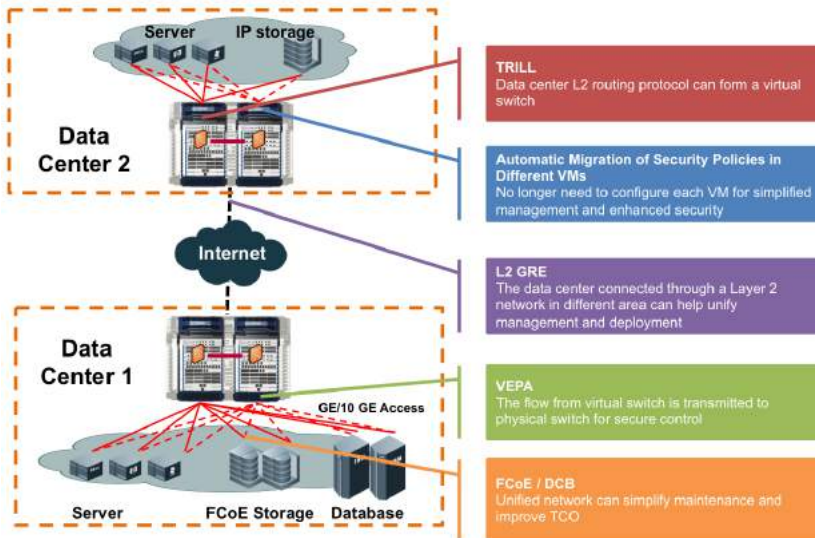
The RG-N18000 series (except N18007 model) deploys the advanced CLOS multi-plane, multi-stage architecture, which achieves complete separation of the forwarding and control planes. With independent switching network and control boards, it ensures all ports are running at full line rate in a non-blocking manner. The solution continues to strengthen bandwidth upgrade and business supporting capacities.

Multilevel CLOS Architecture



Next-Gen Cloud Infrastructure

The RG-N18000 series can operate as the core of the Cloud Data Center Network, and provide features that meets the requirements of virtualization and automation in data center environments. A variety of features are embedded in the RG-N18000 series such as Transparent Interconnect of Lots of Links (TRILL)¹, Policy Auto-migration, Layer 2 Generic Routing Encapsulation (GRE), Virtual Ethernet Port Aggregator (VEPA), Fibre Channel over Ethernet (FCoE) and Data Center Bridging (DCB).



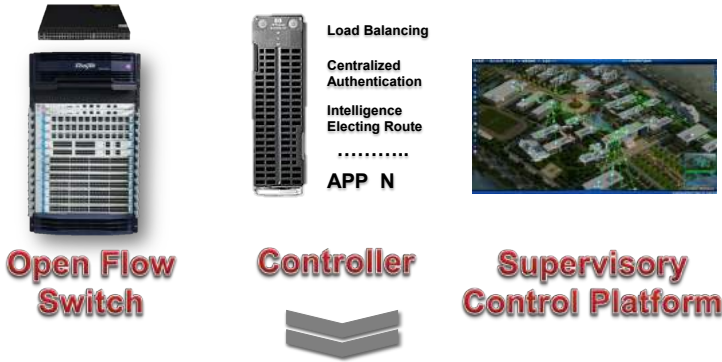
SDN-ready

Software Defined Networking is an emerging network architecture where network control is decoupled from forwarding and is directly programmable. The RG-N18000 series platform fully supports OpenFlow 1.0/1.3² modular hardware switching. Ruijie Intelligent OpenFlow Network System is an X86 hardware platform, which fully supports OpenFlow 1.0/1.3 and SNMP2.0, providing SDN control service modules including switch/host/topology management, L2/L3 communication, traffic editing/path calculation/static routing/DHCP, MPLS L3 VPN service and virtual tenant network service.

Note:

^{1,2} Future release support

Ruijie products fully support SDN solution



Data Center

Specifications

Model	RG-N18007	RG-N18010	RG-N18014
Module Slots	7 (2 for control engines)	10 (2 for control engines)	14 (2 for control engines)
Modular Power Slots	6 (4 for system power; 2 for PoE power)	10 (8 for system power; 2 for PoE power)	8 (all for system power)
Fan Slots	1	4	5
Control Engine Slots	2	2	2
Service Module Slots	5	8	12
Fabric Engine Slots	N/A	4	4
Backplane Bandwidth (per slot)	Up to 640Gbps ³	Up to 1.28Tbps	Up to 960Gbps
Switching Capacity	50Tbps/139Tbps	80Tbps/222.4Tbps	120Tbps/333.6Tbps
Packet Forwarding Rate	3,600Mpps	57,600Mpps	86,400Mpps
Max. Number of 10GE Ports	Up to 240	Up to 768	Up to 1,152
Max. Number of 40GE Ports	Up to 120	Up to 192	Up to 288
PoE	Support	Support	N/A
Port Buffer	Up to 12MB	Up to 24GB	Up to 24GB

Note:

³ DB modules for N18007 include: M18000-48XS-DB, M18000-12QXS-DB, M18000-24XS4QXS-DB
ED modules for N18007 include: M18000-24GT20SFP4XS-ED, M18000-48GT-ED, M18000-48GT-P-ED, M18000-44SFP4XS-ED, M18000-08XS-ED, M18000-WS-ED (M18000-WS), RG-WALL 1600-B-ED

Model	RG-N18007	RG-N18010	RG-N18014
ARP Table	Up to 170K		
MAC Address	Up to 512K		
Routing Entries	Up to 384K		
Routing Table Size (IPv4/IPv6)	Up to 12K/6K	Up to 384K/128K	Up to 384K/128K
Multicast Entries (IPv4/IPv6)	Up to 16K/8K		
ACL Entries	Up to 7K	Up to 8K	Up to 8K
VLAN	4K		
QinQ	Basic QinQ, Flexible QinQ		
Link Aggregation	AP, LACP		
Port Mirroring	Many-to-one mirroring, One-to-many mirroring, Flow-based mirroring, Over devices mirroring, VLAN-based mirroring, VLAN-filtering mirroring, AP-port mirroring, RSPAN		
Spanning Tree Protocols	STP, RSTP and MSTP		
DHCP	Support DHCP relay, DHCP snooping, DHCP server, DHCP client		
Multiple Spanning Tree (MST) Instances	64 (not include default 0)		
Maximum Aggregation Port (AP)	Up to 256		
Virtual Routing and Forwarding (VRF) Instances	Up to 1K	Up to 2K	Up to 2K
Data Center Unified Network Features	<p>Data Center Bridging (DCB) features: 802.1Qaz: Enhanced Transmission Selection; 802.1Qau: Congestion Notification (CN/QCN); 802.1Qbb: Priority-based Flow Control (PFC); 802.1Qaz: Enhanced Transmission Selection (ETS)</p> <p>Unified switching: Fibre Channel over Ethernet (FCoE)</p> <p>Virtualization: Virtual Ethernet Port Aggregator (VEPA); Virtual Switch Unit (VSU); Transparent Interconnection of Lots of Links (TRILL)⁴</p>		
SDN	OpenFlow 1.3 ⁵		
VSU (Virtual Switch Unit)	Up to 4 stack members (Recommended: 2)		
VSD (Virtual Switch Device)	Up to 12 VSD units		
L2 Features	Jumbo Frame, 802.1Q, STP, RSTP, MSTP, Port-based VLAN, Super VLAN, Private VLAN, Protocol-based VLAN, IP subnet-based VLAN, GVRP, QinQ, Flexible QinQ, LLDP, ERPS (G.8032)		

Note:

^{4,5} Future release support

Model	RG-N18007	RG-N18010	RG-N18014
Layer 2 Protocols	IEEE802.1d (STP), IEEE802.1w (RSTP), IEEE802.1s (MSTP), IGMP Snooping, Jumbo Frame (9Kbytes), IEEE802.1ad (QinQ and flexible QinQ), GVRP		
Layer 3 Features	ARP, IPv4/v6, PBR v4/v6		
Layer 3 Protocols (IPv4)	Ping, Traceroute, Equal-Cost Multi-Path Routing (ECMP), URPF, GRE Tunnel(4 over 6), GRE Tunnel(6 over 4), IPv4 VRF		
Centralized Authentication (With RG-SAM+ Integration)	90K IPv4 and IPv6 dual-stack concurrent users; 1,200 devices per second authentication speed; Authentication modes including 802.1x/ Portal/Mac/IPoE; Portal authentication, RADIUS and TACACS+ user authentication; Layer 2 portal, Layer 3 portal authentication; Traffic billing, traffic control, refined management; Gateway authentication		
IPv4 Features	Static routing, RIP, OSPF, IS-IS, BGP4, VRRP, Equal-cost routing, Policy-based routing, GRE tunnel		
IPv6 Features	Static routing OSPFv3, BGP4+, IS-ISv6, MLDv1/v2, VRRPv3, Equal-cost routing, Policy-based routing, Manual tunnel, Auto tunnel, ISATAP tunnel, GRE tunnel		
Basic IPv6 Protocols	DHCP Relay v6, DHCP Server v6, Telnet v6, TFTP Client v6, FTP v6, NTP client v6, NTP server v6		
IPv6 Routing Protocols	RIP, RIPng, OSPFv2/v3, BGP4, BGP4+, IS-ISv4/v6, Routing Policy		
IPv6 Tunnel Features	6over4 Manual Tunnel, 6to4 Auto Tunnel, Manual Tunnel, Auto Tunnel, ISATAP Tunnel, IPv4 over IPv6 Tunnel, IPv6 over IPv6 Tunnel, GRE Tunnel(4 over 6), GRE Tunnel(6 over 6)		
Multicast	IGMP v1/v2/v3, IGMP proxy, Multicast routing protocols (PIM-DM, PIM-SM, PIM-SSM), MLD, Multicast static routing		
MPLS	MPLS forwarding, LDP, LSP		
G.8032	Support		
ACE Capacity	Up to 7K	Up to 8K	Up to 8K
ACL	Standard/Extended/Expert ACL; ACL 80; IPv6 ACL		
QoS	802.1p, Queue scheduling mechanisms (SP, WRR, DRR, WFQ, SP+WFQ, SP+WRR, SP+DRR), RED/WRED, Input/output port-based speed limit		
IPv6 ACL	Support		
Reliability	Control engine 1+1 redundancy; power supply 1+1 redundancy; Hot-swappable components; Hot patch and online patch upgrade; ISSU ⁶ ; GR for OSPF/IS-IS/BGP; BFD for VRRP/OSPF/BGP4/ISIS/ISISv6/static routing		
EEE Format	Support EEE (802.3az)		
Security	NFPP (Network Foundation Protection Policy), CPP (CPU Protection), DAI, Port Security, IP Source Guard, 802.1x, Portal authentication, RADIUS and TACACS+ user login authentication, uRPF, Account privileges and password security policy, Unknown multicasts are not delivered to CPU and support unknown unicasts suppression, Support SSHv2 to provide a secure and encrypted channel for user login		

Note:⁶ Future release support

Model	RG-N18007	RG-N18010	RG-N18014
Manageability	Console/AUX Modem/Telnet/SSH2.0 command line configuration; FTP, TFTP, Xmodem file upload/download management; SNMP V1/V2c/V3; RMON; NTP clock; Fault alarm and self-recovery; System log; sFlow		
Hot Patch	Support		
CWMP	Support		
Smart Temperature Control	Fan speed auto-adjustment; Fan malfunction alerts; Fan status check		
Smart Power Supply	Support power control and management		
Other Protocols	DHCP client, DHCP relay, DHCP server, ARP proxy, Syslog		
Dimensions (W x D x H) (mm)	442 x 598 x 352.8	442 x 836 x 797.3	442 x 814 x 886.2
Rack Height	8RU	18RU	20RU
Weight	30.2kg (total weight of empty chassis and fans)	78.66kg (total weight of empty chassis and fans)	77.86kg (total weight of empty chassis and fans)
MTBF	>200K hours		
Power Supply	RG-PA1600I: 90-180V~ 1200W; 180-264V~ 1600W RG-PA600I: 90-180V~ 600W; 180-264V~ 600W RG-PD1600I: -40.5VDC-75VDC ~1600W RG-PD600I: -40.5VDC-75VDC ~600W RG-PA1600I-PL: 90-180V~1000W; 180-264V~1600W RG-PA3000I-PL: 90-180V~ 1200W; 210-264V~ 3000W	RG-PA1600I: 90-180V~ 1200W; 180-264V~ 1600W, 16A RG-PA600I: 90-180V~ 600W; 180-264V~ 600W, 10A RG-PD1600I: -40.5VDC-75VDC ~1400W RG-PD600I: -40.5VDC-75VDC ~600W RG-PA1600I-P: 90-180V~1200W; 180-264V~1600W, 16A	RG-PA1600I: 90-180V~ 1200W; 180-264V~ 1600W, 16A RG-PA600I: 90-180V~ 600W; 180-264V~ 600W, 10A RG-PD1600I: -40.5VDC-75VDC ~1400W RG-PD600I: -40.5VDC-75VDC ~600W
Power Consumption	<432W	<730W	<860W
PoE Power	<6,000W	<3,200W	N/A
Temperature	Operating temperature: 0°C to 50°C		
	Storage temperature: -40°C to 70°C		
Humidity	Operating humidity: 10% to 90% RH (non-condensing)		
	Storage humidity: 5% to 95% RH		
Operating Altitude	-500m to 5,000m		

Ordering Information

1. Main Chassis & Engine Management

Select the main chassis and control engine according to specific product model.

Model	Description
RG-N18000 Series Main Chassis & Control Engine	
RG-N18014	14-slot Chassis with fan (without power supply)
RG-N18010	10-slot Chassis with fan (without power supply)
RG-N18007	7-slot Chassis with fan (without power supply)
M18014-CM II	N18014 2 nd Generation Control Engine
M18014-CM	N18014 Control Engine
M18010-CM II	N18010 2 nd Generation Control Engine
M18010-CM	N18010 Control Engine
M18007-CM	N18007 1 st Generation Control Engine
M18007-CM II	N18007 2 nd Generation Control Engine
M18007-CM II Lite	N18007 2 nd Generation Lite Control Engine

2. Power Supply

Select at least 1 power module or up to N+M redundancy according to the power supply requirement of the device.

Model	Description
RG-PA600I	N18000 Power Module (support redundancy, AC, 600W, 10A)
RG-PD600I	N18000 Power Module (support redundancy, DC, 600W)
RG-PA1600I	N18000 Power Module (support redundancy, AC, 1600W, 16A)
RG-PD1600I	N18000 Power Module (support redundancy, DC, 1400W)
RG-PA1600I-PL	N18000 PoE Power Module (support redundancy, AC, 1600W, 16A)
RG-PA3000I-PL	N18000 PoE Power Module (support redundancy, AC, 3000W, 16A)

3. Fabric Engine

Select at least 1 or up to 4 fabric engines. It is recommended to select at least 2 to ensure fabric engine redundancy.

Model	Description
M18014-FE-D III	N18014 D Series 3 rd Generation Fabric Engine (For ED and DB series Line Card and Service Module)
M18014-FE-D I	N18014 D Series 1 st Generation Fabric Engine (For ED and DB series Line Card and Service Module)
M18010-FE-D III	N18010 D Series 3 rd Generation Fabric Engine (For ED and DB series Line Card and Service Module)
M18010-FE-D I	N18010 D Series 1 st Generation Fabric Engine (For ED and DB series Line Card and Service Module)

Model	Description
M18014-FE-C II	N18014 C Series 2 nd Generation Fabric Engine (For CB series Line Card and Service Module)
M18014-FE-C I	N18014 C Series 1 st Generation Fabric Engine (For CB series Line Card and Service Module)
M18010-FE-C III	N18010 C Series 3 rd Generation Fabric Engine (For CB series Line Card and Service Module)
M18010-FE-C I	N18010 C Series 1 st Generation Fabric Engine (For CB series Line Card and Service Module)

4. Line Cards & Service Module⁷

Select the host line cards according to your application scenario.

Model	Description
M18000-44SFP4XS-ED	44 Gigabit Ethernet fiber ports (SFP, LC), 4-port 10GE Ethernet optical interface board (SFP+, LC)
M18000-44SFP4XS-EF	44 Gigabit Ethernet fiber ports (SFP, LC), 4-port 10GE Ethernet optical interface board (SFP+, LC)
M18000-44SFP4XS-CB	44 Gigabit Ethernet fiber ports (SFP, LC), 4-port 10GE Ethernet optical interface board (SFP+, LC)
M18000-48GT-ED	48-port Gigabit Ethernet electrical interface board (RJ45)
M18000-48GT-EF	48-port Gigabit Ethernet electrical interface board (RJ45)
M18000-48GT-P-ED	48-port Gigabit PoE Ethernet electrical interface board (RJ45)
M18000-24GT20SFP4XS-ED	24-port Gigabit Ethernet electrical interface board (RJ45), 20 Gigabit Ethernet fiber ports (SFP, LC), 4 10GE Ethernet fiber ports (SFP+, LC)
M18000-08XS-ED	8 10GE fiber ports (SFP+, LC)
M18000-08XS-EF	8 10GE fiber ports (SFP+, LC)
M18000-16XS-CB	16 10GE fiber ports (SFP+, LC)
M18000-16XT-CB	16 10GE copper ports (RJ45)
M18000-40XS-CB	40 10GE fiber ports (SFP+, LC)
M18000-48XS-DB	48 10GE fiber ports (SFP+, LC)
M18000-24XS4QXS-DB	24 10GE fiber ports (SFP+, LC) + 4 40GE fiber module (QSFP+, MPO)
M18000-10QXS-CB	10 40GE fiber ports (QSFP+, MPO)
M18000-12QXS-DB	12 40GE fiber ports (QSFP+, MPO)
M18000-24QXS-DB	24 40GE fiber ports (QSFP+, MPO)
M18000-24QXS-CB	24 40GE fiber ports (QSFP+, MPO)
M18000-04CQ-DB	4 100GE fiber ports (QSFP28)
M18000-08CQ-CB	8 100GE fiber ports (QSFP28)
M18000-12CQ-EH	12 100GE fiber ports (QSFP28)

Note:

⁷ N18007 does not support EF, CB modules and M18000-24QXS-DB

Model	Description
Multiservice Module	
RG-WALL 1600-B-ED	Firewall module, support RG-N18000 series, deploy with ED and DB line cards
RG-M18000-WS-ED	Wireless control module

5. Transceivers and Cable

Model	Description
Mini-GBIC-SX	1000BASE-SX, SFP Transceiver, MM (850nm, 550m, LC)
Mini-GBIC-LX	1000BASE-LX, SFP Transceiver, SM (1310nm, 10km, LC)
Mini-GBIC-GT	1000BASE-TX, SFP Transceiver (100m)
Mini-GBIC-LH40	1000BASE-LH, SFP Transceiver, SM (1310nm, 40km, LC)
Mini-GBIC-ZX50	1000BASE-ZX, SFP Transceiver, SM (1550nm, 50km, LC)
Mini-GBIC-ZX80	1000BASE-ZX, SFP Transceiver, SM (1550nm, 80km, LC)
Mini-GBIC-ZX100	1000BASE-ZX, SFP Transceiver, SM (1550nm, 100km, LC)
XG-SFP-CU1M	10GBASE-CU SFP+ Cable 1 Meter
XG-SFP-CU3M	10GBASE-CU SFP+ Cable 3 Meter
XG-SFP-SR-MM850	10GBASE-SR, SFP+ Transceiver, MM (850nm, 300m, LC)
XG-SFP-LR-SM1310	10GBASE-LR, SFP+ Transceiver, SM (1310nm, 10km, LC)
XG-SFP-ER-SM1550	10GBASE-ER, SFP+ Transceiver, SM (1550nm, 40km, LC)
XG-SFP-ZR-SM1550	10GBASE-LC, SFP+ Transceiver, SM (1550nm, 80km, LC)
40G-QSFP-STACK1M	40G Copper Cable for QSFP+, 1M
40G-QSFP-STACK3M	40G Copper Cable for QSFP+, 3M
40G-AOC-5M	40G Cable for QSFP+, 5M
40G-AOC-10M	40G Cable for QSFP+, 10M
40G-QSFP-SR-MM850	40GBASE-SR, QSFP+ Transceiver, MM (850nm, 100m with OM3 fiber, 150m with OM4 fiber, MPO)
40G-QSFP-LSR-MM850	40GBASE-SR, QSFP+ Transceiver, MM (850nm, 300m with OM4 fiber, 400m with OM4 fiber, MPO)
40G-QSFP-LR4-SM1310	40G LR Single-mode Fiber Module, QSFP+ Transceiver, LC, 10km (1310nm)
40G-QSFP-LR4-PSM-SM1310	40G LR Single-mode 1-to-4 Fiber Module, QSFP+ Transceiver, LC, 10km (1310nm)
QSFP-MPO8-4LC-SM-1M	40G Single-mode 1-to-4 Fiber Jumper, MPO/APC-4*LC/PC, 8 cores, 1m, for 40G-QSFP-LR4-PSM-SM1310
QSFP-MPO8-4LC-MM-1M	40G Single-mode 1-to-4 Fiber Jumper, MPO/APC-4*LC/PC, 8 cores, 1m, for 40G-QSFP-SR-MM850 and 40G-QSFP-LSR-MM850
100G-QSFP-SR-MM850	100GBASE-SR, QSFP28 Transceiver, MM (850nm, 70m with OM3 fiber, 100m with OM4 fiber, MPO)
100G-QSFP-iLR4-PSM-SM1310	40G LR Single-mode Fiber Module, QSFP+ Transceiver, LC, 10km (1310nm)
100G-QSFP-LR4-SM1310	100G LR Fiber Module, QSFP28 Transceiver, LC, 10km (1310nm)

Data Center Switch

RG-S6220 Switch Series



OVERVIEW

Ruijie RG-S6220 Series Data Center Switches are designed to power next-generation data centers and cloud computing services. As a collection of 10GE data center switches, the RG-S6220 series supports non-blocking, unified, and virtualized switching performance with high transparency and sustainability. The RG-S6220 switches provide a solid foundation for enterprise-sized cloud computing network solution.

KEY FEATURES

- Network Virtualization (VSU) Support
- Up to 48 x 10G Fiber/Copper Ports and 4 x 40G Fiber Ports
- Rich Next-Gen Data Center Features (DCB, FCoE, VEPA, TRILL)
- Advanced Layer 3 Routing Support
- Power and Fan Redundancy Support



RG-S6220-48XS4QXS



RG-S6220-48XT4QXS



RG-S6220-24XS

Data Center Virtualization

Ruijie RG-S6220 series adopts the industry-leading Virtual Switch Unit 2.0 (VSU 2.0) technology to achieve unified network management, reduce network nodes and enhance network reliability. The RG-S6220 switches support an extensive array of virtualization features including Virtual Ethernet Bridging (VEB), Virtual Ethernet Port Aggregator (VEPA), Virtual Machine Discovery (VMD), and automatic migration of security policies. The failover time for link failure is within 50ms to 200ms to guarantee uninterrupted operation for mission-critical applications. The cross-device link aggregation feature enables access to servers or switches to achieve active-active uplinks.

Non-Blocking Performance with Powerful Caching Capacity

The RG-S6220 series is a powerful collection of line-rate switches customized to power the next-generation data centers and cloud computing. The 1U-in-height RG-S6220 switches offer exceptional scalability with a wide range of ports and expansion slots available. The 48XS4QXS switch model provides 48 10G SFP+ ports and 4 40G QSFP+ ports; the 48XT4QXS model provides 48 10GBASE-T ports and 4 40G QSFP+ ports; and the 24XS switch model supports 24 10G SFP+ ports and 2 expansion slots for 12-port 10G SFP+ module, 8-port 10GBASE-T module or 2-port 40G QSFP+ module, offering ultra flexibility in network construction. All the RG-S6220 switches employ an advanced cache scheduling mechanism to maximize the device's cache capability, ensuring truly non-blocking transmission in the increasingly demanding data center environment.

Rich Next-Gen Data Center Features

The RG-S6220 series provides the server with FCoE (Fibre Channel over Ethernet) access and Ethernet access services for easy integration of heterogeneous LAN and SAN networks, fully protecting users' existing investments. The series supports IEEE standard VEPA, which returns the switching function of virtual machines to network equipment. The VEPA standard resolves the problem of low-efficiency Ethernet switches with virtual internal server CPU and inconsistent network policies of data centers. The series also features TRILL (Transparent Interconnection of Lots of Links) protocol to meet the demanding challenges on higher bandwidth, more flexibility, and simpler management of the future data centers.

Carrier-Class Reliability Protection

The RG-S6220 switches support built-in redundant power modules and modularized fan components. All the line cards, power modules, and fan modules are hot-pluggable to guarantee undisturbed switching operation. The RG-S6220 switches also support fault detection and automatic alarms for the power and fan modules.

Specifications

Model	RG-S6220-24XS	RG-S6220-48XT4QXS	RG-S6220-48XS4QXS
Ports	24 fixed 10G SFP+ ports	48 fixed 10GBASE-T ports 4 40G QSFP+ ports	48 fixed 10G SFP+ ports 4 40G QSFP+ ports
Expansion Slots	2	N/A	N/A
Modular Power Slots	2		
Fan Slots	4		
Expansion Modules	12-port 10G SFP+ module 8-port 10GBASE-T module 2-port 40G QSFP+ module	N/A	N/A
Management Ports	1 console port 1 MGMT port for 10/100/1000M BASE-T out-of-band management 1 USB 2.0 port		
Switching Capacity	1.28Tbps		
Packet Forwarding Rate	960Mpps		
Max. Number of 10GE Ports	48		
Max. Number of 40GE Ports	4		
Port Buffer	9MB		
ARP Table	Up to 16K		
MAC Address	Up to 128K		
Routing Entries	Up to 16K		
Routing Table Size (IPv4/IPv6)	Up to 16K/8K		
Multicast Entries (IPv4/IPv6)	Up to 2,048		
ACL Entries	Up to 1,500		
VLAN	4K 802.1q VLANs, Port-based VLAN, Protocol-based VLAN, Private VLAN, QinQ, IP subnet-based VLAN, GVRP		

Model	RG-S6220-24XS	RG-S6220-48XT4QXS	RG-S6220-48XS4QXS
QinQ	Basic QinQ, Flexible QinQ		
Link Aggregation	Support LACP		
Port Mirroring	Many-to-one mirroring, One-to-many mirroring, Flow-based mirroring, Over devices mirroring, VLAN-based mirroring, AP-port mirroring, RSPAN		
Spanning Tree Protocols	IEEE802.1d STP, IEEE802.1w RSTP, Standard 802.1s MSTP, Port fast, BPDU filter, BPDU guard, TC guard, TC protection, ROOT guard		
DHCP	DHCP server, DHCP client, DHCP snooping, DHCP relay, IPv6 DHCP snooping, IPv6 DHCP client, IPv6 DHCP relay		
Multiple Spanning Tree (MST) Instances	65 (0~64)		
Maximum Aggregation Port (AP)	Up to 128		
Virtual Routing and Forwarding (VRF) Instances	Up to 1,024		
Data Center Unified Network Features	Data Center Bridging (DCB) features: 802.1Qau: Congestion Notification (CN / QCN); 802.1Qaz: Enhanced Transmission Selection (ETS and DCBX); 802.1Qbb: Priority-based Flow Control (PFC) Unified switching: Fibre Channel over Ethernet (FCoE) Virtualization: Virtual Ethernet Port Aggregator (VEPA); Virtual Switch Unit (VSU); Transparent Interconnection of Lots of Links (TRILL)		
VSU (Virtual Switch Unit)	Support (up to 9 stack members)		
L2 Features	MAC, ARP, VLAN, Basic QinQ, Felix QinQ, Link aggregation, Mirroring, STP, RSTP, MSTP, Broadcast storm control, IGMP v1/v2/v3 snooping, IGMP filter, IGMP fast leave, MLD snooping, DHCP, Jumbo frame, RLDp, LLDP, REUP, G.8032 ERPS		
Layer 2 Protocols	IEEE802.3 (10BASE-T), IEEE802.3u (100BASE-T), IEEE802.3z (1000BASE-X), IEEE802.3ab (1000BASE-T), IEEE802.3ae (10GBASE-T), IEEE802.3an (10GBASE-T), IEEE802.3ba (40GBASE), IEEE802.3ak, IEEE802.3an, IEEE802.3x, IEEE802.3ad (link aggregation), IEEE802.1p, IEEE802.1x, IEEE802.1Q, IEEE802.1D (STP), IEEE802.1w (RSTP), IEEE802.1s (MSTP), IGMP Snooping, Jumbo Frame (9Kbytes), IEEE802.1ad (QinQ and flexible QinQ), GVRP		
Layer 3 Features	Static routing, Equal-Cost Multi-Path Routing (ECMP), OSPF, OSPF v3, BGP, BGP4+, RIP, RIPng, IS-IS, IS-IS v6, MCE		
Layer 3 Protocols (IPv4)	BGP4, OSPFv2, RIPv1, RIPv2, MBGP, LPM Routing, Policy-based Routing, Route-policy, ECMP, WCMP, VRRP, IGMP v1/v2/v3, DVMRP, PIM-SSM/SM/DM, MSDP, Any-RP		
IPv4 Features	Static routing, RIP, OSPF, BGP4, VRRP, Equal-cost routing, Policy-based routing, GRE tunnel		
IPv6 Features	Static routing OSPFv3, BGP4+, MLDv1/v2, VRRPv3, Equal-cost routing, Policy-based routing, Manual tunnel, Auto tunnel, ISATAP tunnel		

Model	RG-S6220-24XS	RG-S6220-48XT4QXS	RG-S6220-48XS4QXS
Basic IPv6 Protocols	Neighbor Discovery (ND), DNSv6, DHCPv6, ICMPv6, ACLv6, SNMPv6, Ping/Traceroute v6, RADIUS v6, Telnet/SSH v6, FTP/TFTP v6, NTP v6, VRRP for IPv6		
IPv6 Routing Protocols	Static routing, Equal-cost routing, Policy routing, OSPFv3, RIPng, BGP4+, MLDv1/v2, PIM-SMv6, Manual tunnels, Automatic tunnels, ISATAP tunnels		
IPv6 Tunnel Features	Manual tunnel, Auto tunnel, ISATAP tunnel		
Multicast	IGMP v1/v2/v3, IGMP v1/v2/v3 snooping, IGMP proxy, IGMP filter, IGMP fast leave, Multicast routing protocols (PIM-DM, PIM-SM, PIM-SSM), MLD snooping, MLD, PIM for IPv6, MSDP, Multicast static routing		
MPLS	MPLS forwarding; MPLS L2/L3 VPN; As P, PE or CE device		
G.8032	Support		
ACE Capacity	1,500		
ACL	Standard/Extended/Expert ACL, Extended MAC ACL, ACL 80, IPv6 ACL, ACL logging, ACL counter, ACL remark		
QoS	EXP priority mapping based on, 802.1p, DSCP, and IP Precedence; ACL traffic classification; Priority marking/remarking; Multiple queue scheduling mechanisms, such as SP, WRR, DRR, SP+WRR, and SP+DRR		
IPv6 ACL	Support		
Reliability	VSU (virtualization technology for virtualizing multiple devices into 1); GR for RIP/OSPF/BGP; BFD detection; ERPS (G.8032); REUP dual-link fast switching technology; RLDP (Rapid Link Detection Protocol); 1+1 power redundancy; Hot-swappable power module		
Security	Network Foundation Protection Policy (NFPP); CPU Protection (CPP); DoS protection; Detection of unauthorized data packets; Data encryption; IP source guard; RADIUS / TACACS+; IPv4 / IPv6 ACL packet filtering based on standard or extended VLANs; Plaintext authentication and MD5 cipher-text authentication of OSPF, RIPv2, and BGPv4 packets; Telnet login through limited IP addresses and the password mechanism; uRPF; Broadcast packet suppression; DHCP snooping; Anti-gateway ARP spoofing; ARP check		
Manageability	SNMP; Telnet; Console; Hardware support RCM1 (combo interface for DCMI and MGMT); Web; RMON (1, 2, 3, 9); SSHv1/v2; FTP/TFTP for file upload and download management; NTP clock; Syslog; RSPAN		
OAM	802.1AG		
Smart Temperature Control	Auto fan speed adjustment; Fan malfunction alerts; Fan status check		
Smart Power Supply	Support power control and management		
Other Protocols	DHCP client, DHCP relay, DHCP server, DNS client, UDP helper, ARP proxy, Syslog		
Dimensions (W x D x H) (mm)	440 × 480 × 44	440 × 500 × 44	440 × 420 × 44
Rack Height	1RU		
Weight (incl. 4 fan modules and 2 power modules)	9.5kg	11kg	9kg

Model	RG-S6220-24XS	RG-S6220-48XT4QXS	RG-S6220-48XS4QXS
MTBF	>200K hours		
Power Supply	AC input: Rated voltage range: 100V to 240V AC Maximum voltage range: 90V to 264V AC Frequency: 50/60Hz Rated current: 5.29A to 2.2A HVDC input: Input voltage range: 192V to 290V DC Input current range: 2.66A to 2.03A		
Power Consumption	<160 W (w/o expansion modules) <260 W (w/ expansion modules)	<450 W	<250 W
Temperature	Operating temperature: 0°C to 45°C		
	Storage temperature:-40°C to 70°C		
Humidity	10% to 90%RH (non-condensing)		
Operating Altitude	-500m to 5,000m		

Ordering Information

1. Host, expansion cards, fans, and power modules

Model	Description
RG-S6220-24XS	24 fixed 10G SFP+ Ports, 2 Expansion Slots, 2 Power Slots, 4 Fan Slots (Power and fan modules sold separately)
RG-S6220-48XT4QXS	48 fixed 10GBASE-T Ports, 4 40G QSFP+ Ports, 2 Power Slots, 4 Fan Slots (Power and fan modules sold separately)
RG-S6220-48XS4QXS	48 fixed 10G SFP+ Ports, 4 40G QSFP+ Ports, 2 Power Slots, 4 Fan Slots (Power and fan modules sold separately)
M6220-12XS	Expansion Module with 12 10G SFP+ ports
M6220-08XT	Expansion Module with 8 10GBASE-T ports
M6220-02QXS	Expansion Module with 2 40G QSFP+ ports
M6220-FAN-F	Fan Module, front-to-rear airflow, support 3+1 redundancy
RG-M6220-AC460E-F	S6220 Power Supply Module, 460W, support 1+1 redundancy

2. Optional 40G and 10G fiber modules

Model	Description
40G-QSFP-SR-MM850	40G SR Fiber Module for QSFP+ ports, 100m (OM3) / 150m (OM4) (8 cores, 850nm)
40G-QSFP-LSR-MM850	40G SR Fiber Module for QSFP+ ports, 300m (OM3) / 400m (OM4) (8 or 12 cores, 850nm)
40G-QSFP-LR4-SM1310	40G LR Single-mode Fiber Module for QSFP+ ports, 10km (LC) (2 cores, 1310nm)
XG-SFP-SR-MM850	10G SR Fiber Module for SFP+ ports, 300m
XG-SFP-LR-SM1310	10G LR Fiber Module for SFP+ ports, 10km
XG-SFP-ER-SM1550	10G ER Fiber Module for SFP+ ports, 40km
XG-SFP-ZR-SM1550	10G ZR Fiber Module for SFP+ ports, 80km

3. 40G and Gigabit copper cables

Model	Description
40G-QSFP-STACK3M	40G Copper Cable for QSFP+, 3m
XG-SFP-CU1M	10GBASE-CU SFP+ Cable, 1m
XG-SFP-CU3M	10GBASE-CU SFP+ Cable, 3m
XG-SFP-CU5M	10GBASE-CU SFP+ Cable, 5m

4. Gigabit optical modules

Model	Description
Mini-GBIC-SX	1000BASE-SX, SFP Transceiver, MM (850nm, 550m, LC)
Mini-GBIC-LX	1000BASE-LX, SFP Transceiver, SM (1310nm, 10km, LC)
Mini-GBIC-GT	1000BASE-TX, SFP Transceiver (100m)
Mini-GBIC-LH40	1000BASE-LH, SFP Transceiver, SM (1310nm, 40km, LC)
Mini-GBIC-ZX50	1000BASE-ZX, SFP Transceiver, SM (1550nm, 50km, LC)
Mini-GBIC-ZX80	1000BASE-ZX, SFP Transceiver, SM (1550nm, 80km, LC)
Mini-GBIC-ZX100	1000BASE-ZX, SFP Transceiver, SM (1550nm, 100km, LC)

Core Switch

RG-S8600E Switch Series



OVERVIEW

Ruijie RG-S8600E Switch Series is industry-leading in supporting cloud data center with a broad spectrum of specialized campus network features. The RG-S8600E series achieves cloud network integration, virtualization, and flexible deployment to fulfill the ever-evolving next-gen cloud architecture. With various port densities support up to 96 full line-rate interfaces at 40GE or 384 at 10GE, the series is an ideal match for a wide range of deployment scenarios such as data center, MAN, campus network and integrated network of data center and campus network.

KEY FEATURES

- Unified OS for Both Campus and Data Center Networks
- Superior Performance with up to 90.66Tbps Switching Capacity
- Support Large-Scale MAC (up to 512K) and ARP Table (up to 170K)
- Support up to 384 x 10GE Ports and 96 x 40GE Ports
- Ultra-Low Latency of Less Than 1μs



Multi-processing Modular Operating System

Ruijie has been investing on the R&D of modular operating system since 1998. The RG-S8600E software platform is designed based on the next-gen RGOS 11.X multi-processing modular operating system to integrate the service features such as loosely coupled firewall, wireless, IPFIX and authentication into a unified cloud network operating system. The RG-S8600E software platform also supports full virtualization and offers rich data center and campus network features. The key availability indicators such as multi-processing modules, process backup and hot patch have reached the industry-leading level.

Modular Design with Full Redundancy

Redundant design of the RG-S8600E Series key components delivers excellent protection: control engine 1+1 redundancy, fan N+1 redundancy and power module come with N+1 and N+M redundancy for all chassis model S8605E, S8607E and S8610E. All redundant components are hot-swappable to enhance the reliability and availability of the device to the maximum extent. Hot patch and ISSU technologies are also supported to enable online upgrade of devices. The series supports GR for OSPF/IS-IS/BGP and BFD for VRRP/OSPF/BGP4/ISIS/ISISv6/MPLS/static routing to enable the fast fault detection mechanism of different protocols. The feature minimizes the fault detection time to less than 50ms.

High Scalability for Future Development

The RG-S8600E series supports 2Tbps bandwidth per slot (scalable to 8Tbps). The switches also support high-density 40GE and 100GE Ethernet ports to meet the requirements of cloud data center in the coming decade. The series supports up to 170K ARP entries, handling a large amount of online users with ease. The switches are also market-leading in supporting line-rate packet forwarding. The modules including the highest-density all support 64-byte packet forwarding at line rate. The switches thereby guarantee high-speed forwarding with zero packet loss in any large-scale data center. The switches offer ultra-low latency less than 1μs to support high-speed transmission.

Network Virtualization Support

The RG-S8600E series supports the Virtual Switch Unit 3.0 (VSU). The technology can virtualize up to 4 physical devices into one logical unit, which largely minimizes the number of network nodes and reduce maintenance

workload. Superior 50ms to 200ms link failover ensures smooth and uninterrupted transmission of key services. The RG-S8600E series supports cross-device link aggregation for easy double uplink to server/switch, effectively maximizing bandwidth investment return.

Specifications

Model	RG-S8605E	RG-S8607E	RG-S8610E
Module Slots	5 (2 for control engines)	7 (2 for control engines)	10 (2 for control engines)
Modular Power Slots	3 (2 for system power; 1 for PoE power)	6 (4 for system power; 2 for PoE power)	10 (8 for system power; 2 for PoE power)
Fan Slots	1	1	3
Control Engine Slots	2	2	2
Service Module Slots	3	5	8
Fabric Engine Slots	N/A	N/A	4
Backplane Bandwidth (per slot)	Up to 640Gbps	Up to 640Gbps	Up to 320Gbps
Switching Capacity	12.21Tbps/62.55Tbps	20.36Tbps/104.25Tbps	32.56Tbps/166.8Tbps
Packet Forwarding Rate	2,160Mpps/ 18,000Mpps	3,600Mpps/ 30,000Mpps	6,720Mpps/ 48,000Mpps
Max. Number of 10GE Ports	Up to 144	Up to 240	Up to 384
Max. Number of 40GE Ports	36	60	96
PoE	Support		
Port Buffer	Up to 12MB		
ARP Table	Up to 170K		
MAC Address	Up to 512K		
Routing Entries	Up to 384K		
Routing Table Size (IPv4/IPv6)	Up to 384K/128K		
Multicast Entries (IPv4/IPv6)	Up to 16K/8K		
ACL Entries	Up to 7K		
VLAN	4K		
QinQ	Basic QinQ, Flexible QinQ		
Link Aggregation	AP, LACP		

Model	RG-S8605E	RG-S8607E	RG-S8610E
Port Mirroring	Many-to-one mirroring, One-to-many mirroring, Flow-based mirroring, Over devices mirroring, VLAN-based mirroring, VLAN-filtering mirroring, AP-port mirroring, RSPAN		
Spanning Tree Protocols	STP, RSTP and MSTP		
DHCP	Support DHCP relay, DHCP snooping, DHCP server, DHCP client		
Multiple Spanning Tree (MST) Instances	64 (not include default 0)		
Maximum Aggregation Port (AP)	Up to 256		
Virtual Routing and Forwarding (VRF) Instances	Up to 2K		
Data Center Unified Network Features	Data Center Bridging (DCB) features: 802.1Qaz: Enhanced Transmission Selection; 802.1Qau: Congestion Notification (CN/QCN); 802.1Qbb: Priority-based Flow Control (PFC); 802.1Qaz: Enhanced Transmission Selection (ETS) Unified switching: Fibre Channel over Ethernet (FCoE) Virtualization: Virtual Ethernet Port Aggregator (VEPA); Virtual Switch Unit (VSU); Transparent Interconnection of Lots of Links (TRILL) ⁸		
SDN	OpenFlow 1.3 ⁹		
VSU (Virtual Switch Unit)	Up to 4 stack members (Recommended: 2)		
VSD (Virtual Switch Device)	Up to 4 VSD units		
L2 Features	Jumbo Frame, 802.1Q, STP, RSTP, MSTP, Port-based VLAN, Super VLAN, Private VLAN, Protocol-based VLAN, IP subnet-based VLAN, GVRP, QinQ, Flexible QinQ, LLDP, ERPS (G.8032)		
Layer 2 Protocols	IEEE802.1d (STP), IEEE802.1w (RSTP), IEEE802.1s (MSTP), IGMP Snooping, Jumbo Frame (9Kbytes), IEEE802.1ad (QinQ and flexible QinQ), GVRP		
Layer 3 Features	ARP, IPv4/v6, PBR v4/v6		
Layer 3 Protocols (IPv4)	Ping, Traceroute, Equal-Cost Multi-Path Routing (ECMP), URPF, IPIF, GRE Tunnel(4 over 6), GRE Tunnel(6 over 4), IPv4 VRF		
IPv4 Features	Static routing, RIP, OSPF, IS-IS, BGP4, VRRP, Equal-cost routing, Policy-based routing, GRE tunnel		
IPv6 Features	Static routing OSPFv3, BGP4+, IS-ISv6, MLDv1/v2, VRRPv3, Equal-cost routing, Policy-based routing, Manual tunnel, Auto tunnel, ISATAP tunnel, GRE tunnel		
Basic IPv6 Protocols	DHCP Relay v6, DHCP Server v6, Telnet v6, TFTP Client v6, FTP v6, NTP Client v6, NTP Server v6		

Core Switch

Note:

^{8,9} Future release support

Model	RG-S8605E	RG-S8607E	RG-S8610E
IPv6 Routing Protocols	RIP, RiPng, OSPFv2/v3, BGP4, BGP4+, IS-ISv4/v6, Routing Policy		
IPv6 Tunnel Features	6over4 Manual Tunnel, 6to4 Auto Tunnel, Manual Tunnel, Auto Tunnel, ISATAP Tunnel, IPv4 over IPv6 Tunnel, IPv6 over IPv6 Tunnel, GRE Tunnel(4 over 6), GRE Tunnel(6 over 6)		
Multicast	IGMP v1/v2/v3, IGMP proxy, Multicast routing protocols (PIM-DM, PIM-SM, PIM-SSM), MLD, Multicast static routing		
MPLS	MPLS forwarding, LDP, LSP		
G.8032	Support		
ACE Capacity	Up to 7K		
ACL	Standard/Extended/Expert ACL; ACL 80; IPv6 ACL		
QoS	802.1p, Queue scheduling mechanisms (SP, WRR, DRR, WFQ, SP+WFQ, SP+WRR, SP+DRR), RED/WRED, Input/output port-based speed limit		
IPv6 ACL	Support		
Reliability	Control engine 1+1 redundancy; power supply N+1 redundancy; Hot-swappable components; Hot patch and online patch upgrade; ISSU ¹⁰ ; GR for OSPF/IS-IS/BGP; BFD for VRRP/OSPF/BGP4/ISIS/ISISv6/static routing		
EEE Format	Support		
Security	NFPP (Network Foundation Protection Policy), CPP (CPU Protection), DAI, Port Security, IP Source Guard, 802.1x, Portal authentication, RADIUS and TACACS+ user login authentication, uRPF, Account privileges and password security policy, Unknown multicasts are not delivered to CPU and support unknown unicasts suppression, Support SSHv2 to provide a secure and encrypted channel for user login		
Manageability	Console/AUX Modem/Telnet/SSH2.0 command line configuration; FTP, TFTP, Xmodem file upload/download management; SNMP V1/V2c/V3; RMON; NTP clock; Fault alarm and self-recovery; System log; sFlow		
Hot Patch	Support		
CWMP	Support		
Smart Temperature Control	Fan speed auto-adjustment; Fan malfunction alerts; Fan status check		
Smart Power Supply	Support power control and management		
Other Protocols	DHCP client, DHCP relay, DHCP server, ARP proxy, Syslog		
Dimensions (W x D x H) (mm)	442 × 595 × 219.5	442 × 595 × 352.8	442 × 821 × 797.3
Rack Height	5RU	8RU	18RU
Weight (total weight of empty chassis and fans)	20.2kg	30.2kg	78.66kg
MTBF	>200K hours		

Note:

¹⁰ Future release support

Model	RG-S8605E	RG-S8607E	RG-S8610E
Power Supply	RG-PA1600I: 90-180V~ 1200W; 180-264V~ 1600W RG-PA600I: 90-180V~ 600W; 180-264V~ 600W RG-PD1600I: -40.5VDC-75VDC~ 1400W RG-PD600I: -40.5VDC-75VDC ~ 600W RG-PA1600I-P: 90-180V~1200W; 180-264V~ 1600W		
Power Consumption	<288W	<432W	<730W
PoE Power	<3,000W	<6,000W	<6,000W
Temperature	Operating temperature: 0°C to 50°C		
	Storage temperature: -40°C to 70°C		
Humidity	Operating humidity: 10% to 90% RH (non-condensing)		
	Storage humidity: 5% to 95% RH		
Operating Altitude	-500m to 5,000m		

Core Switch

Ordering Information

1. Main Chassis & Engine Management

Select the main chassis and control engine according to specific product model.

Model	Description
RG-S8600E Series Main Chassis & Control Engine	
S8610E-I Series	10-slot Chassis with fan (without power supply)
S8607E-I Series	7-slot Chassis with fan (without power supply)
S8605E-I Series	5-slot Chassis with fan (without power supply)
M8600E-CM	S8600E Control Engine

2. Power Supply

Select at least 1 power module according to the power supply requirement of the device.

Model	Description
RG-PA600I	S8600E Power Module (support redundancy, AC, 600W)
RG-PD600I	S8600E Power Module (support redundancy, DC, 600W)
RG-PA1600I	S8600E Power Module (support redundancy, AC, 1600W)
RG-PD1600I	S8600E Power Module (support redundancy, DC, 1400W)
RG-PA1600I-PL	S8600E PoE power module (support redundancy, AC, 1600W)
RG-PA3000I-PL	S8600E PoE power module (support redundancy, AC, 3000W)

3. Line Card & Service Module

Select the host line cards according to your real application.

Model	Description
Commercial Line Card	
M8600E-44SFP4XS-ED	44 Gigabit Ethernet fiber ports (SFP, LC), 4-port 10GE Ethernet optical line card (SFP+, LC)
M8600E-44SFP4XS-EF	44 Gigabit Ethernet fiber ports (SFP, LC), 4-port 10GE Ethernet optical line card (SFP+, LC)
M8600E-48GT-ED	48-port Gigabit Ethernet electrical line card (RJ45)
M8600E-48GT-EF	48-port Gigabit Ethernet electrical line card (RJ45)
M8600E-24GT20SFP4XS-ED	24-port Gigabit Ethernet electrical line card (RJ45), 20 Gigabit Ethernet fiber ports (SFP, LC), 4 10GE Ethernet fiber ports (SFP+, LC)
M8600E-08XS-ED	8 10GE fiber ports (SFP+, LC)
M8600E-48GT-P-ED	48-port Gigabit Ethernet line card (RJ45), support PoE and PoE+
M8600E-08XS-EF	8 10GE fiber ports (SFP+, LC)
M8600E-24SFP/8GT-EB	24 Gigabit Ethernet fiber ports (SFP, LC), 8-port Gigabit Ethernet line card (RJ45) combo

Model	Description
M8600E-24GT/8SFP-EB	24-port Gigabit Ethernet line card (RJ45), 8 Gigabit Ethernet fiber ports (SFP, LC) combo
Data Center Line Card	
M8600E-48XS-DB	48 10GE fiber ports (SFP+, LC)
M8600E-12QXS-DB	12 40GE fiber ports (QSFP+, MPO)
M8600E-24XS4QXS-DB	24 10GE fiber ports (SFP+, LC) + 4-port 40GE Ethernet optical line card (QSFP+, MPO)

4. Transceiver and Cable

Model	Description
Mini-GBIC-SX	1000BASE-SX mini GBIC Transceiver (850nm)
Mini-GBIC-LX	1000BASE-LX mini GBIC Transceiver (1310nm)
Mini-GBIC-GT	1000BASE-GT mini GBIC Transceiver
Mini-GBIC-LH40	1000BASE-LH mini GBIC Transceiver (1310nm), 40km
Mini-GBIC-ZX50	1000BASE-ZX mini GBIC Transceiver (1550nm), 50km
Mini-GBIC-ZX80	1000BASE-ZX mini GBIC Transceiver (1550nm), 80km
Mini-GBIC-ZX100	1000BASE-ZX mini GBIC Transceiver (1550nm), 100km
XG-SFP-CU1M	10GBASE-CU SFP+ Cable, 1m (1 cable + 2 interface modules)
XG-SFP-CU3M	10GBASE-CU SFP+ Cable, 3m (1 cable + 2 interface modules)
XG-SFP-SR-MM850	10GBASE-SR, SFP+ Transceiver (300m)
XG-SFP-LR-SM1310	10GBASE-LR, SFP+ Transceiver (10km)
XG-SFP-ER-SM1550	10GBASE-ER, SFP+ Transceiver (40km)
XG-SFP-ZR-SM1550	10GBASE-LC, SFP+ Transceiver (80km)
40G-QSFP-STACK3M	40G Copper Cable for QSFP+, 3m
40G-QSFP-SR-MM850	40GBASE-SR, QSFP+ Transceiver, MM (850nm, 100m with OM3 fiber, 150m with OM4 fiber, MPO)
40G-QSFP-LR4-SM1310	40G LR Single-mode Fiber Module, QSFP+ Transceiver, LC (1310nm)

Core Switch

Enterprise Switch

RG-S5750-H Switch Series



OVERVIEW

Ruijie RG-S5750-H Switch Series is a collection of next-gen multiservice switches, offering remarkable performance and enhanced security. Implementing an industry-leading hardware design and Ruijie's latest RGOS11.X modular operating system, the switches offer better table capacity, improved hardware processing performance, and easier user operation. The RG-S5750-H series supports flexible Gigabit access and high-density 10G port scalability. All models offer fixed 4 x 10G fiber ports and dual expansion slots, supporting high-density, high-performance port uplink performance. These leading features fully meet requirements of high-density access and demanding aggregation.

KEY FEATURES

- Customized for Large Campus Network: Up to 64K MAC Address
- Exceptional Performance & Scalability: Up to 5.98Tbps Switching Capacity and 8 x 10GE Ports (48GT Model)
- Network Virtualization (VSU) Support (up to 9 Stack Members)
- Out-of-box with advanced Layer 3 Routing and MPLS features
- High Reliability: Hot Patches, 1+1 Power Module Redundancy, Hot Swappable Components
- SDN Support



RG-S5750C-48GT4XS-H



RG-S5750C-28GT4XS-H



RG-S5750C-28SFP4XS-H

Network Virtualization Support

Ruijie VSU (Virtual Switching Unit) provides a unified data plane, unified configuration, and single IP address management for the whole virtualized switch group. Ruijie advanced switch virtualization thereby offers users with lower TCO (total cost of ownership) and higher availability through simplified management as well as multi-chassis link aggregation. Ruijie VSU provides stacking up to 9 switches which can be virtualized into one logical unit. Ruijie VSU enables any VSU member to leave or join the VSU group with zero business interruption, offering high reliability and availability. Ruijie VSU supports seamless failover feature, which guarantees that all time-sensitive IP Applications & Communications system can failover smoothly without interruption. Ruijie VSU provides as fast as 1.16ms and 6.6ms under stacking link failover and uplink failure scenarios respectively.

High Performance

The RG-S5750-H series offers switching capacity of up to 5.98Tbps and packet forwarding rates of up to 252Mpps. The high-performance switches also deliver up to 4 x 10GE ports and 8 x BASE-T combo options to provide availability for present network or future network expansion. High backplane bandwidth and high packet transmission rate enable non-blocking on all ports.

Advanced Layer 3 Routing Support

The RG-S5750-H Series supports IPv4 and IPv6 multicast functions, including rich multicast protocols such as IGMP Snooping, IGMP, MLD, PIM, PIM for IPv6, and MSDP, to provide multicast service support for IPv4 networks, IPv6 networks, and IPv4/IPv6 dual-stack networks. The Series also supports the functions of IGMP source port check and source IP address check to guard against illegal multicast sources and improve network security. The Series delivers rich Layer 3 features and service features such as ECMP (Equal-Cost Multipath Routing) and WCMP (Weight-Cost Multipath Routing) to meet various network communication needs.

Power Redundancy Support

All the three models of the RG-S5750-E series support 1+1 power redundancy and hot swappable power module, offering exceptional resiliency to fully protect client's investment and guaranteeing uninterrupted business operation.

Software-Defined Networking (SDN)

The RG-S5750-H series fully supports OpenFlow 1.3. In collaboration with Ruijie's SDN controller, it forms a large-scale Layer 2 networking architecture with ease. Smooth upgrade of the whole network to a SDN one is also enabled. The switch series hence greatly simplifies the network management and minimizes network deployment savings.

Specifications

Model	RG-S5750C-28GT4XS-H	RG-S5750C-48GT4XS-H	RG-S5750C-28SFP4XS-H
Ports	28 10/100/1000BASE-T ports 4 combo SFP ports (100/1000M) 4 1G/10GBASE-X SFP+ ports	48 10/100/1000BASE-T ports 4 1G/10GBASE-X SFP+ ports	28 SFP ports (100/1000M) 8 combo 10/100/1000BASE-T ports 4 1G/10GBASE-X SFP+ ports
Expansion Slots	2		
Modular Power Slots	2		
Fan Slots	Fixed		
Expansion Modules	M5000H-01QXS M5000H-04XS		
Management Ports	1 console port 1 MGMT port 1 Mini USB console port 1 USB 2.0 port		
Switching Capacity	598Gbps/5.98Tbps		
Packet Forwarding Rate	222Mpps/342Mpps	252Mpps/372Mpps	222Mpps/342Mpps
Max. Number of 10GE Ports	4	8	4
Max. Number of 40GE Ports	1		
Port Buffer	4MB		
ARP Table	Up to 20K		
MAC Address	Up to 64K		
Routing Table Size (IPv4/IPv6)	12K/6K		
ACL Entries	Up to 3,000		
VLAN	4K 802.1q VLANs, Port-based VLAN, MAC-based VLAN, Protocol-based VLAN, Private VLAN, Voice VLAN, QinQ, IP subnet-based VLAN, GVRP		
QinQ	Basic QinQ, Flexible QinQ, 1:1 VLAN switching, N:1 VLAN switching		

Model	RG-S5750C-28GT4XS-H	RG-S5750C-48GT4XS-H	RG-S5750C-28SFP4XS-H
Link Aggregation	Support LACP (802.3ad)		
Port Mirroring	Many-to-one mirroring, One-to-many mirroring, Flow-based mirroring, Over devices mirroring, VLAN-based mirroring, VLAN-filtering mirroring, AP-port mirroring, RSPAN, ERSPAN		
Spanning Tree Protocols	IEEE802.1d STP, IEEE802.1w RSTP, Standard 802.3s MSTP, Port fast, BPDU filter, BPDU guard, TC guard, TC protection, ROOT guard		
DHCP	DHCP server, DHCP client, DHCP snooping, DHCP relay, IPv6 DHCP snooping, IPv6 DHCP client, IPv6 DHCP relay		
Multiple Spanning Tree (MST) Instances	64		
Maximum Aggregation Port (AP)	Up to 2,048		
SDN	OpenFlow 1.0 & 1.3		
VSU (Virtual Switch Unit)	Up to 9 stack members ¹¹		
Zero Configuration	CWMP(TR069)		
L2 Features	MAC, EEE, ARP, VLAN, Basic QinQ, Felix QinQ, Link aggregation, Mirroring, STP, RSTP, MSTP, Broadcast storm control, IGMP v1/v2/v3 snooping, IGMP filter, IGMP fast leave, MLD snooping, DHCP, Jumbo frame, RLDP, LLDP, REUP, G.8032 ERPS, Layer 2 protocol tunnel		
Layer 2 Protocols	IEEE802.3, IEEE802.3u, IEEE802.3z, IEEE802.3x, IEEE802.3ad, IEEE802.1p, IEEE802.1x, IEEE802.3ab, IEEE802.1Q (GVRP), IEEE802.1d, IEEE802.1w, IEEE802.1s		
Layer 3 Features	Static routing, Equal-Cost Multi-Path Routing (ECMP), OSPF, OSPF v3, BGP, BGP4+, RIP, RIPvng, IS-IS, IS-IS v6, MCE		
Layer 3 Protocols (IPv4)	Static routing, RIP, OSPF, IS-IS, BGP, ECMP		
IPv4 Features	Ping, Traceroute, ECMP, URPF, IP-IP, GRE tunnel (4 over 6), GRE tunnel (6 over 4), IPv4 VRF		
IPv6 Features	ICMPv6, IPv6 Ping, IPv6 Tracert, Manually configure local address, Automatically create local address, Neighbor Discovery, 0-64 bit mask, 65-128 bit mask, 6 over 4 manual tunnel, 6 to 4 auto tunnel, ISATAP, IPv4 over IPv6 tunnel, IPv6 over IPv6 tunnel, GRE tunnel (4 over 6), GRE tunnel (6 over 6), IPv6 VRF, IPv6 extender option head		
Basic IPv6 Protocols	IPv6 addressing, Neighbor Discovery (ND), ND-snooping, ICMPv6, stateless automatic configuration, and Path MTU Discovery		
IPv6 Routing Protocols	Static routing, Equal-Cost Multi-Path Routing (ECMP), OSPF, OSPF v3, BGP, BGP4+, RIP, RIPvng, IS-IS, IS-IS v6, MCE; Packet-based load balancing and flow-based load balancing		
IPv6 Tunnel Features	Manual tunnel, auto tunnel, ISATAP, IPv4 over IPv6, IPv6 over IPv6, GRE tunnel		

Note:
¹¹ Future release support, latest models support up to 4 stack members.

Model	RG-S5750C-28GT4XS-H	RG-S5750C-48GT4XS-H	RG-S5750C-28SFP4XS-H
Multicast	IGMP v1/v2/v3, IGMP v1/v2/v3 snooping, IGMP proxy, IGMP filter, IGMP fast leave, Multicast routing protocols (PIM-DM, PIM-SM, PIM-SSM), MLD snooping, MLD, PIM for IPv6, MSDP, Multicast static routing		
MPLS	MPLS L3 VPN ¹²		
G.8032	Support		
ACL	Standard IP ACL (Based on IP address); Extended IP ACL (Based on IP addresses and TCP/UDP port number); MAC-extended ACL (Based on source and destination MAC addresses and optional Ethernet type); Time-based ACL; Expert ACL (Based on the flexible combination of VLAN number, Ethernet type, MAC address, IP address, TCP/UDP port, protocol type, and time); ACL80; IPv6 ACL		
QoS	802.1p/DSCP/TOS traffic classification; Multiple queue scheduling mechanisms, such as SP, WRR, DRR, SP+WRR, SP+DRR; RED / WRED; Input / output port-based speed limit; Port-based traffic recognition; Each port supports 8 queue priorities		
IPv6 ACL	Support		
Reliability	VSU (virtualization technology for virtualizing multiple devices into 1); GR for RIP/OSPF/BGP; BFD detection; ERPS (G.8032); REUP dual-link fast switching technology; RLDP (Rapid Link Detection Protocol); 1+1 power redundancy; Hot-swappable power module		
EEE Format	Support IEEE 802.3az standard		
Security	Binding of the IP address, MAC address, and port address; Binding of the IPv6, MAC address, and port address; Filter illegal MAC addresses; Port-based and MAC-based 802.1x; MAB; Portal and Portal 2.0 authentication; ARP-check; DAI; Restriction on the rate of ARP packets; Gateway anti-ARP spoofing; Broadcast suppression; Hierarchical management by administrators and password protection; RADIUS and TACACS+; AAA security authentication (IPv4/IPv6) in device login management; SSH and SSH V2.0; BPDU guard; IP source guard; CPP, NFPP; Port protection		
Manageability	SNMP v1/v2/v3; CLI (Telnet/Console); RMON (1, 2, 4, 9); SSH; FTP / TFTPv6; Syslog; SPAN / RSPAN, NTP / SNTP, SNMP over IPv6; IPv6 MIB support for SNMP, SSHv6, Telnetv6, DNS v6; NTP for v6; Traceroute v6; Support sFlow, traffic sampling of the switch can be performed via data stream random sampling technology		
Hot Patch	Support (the restart process does not affect the existing service forwarding)		
Smart Temperature Control	Auto fan speed adjustment; Fan malfunction alerts; Fan status check		
Smart Power Supply	Support power control and management		
Other Protocols	FTP, TFTP, DNS client, DNS static		
Dimensions (W x D x H) (mm)	440 × 280 × 44	440 × 300 × 44	440 × 300 × 44

Note:

¹² Future release support

Model	RG-S5750C-28GT4XS-H	RG-S5750C-48GT4XS-H	RG-S5750C-28SFP4XS-H
Rack Height	1RU		
Weight	3.9kg	4.2kg	4.2kg
MTBF	>200K hours		
Power Supply	AC input: Rated voltage range: 100V to 240V AC Maximum voltage range: 90V to 264V AC Frequency: 50Hz to 60Hz DC input: Rated voltage range: 120V to 340V DC Maximum voltage range: 110V to 380V DC		
Power Consumption	45W	45W	55W
Temperature	Operating temperature: 0°C to 50°C		
	Storage temperature: -40°C to 70°C		
Humidity	Operating humidity: 10% to 90%RH		
	Storage humidity: 5% to 95%RH		
Operating Altitude	-500m to 5,000m		

Ordering Information

Model	Description
RG-S5750C-28GT4XS-H	28 10/100/1000BASE-T Ports, 4 100/1000BASE-X SFP Ports (combo), 4 1G/10GBASE-X SFP+ Ports, 2 Extension Slots, 2 Modular Power Slots, required to purchase at least 1 power module
RG-S5750C-48GT4XS-H	48 10/100/1000BASE-T Ports, 4 1G/10GBASE-X SFP+ Ports, 2 Extension Slots, 2 Modular Power Slots, required to purchase at least 1 power module
RG-S5750C-28SFP4XS-H	28 100/1000BASE-X SFP Ports, 8 10/100/1000BASE-T Ports (combo), 4 1G/10GBASE-X SFP+ Ports, 2 Extension Slots, 2 Modular Power Slots, required to purchase at least 1 power module
Optional Accessories	
M5000H-01QXS	1-port QSFP+ Stacking Module (Stacking module for QSFP+ BASE-X ports, only for stacking between S5750C-H devices)
M5000H-04XS	4-port 10GE SFP+ Interface Module (Only for RG-S5750C-48GT4XS-H model; Only extension slot 1 of RG-S5750C-48GT4XS-H support the module, the extension slot 2 cannot be used.)
RG-PA70I	AC Power Module for S5750H Switches
FE-SFP-LX-MM1310	100M Multimode Interface Module (2km)
FE-SFP-LH15-SM1310	100M Single-mode Interface Module (15km)
Mini-GBIC-GT	1000BASE-GT mini GBIC Transceiver
Mini-GBIC-SX	Single-port 1000BASE-SX mini GBIC Transceiver (LC)
Mini-GBIC-LX	Single-port 1000BASE-LX mini GBIC Transceiver (LC)
Mini-GBIC-LH40	Single-port 1000BASE-LH mini GBIC Transceiver (LC), 40km
Mini-GBIC-ZX50	Single-port 1000BASE-ZX mini GBIC Transceiver (LC), 50km
Mini-GBIC-ZX80	Single-port 1000BASE-ZX mini GBIC Transceiver (LC), 80km
Mini-GBIC-ZX100	1000BASE-ZX mini GBIC Transceiver, 100km
XG-SFP-SR-MM850	10GBASE-SR, SFP+ Transceiver, MM (850nm, 300m, LC)
XG-SFP-LR-SM1310	10GBASE-SR, SFP+ Transceiver (1310nm, 10km, LC)
XG-SFP-ER-SM1550	10GBASE-SR, SFP+ Transceiver (1550nm, 40km, LC)
XG-SFP-AOC1M	10GBASE SFP+ Optical Stack Cable (included both side transceivers) for S2910 and S5750-H Series Switches, 1 Meter
XG-SFP-AOC3M	10GBASE SFP+ Optical Stack Cable (included both side transceivers) for S2910 and S5750-H Series Switches, 3 Meters
XG-SFP-AOC5M	10GBASE SFP+ Optical Stack Cable (included both side transceivers) for S2910 and S5750-H Series Switches, 5 Meters
40G-QSFP-SR-MM850	40G SR Fiber Module for QSFP+ interface (OM3/OM4 MPO fiber, 8-core, wavelength 850nm, transmission distance is 100m for OM3 fiber and 150m for OM4 fiber)
40G-QSFP-LR4 SM1310	40G LR Single-mode Fiber Module for QSFP+ interface, transmission distance up to 10km (LC fiber is required, 2-core, wavelength 1310nm)
40G-QSFP-STACK3M	40G Copper Cable for QSFP+ interface, 3m

Enterprise Switch

RG-S2910-H Switch Series

OVERVIEW

Ruijie RG-S2910-H High Power over Ethernet (HPoE) Switch Series pushes the frontier with leading IEEE802.3bt standard, delivering 90W power output per port. The HPoE switch guarantees the best security, efficiency, stability and energy-saving experiences. The HPoE switch is highly adaptive to breadth of scenarios, eliminating rigid ties to expensive deployment costs, slow implementation cycle, unstable power supply, management complexity, and unsatisfactory security problems that alternative solutions have been struggling to solve. The switch fully addresses high PoE access needs for low power scenario as well as high power Wi-Fi hotspot application in outdoor venue. Industrial-grade Power Box (PBOX) is available to support non-PoE appliance or non-IEEE 802.3bt powered device (PD). The PBOX fully supports remote power supply for high power devices.

Enterprise
Switch

KEY FEATURES

- Up to 90 Watts per Port by High-power PoE Technology (IEEE 802.3bt)
- Industrial-grade PBOX for Flexible Remote Deployment (12VDC/ 24VAC Options)
- Outstanding Power Supply Stability (Average Error Rate <5%)
- Time & Cost Saving on Construction Works



RG-PBOX-AC24

RG-S2910-24GT4SFP-UP-H

RG-PBOX-DC12

New Option for High Power IP Devices

There used to be only two options available for remote power supply scenarios, namely PoE and PoE+ standards. The PoE standard would fail to meet the needs if more than 30W power is required. Instead, electrical wiring or even high power has to be deployed. Such implementation gives an enormous burden to total investment cost, completion schedule, post-sale maintenance, as well as installation safety. Based on IEEE 802.3bt, Ruijie delivers an innovation approach leveraging the HPoE power supply technology, maximizing user experience from the fundamental level.

Wide Selection of Power Supply Standards

The HPoE switch supports IEEE 802.3af, IEEE 802.3at and IEEE 802.3bt and is also backward compatible with earlier standards, offering up to 90W output per port and 370W per device. The front 1-4 ports enable high power PoE application.

Leveraging Existing Network Cabling

The traditional electrical wiring involves a range of tedious procedures on the wall or the floor. Such include groove opening, pipe laying, voltage and current testing and so on. Everything from the groove diameter and depth to spacing, PVC tube dimensions to curve radius of laying tube, as well as electromagnetic interference among various cables must be taken into consideration. With just one mistake in any aspect, the overall wiring outcome will be largely at stake and the end user experience will be undermined. Ruijie offers you a painless solution and what you need is just network cable. For new buildings, only network cabling needs to be taken care of. For expansion with weak power devices, users can leverage the existing network cabling. No more wall-breaking work incidental to electrical wiring is required.

High Reliability

The RG-S2900G-E/P series provides rich network resiliency features including 802.1d, 802.1w, 802.1s and RLDP (Rapid Link Detection Protocol), which are designed for loop detection and UDLD (Unidirectional Link Detection) to ensure network reliability and improve fault tolerance capabilities.

Exceptional Energy Efficiency

The HPoE device supports energy-saving and auto supply PoE modes for various deployment needs. The device features auto-power-down, a function enabling the system to automatically power off any interface which has been down for a certain period of time. The switch is also IEEE802.3az (EEE) compliant. A port will enter the energy-saving mode if it has been idle for an extensive period. When there is an incoming/outgoing packet, the port will resume service as informed by listening stream. The devices are compliant with the RoHS standard, and SJ/T 11363/11364/11365.

Specifications

HPoE Switch

Model	RG-S2910-24GT4SFP-UP-H
Ports	24 10/100/1000BASE-T ports (PoE/PoE+/HPoE+) 4 Gigabit SFP ports (non-combo) for uplink AC
Fan Slots	Fixed
Management Ports	1 console port
Switching Capacity	256Gbps
Packet Forwarding Rate	96Mpps
PoE	IEEE 802.3af, IEEE 802.3at and IEEE 802.3bt power supply standards; Automatic, energy-saving and static power supply modes; Hot startup and uninterrupted power supply; Port priority; Compatible with non-standard PD device; Scheduled power supply for PoE port
Port Buffer	1.5MB
ARP Table	1,000
MAC Address	16K
Routing Table Size (IPv4/IPv6)	500 (IPv4/IPv6)
ACL Entries	In: 1500 Out: 500
VLAN	4K 802.1q VLANs, Port-based VLAN, MAC-based VLAN, Protocol-based VLAN, Private VLAN, Voice VLAN, IP subnet-based VLAN, GVRP
QinQ	Basic QinQ, Flexible QinQ
Link Aggregation	AP, LACP, Cross devices AP, Flow balance
Port Mirroring	Support general service port and aggregation port as source and destination port of mirroring; Flow-based mirroring; VLAN-based mirroring; Many-to-one mirroring; One-to-many mirroring; Cross-device traffic mirroring; RSPAN; ERSPAN

Enterprise
Switch

Model	RG-S2910-24GT4SFP-UP-H
Spanning Tree Protocols	IEEE802.1d STP, IEEE802.1w RSTP, standard 802.1s MSTP, Port fast, BPDU filter, BPDU guard, TC guard, TC protection, ROOT guard
DHCP	DHCP server, DHCP client, DHCP snooping, DHCP relay, IPv6 DHCP snooping, IPv6 DHCP client, IPv6 DHCP relay
Multiple Spanning Tree Protocol (MSTP) Instances	64
Maximum Aggregation Port (AP)	Up to 128
SDN	OpenFlow 1.0 & 1.3
VSU (Virtual Switch Unit)	Support up to 9 stack members ¹³ VSU virtualization technology; Local and distant stacking; Cross-chassis link aggregation in the stack
Zero Configuration	CWMP(TR069)
L2 Features	MAC, EEE, ARP, VLAN, Basic QinQ, Felix QinQ, Mirroring, STP, RSTP, MSTP, Broadcast storm control, IGMP v1/v2 snooping, IGMP filter, IGMP fast leave, DHCP, Jumbo frame, RLDp, LLDP, REUP, G.8032
Layer 2 Protocols	IEEE802.3, IEEE802.3u, IEEE802.3z, IEEE802.3x, IEEE802.3ad, IEEE802.1p, IEEE802.1x, IEEE802.3ab, IEEE802.1Q (GVRP), IEEE802.1d, IEEE802.1w, IEEE802.1s, IGMP Snooping v1/v2
Layer 3 Features	ARP, IPv4/v6, PBRv4/v6
IPv4 Features	Ping, Traceroute
IPv6 Features	0-64 any length mask, ICMPv6, Neighbor Discovery, Manually configure local address, Automatically create local address, IPv6 Ping, IPv6 Tracert, IPv6 extender option head
Basic IPv6 Protocols	IPv6 addressing, Neighbor Discovery (ND), IPv6 ACL, ICMPv6, IPv6 Ping, IPv6 Tracert
IPv6 Routing Protocols	RIP, RIPng, Routing Policy
G.8032	Support
ACL	Standard IP ACL, Extended IP ACL, Extended MAC ACL (optional Ethernet-type hardware ACL based on the source MAC address and destination MAC address), ACL Expert-level ACL (hardware ACL based on random combination of the VLAN number, Ethernet type, MAC address, IP address, TCP/UDP port number and protocol type), ACL80, IPv6 ACL, ACL Logging, ACL Counter, ACL Remark, Global ACL, ACL Redirect
QoS	802.1p/DSCP/TOS traffic classification; Multiple queue scheduling mechanisms, such as SP, WRR, DRR, SP+WRR, SP+DRR; Input / output port-based speed limit; Each port supports 8 queue priorities
IPv6 ACL	Support
Reliability	VSU (virtualization technology for virtualizing multiple devices into 1); GR for RIP
EEE Format	Support IEEE 802.3az standard

Note:

¹³ Future release support, latest model supports up to 4 stack members.

Model	RG-S2910-24GT4SFP-UP-H
Security	Binding of the IP address, MAC address, and port address; Binding of the IPv6, MAC address, and port address; Filter illegal MAC addresses; Port-based and MAC-based 802.1x; MAB; Portal and Portal 2.0 authentication; ARP-check; DAI; Restriction on the rate of ARP packets; Gateway anti-ARP spoofing; Hierarchical management by administrators and password protection; RADIUS and TACACS+; AAA security authentication (IPv4/IPv6) in device login management; SSH and SSH V2.0; BPDU guard; IP source guard; CPP, NFPP; Port protection
Manageability	SNMPv1/v2c/v3, CLI(Telnet / Console), RMON(1, 2, 3, 9), SSH, Syslog / Debug, NTP / SNTP, FTP, TFTP, Web, SFLOW; Support cable detection and port sleep mode
Hot Patch	Support
Smart Temperature Control	Auto fan speed adjustment; Temperature control and alert
Other Protocols	FTP, TFTP, DNS client
Dimensions (W x D x H) (mm)	440×260×44
Rack Height	1RU
MTBF	>200K hours
Lightning Protection	6KV
Power Supply	AC input: Nominal voltage range: 100V to 240V AC Maximum voltage range: 90V to 264V AC Frequency: 50Hz to 60Hz HVDC input: Maximum voltage range: 192V to 290V DC RG-PBOX-DC12: Support 12VDC output and 10/100/1000M Ethernet signal transmission RG-PBOX-AC24: Support 24VAC output and 10/100/1000M Ethernet signal transmission (*For detailed specifications of the adapters, please refer to the below table.)
Power Consumption	≤470W
PoE Power Consumption	Total 370W PoE budget output power All 24 BASE-T ports support PoE (up to 24 ports) and PoE+ (up to 12 ports) Max 1 port from Port 1-4 supports HPoE output power of 90W
Temperature	Operating temperature: 0°C to 50°C
	Storage temperature: -40°C to 70°C
Humidity	Operating humidity: 10% to 90%RH
	Storage humidity: 5% to 95%RH
Operating Altitude	-500m to 5,000m

Industrial Adapter

Model	RG-PBOX-DC12	RG-PBOX-AC24
Product Description	High-power PoE power adapter, supports 12VDC output and 10/100/1000M Ethernet signal transmission, suitable for indoor or semi-open spaces.	High-power PoE power adapter, supports 24VAC output and 10/100/1000M Ethernet signal transmission, suitable for indoor or semi-open spaces.
Ports	2 10M/100M/1000M Ethernet ports 1 standard power supply terminal block	
Power Input	Input voltage range: 43-57V DC	
	Input interface: RJ45	
	Maximum input power: 80W (PBOX input)	
Power Output	Power output port, 12VDC/60W	Power output port, 24VAC/60W
Operating Temperature	-20°C to 50°C	
Storage Temperature	-40°C to 70°C	
Operating Humidity	10% to 90% (non-condensing)	
Storage Humidity	10% to 95% (non-condensing)	
Operating Altitude	-500m to 5000m	
Protection Rating	IP40	
Dimensions (W x D x H) (mm)	187 x 89 x 36.5	187 x 89 x 36.5

Ordering Information

Model	Description
RG-S2910C-24GT4SFP-UP-H	24 10/100/1000BASE-T Ports (PoE/PoE+/HPoE+), 4 Gigabit SFP Ports (non-combo) for uplink, AC
Optional Industrial Adapters and Accessories	
RG-PBOX-DC12	Support 12VDC output and 10/100/1000M Ethernet signal transmission; suitable for indoor or semi-open space
RG-PBOX-AC24	Support 24VAC output and 10/100/1000M Ethernet signal transmission; suitable for indoor or semi-open space
Mini-GBIC-GT	1000BASE-GT mini GBIC Transceiver
Mini-GBIC-SX	Single-port 1000BASE-SX mini GBIC Transceiver (LC interface)
Mini-GBIC-LX	Single-port 1000BASE-LX mini GBIC Transceiver (LC interface)
Mini-GBIC-LH40	Single-port 1000BASE-LH mini GBIC Transceiver (LC interface), 40km
Mini-GBIC-ZX50	Single-port 1000BASE-ZX mini GBIC Transceiver (LC interface), 50km
Mini-GBIC-ZX80	Single-port 1000BASE-ZX mini GBIC Transceiver (LC interface), 80km
Mini-GBIC-ZX100	1000BASE-ZX mini GBIC Transceiver, 100km

Enterprise Switch

RG-S2910XS-E Switch Series



OVERVIEW

Ruijie RG-S2910XS-E is a collection of next-gen Gigabit switches architected for superior security, performance and energy efficiency. The switch series delivers full Gigabit access and unparalleled scalability to 10GE performance. With all new hardware architecture and Ruijie's latest RGOS11.X modular operating system, the RG-S2910XS-E switches offer larger table capacity, faster hardware processing performance and better operation experience to achieve high-density access and demanding aggregation implementation. The PoE switch models enable all downlink ports running on PoE+ to fulfill access and 10GE uplink that require high bandwidth demand.

Enterprise
Switch

KEY FEATURES

- Dynamic Network Virtualization (VSU) Support
- Dynamic Network Protection (CPP and NFPP Technologies)
- Basic Layer 3 Routing Support
- Power Redundancy Support
- Full 48-Port PoE+ Support
- SDN Support



RG-S2910-24GT4XS-E



RG-S2910-10GT2SFP-P-E



RG-S2910-48GT4XS-E



RG-S2910C-24GT2XS-P-E

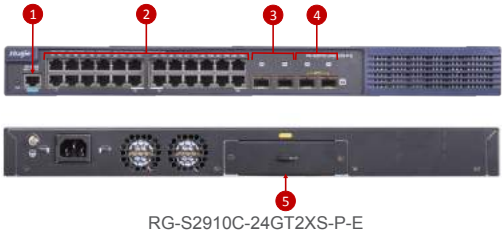


RG-S2910C-24GT2XS-HP-E



RG-S2910C-48GT2XS-HP-E

Hardware Highlights

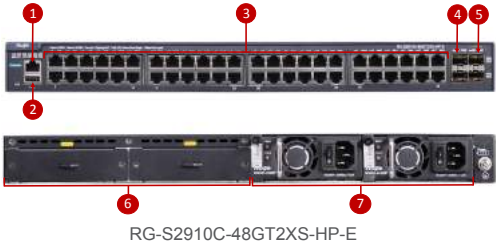
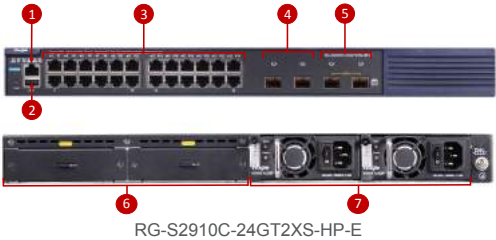


Interfaces

1. Console Port
2. 24 10/100/1000BASE-T (PoE/PoE+) Ports
3. 2 100/1000BASE-X SFP Ports (Combo)
4. 2 1G/10GBASE-X SFP+ Ports (Non-combo)
5. 1 Expansion Slot

Interfaces

1. Console Port
2. USB 2.0 Port
3. 24 10/100/1000BASE-T (PoE/PoE+) Ports
4. 2 100/1000BASE-X SFP Ports (Combo)
5. 2 1G/10GBASE-X SFP+ Ports (Non-combo)
6. 2 Expansion Slots
7. 2 Modular Power Slots



Interfaces

1. Console Port
2. USB 2.0 Port
3. 48 10/100/1000BASE-T (PoE/PoE+) Ports
4. 2 100/1000BASE-X SFP Ports (Combo)
5. 2 1G/10GBASE-X SFP+ Ports (Non-combo)
6. 2 Expansion Slots
7. 2 Modular Power Slots

Network Virtualization Support

Ruijie VSU (Virtual Switching Unit) provides a unified data plane, unified configuration, and single IP address management for the whole virtualized switch group. Ruijie advanced switch virtualization thereby offers users with lower TCO (total cost of ownership) and higher availability through simplified management as well as multi-chassis link aggregation. Ruijie VSU provides stacking up to 9 switches which can be virtualized into one logical unit. Ruijie VSU enables any VSU member to leave or join the VSU group with zero business interruption, offering high reliability and availability. Ruijie VSU supports

seamless failover feature, which guarantees that all time-sensitive IP Applications & Communications system can failover smoothly without interruption. Ruijie VSU provides as fast as 1.16ms and 6.6ms under stacking link failover and uplink failure scenarios respectively.

Dynamic Network Protection

The CPP (CPU Protect Policy) is an industry-leading hardware CPU protection technology. The CPP technology automatically differentiates traffic of multi-layer protocol packets such as IPv4/IPv6 destined for the CPU and limits the traffic speed to prevent abnormal packets from attacking the CPU and consuming resources. In this way, it can ensure the stability of CPUs of core devices in IPv4/IPv6 L3 network and L2 network environments. The NFPP (Network Foundation Protection Policy) classifies packets (management, forwarding, and protocol), restricts their rates, and monitors their attacks to support double protection of the CPU and channel bandwidth against attacks. In this manner, the Switches can ensure the normal forwarding of packets and the normal status of protocols, ensuring network stability.

Outstanding Energy Efficiency

The RG-S2910XS-E switches adopt next-gen hardware architecture with an advanced energy-saving circuit design and component selection. The switch offers an overall energy deduction of more than 40% for maximized cost savings. Noise pollution level is also lowered. All models in the series deploy axial flow fans with speed adjustment available. The fans enable intelligent temperature control to adjust the speed based on current ambient temperature. The design totally ensures stable operation and minimizes power consumption and noise level at the same time, tolerance capabilities.

Simple and Easy Network Maintenance

The RG-S2910XS-E switch series supports abundant features such as SNMP V1/V2/V3, RMON, Syslog, and logs and configuration backup using USB for routine diagnosis and maintenance. Administrators can use a wide variety of methods for easier management and such include CLI, web management, Telnet, etc.

Software-Defined Networking (SDN)

The RG-S2910XS-E switch series fully supports OpenFlow 1.3. It can fully collaborate with Ruijie's proprietary SDN controller to form a large-scale Layer 2 framework with ease. The feature ensures a smooth upgrade to SDN network. The RG-S2910XS-E series greatly simplifies the network management and minimizes deployment costs.

Specifications

Model	RG-S2910-24GT4XS-E	RG-S2910-48GT4XS-E	RG-S2910-10GT2SFP-P-E	RG-S2910C-24GT2XS-P-E	RG-S2910C-24GT2XS-HP-E	RG-S2910C-48GT2XS-HP-E
Ports	24 10/100/1000 BASE-T ports 4 1G/10G BASE-X SFP+ ports (non-combo)	48 10/100/1000 BASE-T ports 4 1G/10G BASE-X SFP+ ports (non-combo)	10 10/100/1000 BASE-T ports 2 100/1000 BASE-X SFP ports (non-combo)	24 10/100/1000 BASE-T ports (PoE/ PoE+) 2 100/1000 BASE-X SFP ports (combo) 2 1G/10G BASE-X SFP+ ports (non-combo)	24 10/100/1000 BASE-T ports (PoE/ PoE+) 2 100/1000 BASE-X SFP ports (combo) 2 1G/10G BASE-X SFP+ ports (non-combo)	48 10/100/1000 BASE-T ports (PoE/ PoE+) 2 100/1000 BASE-X SFP ports (combo) 2 1G/10G BASE-X SFP+ ports (non-combo)
Expansion Slots	N/A	N/A	N/A	1	2	2
Modular Power Slots	N/A	N/A	N/A	N/A	2	2
Fan Slots	Fixed					
Expansion Modules	N/A	N/A	N/A	M2910-01XS M2910-01XT M2910-02XS M2910-04XS ¹⁴ M2910-02XT ¹⁵	M2910-01XS M2910-01XT M2910-04XS ¹⁶	M2910-01XS M2910-01XT M2910-04XS ¹⁷
Management Ports	1 console port				1 console port 1 USB 2.0 port	

Note:

¹⁴⁻¹⁷ Future release support

Model	RG-S2910-24GT4XS-E	RG-S2910-48GT4XS-E	RG-S2910-10GT2SFP-P-E	RG-S2910C-24GT2XS-P-E	RG-S2910C-24GT2XS-HP-E	RG-S2910C-48GT2XS-HP-E
Switching Capacity	264Gbps	264Gbps	24Gbps	264Gbps	264Gbps	264Gbps
Packet Forwarding Rate	96Mpps	132Mpps	18Mpps	96Mpps	96Mpps	132Mpps
Max. Number of 10GE Ports	4	4	N/A	4	4	4
PoE	N/A		IEEE802.3af and 802.3at power supply standards; Automatic, energy-saving and static power supply modes; Hot startup and uninterrupted power supply; Port priority; PoE devices support stacking			
Port Buffer	1.5MB					
ARP Table	1,000	1,000	500	1,000	1,000	1,000
MAC Address	16K					
Routing Table Size (IPv4/IPv6)	500 (IPv4/IPv6)	500 (IPv4/IPv6)	250 (IPv4/IPv6)	500 (IPv4/IPv6)	500 (IPv4/IPv6)	500 (IPv4/IPv6)
ACL Entries	In: 1,500 Out: 500	In: 1,500 Out: 500	In: 750 Out: N/A	In: 1,500 Out: 500	In: 1,500 Out: 500	In: 1,500 Out: 500
VLAN	4K 802.1q VLANs, Port-based VLAN, MAC-based VLAN, Protocol-based VLAN, Private VLAN, Voice VLAN, QinQ, IP subnet-based VLAN, GVRP					
QinQ	Basic QinQ, Flexible QinQ, 1:1 VLAN switching, N:1 VLAN switching ¹⁸ , 1:N VLAN switching ¹⁹					
Link Aggregation	AP, LACP, Cross devices AP, Flow balance					
Port Mirroring	Many-to-one mirroring, One-to-many mirroring, Flow-based mirroring, Over devices mirroring, VLAN-based mirroring, VLAN-filtering mirroring, AP-port mirroring, RSPAN, ERSPAN # RG-S2910-10GT2SFP-P-E supports N:1/1:N port mirroring, Flow-based mirroring					
Spanning Tree Protocols	IEEE802.1d STP, IEEE802.1w RSTP, Standard 802.1s MSTP, Port fast, BPDU filter, BPDU guard, TC guard, TC protection, ROOT guard					
DHCP	DHCP server, DHCP client, DHCP snooping, DHCP relay, IPv6 DHCP snooping, IPv6 DHCP client, IPv6 DHCP relay					
Multiple Spanning Tree Protocol (MSTP) Instances	64					

Note:^{18,19} Future release support

Model	RG-S2910-24GT4XS-E	RG-S2910-48GT4XS-E	RG-S2910-10GT2SFP-P-E	RG-S2910C-24GT2XS-P-E	RG-S2910C-24GT2XS-HP-E	RG-S2910C-48GT2XS-HP-E
Maximum Aggregation Port (AP)	128					
SDN	OpenFlow 1.0 & 1.3					
VSU (Virtual Switch Unit)	Support (up to 9 stack members ²⁰), Local and distant stacking, Cross-chassis link aggregation in the stack, Stacking via 10G Ethernet ports # All models support the features above except RG-S2910-10GT2SFP-P-E					
SCN (Simplicity Campus Network)	Support establishing large L2 network with core devices and achieve resources pooling via VSU and VSD. Only management on core devices is required and hence simplifies horizontal and vertical network management and maintenance. # All models support the features above except RG-S2910-10GT2SFP-P-E					
Zero Configuration	CWMP(TR069)					
L2 Features	MAC, EEE, ARP, VLAN, Basic QinQ, Felix QinQ, Link aggregation, Mirroring, STP, RSTP, MSTP, Broadcast storm control, IGMP v1/v2 snooping, IGMP SGVL/IVGL, IGMP querier, IGMP filter, IGMP fast leave, DHCP, Jumbo frame, RLDP, LLDP, REUP, G.8032 ERPS, Layer 2 protocol tunnel					
Layer 2 Protocols	IEEE802.3, IEEE802.3u, IEEE802.3z, IEEE802.3x, IEEE802.3ad, IEEE802.1p, IEEE802.1x, IEEE802.3ab, IEEE802.1Q (GVRP), IEEE802.1d, IEEE802.1w, IEEE802.1s					
Layer 3 Features	IPv4 static routing, IPv6 static routing, RIPng					
Layer 3 Protocols (IPv4)	Static routing, RIP					
IPv4 Features	Ping, Traceroute					
IPv6 Features	ICMPv6, IPv6 Ping, IPv6 Tracert, Manually configure local address, Automatically create local address					
Basic IPv6 Protocols	IPv6 addressing, Neighbor Discovery (ND), ICMPv6, IPv6 Ping and IPv6 Tracert					
IPv6 Routing Protocols	Static routing, RIPng					
G.8032	Support					
ACL	Standard/Extended/Expert ACL, Extended MAC ACL, ACL 80, IPv6 ACL, ACL logging, ACL counter, ACL remark, Global ACL, ACL redirect					
QoS	802.1p/DSCP/TOS traffic classification; Multiple queue scheduling mechanisms, such as SP, WRR, DRR, SP+WFQ, SP+WRR, SP+DRR; Input / output port-based speed limit; Port-based traffic recognition; Each port supports 8 queue priorities					
IPv6 ACL	Support					

Note:

²⁰ Future release support, latest models support up to 4 stack members.

Model	RG-S2910-24GT4XS-E	RG-S2910-48GT4XS-E	RG-S2910-10GT2SFP-P-E	RG-S2910C-24GT2XS-P-E	RG-S2910C-24GT2XS-HP-E	RG-S2910C-48GT2XS-HP-E
Reliability	VSU (virtualization technology for virtualizing multiple devices into 1); RIP GR; ERPS (G.8032); REUP dual-link fast switching technology; RLDP (Rapid Link Detection Protocol)	VSU (virtualization technology for virtualizing multiple devices into 1); RIP GR; ERPS (G.8032); REUP dual-link fast switching technology; RLDP (Rapid Link Detection Protocol)	RIP GR; ERPS (G.8032); REUP dual-link fast switching technology; RLDP (Rapid Link Detection Protocol)	VSU (virtualization technology for virtualizing multiple devices into 1); RIP GR; ERPS (G.8032); REUP dual-link fast switching technology; RLDP (Rapid Link Detection Protocol)	VSU (virtualization technology for virtualizing multiple devices into 1); RIP GR; ERPS (G.8032); REUP dual-link fast switching technology; RLDP (Rapid Link Detection Protocol); 1+1 power redundancy; Hot-swappable power module	VSU (virtualization technology for virtualizing multiple devices into 1); RIP GR; ERPS (G.8032); REUP dual-link fast switching technology; RLDP (Rapid Link Detection Protocol); 1+1 power redundancy; Hot-swappable power module
EEE Format	Support IEEE 802.3az standard					
Security	Binding of the IP address, MAC address, and port address; Binding of the IPv6, MAC address, and port address; Filter illegal MAC addresses; Port-based and MAC-based 802.1x; MAB; Portal and Portal 2.0 authentication; ARP-check; DAI; Restriction on the rate of ARP packets; Gateway anti-ARP spoofing; Broadcast suppression; Hierarchical management by administrators and password protection; RADIUS and TACACS+; AAA security authentication (IPv4/IPv6) in device login management; SSH and SSH V2.0; BPDU guard; IP source guard; CPP, NFPP; Port protection					
Manageability	SNMPv1/v2c/v3, CLI (Telnet / Console), RMON (1, 2, 3, 9), SSH, Syslog/Debug, NTP/ SNTP, FTP, TFTP, Web, SFLOW # RG-S2910-10GT2SFP-P-E supports SNMPv2c, CLI (Telnet / Console), Syslog, RMON (1, 2, 3, 9), Web					
Hot Patch	Support					
Smart Temperature Control	Auto fan speed adjustment; Fan malfunction alerts; Fan status check # All models support the features above except RG-S2910-10GT2SFP-P-E					
Smart Power Supply	N/A			Support power control and management		
Other Protocols	FTP, TFTP, DNS client, DNS static					

Model	RG-S2910-24GT4XS-E	RG-S2910-48GT4XS-E	RG-S2910-10GT2SFP-P-E	RG-S2910C-24GT2XS-P-E	RG-S2910C-24GT2XS-HP-E	RG-S2910C-48GT2XS-HP-E
Dimensions (W x D x H) (mm)	440 × 200 × 44	440 × 200 × 44	340 × 260 × 44	440 × 260 × 44	440 × 200 × 44	440 × 260 × 44
Rack Height	1RU					
Weight	≤3.5kg	≤4kg	<2.5kg	5.8kg (gross weight)	5.8kg (gross weight)	6.8kg (gross weight)
MTBF	>200K hours					
Lightning Protection	4KV	4KV	6KV	6KV	6KV	6KV
Power Supply	<p>AC input: Rated voltage range: 100V to 240V AC Maximum voltage range: 90V to 264V AC Frequency: 50/60Hz Rated current: 1.5A</p> <p>HVDC input: Input voltage range: 192V to 290V DC Input current range: 0.5A to 0.1A</p>	<p>AC input: Rated voltage range: 100V to 240V AC Maximum voltage range: 90V to 264V AC Frequency: 50/60Hz Rated current: 1.5A</p> <p>HVDC input: Input voltage range: 192V to 290V DC Input current range: 0.8A to 0.5A</p>	<p>AC input: Rated voltage range: 100V to 240V AC Maximum voltage range: 90V to 264V AC Frequency: 50/60Hz Rated current: 1.5A</p>	<p>AC input: Rated voltage range: 100V to 240V AC Maximum voltage range: 90V to 264V AC Frequency: 50/60Hz Rated current: 6A</p> <p>HVDC input: Input voltage range: 192V to 290V DC Input current range: 3.5A to 2.5A</p>	<p>AC power (RG-M5000E-AC500P): Rated voltage range: 100V to 240V AC Frequency: 50/60Hz Rated current range: 7A to 3.5A</p> <p>HVDC input: Input voltage range: 192V to 290V DC Input current range: 3.5A to 2.5A</p> <p>DC power (RG-M5000E-DC500P): Rated voltage range: -36V to -72V DC Rated current: 16.5A</p> <p>AC power (RG-RG-PA1150P-F): Rated voltage range: 100V to 240V AC Frequency: 50/60Hz Rated current: 10A</p> <p>HVDC input: Input voltage range: 192V to 290V DC Rated current range: 10A</p>	
Power Consumption	24W	50W	165W (with 8-port PoE or 4-port PoE+)	470W (with full PoE)	850W (with 24-port PoE+)	1700W (with 48-port PoE+)

Model	RG-S2910-24GT4XS-E	RG-S2910-48GT4XS-E	RG-S2910-10GT2SFP-P-E	RG-S2910C-24GT2XS-P-E	RG-S2910C-24GT2XS-HP-E	RG-S2910C-48GT2XS-HP-E
PoE Power	N/A	N/A	120W	370W	RG-M5000E-AC500P: 370W RG-M5000E-DC500P: 370W RG-PA1150P-F: 740W	
Temperature	Operating temperature: 0°C to 50°C					
	Storage temperature: -40°C to 55°C					
Humidity	Operating humidity: 10% to 90%RH					
	Storage humidity: 5% to 95%RH					
Operating Altitude	-500m to 5,000m					

Ordering Information

Model	Description
RG-S2910-24GT4XS-E	24 10/100/1000BASE-T Ports, 4 1G/10GBASE-X SFP+ Ports (non-combo), AC
RG-S2910-48GT4XS-E	48 10/100/1000BASE-T Ports, 4 1G/10GBASE-X SFP+ Ports (non-combo), AC
RG-S2910C-24GT2XS-P-E	24 10/100/1000BASE-T Ports (PoE/PoE+), 2 100/1000BASE-X SFP Ports (combo), 2 1G/10GBASE-X SFP+ Ports (non-combo), 1 Expansion Slot, AC
RG-S2910-10GT2SFP-P-E	10 10/100/1000BASE-T Ports (PoE/PoE+), 2 100/1000BASE-X SFP Ports (non-combo), Port 1-8 support PoE, AC
RG-S2910C-24GT2XS-HP-E	24 10/100/1000BASE-T Ports (PoE/PoE+), 2 100/1000BASE-X SFP Ports (combo), 2 1G/10GBASE-X SFP+ Ports (non-combo), 1 USB, 2 Expansion Slots, 2 Modular Power Slots, AC/DC
RG-S2910C-48GT2XS-HP-E	48 10/100/1000BASE-T Ports (PoE/PoE+), 2 100/1000BASE-X SFP Ports (combo), 2 1G/10GBASE-X SFP+ Ports (non-combo), 1 USB, 2 Expansion Slots, 2 Modular Power Slots, AC/DC
Optional Accessories	
M2910-01XS	1-Port 10G SFP+ Interface Module, for S2910XS PoE models
M2910-01XT	1-Port 10G copper Interface Module, for S2910XS PoE models
M2910-02XS	2-Port 10G SFP+ Interface Module, only for RG-S2910C-24GT2XS-P-E
*M2910-02XT	2-Port 10G copper Interface Module, only for RG-S2910C-24GT2XS-P-E * Planned for future support
*M2910-04XS	4-Port 10G SFP+ Interface Module, for S2910XS PoE models * Planned for future support

Model	Description
RG-M5000E-AC500P	AC Power Module, 370W Power Budget for PoE, up to 24 PoE ports or 12 PoE+ ports (only for RG-S2910C-24GT2XS-HP-E and RG-S2910C-48GT2XS-HP-E)
RG-M5000E-DC500P	DC Power Module, -32V to -72V DC input voltage, 370W Power Budget for PoE, up to 24 PoE ports or 12 PoE+ ports (only for RG-S2910C-24GT2XS-HP-E and RG-S2910C-48GT2XS-HP-E)
RG-PA1150P-F	AC Power Module, 740W Power Budget for PoE, up to 48 PoE ports or 24 PoE+ ports (only for RG-S2910C-24GT2XS-HP-E and RG-S2910C-48GT2XS-HP-E)
FE-SFP-LX-MM1310	100M Multimode Interface Module (2km)
FE-SFP-LH15-SM1310	100M Single-mode Interface Module (15km)
Mini-GBIC-GT	1000BASE-GT mini GBIC Transceiver
Mini-GBIC-SX	1000BASE-SX, SFP Transceiver, MM (850nm, 550m, LC)
Mini-GBIC-LX	Single-port 1000BASE-LX mini GBIC Transceiver (LC)
Mini-GBIC-LH40	Single-port 1000BASE-LH mini GBIC Transceiver (40km, LC)
Mini-GBIC-ZX50	Single-port 1000BASE-ZX mini GBIC Transceiver (50km, LC)
Mini-GBIC-ZX80	Single-port 1000BASE-ZX mini GBIC Transceiver (80km, LC)
Mini-GBIC-ZX100	1000BASE-ZX mini GBIC Transceiver (100km)
XG-SFP-SR-MM850	10GBASE-SR, SFP+ Transceiver, MM (850nm, 300m, LC)
XG-SFP-LR-SM1310	10GBASE-SR, SFP+ Transceiver (1310nm, 10km, LC)
XG-SFP-ER-SM1550	10GBASE-SR, SFP+ Transceiver (1550nm, 40km, LC)
GE-SFP-LX20-SM1310-BIDI	Gigabit SFP BIDI Transceiver (TX1310/RX1550, 20km, LC)
GE-SFP-LX20-SM1550-BIDI	Gigabit SFP BIDI Transceiver (TX1550/RX1310, 20km, LC)
GE-SFP-LH40-SM1310-BIDI	Gigabit SFP BIDI Transceiver (TX1310/RX1550, 40km, LC)
GE-SFP-LH40-SM1550-BIDI	Gigabit SFP BIDI Transceiver (TX1550/RX1310, 40km, LC)
XG-SFP-AOC1M	10GBASE SFP+ Optical Stack Cable (included both side transceivers) for S2910 and S5750-H Series Switches, 1m
XG-SFP-AOC3M	10GBASE SFP+ Optical Stack Cable (included both side transceivers) for S2910 and S5750-H Series Switches, 3m
XG-SFP-AOC5M	10GBASE SFP+ Optical Stack Cable (included both side transceivers) for S2910 and S5750-H Series Switches, 5m

Enterprise Switch

RG-S2900G-E/P Switch Series



OVERVIEW

Ruijie RG-S2900G-E/P Series is a line of multilayer intelligent Ethernet switches that provide high availability, scalability and security for Gigabit access of large campus networks and intranet environment. The RG-S2900G-E/P series provides 24 or 48 10/100/1000BASE-T ports for downlink and 4 Gigabit SFP ports (non-combo) for uplink. Static routing is also supported to achieve basic routing functions. With a wide range of security policies, the switches can prevent malicious attacks efficiently. The series also delivers various intelligent traffic management features to enable easy management.

Enterprise
Switch

KEY FEATURES

- Dynamic Network Protection (CPP and NFPP)
- IPv6 Support
- Static Routing Protocol
- Energy Saving and Emission Reduction
- Flexible Model Options: 12/24/48-Port Gigabit PoE and Non-PoE Configurations



RG-S2928G-E

RG-S2952G-E

RG-S2928G-12P

RG-S2928G-24P

Dynamic Network Protection

The CPP (CPU Protect Policy) is an industry-leading hardware CPU protection technology. The CPP technology automatically differentiates traffic of multi-layer protocol packets such as IPv4/IPv6 destined for the CPU and limits the traffic speed to prevent abnormal packets from attacking the CPU and consuming resources. In this way, it can ensure the stability of CPUs of core devices in IPv4/IPv6 L3 network and L2 network environments. The NFPP (Network Foundation Protection Policy) classifies packets (management, forwarding, and protocol), restricts their rates, and monitors their attacks to support double protection of the CPU and channel bandwidth against attacks. In this manner, the Switches can ensure the normal forwarding of packets and the normal status of protocols, ensuring network stability.

Multilayer Security Features

The Ruijie RG-S2900G-E/P Switch Series supports hardware-based anti-ARP (Address Resolution Protocol) spoofing, flexible IP-MAC-port binding and multiple security mechanisms including the static and dynamic port binding, port isolation and traffic-based rate limiting. It supports multi-element binding to ensure secure user access.

Advanced QoS Features

By implementing 802.1p, IP ToS (Type of Service), Layer 2 – Layer 7 filtering, SP (Strict Priority) and WRR (Weighted Round Robin), the Ruijie RG-S2900G-E/P Switch Series provides flexible and intensive stream policies such as bandwidth control and priority-based forwarding, thereby delivering multiservice effectively.

High Reliability

The Ruijie RG-S2900G-E/P Switch Series provides rich network resiliency features including 802.1d, 802.1w, 802.1s and RLDLP (Rapid Link Detection Protocol), which are designed for loop detection and UDLD (Unidirectional Link Detection) to ensure network reliability and improve fault tolerance capabilities.

Energy Saving and Emission Reduction

The Ruijie RG-S2900G-E/P Switch Series reduces noise and minimizes power consumption by using the next-generation hardware system and advanced energy-saving circuit design. The Switches adopt fanless design to minimize

noise and provide the network with almost permanent stability at operating temperature from 0°C to 50°C. In the PoE (Power over Ethernet) networking environment, the Ruijie RG-S2900G-E/P Switch Series provides 3 PoE supply modes for users: automatic, energy-saving and static. The Ruijie RG-S2900G-E/P Switch Series also adopts the EEE (Energy Efficient Ethernet) technology to further reduce power consumption.

Specifications

Model	RG-S2928G-E	RG-S2952G-E	RG-S2928G-12P	RG-S2928G-24P
Ports	24 10/100/1000 BASE-T ports 4 1G SFP ports (non-combo)	48 10/100/1000 BASE-T ports 4 1G SFP ports (non-combo)	24 10/100/1000 BASE-T ports (PoE+) 4 1G SFP ports (non-combo) Support 12 ports for PoE or 6 ports for PoE+	24 10/100/1000 BASE-T ports (PoE+) 4 1G SFP ports (non-combo) Support 24 ports for PoE or 12 ports for PoE+
Fan Slots	Fanless	Fixed	Fixed	Fixed
Management Ports	1 console port 1 USB 2.0 port			
Switching Capacity	256Gbps			
Packet Forwarding Rate	51Mpps	87Mpps	51Mpps	51Mpps
PoE	N/A	N/A	IEEE802.3af and 802.3at power supply standards; Automatic/energy-saving/ static power supply mode; Hot startup and uninterrupted power supply; Port priority; PoE devices support stacking	IEEE802.3af and 802.3at power supply standards; Automatic/energy-saving/ static power supply mode; Hot startup and uninterrupted power supply; Port priority; PoE devices support stacking
Port Buffer	1.5MB	3MB	1.5MB	1.5MB
ARP Table	Up to 255			
MAC Address	Up to 16K			

Enterprise Switch

Model	RG-S2928G-E	RG-S2952G-E	RG-S2928G-12P	RG-S2928G-24P
Routing Table Size (IPv4/IPv6)	32/16			
ACL Entries	Up to 750	Up to 1,500	Up to 750	Up to 750
VLAN	4K 802.1q VLANs, Port-based VLAN, MAC-based VLAN, Protocol-based VLAN, Private VLAN, Voice VLAN, Guest VLAN, QinQ, IP subnet-based VLAN, GVRP			
QinQ	Basic QinQ, Flexible QinQ			
Link Aggregation	AP, LACP			
Port Mirroring	Many-to-one mirroring, Flow-based mirroring, Over devices mirroring, VLAN-based mirroring, VLAN-filtering mirroring, AP-port mirroring, RSPAN, ERSPAN			
Spanning Tree Protocols	IEEE802.1d STP, IEEE802.1w RSTP, Standard 802.3s MSTP, Port fast, BPDU filter, BPDU guard, TC guard, TC protection, ROOT guard			
DHCP	DHCP client, DHCP snooping, DHCP relay			
Multiple Spanning Tree (MST) Instances	64			
Maximum Aggregation Port (AP)	Up to 32			
L2 Features	MAC, EEE, ARP, VLAN, Basic QinQ, Felix QinQ, Link aggregation, Mirroring, STP, RSTP, MSTP, Broadcast storm control, IGMP v1/v2 snooping, IGMP IVGL, IGMP querier, IGMP filter, IGMP fast leave, MLD snooping, DHCP, Jumbo frame, RLDP, LLDP			
Layer 2 Protocols	IEEE802.3, IEEE802.3u, IEEE802.3z, IEEE802.3x, IEEE802.3ad, IEEE802.1p, IEEE802.1x, IEEE802.3ab, IEEE802.1Q (GVRP), IEEE802.1d, IEEE802.1w, IEEE802.1s			
Layer 3 Features	IPv4 static routing, IPv6 static routing			
Layer 3 Protocols (IPv4)	Static routing			
IPv4 Features	Ping, Traceroute			
IPv6 Features	ICMPv6, IPv6 Ping, IPv6 Tracert, Manually configure local address, Automatically create local address			
Basic IPv6 Protocols	IPv6 addressing, Neighbor Discovery (ND), ICMPv6, IPv6 Ping, and IPv6 Tracert			
IPv6 Routing Protocols	Static routing			
Multicast	IGMP v1/v2 snooping, IGMP filter, IGMP fast leave, IVGL mode			
ACL	Standard/Extended/Expert ACL, Extended MAC ACL, ACL 80, IPv6 ACL			
QoS	802.1p/DSCP/TOS traffic classification; Multiple queue scheduling mechanisms, such as SP, WRR, DRR, SP+WFQ, SP+WRR, SP+DRR; Input port-based speed limit; Port-based traffic recognition; Each port supports 8 queue priorities			
IPv6 ACL	Support			
Reliability	RAS			
EEE Format	Support IEEE 802.3az standard			

Model	RG-S2928G-E	RG-S2952G-E	RG-S2928G-12P	RG-S2928G-24P
Security	Binding of the IP address, MAC address, and port address; Binding of the IPv6, MAC address, and port address; Filter illegal MAC addresses; Port-based and MAC-based 802.1x; MAB; Portal and Portal 2.0 authentication; ARP-check; DA; Restriction on the rate of ARP packets; Gateway anti-ARP spoofing; Broadcast suppression; Hierarchical management by administrators and password protection; RADIUS; SSH and SSH V2.0; BPDU guard; IP source guard; CPP, NFPP; Port protection			
Manageability	SNMPv1 / v2C / v3, CLI (Telnet / Console), RMON (1, 2, 3, 9), SSH, Syslog / Debug, NTP / SNTP, FTP, TFTP, Web			
Smart Temperature Control	Fanless	Auto fan speed adjustment; Fan malfunction alerts; Fan status check	Auto fan speed adjustment; Fan malfunction alerts; Fan status check	Auto fan speed adjustment; Fan malfunction alerts; Fan status check
Smart Power Supply	Support power control and management			
Other Protocols	FTP, TFTP, DNS client, DNS static			
Dimensions (W x D x H) (mm)	440 × 260 × 43.6			
Rack Height	1RU			
Weight	<3.5kg	<4kg	<4.5kg	<4.5kg
MTBF	>200K hours			
Lightning Protection	6KV			
Power Supply	AC input: Rated voltage range: 100V to 240V AC Maximum voltage range: 90V to 264V AC Frequency: 50/60Hz Rated current: 2A	AC input: Rated voltage range: 100V to 240V AC Maximum voltage range: 90V to 264V AC Frequency: 50/60Hz Rated current: 2A	AC input: Rated voltage range: 100V to 240V AC Maximum voltage range: 90V to 264V AC Frequency: 50/60Hz Rated current: 3A	AC input: Rated voltage range: 100V to 240V AC Maximum voltage range: 90V to 264V AC Frequency: 50/60Hz Rated current: 6A
Power Consumption	<27W	<49W	<32.7W Full PoE: <229W	<41W Full PoE: <436W
PoE Power	N/A	N/A	185W	370W
Temperature	Operating temperature: 0°C to 50°C			
	Storage temperature: -40°C to 70°C			
Humidity	Operating humidity: 10% to 90%RH			
	Storage humidity: 5% to 90%RH			
Operating Altitude	-500m to 5,000m			

Ordering Information

Model	Description
RG-S2928G-E	24 10/100/1000BASE-T Ports and 4 1G SFP Ports (non-combo), AC
RG-S2952G-E	48 10/100/1000BASE-T Ports and 4 1G SFP Ports (non-combo), AC
RG-S2928G-12P	24 10/100/1000BASE-T Ports (PoE+), 4 1G SFP Ports (non-combo), support 12 ports for PoE or 6 ports for PoE+
RG-S2928G-24P	24 10/100/1000BASE-T Ports (PoE+), 4 1G SFP Ports (non-combo), support 24 ports for PoE or 12 ports for PoE+
Mini-GBIC-SX	1000BASE-SX, SFP Transceiver, MM (850nm, 550m, LC)
Mini-GBIC-LX	1000BASE-LX, SFP Transceiver, SM (1310nm, 10km, LC)
Mini-GBIC-GT	1000BASE-TX, SFP Transceiver (100m)
Mini-GBIC-LH40	1000BASE-LH, SFP Transceiver, SM (1310nm, 40km, LC)
Mini-GBIC-ZX50	1000BASE-ZX, SFP Transceiver, SM (1550nm, 50km, LC)
Mini-GBIC-ZX80	1000BASE-ZX, SFP Transceiver, SM (1550nm, 80km, LC)
Mini-GBIC-ZX100	1000BASE-ZX, SFP Transceiver, SM (1550nm, 100km, LC)

Enterprise Switch

RG-S2600G-I Switch Series



OVERVIEW

Ruijie RG-S2600G-I Series is a line of multi-service intelligent Ethernet switches that provide high network security in terms of user authentication and access control. Based on the new generation hardware architecture, these switches fully combine the high performance, high security, multi-service, and easy availability required in network development and incorporate IPv6 features to provide users with brand new technical features and solutions.

Enterprise
Switch

KEY FEATURES

- Dynamic Network Protection (CPP and NFPP)
- Advanced QoS Features
- IPv6 Support
- IP Static Routing Support
- 24/48-Port Fast Ethernet Models with up to 2 1000-BaseT and 2 1000-BaseX SFP Uplinks



RG-S2628G-I



RG-S2652G-I

Dynamic Network Protection

The CPP (CPU Protect Policy) is an industry-leading hardware CPU protection technology. The CPP technology automatically differentiates traffic of multi-layer protocol packets such as IPv4/IPv6 destined for the CPU and limits the traffic speed to prevent abnormal packets from attacking the CPU and consuming resources. In this way, it can ensure the stability of CPUs of core devices in IPv4/IPv6 L3 network and L2 network environments. The NFPP (Network Foundation Protection Policy) classifies packets (management, forwarding, and protocol), restricts their rates, and monitors their attacks to support double protection of the CPU and channel bandwidth against attacks. In this manner, the Switches can ensure the normal forwarding of packets and the normal status of protocols, ensuring network stability.

Multilayer Security Features

With a wide range of built-in security mechanisms including static and dynamic port binding, port isolation, ACLs (access control lists), traffic-based bandwidth limitation and multi-element binding of user access control, the RG-S2600G-I switch series can effectively prevent the spreading of virus attacks in the network and control the illegal use of network resources.

High Bandwidth and Scalability

The RG-S2600G-I series can forward packets at line rates of up to 18Mpps. The switches are designed with 2 fixed Gigabit Ethernet copper/fiber ports to meet the network demands.

Advanced QoS Features

The RG-S2600G-I series offers outstanding and flexible multilayer QoS (Quality of Service) with 8 hardware queues to classify and prioritize network traffic, preventing network traffic congestion. To provide ToS (Type of service), it uses DiffServ (Differentiated Services) technology and IEEE 802.2q for CoS (Class of Service). DRR (Deficit Round Robin) scheduling algorithm and SP (Strict Priority) queuing are also supported in these models.

Specifications

Model	RG-S2628G-I	RG-S2652G-I
Ports	24 10/100BASE-T ports 2 1000BASE-T uplink ports 2 1G SFP ports (non-combo)	48 10/100BASE-T ports 2 1000BASE-T uplink ports 2 1G SFP ports (non-combo)
Fan Slots	Fanless	Fanless
Management Ports	1 console port	
Switching Capacity	64Gbps	
Packet Forwarding Rate	14.1Mpps	17.7Mpps
Port Buffer	1MB	2MB
ARP Table	130	
MAC Address	16K	
Routing Table Size (IPv4/IPv6)	32/16	
ACL Entries	500	1000
VLAN	4K 802.1Q VLAN, Port-based VLAN, Protocol Based VLAN, Private VLAN, Share VLAN, Voice VLAN, Guest VLAN, Q-in-Q, GVRP	
QinQ	Basic QinQ	
Link Aggregation	AP, LACP	
Port Mirroring	Many-to-one mirroring, Flow-based mirroring Over Devices Mirroring AP-port Mirroring RSPAN	
Spanning Tree Protocols	IEEE802.1d STP, IEEE802.1w RSTP, standard 802.1s MSTP, Port Fast, BPDU Filter, BPDU Guard, TC Guard, TC Protection, ROOT Guard	
DHCP	DHCP Relay, DHCP Snooping, DHCP Client	
Multiple Spanning Tree (MST) Instances	64	
Maximum Aggregation Port (AP)	120	
VSU (Virtual Switch Unit)	Up to 8 stack members	
L2 Features	MAC ARP VLAN Basic QinQ Link Aggregation Mirroring STP RSTP MSTP Broadcast storm control	

Model	RG-S2628G-I	RG-S2652G-I
L2 Features	MLD Snooping DHCP Jumbo Frame	
Layer 2 Protocols	IEEE802.3, IEEE802.3u, IEEE802.3z, IEEE802.3x, IEEE802.3ad, IEEE802.1p, IEEE802.1x, IEEE802.3ab, IEEE802.1Q, IEEE802.1d, IEEE802.1w, IEEE802.1s, IGMP Snooping v1/v2	
Layer 3 Features	IPv4 static routing, IPv6 static routing	
Layer 3 Protocols (IPv4)	Static routing	
IPv4 Features	IPv4 ACL Ping Traceroute	
IPv6 Features	ICMPv6 IPv6 Ping IPv6 Tracert Manually configure local address Automatically create local address Neighbor discovery 0-64 any length mask	
Basic IPv6 Protocols	IPv6 host management related information	
IPv6 Routing Protocols	Static routing	
Multicast	IGMP Snooping IVGL mode IGMP filter and IGMP fast leave	
ACL	Standard IP ACL (IP-based hardware ACL) Extended IP ACL (Hardware ACL based on the IP address and TCP/UDP port number) MAC extended ACL (Hardware ACL based on the source/destination MAC address and optional Ethernet type, time-based ACL) Expert-level ACL (Hardware ACL based on the flexible combinations of VLAN number, Ethernet type, MAC address, IP address, TCP/UDP port number, protocol type and time)	
QoS	802.1p/DSCP/TOS traffic classification; Multiple queue scheduling mechanisms, such as SP, WRR, DRR, SP+WRR, SP+DRR; RED / WRED; Input / output port-based speed limit; Port-based traffic recognition; Each port supports 8 queue priorities	
IPv6 ACL	Support	
Reliability	VSU (virtualization technology for virtualizing multiple devices into 1) CPP RLDP (Rapid Link Detection Protocol)	
Security	DHCP, ICMP, IP Source Guard, DOS Protection	
Manageability	SNMPv1/v2/v3, CLI (Telnet/Console), RMON (1, 2, 3, 9), SSH, Syslog, NTP/SNTP, Web	
Smart Temperature Control	Fan speed auto-adjustment; Fan malfunction alerts; Fan status check	

Model	RG-S2628G-I	RG-S2652G-I
Smart Power Supply	Power management	
Other Protocols	FTP, TFTP, DNS client, DNS static	
Dimensions (W x D x H) (mm)	440 × 200 × 44	440 × 260 × 44
Rack Height	1RU	
Weight	3.9kg	4.2kg
MTBF	>200K hours	
Power Supply	AC input: Nominal voltage range: 100VAC to 240VAC Maximum voltage range: 90VAC to 264VAC Frequency: 50Hz to 60Hz Rated current: 0.5A HVDC input: Maximum voltage range: 192VDC to 290VDC	AC input: Nominal voltage range: 100VAC to 240VAC Maximum voltage range: 90VAC to 264VAC Frequency: 50Hz to 60Hz Rated current: 0.6A HVDC input: Maximum voltage range: 192VDC to 290VDC Rated current: 0.2-0.12A
Power Consumption	17W	28W
Temperature	Operating temperature: 0°C to 50°C	
	Storage temperature: -20°C to 70°C	
Humidity	Operating humidity: 10% to 90%RH	
	Storage humidity: 5% to 95%RH	
Operating Altitude	-500m to 5,000m	

Ordering Information

Model	Description
RG-S2628G-I	RG-S2628G-I Ethernet Switch, 24 10/100BASE-T Ports, 2 1000BASE-T Ports and 2 1G SFP Ports (non-combo)
RG-S2652G-I	RG-S2652G-I Ethernet Switch, 48 10/100BASE-T Ports, 2 1000BASE-T Ports and 2 1G SFP Ports (non-combo)
Mini-GBIC-SX	1000BASE-SX, SFP Transceiver, MM (850nm, 550m, LC)
Mini-GBIC-LX	1000BASE-LX, SFP Transceiver, SM (1310nm, 10km, LC)
Mini-GBIC-GT	1000BASE-TX, SFP Transceiver (100m)
Mini-GBIC-LH40	1000BASE-LH, SFP Transceiver, SM (1310nm, 40km, LC)
Mini-GBIC-ZX50	1000BASE-ZX, SFP Transceiver, SM (1550nm, 50km, LC)
Mini-GBIC-ZX80	1000BASE-ZX, SFP Transceiver, SM (1550nm, 80km, LC)
Mini-GBIC-ZX100	1000BASE-ZX, SFP Transceiver, SM (1550nm, 100km, LC)

Wireless Access Point

X-Sense AP Series



OVERVIEW

Equipped with Ruijie's patented X-Sense Smart Antenna, the series is a family of wireless access points designed for high-speed wireless LAN. The X-Sense antenna greatly improves the AP coverage performance and ensures an optimal access experience for various smart devices. The Gigabit wireless performance effectively removes network bottlenecks. The APs also feature security, RF (radio frequency) control, mobile access, QoS (Quality of Service), and seamless roaming, and can be managed by Ruijie RG-WS wireless controllers to implement fast wireless data forwarding, comprehensive security and access control.

KEY FEATURES

- Tolly Certified Industry's Fastest 802.11ac Throughput²¹
- IEEE 11ac Wave 2 Ready, up to 2.966Gbps
- Patented "X-Sense" Smart Antenna and X-speed Anti-interference Technology
- Industry's 1st Satellite AP Design with Quad-radio Support for High-density Environments
- Flexible Antenna Design with Omni or Directional Integrated Antenna Options
- Flexible Switching between FAT & FIT Modes
- 200+ Concurrent Users Support



Wireless AP



AP320-I
802.11n
Up to 600Mbps, 2 SS
X-Sense Smart Antenna



AP520(DA)
802.11ac Wave 1
Up to 1.167Gbps, 2 SS
Directional Antenna



AP520-I(G2)
802.11ac Wave 1
Up to 1.167Gbps, 2 SS
Satellite AP Expansion



AP530-I
802.11ac Wave 1
Up to 1.9Gbps, 3 SS
X-Sense Smart Antenna



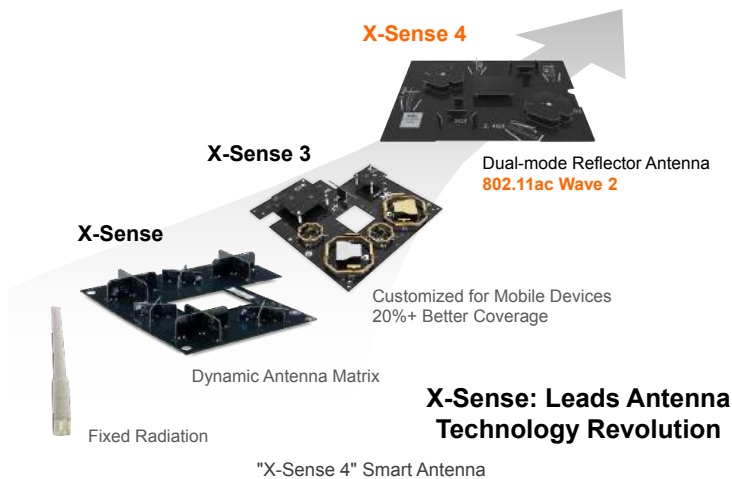
AP740-I
802.11ac Wave 2
Up to 2.966Gbps, 4 SS
"X-Sense 4" Antenna

Note:

²¹ Based on the Tolly Report released in September 2013.

Leading “X-Sense 4” Smart Antenna

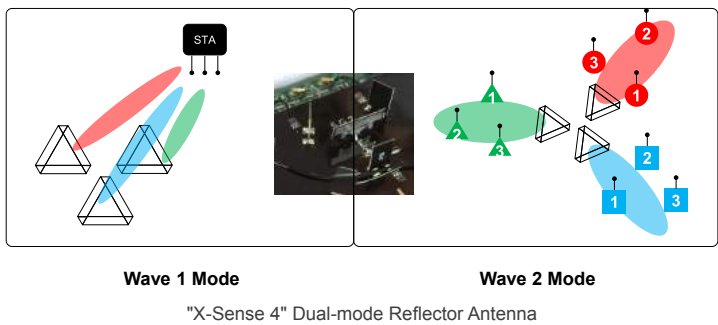
The RG-AP740-I flagship AP implements the latest “X-Sense 4” Dual-mode Reflector Antenna for an unsurpassed 802.11ac Wave 2 experience. The smart antenna supports automatic switching between Wave 1 and Wave 2 modes. The Wave 1 mode guarantees the best signal experience with ease regardless of the end device location. The Wave 2 mode, on the other hand, enables the reflector feature of the antenna. It does not only make channel evaluation and user grouping more efficient, but gives beam formation a boost by proactively controlling the antenna. In addition, the “X-Sense 4” antenna fully supports 802.11ac Wave 2 features including MU-MIMO and HT160 (80+80), redefining the high-speed wireless standard.



802.11ac Wave 2 Flagship AP

The RG-AP740-I AP tops the class by supporting 802.11ac Wave 2. By supporting automatic “X-Sense 4” Dual-mode Reflector Antenna switching, the RG-AP740-I AP offers Wave 1 and Wave 2 devices the best user experience. Under the Wave 1 mode, the AP implements “X-Sense 3” algorithm to achieve signal follow your move. For the Wave 2 mode, the reflector feature of the antenna is enabled to largely improve the isolation level among antennas. Featuring 4 spatial streams and MU-MIMO, the AP implements a leading tri-radio, dual-band design. The two main radios deliver up to 1,733Mbps + 800Mbps and the third offers an access rate at 433Mbps. The whole AP hence speeds up the performance to up to 2.966Gbps. In addition, the AP flexibly supports 2.4G+5G+2.4G or 2.4G+5G+5G working modes and concurrent

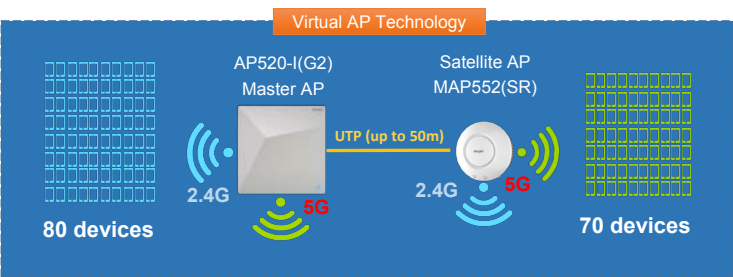
802.11ac wave 2, 802.11ac wave 1 and 802.11n. The RG-AP740-I AP supports local power supply and PoE to take over challenges in a wide variety of deployment scenarios.



Exclusive Satellite AP Expansion

The RG-AP520-I(G2) model delivers unmatched scalability by supporting AP expansion. By gearing up with Satellite AP RG-MAP552(SR), the pair powers a quad-radio, dual-band design and supports up to 300Mbps@2.4GHz (802.11b/g/n) and 867Mbps@5GHz (802.11a/n/ac). The 802.11ac APs together deliver a breakthrough 2.3Gbps performance for indoor wireless scenarios. Onboard with the latest “X-Sense 3” Antenna, the RG-AP520-I(G2) (or referred as Master AP) offers 2 10/100/1000BASE-T uplinks (support PoE and Satellite AP expansion respectively) and 1 USB 2.0 interface (reserved for flexible scalability). The Satellite AP, acting as an expansion accessory for the Master AP, effectively boosts access capacity and requires neither external power supply nor AP license for minimized total cost of ownership. The AP pair offers a one-stop-shop solution for coverage and capacity enhancement.

Wireless AP



Satellite AP can support 70 additional devices
Cost Effective, Zero Interference

RG-AP520-I(G2) Boosts Performance by Satellite AP Expansion

Extensive Area Coverage

The RG-AP520(DA) AP is another featured model in the X-Sense Series. The AP is especially designed to power large area coverage such as convention centers or stadiums with high ceilings. Built-in with directional antenna, the RG-AP520(DA) AP mounted at heights enables wireless coverage for a designated area without weak signal performance or inter-AP interference. Together with the interference optimization by software, the AP further enhances user experience at large-scale deployment sites. The RG-AP520(DA) AP by default comes with a non-adjustable mounting bracket for quick installation and lower deployment costs. The AP supports ceiling, wall or pole mounting. For extra flexibility, an optional adjustable bracket is available for refined horizontal or vertical direction tuning. The adjustable bracket is an accessory sold separately.



Traditional Deployment Solution for High Density, High Ceiling Venues



RG-AP520(DA) Solution

Geared up with the directional antenna, the RG-AP520(DA)AP emits the strongest signal forwards. The signal levels at both sides and the back are much lower. Comparing with the omnidirectional antenna solution, the AP effectively reduces interference with APs installed beside and those opposite. The RG-AP520(DA) is especially suitable for long-distance or fixed site deployment.

Specifications

Model	RG-AP320-I	RG-AP530-I	RG-AP520-I(G2)	RG-AP520(DA)	RG-AP740-I
Radio	Concurrent dual-radio dual-band * RG-AP520-I(G2) supports quad-radio dual-band after Satellite AP expansion * RG-AP740-I supports tri-radio dual-band, 2.4G+5G+2.4G or 2.4G+5G+5G operating modes				
Protocol	802.11a/b/g/n	802.11a/b/g/n/ac	802.11a/b/g/n/ac	802.11a/b/g/n/ac	802.11a/b/g/n, 802.11ac Wave 1, 802.11ac Wave 2
Operating Bands	802.11b/g/n: 2.4GHz to 2.483GHz 802.11a/n: 5.150GHz to 5.350GHz, 5.47GHz to 5.725GHz, 5.725GHz to 5.850GHz (vary depending on countries) * AP320-I supports 802.11a/n only				
Antenna	Built-in X-Sense Smart Antenna array with 16 antennas and 65,536 antenna combinations 2×2 MIMO	Built-in X-Sense Smart Antenna array with 24 antennas and 16.7 million antenna combinations 3×3 MIMO	Built-in "X-Sense 3" Smart Antenna (Up to 12-direction smart antennas with 4,096 antenna combinations) 2.4G: 2×2 MIMO 5G: 2×3 MIMO	Built-in X-Sense Directional Antenna 2×2 MIMO	Built-in "X-Sense 4" Smart Antenna array with 24 antennas and 16.7 million antenna combinations 4×4 SU-MIMO, 4×4 MU-MIMO
Spatial Streams	2	3	2	2	4
Max Throughput	300Mbps per radio 600Mbps per AP	600Mbps @2.4GHz 1300Mbps @5GHz 1.9Gbps per AP	300Mbps @2.4GHz 867Mbps @5GHz 1.167Gbps per AP ≥2.3Gbps after Satellite AP expansion	300Mbps @2.4GHz 867Mbps @5GHz 1.167Gbps per AP	1733Mbps/ 800Mbps/ 433Mbps per radio 2.966Gbps per AP
Modulation	OFDM: BPSK@ 6/9Mbps QPSK@	OFDM: BPSK@ 6/9Mbps QPSK@	OFDM: BPSK@ 6/9Mbps QPSK@	OFDM: BPSK@ 6/9Mbps QPSK@	OFDM: BPSK@ 6/9Mbps QPSK@

Model	RG-AP320-I	RG-AP530-I	RG-AP520-I(G2)	RG-AP520(DA)	RG-AP740-I
Modulation	12/18Mbps 16-QAM@ 24Mbps 64-QAM@ 48/54Mbps DSSS: DBPSK@ 1Mbps DQPSK@ 2Mbps CCK@ 5.5/11Mbps MIMO- OFDM: MCS 0-15	12/18Mbps 16-QAM@ 24Mbps 64-QAM@ 48/54Mbps DSSS: DBPSK@ 1Mbps DQPSK@ 2Mbps CCK@ 5.5/11Mbps MIMO- OFDM: BPSK, QPSK, 16QAM, 64QAM and 256QAM	12/18Mbps 16-QAM@ 24Mbps 64-QAM@ 48/54Mbps DSSS: DBPSK@ 1Mbps DQPSK@ 2Mbps CCK@ 5.5/11Mbps MIMO- OFDM: BPSK, QPSK, 16QAM, 64QAM and 256QAM	12/18Mbps 16-QAM@ 24Mbps 64-QAM@ 48/54Mbps DSSS: DBPSK@ 1Mbps DQPSK@ 2Mbps CCK@ 5.5/11Mbps MIMO- OFDM: BPSK, QPSK, 16QAM, 64QAM and 256QAM	12/18Mbps 16-QAM@ 24Mbps 64-QAM@ 48/54Mbps DSSS: DBPSK@ 1Mbps DQPSK@ 2Mbps CCK@ 5.5/11Mbps MIMO- OFDM: BPSK, QPSK, 16QAM, 64QAM and 256QAM
Receiver Sensitivity	11b: -99dBm (1Mbps), -93dBm (5.5Mbps), -90dBm (11Mbps) 11a/g: -93dBm (6Mbps), -85dBm (24Mbps), -82dBm (36Mbps), -77dBm (54Mbps) 11n: -92dBm @MCS0, -74dBm @MCS7, -92dBm @MCS0, -74dBm @MCS7, -92dBm @MCS8, -73dBm @MCS15 11ac HT20: -88dBm (MCS0), -63dBm (MCS9) 11ac HT40:	11b: -99dBm (1Mbps), -93dBm (5.5Mbps), -90dBm (11Mbps) 11a/g: -93dBm (6Mbps), -85dBm (24Mbps), -82dBm (36Mbps), -77dBm (54Mbps) 11n: -92dBm @MCS0, -74dBm @MCS7, -92dBm @MCS8, -73dBm @MCS15 11ac HT20: -88dBm (MCS0), -63dBm (MCS9) 11ac HT40:	11b: -99dBm (1Mbps), -93dBm (5.5Mbps), -90dBm (11Mbps) 11a/g: -93dBm (6Mbps), -85dBm (24Mbps), -82dBm (36Mbps), -77dBm (54Mbps) 11n: -92dBm @MCS0, -74dBm @MCS7, -92dBm @MCS8, -73dBm @MCS15 11ac HT20: -90dBm (MCS0), -63dBm (MCS9) 11ac HT40:	11b: -99dBm (1Mbps), -93dBm (5.5Mbps), -90dBm (11Mbps) 11a/g: -93dBm (6Mbps), -85dBm (24Mbps), -82dBm (36Mbps), -77dBm (54Mbps) 11n: -92dBm @MCS0, -74dBm @MCS7, -92dBm @MCS8, -73dBm @MCS15 11ac HT20: -90dBm (MCS0), -63dBm (MCS9) 11ac HT40:	11b: -96dBm (1Mbps), -93dBm (5Mbps), -89dBm (11Mbps) 11a/g: -91dBm (6Mbps), -85dBm (24Mbps), -80dBm (36Mbps), -74dBm (54Mbps) 11n: -90dBm @MCS0, -70dBm @MCS7, -89dBm @MCS8, -68dBm @MCS15 11ac HT20: -88dBm (MCS0), -63dBm (MCS9) 11ac HT40:

Model	RG-AP320-I	RG-AP530-I	RG-AP520-I(G2)	RG-AP520(DA)	RG-AP740-I
Receiver Sensitivity		-85dBm (MCS0), -60dBm (MCS9) 11ac HT80: -82dBm (MCS0), -57dBm (MCS9)	-85dBm (MCS0), -60dBm (MCS9) 11ac HT80: -82dBm (MCS0), -58dBm (MCS9)	-85dBm (MCS0), -60dBm (MCS9) 11ac HT80: -82dBm (MCS0), -58dBm (MCS9)	-85dBm (MCS0), -60dBm (MCS9) 11ac HT80: -82dBm (MCS0), -57dBm (MCS9)
Transmit Power	≤100mW (20dBm, transmit power of the RF card only) * RG-AP520-I(G2): 23dBm after Satellite AP expansion				
Adjustable Power	1dBm				
Service Ports	1 10/100/1000 BASE-T Ethernet uplink port (PoE)	2 10/100/1000 BASE-T Ethernet uplink ports (PoE)	RG-AP520-I(G2): 2 10/100/1000 BASE-T Ethernet uplink ports, 1 USB 2.0 port Satellite AP: 1 10/100/1000 BASE-T Ethernet uplink port	2 10/100/1000 BASE-T Ethernet uplink ports (one supports PoE), 1 USB 2.0 port	2 10/100/1000 BASE-T Ethernet uplink ports (PoE), 1 USB 3.0 port
Management Port	1 console port				
Lock	Support				
LED Indicators	1 LED (red, green, blue, orange, and flashing modes, breathing flashing mode for smart device access, and the indicator can be switched off to silent mode)				
IP Rating	IP41				
Safety Standard	GB4943, EN/IEC 60950-1				
EMC Standard	GB9254, EN301 489	GB9254, EN301 489	GB9254, GB17618, EN301 489-1, EN301 489-17, EN55022, EN55024	GB9254, EN301 489	GB9254, EN301 489
Health Standard	EN 62311				
Radio Standard	EN300 328, EN301 893				
Vibration Standard	IEC60068-2-31, ETSI EN300 019, NEBS GR-63-CORE				

Model		RG-AP320-I	RG-AP530-I	RG-AP520-I(G2)	RG-AP520(DA)	RG-AP740-I
Wi-Fi Alliance Certification		Support				
Bluetooth	BT4.0 (BLE)	N/A	N/A	N/A	N/A	Support
	iBeacon	N/A	N/A	N/A	N/A	Support
	WeChat shake	N/A	N/A	N/A	N/A	Support
WLAN	Maximum clients per AP	Up to 256 * RG-AP520-I(G2) supports up to 384 after Satellite AP expansion * RG-AP740-I supports up to 512				
	SSID capacity	Up to 16 per radio Up to 32 per AP * RG-AP520-I(G2) supports up to 8 per radio/16 per AP pair after Satellite AP expansion * RG-AP740-I supports up to 48 per AP				
	SSID hiding	Support				
	Configuring the authentication mode, encryption mechanism, and VLAN attributes for each SSID	Support				
	WDS (bridge mode)	Support				
	Remote Intelligent Perception Technology (RIPT)	Support				
	X-speed	Support				
	Intelligent identification of smart device	Support				
	Intelligent load balancing based on the number of users or traffic	Support				
	STA control	SSID/radio-based				

Model		RG-AP320-I	RG-AP530-I	RG-AP520-I(G2)	RG-AP520(DA)	RG-AP740-I
WLAN	Bandwidth control	STA/SSID/AP-based speed control				
	Preference for 5 GHz (band select)	Support				
	Dynamic Frequency Selection (DFS)	Support * All models support except RG-AP320-I				
Security	PSK, Web, and 802.1x authentication	Support				
	Data encryption	WPA(TKIP), WPA2 (AES), WPA-PSK, and WEP (64 or 128 bits)				
	WeChat authentication	Support				
	QR code authentication	Support				
	SMS authentication	Support				
	PEAP authentication	Support				
	Data frame filtering	Whitelist, static/dynamic blacklist				
	User isolation	Support				
	Rogue AP detection and counter-measure	Support				
	Dynamic ACL assignment	Support				
	WAPI	Support * RG-AP740-I: future release support				
	RADIUS	Support				
	CPU Protection Policy (CPP)	Support				
	Network Foundation Protection Policy (NFPP)	Support				

Model		RG-AP320-I	RG-AP530-I	RG-AP520-I(G2)	RG-AP520(DA)	RG-AP740-I
Security	Wireless Intrusion Detection System (WIDS)	Support				
	Remote probe	Future release support				
Wi-Fi Probe	Wi-Fi Probe	Support				
L2 Features	IGMP snooping	Support				
	VLAN features	Support				
Routing	IPv4 address	Static IP address or DHCP reservation				
	IPv6 CAPWAP tunnel	Support				
	ICMPv6	Support				
	IPv6 address	Manual or automatic configuration				
	IPv6 tunnel	Manual or automatic configuration				
	IPv6 transparent transmission	Support				
	ISATAP	Support * All models support except RG-AP740-I				
	Multicast	Multicast to unicast conversion				
Location-based Service	Wireless location tracking	Support				
Management and Maintenance	Network management	SNMP v1/v2C/v3, Telnet, SSH, TFTP, and FTP and Web management				
	Visualized wireless heat map analysis	Support				
	Real-time spectrum analysis	Future release support	N/A	Support	Support	Support
	Fault detection and alarm	Support				

Model		RG-AP320-I	RG-AP530-I	RG-AP520-I(G2)	RG-AP520(DA)	RG-AP740-I
Management and Maintenance	One-click collection of device operating status	Support				
	Cloud AC management	Support				
	Statistics and logs	Support				
	FAT/FIT switching	The AP working in FIT mode can switch to the FAT mode through the RG-WS wireless AC. The AP working in FAT mode can switch to the FIT mode through a local console port or Telnet.				
Dimensions (W x D x H) (mm) (Height of AP only, excluding case and mount kit)		205 × 205 × 42	220 × 220 × 42	RG-AP520-I(G2): 205 × 205 × 42 Satellite AP: ø138 × 35 (diameter × height)	205 × 205 × 42	230 × 230 × 42
Weight		0.7kg	1.5kg	0.8kg (1.2kg after Satellite AP expansion)	0.7kg	1.0kg
Installation Mode		Ceiling/wall-mountable * RG520(DA) also supports rod installation (adjustable bracket sold separately)				
Power Supply		Local power supply and PoE (802.3af)	Local power supply and PoE+ (802.3at)	RG-AP520-I(G2): Local power supply (DC 48V) and PoE (802.3af) Satellite AP: PoE 24V	Local power supply (DC 48V) and PoE (802.3af)	Local power supply (DC 48V) and PoE+ (802.3af/802.3at) Support dual PoE for power backup
Power Consumption		10.5W	<20W	<12.95W (<20.95W after Satellite AP expansion)	<12.95W	<25.4W
Temperature		Operating Temperature: -10°C to 45°C				
		Storage Temperature: -40°C to 70°C				
Humidity		Operating Humidity: 5% to 95% (non-condensing)				
		Storage Humidity: 5% to 95% (non-condensing)				

Ordering Information

Model	Description
RG-AP320-I	Indoor Wireless Access Point, built-in X-Sense Smart Antenna, dual-radio, dual-band, 2 spatial streams, access rate up to 600Mbps per AP, support concurrent 802.11a/n and 802.11b/g/n, FAT/FIT modes, 1 10/100/1000BASE-T uplink port, support PoE and local power supply (PoE and local power adapters sold separately)
RG-AP530-I	Indoor Wireless Access Point, built-in X-Sense Smart Antenna, dual-radio, dual-band, 3 spatial streams, access rate up to 1.9Gbps per AP, support concurrent 802.11ac and 802.11a/b/g/n, FAT/FIT modes, 2 10/100/1000BASE-T uplink ports, support PoE+ and local power supply (PoE+ and local power adapters sold separately)
RG-AP520-I(G2)	Indoor Wireless Access Point, built-in "X-Sense 3" Smart Antenna, dual-radio, dual-band, 2 spatial streams, up to 1.167Gbps per AP, support concurrent 802.11a/n/ac and 802.11b/g/n, FAT/FIT modes, 2 10/100/1000BASE-T uplink ports, 1 USB 2.0 port, support PoE and local power supply (PoE and local power adapters sold separately) * Support quad-radio, dual-band expansion with Satellite AP RG-MAP552(SR), up to 2.3Gbps per AP pair, please refer to Ruijie RG-AP520-I(SR) Satellite AP Solution datasheet for more details
RG-AP520(DA)	Indoor Wireless Access Point, built-in X-Sense Directional Antenna, dual-radio, dual-band, 2 spatial streams, up to 1.167Gbps per AP, support concurrent 802.11a/n/ac and 802.11b/g/n, FAT/FIT modes, 2 10/100/1000BASE-T uplink ports, 1 USB 2.0 port, support PoE and local power supply, non-adjustable mounting bracket included by default (Adjustable bracket, PoE and local power adapters sold separately)
RG-AP740-I	Indoor Wireless Access Point, built-in "X-Sense 4" Smart Antenna, tri-radio, dual-band, 4 spatial streams, access rate up to 2.966Gbps per AP, support concurrent 802.11ac and 802.11a/b/g/n, FAT/FIT modes, 2 10/100/1000BASE-T uplink ports, support PoE+ and local power supply (PoE+ and local power adapters sold separately)
Optional Accessories	
RG-MAP552(SR)	Satellite AP for RG-AP520-I(G2), dual-band, dual-stream, up to 1.167Gbps per AP, support concurrent 802.11ac and 802.11a/b/g/n, connect to RG-AP520-I(G2) via a 10/100/1000BASE-T uplink port for advanced functions such as dead zone compensation, position tracking and spectrum probe
RG-AP520(DA)-bracket	Adjustable Mounting Bracket for RG-AP520(DA) AP, support direction adjustment (horizontal 60°, vertical 90°) for ceiling, wall or pole mounting
Optional Solution Components	
RG-SMP Security Management Platform	
RG-SMP-Pro-EN	RG-SMP 2.X professional edition, supports RADIUS identity authentication, including BYOD and NAC features Software requirements for SMP: • Windows Server 2003 or above • SQL Server 2000 or above

Model	Description
RG-SMP-Pro-EN-License-50	Concurrent User License for RG-SMP 2.X professional edition, includes permission for 50 concurrent users
RG-SNC Smart Network Commander	
RG-SNC-Pro-Base-EN	Basic Component of Smart Network Commander
RG-SNC-Pro-Topo-EN	Topology Management Component of Smart Network Commander
RG-SNC-Pro-WLAN-EN	WLAN Component of Smart Network Commander
RG-SNC-Pro-EN-License-15	SNC License for 15 Nodes
RG-SNC-Pro-EN-License -25	SNC License for 25 Nodes
RG-SNC-Pro-EN-License-50	SNC License for 50 Nodes
RG-SNC-Pro-EN-License-100	SNC License for 100 Nodes
RG-SNC-Pro-EN-License-200	SNC License for 200 Nodes
RG-SNC-Pro-EN-License-500	SNC License for 500 Nodes
RG-SNC-Pro-EN-License-1000	SNC License for 1000 Nodes
RG-SNC-WLAN	Wireless Management Component of Smart Network Commander. Work with Base and Topo components. Node not included
RG-SNC-WLAN-License-50	SNC-WLAN License for 50 FIT APs
RG-SNC-WLAN-License-100	SNC-WLAN License for 100 FIT APs
RG-SNC-WLAN-License-200	SNC-WLAN License for 200 FIT APs
RG-SNC-WLAN-License-500	SNC-WLAN License for 500 FIT APs
RG-SNC-WLAN-License-1000	SNC-WLAN License for 1000 FIT APs
RG-SNC-WLAN-License-2000	SNC-WLAN License for 2000 FIT APs
RG-SNC-WLAN-License-5000	SNC-WLAN License for 5000 FIT APs

Wireless Access Point

i-Share+ AP Series



OVERVIEW

Ruijie i-Share+ solution deploys a marketing-leading distributive design and exclusive Gigabit architecture to handle high-density and complex application scenarios with ease. The hierarchical structure consists of three main components - i-Share+ Master AP, Mini AP module and 100-meter Ethernet Cable. The Master AP RG-AM5528 guarantees each room with independent MIMO signal, and supports up to 24 rooms with optimal dual-stream coverage under dual-band 2.4GHz/5GHz. The i-Share+ AP series offers a wireless solution that embodies high performance, exceptional coverage with an aesthetically pleasing appearance.

KEY FEATURES

- Extensible Coverage: Up to 24-Room Full Wi-Fi Coverage
- Flexible Deployment: 2 Mini AP Options for Wall-Mount or Faceplate Installation
- Scalable Performance: Concurrent Dual-Band (IEEE 802.11ac/an/bgn) and Throughput Up to 1167Mbps
- Simplified Management: Plug-and-Play Design (Mini AP)
- Investment Saving: No Extra PoE Switch, Reuse Existing Cables, Less AP License



i-Share+ Master AP RG-AM5528



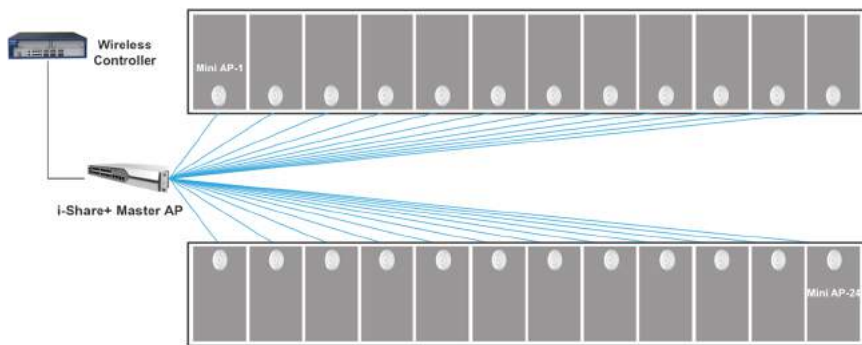
i-Share+ Mini AP
RG-MAP552



i-Share+ Mini AP
RG-MAP552-W

Full Coverage for Up to 24 Rooms

The Master AP RG-AM5528 implements 802.11ac and supports concurrent 802.11a/n/ac and 802.11b/g/n. The AP adopts a 19-inch rack design for standard deployment in low voltage room or flexible installation on small rack in corridor. The Master AP offers 24-ports RJ45 downlink to connect to i-Share+ Mini APs, which are available in various forms for intelligent and painless deployment in student dormitory, hotel room, enterprise office and other populated network settings.



100-Meter Cable for Flexible Deployment

For traditional AP installation/i-Share solution, coaxial cables are usually deployed. To achieve dual-stream MIMO, the conventional solution is to implement dual coaxial cables. In order to reduce signal attenuation and increase deployment distance, the solution sometimes require even thicker cables. However, the downside is increased investment cost and deployment complexity. The new i-Share+ solution, built on the firm foundation of the preceding third-generation structure, further optimizes the architecture by directly using CAT 5 or 6 cables for 100-meter deployment. It does not only support the lossless requirements for hundred meter deployment, but also meets the cabling standard. The solution offers unparalleled ease and flexibility for all the deployment stages.

Easy Deployment & Maintenance

The i-Share+ Mini APs offers an impressive dual-band dual-stream 802.11ac performance of 300Mbps+867Mbps. Two models are available to adapt to various challenging scenarios:

- RG-MAP552 enables ceiling or wall mount deployment. The compact AP is an ideal match for large-scale scenarios requiring new cabling.
- RG-MAP552-W resembles a wall AP and supports plug-and-play installation leveraging an existing 86-type faceplate. No additional cabling is required. In addition, the Mini AP offers an anti-theft design and a passthrough port to support renovation work with multiple sharing networks.

Specifications

i-Share+ Master AP

Model		RG-AM5528
Service Ports		24-port 10/100/1000BASE-T (PoE), 2-port 1000BASE-T and 2-port 1G/10GBASE-X SFP+ uplinks
Management Port		1 console port (RJ45)
LED Indicators		3 status indicators (device, Ethernet and power)
IP Rating		IP41
Health Standard		EN 62311
WLAN	Maximum clients per AP	Up to 1,024
	SSID capacity	Up to 64
	SSID hiding	Support
	Configuring the authentication mode, encryption mechanism, and VLAN attributes for each SSID	Support
	WDS (bridge mode)	Support
	Remote Intelligent Perception Technology (RIPT)	Support
	X-speed	Support
	Intelligent identification of smart device	Support
	Intelligent load balancing based on the number of users or traffic	Support
	STA control	SSID/radio-based
	Bandwidth control	STA/SSID/AP-based speed control
Security	PSK, Web, and 802.1x authentication	Support

Model		RG-AM5528
Security	Data encryption	WPA (TKIP), WPA2 (AES), WPA-PSK and WEP (64 or 128 bits)
	WeChat authentication	Support
	QR code authentication	Support
	SMS authentication	Support
	PEAP authentication	Support
	Data frame filtering	Whitelist, static/dynamic blacklist
	User isolation	Support
	Rogue AP detection and countermeasure	Support
	Dynamic ACL assignment	Support
	RADIUS	Support
	CPU Protection Policy (CPP)	Support
	Network Foundation Protection Policy (NFPP)	Support
	Wireless Intrusion Detection System (WIDS)	Support
L2 Features	IGMP snooping	Support
	VLAN features	Support
Routing	IPv4 address	Static IP address or DHCP reservation
	IPv6 CAPWAP tunnel	Support
	ICMPv6	Support
	IPv6 address	Manual or automatic configuration
	IPv6 tunnel	Manual or automatic configuration
	IPv6 transparent transmission	Support
	ISATAP	Support
	Multicast	Multicast to unicast conversion
Management and Maintenance	Network management	SNMP v1/v2C/v3, Telnet, SSH, TFTP, and FTP and Web management
	Fault detection and alarm	Support
	Statistics and logs	Support
Dimensions (W x D x H) (mm)		440 × 260 × 43.6
Weight		<3.5kg
Installation Mode		Low voltage room/cabinet installation
Power Supply		AC input: Rated voltage range: 100V-240V Maximum voltage range: 90V~264V Frequency: 50-60Hz

Model	RG-AM5528
Power Consumption	240W
Temperature	Operating Temperature: 0°C to 50°C
	Storage Temperature: -40°C to 70°C
Humidity	Operating Humidity: 5% to 95%RH (non-condensing)
	Storage Humidity: 5% to 95%RH (non-condensing)

i-Share+ Mini APs

Model	RG-MAP552	RG-MAP552-W
Radio	Concurrent dual-radio dual-band	
Protocol	802.11a/b/g/n/ac	
Operating Bands	2.4GHz and 5GHz	
Antenna	Built-in directional antenna (5G) Built-in antenna (2.4G)	Built-in antenna
Spatial Streams	2	
Max Throughput	300Mbps@2.4GHz 867Mbps@5GHz 1.167Gbps per AP	
Modulation	OFDM: BPSK@6/9Mbps QPSK@12/18Mbps 16-QAM@24Mbps 64-QAM@48/54Mbps DSSS: DBPSK@1Mbps DQPSK@2Mbps CCK@5.5/11Mbps MIMO-OFDM: BPSK, QPSK, 16QAM, 64QAM and 256QAM	
Receiver Sensitivity	11b: -99dBm(1Mbps), -90dBm(5Mbps), -87dBm(11Mbps) 11a: -92dBm(6Mbps), -87dBm(24Mbps), -84dBm(36Mbps), -75dBm(54Mbps) 11g: -93dBm(6Mbps), -88dBm(24Mbps), -86dBm(36Mbps), -78dBm(54Mbps) 11ng: -94Bm@MCS0, -74dBm@MCS7, -93dBm@MCS8, -73dBm@MCS15 11na: -94dBm@MCS0, -72dBm@MCS7, -93dBm@MCS8, -72dBm@MCS15 11ac HT20: -90dBm (MCS0) , -63dBm (MCS9) 11ac HT40: -85dBm (MCS0) , -60dBm (MCS9) 11ac HT80: -82dBm (MCS0) , -58dBm (MCS9)	
Transmit Power	≤100mW (20dBm, transmit power of the RF card only)	

Model		RG-MAP552	RG-MAP552-W
Adjustable Power		1dBm	
Service Ports		1-port 10/100/1000BASE-T uplink (PoE), 2 FE LAN ports	1-port 10/100/1000BASE-T uplink (PoE), 4 FE LAN ports, 1 DC port 1 RJ45 voice/PoE passthrough port (RJ11 combo)
Management Port		N/A	1 Micro USB port
Lock		Standard: Anti-theft screws and ordinary screws Optional: Lock and key	
LED Indicators		1 connection status indicator (switch off upon request)	
IP Rating		IP41	
Safety Standard		GB4943-2001	
EMC Standard		GB9254-2008, GB17625.1-2003	
Health Standard		EN 62311	
Radio Standard		EN300 328, EN301 893	
Vibration Standard		IEC60068-2-31 ETSI EN300 019 NEBS GR-63-CORE	
Wi-Fi Alliance Certification		Support	
WLAN	Maximum clients per AP	Up to 128	
	SSID capacity	Up to 8 per radio Up to 16 per AP	
	SSID hiding	Support	
	Configuring the authentication mode, encryption mechanism, and VLAN attributes for each SSID	Support	
	WDS (bridge mode)	Support	
	Remote Intelligent Perception Technology (RIPT)	Support	
	X-speed	Support	
	Intelligent identification of smart device	Support	
	Intelligent load balancing based on the number of users or traffic	Support	
	STA control	SSID/radio-based	
	Bandwidth control	STA/SSID/AP-based speed control	

Model		RG-MAP552	RG-MAP552-W
WLAN	Preference for 5 GHz (band select)	Support	
	Wireless location	Support	
Security	PSK, Web, and 802.1x authentication	Support	
	Data encryption	WPA (TKIP) , WPA2 (AES) , WPA-PSK, and WEP (64 or 128 bits)	
	WeChat authentication	Support	
	QR code authentication	Support	
	SMS authentication	Support	
	PEAP authentication	Support	
	Data frame filtering	Whitelist, static/dynamic blacklist	
	User isolation	Support	
	Rogue AP detection and countermeasure	Support	
	Dynamic ACL assignment	Support	
	WAPI	Support	
	RADIUS	Support	
	CPU Protection Policy (CPP)	Support	
	Network Foundation Protection Policy (NFPP)	Support	
	Wireless Intrusion Detection System (WIDS)	Support	
L2 Features	IGMP snooping	Support	
	VLAN features	Support	
Routing	IPv4 address	Static IP address or DHCP reservation	
	IPv6 CAPWAP tunnel	Support	
	ICMPv6	Support	
	IPv6 address	Manual or automatic configuration	
	IPv6 tunnel	Manual or automatic configuration	
	IPv6 transparent transmission	Support	
	ISATAP	Support	
	Multicast	Multicast to unicast conversion	
Management and Maintenance	Network management	SNMP v1/v2C/v3, Telnet, SSH, TFTP, and FTP and Web management	
	Visualized wireless heat map analysis	Support	
	Fault detection and alarm	Support	
	Statistics and logs	Support	

Model	RG-MAP552	RG-MAP552-W
Dimensions (W x D x H) (mm)	ø138 × 35 (diameter × height) (Height of AP only, excluding mount kit)	116 × 86 × 39
Weight	0.385kg	0.3kg
Installation Mode	Wall/ceiling mountable	Standard 86-type faceplate installation
Power Supply	Via PoE	
Power Consumption	<7w	
Temperature	Operating Temperature: 0°C to 50°C	
	Storage Temperature: -40°C to 70°C	
Humidity	Operating Humidity: 5% to 95%RH (non-condensing)	
	Storage Humidity: 5% to 95%RH (non-condensing)	

Ordering Information

Model	Description
RG-AM5528	i-Share+ Master AP, built-in 24 1000BASE-T Ports (PoE), 2 1000BASE-T Ports and 2 1G/10GBASE-X SFP+ Uplink Ports, support max 24 Mini APs (Each Master AP counts for 4 managed AP licenses)
RG-MAP552	i-Share+ Mini AP, 1 10/100/1000BASE-T Uplink Port (PoE) and 2 FE LAN Ports, internal antenna, support concurrent 802.11b/g/n and 802.11a/n/ac, access rate up to 300Mbps + 867Mbps, for wall/ceiling mount installation
RG-MAP552-W	i-Share+ Mini AP, 1 10/100/1000BASE-T Uplink Port (PoE) and 4 FE LAN Ports, internal antenna, support concurrent 802.11b/g/n and 802.11a/n/ac, access rate up to 300Mbps + 867Mbps, for standard 86-type faceplate installation

Wireless Access Point

Wall AP Series



OVERVIEW

Ruijie Wall AP Series is designed for high-speed wireless LAN. The RG-AP130-W model adopts 802.11ac standards and supports both FAT and FIT AP modes, which is ideal for dense wireless deployment in hotels, office towers, residential buildings and settings alike. The wall-mountable APs have the same size as a standard 86-type faceplate with integrated Ethernet and voice ports.

KEY FEATURES

- Fast and Easy WiFi Deployment
- Reuse Existing Cabling Structure for Investment Protection
- Standard 86-type Faceplate Design
- Replaceable Plate Cover (4 Color Options)
- Certified 802.11ac/a/b/g/n WiFi Standards



RG-AP120-W



RG-AP130-W

Easy and Cost-Saving WiFi Deployment

Both the RG-AP120-W and RG-AP130-W Wall APs adopt wall-mountable design with 2-step easy deployment:

Step 1: Remove the original wired interface panel from the wall

Step 2: Directly install the plug-and-play Wall AP and connect with original UTP cable (PoE)

The Wall APs deliver quick and cost-efficient wireless deployment, using the existing network cables with zero disruption to the interior finishes. The Wall APs resemble a standard 86-type faceplate with integrated Ethernet and voice ports.

High-Speed Wireless Network with Full Coverage

The RG-AP120-W Wall AP delivers data rates of up to 300Mbps per AP and adopts 802.11a/b/g/n standards. With the Ethernet and voice ports, the Wall AP provides users with comprehensive network services. The RG-AP130-W Wall AP adopts a dual-radio, dual-band design and supports concurrent operation of 802.11a/n/ac and 802.11b/g/n. The Wall AP provides 4 1000Mbps RJ-45 ports and 1 RJ-45 transparent Voice/PoE passthrough port (RJ-11 combo). The AP on the rear also offers 1 1000Mbps uplink port and 1 RJ-45 transparent passthrough port (RJ-11 combo). The dual-band 2.4G and 5G coverage can deliver data rates of up to 300Mbps in 802.11n and 866Mbps in 802.11ac, providing an unparalleled network experience.

Integration of FAT and FIT AP Modes and Centralized Management

The Wall APs support both FAT and FIT AP modes, which can be flexibly selected as desired. The Wall APs allow easy upgrade of WLAN to a large-scale network, fully protecting users' investment costs. The Wall APs achieve what current hospitality solutions struggle to meet. With Ruijie's ACs (Wireless Access Controllers), network administrators can thereby perform centralized management and painless troubleshooting. Compared with traditional SOHO APs, the Ruijie Wall APs greatly facilitate O&M personnel to manage the whole wireless network.

Comprehensive Security Protection

Working with Ruijie's integrated network management system RG-SNC (Smart Network Commander) and RG-WS Wireless Access Controller Series, the Wall APs deliver powerful security highlights including WIDS (Wireless Intrusion Detection System), RF interference location, rogue AP countermeasures,

anti-ARP spoofing, and DHCP. The Wall AP supports a broad library of user authentication methods such as Web, 802.1x, MAC address, and local authentication for customers' choice. It also supports Ruijie's end-to-end BYOD (Bring Your Own Device) Solution, complies with a standard access control system, and strictly defines access control policies in terms of user access, authorization, host compliance check, network behavior monitoring, and network attack defense. All these control measures ensure that users are authenticated before accessing a network and securely enjoy network services.

Specifications

Model	RG-AP120-W	RG-AP130-W
Radio	Dual-band single-radio	Concurrent dual-band dual-radio
Protocol	802.11a/b/g/n	802.11a/b/g/n/ac
Operating Bands	2.4GHz and 5GHz	
Antenna	Built-in antenna	
Spatial Streams	2	
Max Throughput	300Mbps per AP	300Mbps@2.4GHz 867Mbps@5GHz 1.167Gbps per AP
Modulation	OFDM: BPSK@6/9Mbps QPSK@12/18Mbps 16-QAM@24Mbps 64-QAM@48/54Mbps DSSS: DBPSK@1Mbps DQPSK@2Mbps CCK@5.5/11Mbps MIMO-OFDM: MCS 0-15	OFDM: BPSK@6/9Mbps QPSK@12/18Mbps 16-QAM@24Mbps 64-QAM@48/54Mbps DSSS: DBPSK@1Mbps DQPSK@2Mbps CCK@5.5/11Mbps MIMO-OFDM: BPSK, QPSK, 16QAM, 64QAM and 256QAM
Receiver Sensitivity	11b: -95dBm(1Mbps), -91dBm(5.5Mbps), -89dBm(11Mbps) 11b:-95dBm(1Mbps), -91dBm(5.5Mbps), -89dBm(11Mbps) 11n:-90dBm@MCS0, -70dBm@MCS7, -88dBm@ MCS8, -69dBm@MCS15	11b: -95dBm(1Mbps), -91dBm(5.5Mbps), -89dBm(11Mbps) 11b:-95dBm(1Mbps), -91dBm(5.5Mbps), -89dBm(11Mbps) 11n:-90dBm@MCS0, -70dBm@MCS7, -88dBm@ MCS8, -69dBm@ MCS15 11ac HT20: -88dBm (MCS0), -63dBm (MCS9) 11ac HT40: -85dBm(MCS0) , -60dBm (MCS9) 11ac HT80: -82dBm(MCS0) , -57dBm (MCS9)

Model		RG-AP120-W	RG-AP130-W
Transmit Power		≤100mW (20dBm, transmit power of the RF card only)	
Adjustable Power		1dBm	
Service Ports		Front: 4 10/100BASE-T Ethernet ports 1 RJ-11 port (combo) Rear: 1 10/100BASE-T Ethernet uplink port 1 punch down connector	Front: 4 10/100/1000M Ethernet ports Side: 1 USB port 1 DC port 1 RJ-45 port (RJ-11 combo) Rear: 1 10/100/1000M uplink port 1 RJ-45 port (RJ-11 combo)
Management Port		N/A	1 console port (Micro USB)
Lock		N/A	Standard: Anti-theft screws and ordinary screws Optional: Lock and key
Color Plate Cover Options		White, black, silver and gold	
LED Indicators		1 LED status indicator	
IP Rating		IP41	
Safety Standard		GB4943, EN/IEC 60950-1	
EMC Standard		GB9254, EN301 489	
Health Standard		EN 62311	
Radio Standard		EN300 328, EN301 893	
Vibration Standard		IEC60068-2-31 ETSI EN300 019 NEBS GR-63-CORE	
RF Standard		Wireless transmission equipment approval, EN300 328, EN301 893	
Wi-Fi Alliance Certification		Support	
WLAN	Maximum number of clients per AP	Up to 32	Up to 64
	SSID capacity	Up to 8 per AP	Up to 8 per radio Up to 16 per AP
	SSID hiding	Support	
	Configuring the authentication mode, encryption mechanism, and VLAN attributes for each SSID	Support	
	WDS (bridge mode)	Support	
	Remote Intelligent Perception Technology (RIPT)	Support	

Model		RG-AP120-W	RG-AP130-W
WLAN	X-speed	Support	
	Intelligent identification of smart device	Support	
	Intelligent load balancing based on the number of users or traffic	Support	
	STA control	SSID/radio-based	
	Bandwidth control	STA/SSID/AP-based speed control	
	Preference for 5 GHz (band select)	Support	
	Dynamic Frequency Selection (DFS)	N/A	Support
Security	PSK, Web, and 802.1x authentication	Support	
	Data encryption	WPA (TKIP), WPA2 (AES), WPA-PSK and WEP (64 or 128 bits)	
	WeChat authentication	Support	
	QR code authentication	Support	
	SMS authentication	Support	
	PEAP authentication	Support	
	Data frame filtering	Whitelist, static/dynamic blacklist	
	User isolation	Support	
	Rogue AP detection and countermeasure	Support	
	Dynamic ACL assignment	Support	
	WAPI	Support	
	RADIUS	Support	
	CPU Protection Policy (CPP)	Support	
	Network Foundation Protection Policy (NFPP)	Support	
	Wireless Intrusion Detection System (WIDS)	Support	
	Remote probe	Future release support	

Model		RG-AP120-W	RG-AP130-W
L2 Features	IGMP snooping	Support	
	VLAN features	Support	
Routing	IPv4 address	Static IP address or DHCP reservation	
	IPv6 CAPWAP Tunnel	Support	
	IPv6 transparent transmission	Support	
	Multicast	Multicast to unicast conversion	
Location-based Service	Wireless position tracking	Support	
Management and Maintenance	Network management	SNMP v1/v2C/v3, Telnet, SSH, TFTP, and FTP and Web management	
	Visualized wireless heat map analysis	Support	
	Real-time spectrum analysis	Support	
	Fault detection and alarm	Support	
	Statistics and logs	Support	
	FAT/FIT switching	The AP working in FIT mode can switch to the FAT mode through the RG-WS wireless AC. The AP working in FAT mode can switch to the FIT mode through a local console port or Telnet.	
Dimensions (W x D x H) (mm)		86 × 86 × 39	116 × 86 × 39
Weight		0.14kg	0.23kg
Installation Mode		Standard 86-type faceplate installation	
Power Supply		802.3af PoE	
Power Consumption		<6W	<8W
Temperature		Operating Temperature: -10°C to 45°C	
		Storage Temperature: -40°C to 70°C	
Humidity		Operating Humidity: 10% to 95% (non-condensing)	
		Storage Humidity: 5% to 95% (non-condensing)	

Ordering Information

Model	Description
RG-AP120-W	Wall Plate Wireless AP, standard size of 86-type faceplate, integrated antenna, concurrent 802.11a/n and 802.11b/g/n, 2 spatial streams, 4 color plate cover options (white by default), FAT/FIT modes, support PoE (PoE adapter sold separately)
RG-AP130-W	Wall-mounted Wireless AP, standard size of 86-type faceplate, integrated antenna, concurrent 802.11a/n/ac and 802.11b/g/n, 2 spatial streams, 4 color plate cover options (white by default), FAT/FIT mode, support PoE power supply (PoE adapter sold separately)
RG-AP130-W (Black Cover)	RG-AP130-W black color plate, interchangeable with the default white color plate (Minimum order quantity: 500 units)
RG-AP130-W (Gold Cover)	RG-AP130-W gold color plate, interchangeable with the default white color plate (Minimum order quantity: 500 units)
RG-AP130-W (Silver Cover)	RG-AP130-W silver color plate, interchangeable with the default white color plate (Minimum order quantity: 500 units)
RG-AP130-W (Base)	RG-AP130-W white plastic mounting bracket (wall or desk mounting)
RG-AP130-W (Security Pack)	RG-AP130-W security pack with 1 master security key and 50 antitheft security lock bar

Wireless Access Point

Outdoor AP Series



OVERVIEW

Ruijie RG-AP630 Series is a family of top-class 802.11ac wireless access points for next-gen outdoor network applications, offering access rates of up to 1.75Gbps. The series consists of two models - RG-AP630(IDA) and RG-AP630(IODA) - and takes full care of security, RF control, mobile access, QoS, seamless roaming and other Wi-Fi aspects. The RG-AP630(IDA) is built-in with directional antenna while the RG-AP630(IODA) offers internal omnidirectional antenna. An extensive collection of external antennas is also available to overcome various deployment challenges. Both AP models support automatic switching between the external and internal antennas.

KEY FEATURES

- 802.11ac Superior Wireless Performance
- Built-in X-Sense Smart Antenna & Lightning Arrester
- Outstanding Environmental Adaptability (IP67, -40°C to 65°C)
- Unique PoE OUT Design



RG-AP630(IDA)/(IODA)

802.11ac Superior Wireless Performance

The RG-AP630 AP supports 802.11n@2.4GHz and 802.11ac@5GHz protocols and offers maximum access rates of up to 1.75Gbps. The superior wireless performance greatly optimizes users' wireless experience, increases the number of concurrent users as well as signal coverage.

High-performance Built-in X-Sense Smart Antenna

Two AP models are available for extra flexibility - the RG-AP630(IDA) is built-in with directional antenna while the RG-AP630(IODA) offers internal omnidirectional antenna. Both built-in antennas achieve real-time antenna beam switching, offering the best wireless experience according to the location of access devices. The APs also support switching of internal/external antennas to flexibly adapt to any deployment scenarios.

Designed Rugged to Meet Environmental Challenges

The RG-AP630 AP does not only offer a simple and stylish design, but also an IP67-rated enclosure that is waterproof, dustproof, moisture-proof and flame retardant to deliver the best performance in harsh environments such as wind erosion, rain and high humidity. In addition, the outstanding environmental adaptability greatly lengthens the lifetime of the equipment and effectively reduces the maintenance cost. The components and enclosure of RG-AP630 can withstand a wide temperature range. The AP can operate within a wide temperature range from -40°C to 85°C without affecting its stability and lifetime.

Unique PoE OUT Design

By supporting a unique PoE OUT design, both outdoor APs can directly provide power to video surveillance equipment at the deployment location. The surveillance video data is transmitted back to the control room in real-time via wired or wireless network. This feature not only reduces the difficulty of surveillance device installation, but also lowers the cabling cost. When the optional Ruijie HPoE Switch (with up to 90W output) is deployed, the APs can power other 802.3at PDs via the ETH2/PoE OUT port. It also enables the data to be transmitted back to the AP uplink port.

Specifications

Outdoor APs

Model	RG-AP630(IDA)	RG-AP630(IODA)
Radio	Concurrent dual-band dual-radio	
Protocol	802.11a/b/g/n/ac	
Operating Bands	802.11b/g/n: 2.4GHz to 2.483GHz 802.11a/n/ac: 5.150GHz to 5.350GHz, 5.47GHz to 5.725GHz, 5.725GHz to 5.850GHz (vary depending on countries)	
Antenna	Built-in Directional X-Sense Antenna (support external/internal antenna switching) Gain: 10dBi	Built-in Omnidirectional X-Sense Antenna (support external/internal antenna switching) Gain: 4dBi
External Antenna Connector	6 N-K type RF connectors (2.4GHz x3, 5GHz x3) Built-in lightning arrester (6KV)	
Spatial Streams	3	
Max Throughput	450Mbps@2.4GHz 1.3Gbps@5GHz 1.75Gbps per AP	
Modulation	OFDM: BPSK@6/9Mbps QPSK@12/18Mbps 16-QAM@24Mbps 64-QAM@48/54Mbps DSSS: DBPSK@1Mbps DQPSK@2Mbps CCK@5.5/11Mbps MIMO-OFDM: BPSK, QPSK, 16QAM, 64QAM and 256QAM	
Receiver Sensitivity	11b: -99dBm(1Mbps), -93dBm(5.5Mbps), -90dBm(11Mbps) 11a/g:-93dBm(6Mbps), -85dBm(24Mbps), -82dBm(36Mbps), - 77dBm(54Mbps) 11n:-92dBm@MCS0, -74dBm@MCS7, -92dBm@MCS8, -73dBm@ MCS15 11ac HT20: -90dBm (MCS0) , -63dBm (MCS9) 11ac HT40: -85dBm(MCS0) , -60dBm (MCS9) 11ac HT80: -82dBm(MCS0) , -58dBm (MCS9)	
Maximum Transmit Power	27dBm Note: The transmit power is configurable to up to 15dBm in 1dBm steps. The actual transmit power depends on local laws and regulations.	
Adjustable Power	1dBm	
Service Ports	1 10/100/1000Mbps ETH1/PoE IN port (RJ-45 connector) 1 10/100/1000Mbps ETH2/PoE OUT port (RJ-45 connector) 1 SFP port (combo with ETH1)	

Wireless AP

Model		RG-AP630(IDA)	RG-AP630(ODA)
Management Port		1 console port (RJ-45 connector)	
Lock		Support	
LED Indicators		Power status and WDS signal strength	
IP Rating		IP67	
Safety Standard		GB4943, UL/CSA 60950-1, EN/IEC 60950-1, EN/IEC 60950-22	
EMC Standard		GB9254-2008, EN301 489, EN55022, FCC Part15	
Health Standard		FCC Bulletin OET-65C, EN 50385, IC Safety Code 6	
Radio Standard		FCC Part15, EN300328, EN301893	
Vibration Standard		GB/T 2423	
Wi-Fi Alliance Certification		Support	
Bluetooth (for device management)		Support	
WLAN	Maximum clients per AP	Up to 256	
	SSID capacity	Up to 16 per radio Up to 32 per AP	
	SSID hiding	Support	
	Configuring the authentication mode, encryption mechanism, and VLAN attributes for each SSID	Support	
	WDS (bridge mode)	Support	
	Remote Intelligent Perception Technology (RIPT)	Support	
	X-speed	Support	
	Intelligent identification of smart device	Support	
	Intelligent load balancing based on the number of users or traffic	Support	
	STA control	SSID/radio-based	
	Bandwidth control	STA/SSID/AP-based speed control	
	Preference for 5 GHz (band select)	Support	
	TDMA	Support	
	802.11w	Support	
	Dynamic Frequency Selection (DFS)	Support	

	Model	RG-AP630(IDA)	RG-AP630(ODA)
Security	PSK, Web, and 802.1x authentication	Support	
	Data encryption	WPA (TKIP) , WPA2 (AES), WPA-PSK, and WEP (64 or 128 bits)	
	WeChat authentication	Support	
	QR code authentication	Support	
	SMS authentication	Support	
	PEAP authentication	Support	
	Data frame filtering	Whitelist, static/dynamic blacklist	
	User isolation	Support	
	Rogue AP detection and countermeasure	Support	
	Dynamic ACL assignment	Support	
	WAPI	Support	
	RADIUS	Support	
	CPU Protection Policy (CPP)	Support	
	Network Foundation Protection Policy (NFPP)	Support	
	WIDS (Wireless Intrusion Detection System)	Support	
	Remote probe	Future release support	
L2 Features	IGMP snooping	Support	
	VLAN features	Support	
Routing	IPv4 address	Static IP address or DHCP reservation	
	IPv6 CAPWAP tunnel	Support	
	ICMPv6	Support	
	IPv6 address	Manual or automatic configuration	
	IPv6 tunnel	Manual or automatic configuration	
	IPv6 transparent transmission	Support	
	ISATAP	Support	
	Multicast	Multicast to unicast conversion	
Location-based Service	Wireless position tracking	Support	
Management and Maintenance	Network management	SNMP v1/v2C/v3, Telnet, SSH, TFTP, FTP and Web management	

Model		RG-AP630(IDA)	RG-AP630(IODA)
Management and Maintenance	Visualized wireless heat map analysis	Support	
	Real-time spectrum analysis	Support	
	Fault detection and alarm	Support	
	Cloud AC management	Support	
	Statistics and logs	Support	
	FAT/FIT switching	The AP working in FIT mode can switch to the FAT mode through the RG-WS wireless AC. The AP working in FAT mode can switch to the FIT mode through a local console port or Telnet.	
Dimensions (W x D x H) (mm)		276 × 246 × 90	
Weight		<2.5kg	
Installation Mode		Wall-mountable/rod installation	
Power Supply		802.3at Support Ruijie 60W PoE adaptor@PSE (PoE OUT)	
Power Consumption		<25W	
Temperature		Operating Temperature: -40°C to 65°C (heater module will be activated at -15°C)	
		Storage Temperature: -40°C to 85°C	
Humidity		Operating Humidity: 0% to 100% (non-condensing)	
		Storage Humidity: 0% to 100% (non-condensing)	

Outdoor Antennas

Model		RG-ANTx3-2400D	RG-ANTx3-5800D	RG-ANTx3-2400&5800(O)
Type of External Antenna		Directional	Directional	Omnidirectional
Electrical Specifications	Frequency range	2.4 to 2.483 GHz	5.125 to 6.100 GHz	2.4 to 2.5 GHz; 5.125 to 6.100 GHz
	Gain	3 × 15 dBi	2 × 19 dBi (vertical) + 16 dBi (dual inclined planes)	8 dBi
	Horizontal beamwidth	65°	21°	360°
	Vertical beamwidth	16°	16°	17°
	Front-to-back ratio	≤ -25 dB	≤ -25 dB	≤ -25 dB
	VSWR	≤ 1.5	≤ 1.5	≤ 1.5
	Polarization	2 × VP + 1 × HP	±45° and vertical polarization	Vertical
	Input impedance	50 ohms	50 ohms	50 ohms

Model		RG-ANTx3-2400D	RG-ANTx3-5800D	RG-ANTx3-2400&5800(O)
Mechanical Specifications	Mounting mode	Pole mounting (pole diameter 30 to 50 mm)	Pole mounting (pole diameter 50 to 120 mm)	Pole mounting (pole diameter 40 to 70 mm)
	Temperature range	-40°C to +60°C	-40°C to +60°C	-40°C to +60°C
	Unit weight	2.3 kg	1.3 kg	1.2 kg
	Dimensions	400 × 240 × 35 mm (L × W × H)	380 × 380 × 33 mm (L × W × H)	Φ145 × 330 mm
	Connector	3 × N-K	3 × N-K	6 × NK

Ordering Information

Model	Description
RG-AP630(IDA)	Outdoor Wireless Access Point, built-in Directional X-Sense Smart Antenna, support internal/external antenna switching, dual-radio, dual-band, 3 spatial streams, access rate up to 1.75Gbps per AP, support concurrent 802.11a/n/ac and 802.11b/g/n, FAT/FIT modes, support PoE+, Installation Mount-Kit included by default (PoE adaptor sold separately)
RG-AP630(IODA)	Outdoor Wireless Access Point, built-in Omnidirectional X-Sense Smart Antenna, support internal/external antenna switching, dual-radio, dual-band, 3 spatial streams, access rate up to 1.75Gbps per AP, support concurrent 802.11a/n/ac and 802.11b/g/n, FAT/FIT modes, support PoE+, Installation Mount-Kit included by default (PoE adaptor sold separately)
Optional Accessories	
RG-S2910C-24GT4SFP-UP-H	24 10/100/1000M BASE-T ports, 4 1000M non-combo SFP ports, support PoE/PoE+/HPoE
Optional External Antennas	
RG-ANTx3-2400D	2.4GHz MIMO Outdoor Directional Antenna Kit, include: 15dBi panel antenna (1 set); 1-meter N-N coaxial cables (3 sets); waterproof materials (1 set)
RG-ANTx3-5800D	5.8GHz MIMO Outdoor Directional Antenna Kit, include: 19dBi panel antenna (1 set); 1-meter N-N coaxial cables (3 sets); waterproof materials (1 set)
RG-ANTx3-2400&5800(O)	2.4GHz & 5.8GHz MIMO Outdoor Omnidirectional Antenna Kit, include: 8dBi panel antenna (1 set); 1-meter N-N coaxial cables (6 sets); waterproof materials (2 sets)

Wireless Access Point

Marketing Wi-Fi AP Series



OVERVIEW

Featuring leading 802.11ac and Bluetooth 4.0 (BT4.0), Ruijie Marketing Wi-Fi AP Series supports 2x2 MIMO and delivers up to 300Mbps@2.4G (802.11b/g/n) and 867Mbps@5G (802.11a/n/ac). The AP handles access of up to 256 end devices with ease. The built-in Bluetooth module implements BT4.0 and also features iBeacon technology developed by Apple. iBeacon enables a wide range of Bluetooth applications such as a special “shake” function and location tracking, which are especially favorable for retail marketing purposes. The AP series also integrates with Ruijie’s proprietary Marketing Cloud that streamlines user authentication and advertising push. The AP series is an ideal match for small and medium retail stores and commercial settings alike.

KEY FEATURES

- Integrated with Bluetooth 4.0 and iBeacon Module
- Wide Marketing Application (WeChat Shake, Location-based Promotion)
- Superior Wireless Performance with Dual-band 802.11ac (2x2:2) Support
- Cloud-based Central Management (Multi-talent)



RG-MA1220 (V2.0) (INTL)



RG-AP520(BT)

WeChat Shake Bluetooth Application

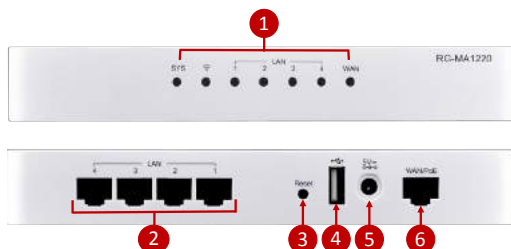
The AP, with a built-in BT4.0 module, brings revolutionary changes to retail marketing through iBeacon and WeChat Shake. iBeacon, first developed by Apple and later widely supported by other mobile devices, is a protocol leveraging Bluetooth low-energy (BLE) wireless technology to provide location-based information and services. Together with a special WeChat Shake function, offered by one of the largest standalone messaging APPs around the world, the AP becomes a powerful O2O marketing tool. Simply by shaking their mobiles, customers can get exclusive offers from nearby shops; to view details on mobile when they are close to a featured product; to get alerts on what's in-store next and many more. The RG-MA1220 (V2.0) (INTL) and RG-AP520(BT) achieve it all with ease and offers breadth of marketing possibilities for enhanced personalization.



Wireless AP

Leading 802.11ac Support

The 802.11ac AP enables 2x2 MIMO and offers up to 4 10/100BASE-T LAN ports and 1 10/100BASE-T WAN port to support an outstanding access rate of up to 1.167Gbps.



Interfaces

1. LED Indicators
2. 4 10/100BASE-T LAN Ports
3. Reset Button
4. USB Port
5. Power Supply (DC 5V/1A)
6. 10/100BASE-T WAN Port

Unified Management on Cloud

The AP achieves unified management and maintenance through Ruijie's proprietary Cloud AC Management Platform. The cloud AC enables remote grouping and hence smoothly supports device configuration, upgrade and monitoring in groups. User management features are also supported for log viewing of system, STA, NAT, URL, traffic and so on.

Specifications

Model	RG-MA1220 (V2.0) (INTL)		RG-AP520(BT)
Radio	Concurrent dual-band dual-radio		
Protocol	802.11a/b/g/n/ac BT4.0		
Operating Bands	802.11b/g/n: 2.4GHz to 2.483GHz 802.11a/n/ac: 5.15GHz to 5.85GHz (vary depending on countries) Bluetooth: 2.402GHz to 2.48GHz	802.11b/g/n: 2.4GHz to 2.483GHz 802.11a/n/ac: 5.150GHz to 5.350GHz, 5.47GHz to 5.725GHz, 5.725GHz to 5.850GHz (vary depending on countries) Bluetooth: 2.402GHz to 2.48GHz	
Antenna	External 2x2 MIMO omnidirectional antenna	2x2 MIMO	
Spatial Streams	2		
Max Throughput	300Mbps@2.4GHz 867Mbps@5GHz 1.167Gbps per AP		
Modulation	OFDM: BPSK@6/9Mbps QPSK@12/18Mbps 16-QAM@24Mbps 64-QAM@48/54Mbps DSSS: DBPSK@1Mbps DQPSK@2Mbps CCK@5.5/11Mbps MIMO-OFDM: BPSK, QPSK, 16QAM, 64QAM and 256QAM Bluetooth: GFSK		
Maximum Transmit Power	Wi-Fi: ≤500mW (27dBm, transmit power of the RF card only) Bluetooth: Class 2	Wi-Fi: ≤100mW (20dBm, transmit power of the RF card only) Bluetooth: Class 2	
Service Ports	1 10/100BASE-T WAN port 4 10/100BASE-T LAN ports Built-in Bluetooth 4.0 (BLE)	1 10/100BASE-T Ethernet uplink port (support PoE) Built-in Bluetooth 4.0 (BLE)	
Management Port	USB port TF card slot	1 console port (RJ45)	

Model		RG-MA1220 (V2.0) (INTL)	RG-AP520(BT)
LED Indicators		1 LED (red, green, blue, orange, and flashing modes, breathing flashing mode for smart device access, and the indicator can be switched off to silent mode)	
Safety Standard		GB4943, EN/IEC 60950-1	
EMC Standard		GB9254, EN301 489	
Health Standard		EN 62311	
Radio Standard		EN300 328, EN301 893	
Bluetooth	BT4.0 (BLE)	Support	
	iBeacon	Support	
	WeChat shake	Support	
WLAN	Maximum clients per AP	Up to 64	Up to 256
	SSID capacity	Up to 8 per radio Up to 16 per AP	Up to 16 per radio Up to 32 per AP
	SSID hiding	Support	
	Intelligent load balancing based on the number of users or traffic	Support	
	Dynamic Frequency Selection (DFS)	N/A	Support
	PSK and Web authentication	Support	
Security	Data encryption	WPA2-PSK	WPA (TKIP), WPA2 (AES), WPA-PSK, and WEP (64 or 128 bits)
	WeChat authentication	Support	
	SMS authentication	Support	
	PEAP authentication	Support	
	Data frame filtering	Whitelist, static/dynamic blacklist	
	Remote probe	N/A	Future release support
L2 Features	IGMP snooping	N/A	Support
	VLAN features	Support	Support
Location-based Service	Wireless position tracking	Support	
Management and Maintenance	Network management	Telnet, Web, AC	SNMP v1/v2C/v3, Telnet, SSH, TFTP, FTP and Web management

Model		RG-MA1220 (V2.0) (INTL)	RG-AP520(BT)
Management and Maintenance	Real-time spectrum analysis	N/A	Support
	Statistics and logs	Support	
Dimensions (W x D x H) (mm)		180 × 110 × 25 (Height of AP only, excluding antenna interface and mount kit)	194 × 194 × 37 (Height of AP only, excluding antenna interface and mount kit)
Weight		0.6kg	0.5kg
Installation Mode		Desktop/ceiling-mountable installation	
Power Supply		Support local power supply (DC 5V/1A)	Local power supply (DC 12V) and PoE (802.3at/802.3at)
Power Consumption		<12W	<12.95W
Temperature		Operating Temperature: -10°C to 50°C	Operating Temperature: -10°C to 55°C
		Storage Temperature: -20°C to 60°C	Storage Temperature: -40°C to 70°C
Humidity		Operating Humidity: 10% to 90% (non-condensing)	Operating Humidity: 5% to 95% (non-condensing)
		Storage Humidity: 5% to 90% (non-condensing)	Storage Humidity: 5% to 95% (non-condensing)

Ordering Information

Model	Description
RG-MA1220 (V2.0) (INTL)	Ruijie Chain Store designed Access Point, dual-radio dual-band, support 802.11ac and 802.11b/g/n, 2 spatial streams, BT4.0 & iBeacon, built-in 4-Port 10/100BASE-T LAN, 1-Port 10/100BASE-T WAN, support local power supply
RG-AP520(BT)	Marketing Wi-Fi Access Point, dual-radio, dual-band, 2 spatial streams, up to 1.167Gbps per AP, support concurrent 802.11ac and 802.11a/b/g/n, FAT/FIT modes, Bluetooth 4.0 & iBeacon, 1 10/100/1000BASE-T uplink port (support PoE and local power supply) (PoE and local power supply adapters sold separately)
Related Solution Components for RG-MA1220 (V2.0) (INTL)	
RG-MACC-INTL-Base	Ruijie Mobile Access Cloud Center (MACC) software, providing cloud-based management for Ruijie registered devices, included: 10 registered device license and 1-year Software Support Service (i.e. software patches and maintenance support)
RG-MACC-INTL-LIC-100	RG-MACC License for 100 registered devices
RG-MACC-INTL-LIC-500	RG-MACC License for 500 registered devices
RG-MACC-INTL-LIC-1K	RG-MACC License for 1K registered devices
RG-MACC-INTL-LIC-5K	RG-MACC License for 5K registered devices
RG-MCP-INTL-Base	Ruijie Marketing Cloud Platform (MCP) software, providing customized marketing portal, Ads management & analytics and built-in with wide social community authentication options such as WeChat and Facebook, included 1-year Software Support Service (i.e. patches and maintenance support)
RG-MCP-INTL-License-5K	RG-MCP License for 5000 registered users
RG-MCP-INTL-License-10K	RG-MCP License for 10000 registered users

Wireless Access Point

In-vehicle AP Series

OVERVIEW

Ruijie RG-MTFi-M520 exclusively offers you an in-vehicle wireless system and entertainment hub - all in one easy-to-use platform. Onboard with dual-SIM capacity, the RG-MTFi-M520 transforms 3G/4G to wireless connectivity with ease. The device implements the latest MIMO-LTE solution supporting advanced communication systems such as TD-LTE, FDD-LTE, TD-SCDMA and WCDMA for streamlined LTE applications on the ride. Featuring the leading MIMO technology and 802.11ac standard, the RG-MTFi-M520 supports the best-in-class user experience on the go.

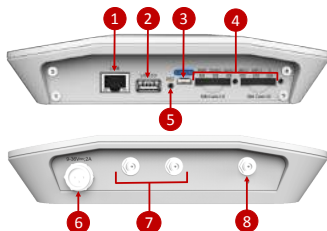
KEY FEATURES

- High-speed Dual-LTE Access Solution
- 802.11ac Superior Wireless Performance
- Carrier-class Reliability
- Specialized In-vehicle GPS



RG-MTFi-M520

Hardware Highlights



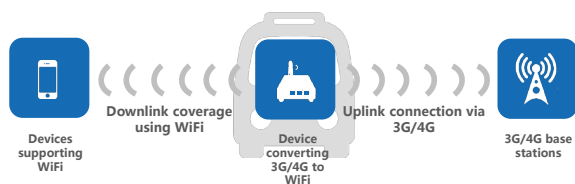
Interfaces

1. 1000M/100M/10M RJ45 Interface
2. USB3.0 Port
3. Console Port
4. 2 SIM Card Slots
5. Reset Button
6. Aviation Plug
7. 3G/4G Interface
8. GPS Interface

High-speed Dual-LTE Access Solution

The RG-MTFi-M520 features dual-SIM 3G/4G uplink access, hence 2 different network operators can work together for configurable failover. The design totally gets rid of the signal loss problem in weak 4G coverage areas. One SIM acts as the fallback network, which the switching to 3G network takes place automatically. Also, one SIM fulfills network demand from general passengers while the other supports high-security specialized functions. With the adoption of the MIMO-LTE solution, each SIM supports downlink rate up to 100Mbps. A wide range of communication systems is available including TD-LTE (38, 39, 40, 41), FDD-LTE (1, 3, 7), TD-SCDMA and WCDMA. The RG-MTFi-M520 offers flexible and comprehensive LTE applications for vehicles of any kind.

3G/4G Network Makes Bus WiFi Deployment Possible



With the continuous coverage and fast switching feature of the 3G/4G network, the device offer WiFi access by converting the mobile network to WiFi signal to deploy the Bus WiFi Network.

Wireless AP

802.11ac Superior Wireless Performance

The RG-MTFi-M520 totally upgrades wireless experience on the ride. The dual-radio design boosts the 802.11ac network performance to a new level.

Robust Design with Carrier-class Reliability

The RG-MTFi-M520 supports anti-shock and anti-vibration protection - both internally and externally. The anti-shock rack and vibration resistant power connector supports ACC signal detection, enabling vehicle ACC power failure alarm and AC remote data synchronization. The LTE link will also be released automatically.

Specialized In-vehicle GPS

GPS is one of the many value-added applications offered by the RG-MTFi-M520. The service enables users to precisely master the vehicle location in real time.

Users can locally check the GPS data or send the data to multiple backend devices. Regular upload of the GPS data enables you to analyze your passenger demographics. By looking at the commuting routes, if it is relatively stable from Monday to Friday, the places where passengers live and work can be easily deduced. With the big data at hand, advert push can be delivered precisely to the target audience.

Specifications

Model		RG-MTFI-M520
Wi-Fi Features	Protocol	Concurrent dual-radio, dual-band 802.11a/b/g/n/ac
	Channels	802.11a/n: 5 channels 802.11b/g/n: 13 channels
	Max throughput	802.11n: 110Mbps 802.11ac: 180Mbps (HT40), 580Mbps (HT80)
	Virtual AP	Up to 16 SSIDs
	Transmit power	2.4G: 23dBm 5G: 19dBm
Other Key Features	GPS	Support
	Bluetooth	Support
Physical Parameters and Interfaces	Power connection	M12 aviation plug
	LAN port	1 1000M/100M/10M RJ45 Interface
	Extension	1 USB3.0 1 RS232
	Reset button	1
	Indicators	Top panel: 1 Sys indicator Front panel: 1 Power indicator 1 2.4G Wi-Fi indicator 1 5.8G Wi-Fi indicator 2 3G/4G module status indicators 1 GPS indictor 2 LAN indicators
	CPU	Dual-core 1.4G
	Memory	1GB, 2GB supported
	eMMC	4GB
	Storage	32GB - 512GB SSD
	Power supply	9 - 36V DC broadband power, 12V/24V supported, power shut down control interface, ACC signal interface; ACC/regular dual power supported; Power plug anti-shake; Anti-access protection; 10s startup

Model		RG-MTFi-M520
Physical Parameters and Interfaces	Power supply	delay, under voltage protection (12v System 8.5V+-0.5V under voltage protection, 24v System 17V+0.5V under voltage protection)
	Dimensions (W x D x H) (mm)	200 × 198 × 42
	Weight	1.6kg
	Cooling	Fanless
	Temperature	Operating Temperature: -20°C to 70°C
		Storage Temperature: -40°C to 85°C
	Humidity	Operating Humidity: 5% to 95% (non-condensing)
		Storage Humidity: 5% to 95% (non-condensing)

Ordering Information

Model	Description
RG-MTFi-M520	In-vehicle Wi-Fi Device (Enhanced Version), 1GB RAM
Optional Accessories	
WNM-TDD-M1	TDD-LTE Module (3 standards)
WNM-FDD-M1	TDD/FDD-LTE Module (5 standards)
WNM-LTE-M1	TDD/FDD-LTE Module (7 standards)
WNM-SSD-32G-M1	Local SSD Hard Disk, 32G
WNM-SSD-64G-M1	Local SSD Hard Disk, 64G
WNM-SSD-128G-M1	Local SSD Hard Disk, 128G
ANT-GPS-MTFi	GPS Antenna
RG-MTFiCab-3m2pin	In-vehicle Power Cable
RG-MTFiCab-3m3pin	In-vehicle Power Cable
RG-MTFiCab-0.5m4pin	In-vehicle Power Cable
RG-MTFiCab-1m4pin	In-vehicle Power Cable
RG-MTFiCab-2m3pin	In-vehicle Power Cable
MTFi Conversion Mount Kit	Conversion Rack Mount Accessories
MTFi Standard Mount Kit	Standard Rack Mount Accessories

Wireless Controller

Wireless Controller Series



OVERVIEW

Ruijie RG-WS Wireless Controller Series is designed to support the next-generation high-speed wireless network. The series can be deployed at either Layer 2 or Layer 3 network to communicate with access point without any architecture or hardware changes, offering seamless and secure wireless control. The Wireless Controllers can manage up to 128 wireless APs by default and a maximum capacity of 2,560 APs with license upgrade.

KEY FEATURES

- Scalable up to 2,560 APs and 80K Clients
- Built-in with Advanced Wireless Radio Management and WIPS Security Protection
- Support Seamless L2/L3 Roaming
- Support N+1, N+N Resiliency
- Built-in with Portal Server for Web Authentication



RG-WS6008



RG-WS6024



RG-WS6108



RG-M8600E-WS-ED



RG-WS6816



RG-M18000-WS-ED

Intelligent Identification of Smart Devices

The built-in portal server of the Wireless Controller Series intelligently identifies the type of smart device, delivering an adaptive authentication page that fits the screen automatically. The intelligent feature eliminates the trouble of screen size adjustment and hence offers a better wireless user experience. The feature supports all mainstream operating systems including Apple iOS, Android, and Windows.

Fair Scheduling

Teaming up Ruijie's leading AP series, the Wireless Controller Series supports equal access time for smart devices no matter they are running 802.11g, 802.11n, 802.11ac or other standards. The feature eliminates high latency, slow network speed and poor AP performance problems. Such problems are due to using an old wireless LAN card or long distance between the end devices and AP. The Wireless Controller Series ensures a fair high-speed wireless network for all devices anywhere and anytime.

Intelligent Load Balancing

On a high-density wireless LAN, the Wireless Controller Series intelligently distributes users among different APs according to the number of users and data traffic in real time. This feature balances the load pressure on each AP and improves the average bandwidth and Quality of Service (QoS), offering higher network availability. In addition to the role-based and traffic-based balancing features, the Wireless Controller Series also supports load balancing in terms of frequency range. Since the majority of Wi-Fi devices work at 2.4GHz by default while the frequency above 5GHz (802.11a/n/ac) can offer better throughput performance. With the frequency-based load balancing, the Wireless Controller Series allows users with dual-band devices to connect to the 5GHz as first priority. Bandwidth usage is greatly increased by 30-40% with no additional cost. The Wireless Controller Series hence delivers the best-in-class wireless experience to all Ruijie clients.

Exclusive 24-port PoE Support

In the Wireless Controller Series, the RG-WS6024 model tops the class by offering PoE power support and all-in-one wired and wireless management. The versatile controller supports wired Gigabit Ethernet access, 10G fiber uplink, and PoE/PoE+ power supply. The RG-WS6024 offers three PoE power supply modes - auto, energy-saving and static - to meet various deployment challenges. When an interface is down for a certain period of time, the system will automatically

power it down for extra energy efficiency. EEE energy-saving mode is another feature highlight. The system will automatically turn an idle port into energy-saving mode. When there is a new packet, the system will issue listening streams to the port to resume service. In addition, the controller offers management of up to 24 APs and is scalable to up to 128 APs with license upgrade. The RG-WS6024 is ideal acting as the wireless core for general education, small and medium business networks, and enterprise branches.

Specifications

Model		RG-WS6008	RG-WS6108	RG-WS6816	RG-WS6024	RG-M8600E-WS-ED ²²	RG-M18000-WS-ED ²³
Service Ports		6 1000 BASE-T ports, 2 1000 BASE-T/1000 BASE-X ports (combo)	6 1000 BASE-T ports, 2 1000 BASE-T/1000 BASE-X ports (combo)	8 1000 BASE-T/1000 BASE-X ports (combo), 4 1G/10G BASE-X SFP+ ports, 2 expansion slots	24 10/100/1000 BASE-T ports, 2 100/1000M SFP ports (combo), 2 1G/10G BASE-X SFP+ ports, 2 expansion slots	2 1G/10G BASE-X SFP+ ports	2 1G/10G BASE-X SFP+ ports
Management Ports		1 console port, 2 USB ports	1 console port, 2 USB ports	1 console port, 2 USB ports, 1 10/100M MGMT port	1 console port, 1 USB port	1 console port, 1 10/100/1000M MGMT port	1 console port, 1 10/100/1000M MGMT port
LED Indicators		Status, Link/ACT					
Security Standard		GB4943, EN/IEC 60950-1	GB4943, EN/IEC 60950-1	GB4943-2011	GB4943-2011	GB4943-2011	GB4943-2011
EMC Standard		GB9254, EN301 489	GB9254, EN301 489	GB9254-2008, CLASS A	GB9254-2008	GB9254-2008	GB9254-2008, CLASS A
Performance	Switching Capacity	N/A	N/A	N/A	128Gbps	N/A	N/A
	Packet Forwarding Rate	N/A	N/A	N/A	96Mpps	N/A	N/A
	Default Number of Manageable APs	32	32	128	24	128	128

Note:

²² Exclusively designed for RG-S8600E Switch Series

²³ Exclusively designed for RG-N18000 Switch Series

Model		RG-WS6008	RG-WS6108	RG-WS6816	RG-WS6024	RG-M8600E-WS-ED	RG-M18000-WS-ED
Performance	Maximum Number of Manageable APs	200 APs or 400 wall APs (with license upgrade)	320 APs or 640 wall APs (with license upgrade)	2,560 APs or 4,000 wall APs (with license upgrade)	128 (with license upgrade)	2,560 (with license upgrade)	2,560 (with license upgrade)
	Maximum Number of Configurable APs	2,048	2,048	16K	96 (up to 512 with license upgrade)	16K	16K
	Maximum Number of Clients	6,400	10K	80K	768 (up to 4,096 with license upgrade)	80K	80K
	802.11 Performance	8Gbps	8Gbps	48Gbps	N/A	48Gbps	48Gbps
	VLAN	4,094					
	Maximum Number of Clients Supported by the Built-in Portal	1,500	7,500	7,500	768 (up to 4,096 with license upgrade)	10K	10K
	ACL	64K	64K	512K	1,500	512K	512K
	Number of Wireless Users	6,400	10K	80K	1K	80K	80K
	MAC Address Table	16K	16K	128K	16K	128K	128K
	Local Authentication	300 wireless clients	300 wireless clients	300 wireless clients	768 (up to 4,096 with license upgrade)	10K wireless clients	10K wireless clients
	ARP Table	12K	12K	96K	1K	96K	96K
	IPv6 Neighbor Table	10K	10K	10K	500	10K	10K
	Inter-AC Roaming Switch Time	≤50ms					
LAN	802.1Q VLAN	Support	Support	Support	4K 802.1Q VLAN, Port-based VLAN, MAC-based VLAN, Protocol-based VLAN, Private VLAN, Voice VLAN, Private VLAN, IP	Support	Support

Model		RG-WS6008	RG-WS6108	RG-WS6816	RG-WS6024	RG-M8600E-WS-ED	RG-M18000-WS-ED
LAN	802.1Q VLAN				subnet-based VLAN, GVRP		
	PoE	N/A	N/A	N/A	Support PoE/PoE+ (802.3af/at)	N/A	N/A
	QinQ	N/A	N/A	N/A	Basic QinQ, Flexible QinQ, N:1 VLAN switching, 1:1 VLAN switching	N/A	N/A
	ACL	Standard IP ACL, Extended IP ACL, MAC-extended ACL, Expert ACL	Standard IP ACL, Extended IP ACL, MAC-extended ACL, Expert ACL	Standard IP ACL, Extended IP ACL, MAC-extended ACL, Expert ACL	Standard IP ACL (hardware ACL based on IP address), Extended IP ACL (based on IP address and TCP/UDP port number), MAC-extended ACL (based on source and destination MAC addresses and optional Ethernet type), Time-based ACL, Expert ACL (based on the flexible combination of VLAN number, Ethernet type, MAC address, IP address, TCP/UDP port, protocol type, and time), ACL80, IPv6 ACL, ACL	Standard IP ACL, Extended IP ACL, MAC-extended ACL, Expert ACL	Standard IP ACL, Extended IP ACL, MAC-extended ACL, Expert ACL

Model		RG-WS6008	RG-WS6108	RG-WS6816	RG-WS6024	RG-M8600E-WS-ED	RG-M18000-WS-ED
LAN	ACL				logging, ACL counter, ACL remark, Global ACL, ACL redirect		
	QoS	N/A	N/A	N/A	Port traffic identification, Port traffic control, 802.1p/DSCP/TOS traffic classification, 8 priority queues on each port, SP, WRR, DRR, SP+WFQ, SP+WRR, SP+DRR, RED/WRED queue scheduling	N/A	N/A
WLAN	LAN Protocols	ARP, VLAN, 802.1p, 802.1q, 802.1d, 802.1w, 802.1s					
	802.11 LAN Protocols	802.11, 802.11b, 802.11a, 802.11g, 802.11d, 802.11h, 802.11w, 802.11k, 802.11r, 802.11i, 802.11e, 802.11n			802.11, 802.11b, 802.11a, 802.11g, 802.11d, 802.11h, 802.11w, 802.11k, 802.11r, 802.11i, 802.11e, 802.11n, 802.11ac		
	CAPWAP	Layer 2/Layer 3 network topology between an AP and AC Enable an AP to automatically discover an accessible AC Enable an AP to automatically upgrade software version from an AC Enable an AP to automatically download configurations from an AC Network Address Translation (NAT) traversal					
	Roaming	Intra-AC Layer 2/Layer 3 roaming, Inter-AC Layer 2/Layer 3 roaming, Intra-AC Layer 2/Layer 3 roaming under local forwarding, Inter-AC Layer 2/Layer 3 roaming under local forwarding	Intra-AC Layer 2/Layer 3 roaming, Inter-AC Layer 2/Layer 3 roaming under local forwarding, Inter-AC Layer 2/Layer 3 roaming under local forwarding	Intra-AC roaming Inter-AC roaming	Intra-AC Layer 2/Layer 3 roaming, Inter-AC Layer 2/Layer 3 roaming under local forwarding, Inter-AC Layer 2/Layer 3 roaming under local forwarding	Intra-AC roaming Inter-AC roaming	Intra-AC roaming Inter-AC roaming

Model		RG-WS6008	RG-WS6108	RG-WS6816	RG-WS6024	RG-M8600E-WS-ED	RG-M18000-WS-ED
WLAN	Forwarding	Local forwarding, Centralized forwarding, Flexible forwarding based on service	Local forwarding, Centralized forwarding, Flexible forwarding based on service	Local forwarding, Centralized forwarding	Local forwarding, Centralized forwarding	Local forwarding, Centralized forwarding, AP-based bandwidth control, User isolation under the same SSID	Local forwarding, Centralized forwarding, AP-based bandwidth control, User isolation under the same SSID
	Wireless QoS	AP-based bandwidth control, WLAN-based bandwidth control, User-based static and smart speed control, Fair balancing				User/SSID-based rate limit (granularity: 8Kbit/s), WMM (802.11e), Wireless priority to wired priority projection, Wireless user priority to CAPWAP tunnel priority projection	
	User Isolation	AC-based user isolation AP-based user isolation WLAN-based user isolation					
	Reliability	Fast switching between 2 ACs, Multiple ACs redundancy (1:1 A/A and A/S, N:1), Multiple ACs clustering (N:N), Remote Intelligent Perception Technology (RIPT), Service upgrade	Fast switching between 2 ACs, Multiple ACs redundancy (1:1 A/A and A/S, N:1), Multiple ACs clustering (N:N), Remote Intelligent Perception Technology (RIPT), Service upgrade	Fast switching between 2 ACs, Multiple ACs redundancy (1:1 A/A and A/S, N:1), Multiple ACs clustering (N:N), Remote Intelligent Perception Technology (RIPT), Service upgrade	Fast switching between 2 ACs, Multiple ACs redundancy (1:1 A/A and A/S, N:1), Multiple ACs clustering (N:N), Remote Intelligent Perception Technology (RIPT), Service upgrade	Fast switching between 2 ACs, Multiple ACs redundancy (1:1 and N:1), Dual power supplies	Fast switching between 2 ACs, Multiple ACs redundancy (1:1 and N:1), Dual power supplies
	STA Management	AP-based STA access control, SSID-based STA access control, AP-based load balancing, AP traffic-based load balancing, 5G priority access, RSSI threshold				User-based bandwidth limit, User-based access control, Port mirroring	
	STA RSSI Threshold	0 to 100					
	STA Idle Timeout	60 to 86,400 seconds			90 to 86,400 seconds		
	STA Average Data Rate Threshold	8 to 819,200 with the accuracy of 8Kbps					
	Adjusting Transmit Power of Beacon and Probe Response	Support					

Model		RG-WS6008	RG-WS6108	RG-WS6816	RG-WS6024	RG-M8600E-WS-ED	RG-M18000-WS-ED
WLAN	Offline Syslog	Support					
	RF Management	Setting country codes, Manually setting transmit power, Automatically setting transmit power, Automatically setting working channel, Automatically adjusting transmission rate, Support blackhole compensation, Support RF interference detection and avoidance				Setting country codes, Manually setting transmit power, Automatically setting transmit power, Manually setting working channel, Automatically setting working channel, Automatically adjusting transmission rate, Support blackhole compensation, AP load balancing based on traffic and user number, Support RF interference detection and avoidance	
Security	IPv4/v6 Security	Web authentication, 802.1x authentication, PEAP authentication, SMS authentication, QR code authentication				Web authentication, 802.1x authentication (EAP-PEAP, EAP-SIM, EAP-MD5, EAP-TLS, EAP-TTLS, PEAP-MSCHAPv2, EAP-FAST, EAP-AKA), MAC address authentication, WAPI authentication	
	802.11 Security and Encryption	Multiple SSIDs, SSID hiding, 802.11i-compliant PSK authentication, WPA and WPA2, WEP (WEP/WEP128), WAPI, TKIP, CCMP, Protection against ARP spoofing				Multiple SSIDs, SSID hiding, 802.11i-compliant PSK authentication, WPA and WPA2, WEP (WEP/WEP128), WAPI, TKIP, CCMP, Protection against ARP spoofing, Support IP/MAC binding via DHCP SNP, Support IP/MAC/WLAN binding via RADIUS server	
	AAA	RADIUS client Multi-domain deployment for authentication server Authentication server backup ESS-based authentication server selection Binding of SSID and user account					
	SMP	Support					
	CPP	Support					
	NFPP	Support					
	WIDS/WIPS	Support				Whitelist, Static/dynamic blacklist, Monitor and attack rogue wireless devices, Wireless attack protection	
Internet Protocols	IPv4 Protocol	Ping, Traceroute, DHCP Server, DHCP Client, DHCP Relay, DHCP Snooping, DNS Client, NTP, Telnet, TFTP Server, TFTP Client, FTP Server, FTP Client				Ping, Traceroute, DHCP Server, DHCP Client, DHCP Relay, DHCP Snooping, DNS Client, NTP, Telnet, TFTP Client	

Model		RG-WS6008	RG-WS6108	RG-WS6816	RG-WS6024	RG-M8600E-WS-ED	RG-M18000-WS-ED
Internet Protocols	IPv6 Protocol	DNSv6 Client, DHCPv6 Relay, DHCPv6 Server, TFTPv6 Client, FTPv6 Server, FTPv6 Client, IPv6 CAPWAP, ICMPv6, IPv6 Ping, IPv6 Traceroute, Manual tunnel, automatic tunnel Manual configuration address, automatic local address				Dual stack IPv4/v6, Manual tunnel, ISATAP, 6to4 tunnel, IPv4 over IPv6 tunnel, DHCPv6, DNSv6, ICMPv6, ACLv6, TCP/UDP for IPv6, SOCKET for IPv6, SNMP v6, Ping/Traceroute v6, RADIUS, Telnet/SSH v6, FTP/TFTP v6, NTP v6, IPv6 MIB support for SNMP, VRRP for IPv6, IPv6 QoS, Static routing, OSPFV3	
	IPv4 Routing	Static routing, OSPF	Static routing, OSPF	Static routing, OSPF	Static routing, RIP	Static routing, OSPF	Static routing, OSPF
	IPv4 Routing Table Capacity	8K	8K	8K	500	8K	8K
	IPv4 Static Routing Table Capacity	1K	1K	1K	500	1K	1K
	IPv6 Routing	Static routing					
	IPv6 Routing Table Capacity	1K	1K	1K	500	1K	1K
	IPv6 Static Routing Table Capacity	1K	1K	1K	500	1K	1K
Management	Network Management	SNMP v1/v2c/v3, RMON, Remote probe Syslog				SNMP v1/v2c/v3, Web management, Syslog	
	Network Management Platform	Web management (Smart-web), RG-SNC management, Heat Map diagram, RILL management	Web management (Smart-web), RG-SNC management, Heat Map diagram, RILL management	Web management (Smart-web), RG-SNC management, Heat Map diagram, RILL management	Web management (Smart-web), RG-SNC management, Heat Map diagram	RG-SNC management	RG-SNC management
	User Access Management	Login via console port Login via Telnet Login via SSH Upload to FTP					
Dimensions (W × D × H) (mm)		440 × 200 × 43.6	440 × 200 × 43.6	440 × 560 × 88.1	440 × 260 × 44	440 × 399 × 40.18	440 × 399 × 40.18
Rack Height		1RU	1RU	2RU	1RU	1RU	1RU
Weight		2kg	2kg	19kg	5.8kg (including packing)	4.58kg	4.58kg
MTBF		248K hours					
Installation Mode		19-inch rack	19-inch rack	19-inch rack	19-inch rack	Insert to RG-8600E module slot	Insert to RG-N18000 module slot

Model	RG-WS6008	RG-WS6108	RG-WS6816	RG-WS6024	RG-M8600E-WS-ED	RG-M18000-WS-ED
Power Supply	Fixed power supply 100VAC to 240VAC, 50Hz to 60Hz	Fixed power supply 100VAC to 240VAC, 50Hz to 60Hz	Support up to 2 power supply modules (sold separately) 100VAC to 240VAC, 50Hz to 60Hz	Support up to 2 power supply modules (sold separately) AC input: Rated voltage range: 100V to 240V Maximum voltage range: 90V to 264V Frequency: 50Hz to 60Hz DC input: Voltage range: -36VDC to -72VDC	Power supply from RG-8600E chassis	Power supply from RG-N18000 chassis
Power Consumption	<40W	<40W	<100W	≤850W (24-port PoE+)	<190W	<190W
Temperature	Operating Temperature: 0°C to 45°C					
	Storage Temperature: -40°C to 70°C					
Humidity	Operating Humidity: 10% to 90%RH (non-condensing)					
	Storage Humidity: 5% to 95%RH (non-condensing)					
Operating Altitude	0-3000m	0-3000m	0-3000m	0-3000m	-500m to 5,000m	-500m to 5,000m

Ordering Information

Model	Description
RG-WS6008	WS Series Wireless Controller, 6 1000BASE-T ports, 2 1000BASE-T/1000BASE-X ports (combo), 32 APs License by default, maximum 200 APs or 400 Wall APs License
RG-WS6108	WS Series Wireless Controller, 6 1000BASE-T ports, 2 1000BASE-T/1000BASE-X ports (combo), 32 APs License by default, maximum 320 APs or 640 Wall APs License
RG-WS6816	WS Series Wireless Controller, 8 1000BASE-T/1000BASE-X ports (combo), 4 1G/10GBASE-X SFP+ ports, 2 Expansion Slots, support dual redundant power supply, 128 APs License by default, maximum 2,560 APs or 4,000 Wall APs License (Power module sold separately)
RG-WS6024	WS Series Wireless Controller, 24 10/100/1000BASE-T ports (PoE+), 2 100/1000M SFP ports (combo), 2 1G/10GBASE-X SFP+ ports, 2 Expansion Slots, 24 APs License by default, maximum 128 APs License (Power module sold separately and at least one module required)
RG-M8600E-WS-ED	WS Series Wireless Controller Module for RG-S8600E Switch Series, 2 1G/10GBASE-X SFP+ ports, 128 APs License by default, maximum 2560 APs or 4000 Wall APs License
RG-M18000-WS-ED	WS Series Wireless Controller Module for RG-N18000 Switch Series, 2 1G/10GBASE-X SFP+ ports, 128 APs License by default, maximum 2560 APs or 4000 Wall APs License
License	
LIC-WS-16	WS Series Wireless Controller Upgrade License for 16 APs or 32 Wall APs (For RGOS 11.x or above)
LIC-WS-32	WS Series Wireless Controller Upgrade License for 32 APs or 64 Wall APs (For RGOS 11.x or above)
LIC-WS-128	WS Series Wireless Controller Upgrade License for 128 APs or 256 Wall APs (For RGOS 11.x or above)
RG-LIC-WS-512	WS Series Wireless Controller Upgrade License for 512 APs or 1024 Wall APs (For RGOS 11.x(11.1(2)B1) or above)
Optional Accessories	
RG-M6000-WS	WS Series Wireless Controller Module for RG-WS6024, 32 APs License by default, maximum 128 APs/Wall APs License (Each RG-WS6024 supports maximum one RG-M6000-WS module)
RG-PA300I	AC Power Module for RG-WS6816, 300W
RG-M5000E-AC500P	AC Power Module for RG-WS6024, 370W power budget for PoE, up to 24 PoE ports or 12 PoE+ ports
RG-PA1150P-F	AC Power Module for RG-WS6024, 740W power budget for PoE, up to 48 PoE ports or 24 PoE+ ports
RG-M5000E-DC500P	DC Power Module for RG-WS6024, -32VDC to -72VDC input voltage, 370W power budget for PoE, up to 24 PoE ports or 12 PoE+ ports
WNM-2XS-S	Expansion Module for RG-WS6816, support 2 10GBASE-X ports
WNM-4GE-S	Expansion Module for RG-WS6816, support 4 1000BASE-T/1000BASE-X combo ports

Model	Description
M2910-01XS	1-Port 10G SFP+ Interface Module for RG-WS6024 PoE support
M2910-01XT	1-Port 10G copper Interface Module for RG-WS6024 PoE support
XG-SFP-SR-MM850	10GBASE-SR, SFP+ Transceiver, MM (850nm, 300m, LC)
XG-SFP-LR-SM1310	10GBASE-LR, SFP+ Transceiver, SM (1310nm, 10km, LC)

Router

RG-RSR7708-X Core Router

OVERVIEW

The high-end RG-RSR7708-X Core Router is Ruijie's next-generation multicore distributed routers for the enterprise network cloud infrastructure and cloud services, which is the upgraded series of the RG-RSR77 routers. Based on Ruijie's Ultra-Simplified Network Solution and the development trend of mobile broadband networking, the overall performance of the RG-RSR7708-X Router is enhanced to provide strong support for the existing network requirements and high scalability for business development for the coming 5-10 years.

KEY FEATURES

- Fully Distributed & Modular Architecture Design
- Isolated Routing Engine, Switching Fabric and Service Module Design
- Support up to 16T Switching Capacity and 24M NAT Entry
- Up to 8 Service Module Slots for Scalable Expansion
- High Availability: Power Redundancy, Hot Swappable Components
- Fully Integrated with RG-SAM+ as High Performance Authentication Gateway



RG-RSR7708-X

Strong Routing Processing Capabilities

The RG-RSR7708-X Router supports IPv4/IPv6 static routing and various dynamic routing protocols in order to meet different networking requirements. Additionally, the series supports the policy routing feature which can flexibly control and dispatch network traffic in order to meet routing requirements of clients in the financial industry, government, enterprises, etc. The X-Flow and fast-forwarding technology, together with features such as GR, FRR and BFD, improves the convergence mechanism of the traditional routing protocols to achieve fast convergence of large-scale networks.

Robust Modular Design

The RG-RSR7708-X Router adopts the design of separated child and parent cards. Adopting a unified hardware and software platform, the RG-RSR7708-X Router is fully compatible with line cards and is able to meet various application requirements at different network layers of growing enterprises. The RG-RSR7708-X Router is compatible with all SIP carrier boards and daughter cards of the RG-RSR77 series to fully protect user investment.

IPv6 Compatibility

The RG-RSR7708-X Router supports various IPv6 routing technologies, such as static routing, equivalent routing, policy routing, OSPFv3, Routing Information Protocol Next Generation (RIPng), BGP4+ and IS-ISv6 to meet the requirements of large-scale IPv6 network deployment in the future. The RG-RSR7708-X Router supports multiple IPv6 transition technologies, such as dual stack, manual channel, Intra-Site Automatic Tunnel Addressing Protocol (ISATAP), and IPv6-to-IPv4 tunneling. Such technologies hence guarantee smooth IPv4-to-IPv6 network transition. Additionally, the RG-RSR7708-X Router supports address automatic configuration and a wide range of IPv6 technologies such as ICMPv6, ICMPv6 redirection, ACL for IPv6, TCP/UDP for IPv6, QoS for IPv6 and IPv6 multicast. Full IPv6 compatibility can maximize the value of customers' existing investments and enable smooth migration from the current IPv4 network to IPv6 network.

Energy-Saving Design

The environmental protection and energy-saving design is implemented in the RG-RSR7708-X Router. Its chassis supports efficient modular power supply and independent partitioning power supply to enhance the efficiency of the

power system and reduce the energy consumption. The chassis is physically partitioned for better heat dissipation. The smart fan module supports partitioned temperature control with multi-level speed control, energy-saving design and noise reduction to lower energy consumption.

Specifications

Model	RG-RSR7708-X
Module Slots	10
Routing Engine Slots	2
Independent Fabric Engine Slots	2
SIP Carrier Board Slots	4
Daughter Card Slots	16
Fixed Ports on Routing Engine	2 USB2.0 ports 1 USB-Console port 1 MGMT port 1 console port 1 AUX port 1 SD card slot
Available Modules	OC-48c/STM-16c POS OC-12c/STM-4c POS OC-3/STM-1 POS OC-3/STM-1 CPOS channelized to E1/T1/64K OC-48/STM-16 CPOS channelized to E1/T1 OC-12/STM-4 CPOS channelized to E1/T1 OC-192c/STM-64c POS OC-192/STM-64 CPOS channelized to 155M OC-192c/STM-64c RPR Interface Module 40GE/10GE/GE/FE E1/CE1 OC-3/STM-1 ATM OC-12/STM-4 ATM High-speed synchronous serial interface
Flash	512MB
Memory	2GB
Switching Capacity	16Tbps
Packet Forwarding Rate	2,880Mpps
LAN Protocol	IEEE802.3u (100BASE-T), (1000BASE-T), IEEE802.3an (10GBASE-T), sub-interface
WAN Protocol	HDLC, PPP, Frame-relay, MP
Routing Protocol	Static routing, RIPv1/v2, OSPFv2, BGP4, IS-IS v4, IGMP v1/v2/v3, PIM-SM, PIM-DM, PBR

Model		RG-RSR7708-X
MPLS		MPLS Forwarding, LDP, MPLS L3 VPN, MPLS L2 VPN, MPLS Multicast VPN
IP Application		Ping, Trace, Telnet/Reverse Telnet, DHCP, NTP, DNS, IPFIX, TFTP, FTP, UDP Helper, uRPF, Multi-link load-balancing
IP Rating		IP30
IPv6	Basic IPv6 Functions	IPv6 Forwarding, ND, IPv6 PMTU, IPv6 FIB, IPv6 ACL, IPv6 Ping, IPv6 Tracert
	IPv6 Transition Technology	Manual tunnel, Auto tunnel, GRE tunnel, 6to4 tunnel, ISA Manual tunnel, Auto tunnel, GRE tunnel, 6to4 tunnel, ISATAP tunnel TAP tunnel
	Dynamic Routing Protocol	RIPng, OSPFv3, BGP4+
QoS	Congestion management	FIFO, PQ, WFQ, CBWFQ, LLQ, RTPQ, MQC
	Congestion avoidance	WRED
	Flow classifying	Standard ACL, extended ACL, DSCP, IP Precedence
	Flow supervision	CAR, LCAR
	Flow shaping	GTS
	Link efficiency	CTCP, CRTP
	Others	VLAN sub-interface QoS, channelized interface, MP QoS
Network Security	AAA	Local User, Radius, TACACS+, IP Account
	SSH	SSH v1.5, SSH v2.0
	Firewall	Dynamic packet filter, state detection, attack defense, URL filtering, ARP and DOS attack protection
	NAT	NAT, NAT, NAT Log, cross VPN NAT
	GRE	Support
	IPIP	Support
	VPDN	L2TP, PPTP
	IPsec	IPsec VPN, reverse route injection, certificate import, NAT traversal, IPsec VRRP backup, QoS for Ipsec
	ACL	Standard ACL, extended ACL
	Authentication modes	MAC binding with IP
	IPFIX traffic management and analytics	Support
IPsec	IPsec Tunnel	4K
	IPsec one-way forwarding capacity (AES256)	1.26Gbps

Model		RG-RSR7708-X
IPsec	IPsec VPN QoS	Support
High Availability		VRRP, DLDP, TRACK, BFD for USR, BFD for RIP, BFD for OSPF, BFD for BGP, BFD for VRRP, BFD for MPLS, IP FRR, GR for RIP, GR for OSPF, GR for ISIS, GR for BGP, GR for LDP
Management		SNMP v1/v2/v3, MIB, SYSLOG, Console login, Telnet (VTY) remote, SSH management
Dimensions (D x W x H) (mm)		440 × 460 × 355
Rack Height		8RU
Weight (Maximum)		≤50kg
MTBF		>200K hours
Power Consumption		650W
Input Voltage		100V to 240V AC, 50Hz to 60Hz -36V to -72V DC
Input Frequency		50Hz to 60Hz
Power Redundancy		1+1/2+1
Temperature		Operating temperature: -0°C to 45°C
		Storage temperature: -40°C to 70°C
Humidity		Operating humidity: 10% to 90% RH
		Storage humidity: 5% to 95% RH

Ordering Information

Model	Description
RSR7708-X	RSR7708-X main chassis (2 routing engine slots, 2 independent fabric engine slots, 4 service board slots, 8 service card slots, air filter and redundant fan modules); Routing engines, fabric engines, service boards, subcards, and power supply (Hot plug support) are purchased separately
Optional Accessories	
RSR7708-SRCMI-X	RSR7708-X routing engine, with 2 USB2.0 ports, 1 USB-console port, 1 MGMT port, 1 console port, 1 AUX port and 1 SD card slot
RSR7708-DSF-X	RSR7708-X fabric engine
RSR7708-X Bundle Pack (RSR7708-X-0-2AC)	RSR7708-X Bundle Pack, include: 1x RG-RSR7708-X Chassis 2x RSR7708-SCRM-X Routing Engine 2x RSR7708-DSF-X Fabric Engine 2x RG-PA600-RI Power Module (AC)
Power Modules	
RG-PA600-RI	AC power module of the RSR7708-X Router
RG-PD600-RI	DC power module of the RSR7708-X Router
RG-PA1600-RI	Maximum AC power module of the RSR7708-X Router
SIP Carrier Boards	
RSR77-SIP1-X	FNM service interface card, with 512M Memory, 2 FNM service interface card slots
FNM Modules	
FNM-8GE	8-port Gigabit Ethernet combo interface module (fiber/copper) for RSR7708-X Router
FNM-2XS	2-port 10G interface module for RSR7708-X Router

Router

RG-RSR30-X Router

OVERVIEW

Ruijie RG-RSR30-X Series has taken box router to a whole new level. To adapt to general scenarios, Ruijie delivers a cutting-edge and flexible design consisting of two components - router RG-RSR30-X-SPU10 and line card box RG-LPU-4HNM (connection via high-speed cable). The highly flexible construction allows users to select accessories based on the actual deployment, offering unparalleled cost savings among alternatives in the market.

KEY FEATURES

- Modular Design
- Redundant Power Supply
- Outstanding Routing Performance up to 60Mpps
- Integrated IPv6, VRF and MPLS Features



RG-RSR30-X

Modular Design with Minimized Costs

The design consists of a pair of router and line card box. Users can invest on the latter whenever necessary for exceptional cost savings. Users can flexibly deploy using the router and line card box as building blocks (e.g. one router teams up with two line card boxes or two routers connects with one line card box). The router fulfills the requirements of various scenarios with full service guarantee. By inserting control module into the HNM slot, the router can achieve isolation of routing engine and service forwarding engine. The arrangement smoothly delivers a highly reliable and stable solution to support various demanding scenarios.

MPLS Support

The RG-RSR30-X supports MPLS (Multiprotocol Label Switching) Protocol, distributed Layer 2 and Layer 3 VPN services. It also provides high-performance, security and multi-layer MPLS VPN solutions. Distributed multicast VPN is also supported. It can enable the high-performance multicast service online in the MPLS VPN network in order to guarantee multicast services such as video conferencing and distant learning.

IPv6 Support

The RG-RSR30-X supports various IPv6 routing technologies, such as static routing, equivalent routing, policy routing, OSPFv3, Routing Information Protocol Next Generation (RIPng), BGP4+ and IS-ISv6 to meet the future requirements of large-scale IPv6 network deployment. The router also delivers multiple IPv6 transition technologies, such as dual stack, manual channel, Site Automatic Tunnel Addressing Protocol (ISATAP), and IPv6-to-IPv4 tunneling. By using these transition technologies, a smooth transition from the IPv4 network to the IPv6 network can be implemented.

Flexible Device Management

The router supports user classification management and password protection. By using the multi-core CPU technology, the isolation of control and forwarding can be achieved. Devices can be managed in any environment. In terms of user authentication, different management privileges are granted to users of various levels in order to ensure the device security.

Specifications

Model	RG-RSR30-X
Module Slots	10
Line Card Boxes	2
Routing Engine Slots	2
Fixed Ports on Routing Engine	1 USB2.0 port 1 USB-Console port 1 MGMT port 1 console port 1 FUNC port 1 OFL port
Fixed Ports	9 GE ports (8 are combo) 1 USB2.0 port 1 SD card slot
Available Modules	E1/CE1 10GE/GE/FE OC-3/STM-1 CPOS
Memory	2GB
Packet Forwarding Rate	7-60Mpps
Dimensions (D x W x H) (mm)	435 × 440 × 44.2
Rack Height	1RU
Weight (Maximum)	≤9kg
MTBF	>437,864 hours
Input Voltage	1-6 power supply sources Support AC/DC
Temperature	Operating temperature: 0°C to 50°C
	Storage temperature: -40°C to 70°C
Humidity	Operating humidity: 10% to 90% RH
	Storage humidity: 5% to 95% RH

Ordering Information

Model	Description
RG-RSR30-X-SPU10	RG-RSR30-X Series Router, 9 fixed GE ports (8 are combo), 2 HNM slots, support hot-swapping (Power supply sold separately)
Line Card Box	
RG-LPU-4HNM	RG-RSR30-X Series Line Card Box, 40G copper cable for router connection included, 4 HNM slots, dual power supplies, support hot-swapping (Power supply sold separately)
Optional Accessories	
RSR30-X Routing Engine	RG-RSR30-X Series Routing Engine
RSR30-X-SPU10 Line Card Box Expansion Module	Support LPU module expansion on RG-RSR30-X-SPU10
RG-RSR30-X Series Power Modules (AC/DC)	Recommend at least one AC Power Module for RG-RSR30-X-SPU10 and LPU respectively
RSR30-X Series E1/CE1 Module	8-port E1/CE1 Module, separate adapter and cable required
RSR30-X Series Ethernet Module	8-port Gigabit Copper + 2-port Gigabit Fiber Module, separate SFP module required for fiber port
RSR30-X Series CPOS Module	1-port OC-3/STM-1 CPOS Module, separate SFP module required

Router

RG-RSR30-44 Router



OVERVIEW

Ruijie RG-RSR30-44 Router provides a next-generation network solution for medium to large-sized enterprises. Through the power of Ruijie's advanced software technology and hardware support, the RG-RSR30-44 offers superior manageability and reliability for enterprise edge networks at minimum costs. The router provides a consolidated service infrastructure that enables scalable deployment of new applications to better address the diversified demands for future business development.

KEY FEATURES

- Modular Design
- Redundant Power Supply
- Outstanding Routing Performance – 2Mpps
- Integrated IPv6, VRF and MPLS Features



RG-RSR30-44E

Modular Design

The RG-RSR30-44 router offers high performance and reliability in a compact, modular design. All service modules are hot swappable. With abundant routing and switching modules, the router thereby meets the demands of all customer applications.

MPLS Support

The RG-RSR30-44 supports MPLS (Multiprotocol Label Switching) which integrates L2 (Layer 2) switching and L3 (Layer 3) routing technologies. The MPLS VPN (Virtual Private Network) is widely deployed for enterprise interconnection and provision of various new services. It has become an important approach for IP network operators to provide value-added services.

IPv6 Support

The RG-RSR30-44 fully supports IPv6 functionalities, including IPv6 forwarding, IPv6 routing, IPv6 multicasting, etc. The device also provides rich migration features from IPv4 to IPv6, including the dual-stack and tunneling technologies.

Separate Management and Data Forwarding

With the advanced virtual CPU design concept adopted in the RGOS, the RG-RSR30-44 can divide CPU resources into management resources and data forwarding resources which are allocated automatically based on the traffic. This guarantees the management applications like CLI (command-line interface) and SNMP (Simple Network Management Protocol) are protected against malicious attack traffic.

Specifications

Model	RSR30-44
Module Slots	4 SIC slots 4 NMX slots
Fixed Ports	2 10/100/1000BASE-T ports 2 GE SFP combo ports 1 console port 1 AUX port 2 USB2.0 ports
Available Modules	SIC-4ESW SIC-1CE1 SIC-1E1-F SIC-1HS SIC-1A

Model		RSR30-44
Available Modules		SIC-8A SIC-1B-U SIC-1B-S/T SIC-2FXS SIC-2FXO NMX-24ESW NMX-4E1H/CE1H NMX-8E1H/CE1H NMX-2GEH NMX-4HSH NMX-1POS-STM1H NMX-1CPOSH NMX-1ATM-STM1H
Flash		512MB
Memory		512MB
3G/4G Support		3G Wireless WAN Interface SIC Module, WCDMA Mode
Packet Forwarding Rate		2Mpps
LAN Protocol		Ethernet, 802.1Q, LACP (802.3ad), RSTP (802.1w), ARP
WAN Protocol		HDLC, PPP, PPPOE Client, MP, X.25, frame relay, LAPB, SLIP
Routing Protocol		Static routing, RIPv1/v2, OSPF, BGP4, IGMP v1/v2/v3, PIM-SM, PIM-DM, PIM-SSM, PBR
MPLS		LDP, MPLS FW, MPLS/BGP VPN (L3/L2 VPN)
IP Application		Ping, Trace, Telnet/Reverse Telnet, DNS Client, DDNS, NTP server/client, SNTP, DHCP Server/DHCP Relay/DHCP client, uRPF, UDP helper
IPv6	Basic IPv6 Functions	IPv6 Forwarding, ND, IPv6 PMTU, IPv6 FIB, IPv6 ACL, IPv6 Ping, IPv6 Tracert
	IPv6 Transition Technology	Manual tunnel, Auto tunnel, GRE tunnel, 6to4 tunnel, ISATAP tunnel
	Dynamic Routing Protocol	RIPng, OSPFv3, BGP4
QoS	Congestion management	FIFO, PQ, WFQ, CBWFQ, LLQ, RTPQ, MQC
	Congestion avoidance	RED
	Flow classifying	Standard ACL, extended ACL, DSCP, IP Precedence
	Flow supervision	CAR, LCAR
	Flow shaping	GTS
	Link efficiency	CTCP, CRTP
	Others	VLAN sub-interface QoS, channelized interface, MP QoS

Model		RSR30-44
Network Security	AAA	Local User, Radius, TACACS+, IP Account
	SSH	SSH v1.5, SSH v2.0
	Firewall	Dynamic packet filter, state detection, attack defense
	NAT	NAT, NAPT
	GRE	Support
	IPIP	Support
	VPDN	L2TP, PPTP
	IPsec	Support
	ACL	Standard ACL, extended ACL
	SDG	Support
IPsec	IPsec Tunnel	1K
	IPsec one-way forwarding capacity (AES256)	Up to 500Mbps
	IPsec VPN QoS	Support
Voice	Signal interface	FXS, FXO
	IPPBX	Basic Function, Dial Policy
	H.323	Support
	GK client	Support
	SIP	Support
High Availability		VRRP, DLDP, BFD
Management		SNMP v1/v2/v3, MIB, SYSLOG, Console login, Telnet (VTY) remote, SSH management
Modules		SIC-4ESW SIC-1CE1 SIC-1E1-F SIC-1HS SIC-1A SIC-8A SIC-1B-U SIC-1B-S/T SIC-2FXS SIC-2FXO NMX-24ESW NMX-4E1H/CE1H NMX-8E1H/CE1H NMX-2GEH NMX-4HSH NMX-1POS-STM1H NMX-1CPOSH NMX-1ATM-STM1H

Model	RSR30-44
Dimensions (D x W x H) (mm)	412 × 440 × 161.4
Rack Height	4RU
Weight (Maximum)	23kg
MTBF	>200K hours
Power Consumption	150W
Input Voltage	100VAC to 240VAC
Input Frequency	50Hz to 60Hz
Power Redundancy	1+1
Temperature	0°C to 40°C
Humidity	10% to 90% RH

Ordering Information

Model	Description
RSR30-44	2-Port 10/100/1000BASE-T, 2-Port GE SFP Combo, 1 RCM Slot, 4 NMX Slots, 4 SIC Slots, 1 USB Port, 1 Console Port, 1 AUX Port, 512MB DDRAM, 512MB Flash, RCM & FAN included, AC
RG-PA240R	Power Supply Module for RSR30-44
RSR30-44 Router Interface Modules	
SIC-1HS	1-Port High-speed Synchronous Serial SIC Module
SIC-1B-U	1-Port ISDN SIC Module (U Interface)
SIC-1B-S/T	1-Port ISDN SIC Module (S/T Interface)
SIC-1E1-F	1-Port Non-channelized SIC Module (E1-F)
SIC-1CE1	1-Port Channelized E1 SIC Module
SIC-1A	1-Port Asynchronous SIC Module
SIC-8A	8-Port Asynchronous SIC Module
SIC-4ESW	4-Port 10/100Base-TX L2 Switch SIC Module
SIC-2FXS	2-Port FXS Voice SIC Module
SIC-2FXO	2-Port FXO Voice SIC Module
NMX-6FEH	6-Port 10/100 Base-T, L3 Router NMX Module
NMX-2GEH	2-Port 10/100/1000 Base-T, 2 GE SFP Combo Ports, NMX Module
NMX-4E1/CE1H	4-Port E1/CE1 NMX Module
NMX-8E1/CE1H	8-Port E1/CE1 NMX Module
NMX-4HSH	4-Port High-speed Synchronous Serial NMX Module
NMX-24ESW	24-Port 10/100Base-TX L2 Switch NMX Module
NMX-1ATM-STM1H	1-Port 155M ATM NMX Module
NMX-1POS-STM1H	1-Port 155M POS NMX Module
NMX-1CPOSH	1-Port 155M CPOS NMX Module
RSR30-44 Router Interface Accessories	
Adapter/RJ45F-DB9F	RJ45-DB9 Female Converter
Adapter/RJ45F-DB25M	RJ45-DB25 Male Converter
Adapter/RJ45F-DB25F	RJ45-DB25 Female Converter
Adapter/BNCF-BNCF/75ohm	BNCF-BNCF Straight Converter
CAB-Dualcore Multimode Fiber/LC-LC/3m	LC-LC Dual core Multimode Fiber
CAB-Asy/SCSIDB68-8*RJ45M/1.5m	68 Pin to 8 Male RJ-45 Router Asynchronous Card SCSI Interface Cable
CAB-Asy/SCSIDB68-8*RJ45F/1.5m	68 Pin to 8 Female RJ45 Router Asynchronous Card SCSI Interface Cable

Model	Description
CAB-V.35DTE/ POS26-34PM/3m	V.35DTE Cable/POS26-V.35
CAB-V.35DCE/ POS26-34PF/3m	V.35DCE Cable/POS26-V.35
CAB-V.24DTE/ POS26-DB25M/3m	232DTE Cable/POS26-DB25
CAB-V.24DCE/ POS26-DB25F/3m	232DCE Cable/POS26-DB25
CAB-V.35DTE- V.35DCE/POS26-P OS26/1m	V.35DTE-V.35DCE Cable-1meter Specially for Network Lab (Both POS26 Terminal)
CAB-E1 balanced/DB9M- RJ45F/120ohm/3m	E1 balanced Cable/RJ45 Female-120Ω-3meter, DB9M Cable Connect RJ45 female
CAB-E1 unbalanced/DB9M- 2*BNC/75ohm/3m	E1 Cable-3m, DB9 Male Connect BNC*2 (75ohm)
CAB-E1 balanced/DB9M- RJ45M/120ohm/3m	E1 Cable-3m, DB9 Male Connect RJ45 (120ohm)
CAB-E1 unbalanced/ DB25M- 8*BNC/75ohm/3m	E1 Cable-3m, DB25 Male Connect BNC*8 (75ohm)
CAB-E1 balanced/ DB25M- 4*RJ45M/120ohm/3m	E1 Cable-3m, DB25 Male Connect RJ45 *4 (120ohm)
Mini-GBIC-SX	1000BASE-SX SFP Transceiver MM (850nm, 550m, LC)
Mini-GBIC-LX	1000BASE-LX SFP Transceiver SM (1310nm, 10km, LC)
Mini-GBIC-LH	1000BASE-LH SFP Transceiver SM (1310nm, 40km, LC)
Mini-GBIC-ZX50	1000BASE-ZX SFP Transceiver SM (1550nm, 50km, LC)
Mini-GBIC-ZX80	1000BASE-ZX SFP Transceiver, SM (1550nm, 80km, LC)
SDH155-SFP-SX- MM850	155M CPOS, POS, ATM SFP Transceiver, MM (850nm, 1km, LC)
SDH155-SFP-SX- MM1310	155M CPOS, POS, ATM SFP Transceiver, MM (1310nm, 2km, LC)
SDH155-SFP-LH15- SM1310	155M CPOS, POS, ATM SFP Transceiver, MM (1310nm, 15km, LC)
SDH155-SFP-LH40- SM1310	155M CPOS, POS, ATM SFP Transceiver, MM (1310nm, 40km, LC)
SDH155-SFP-LH80- SM1550	155M CPOS, POS, ATM SFP Transceiver, MM (1550nm, 80km, LC)

Router

RG-RSR20-14E Router



OVERVIEW

Ruijie RG-RSR20-14E Router provides a next-generation network solution for branch offices of medium and large-sized enterprises. Through the power of Ruijie's advanced software technology and hardware support, the RG-RSR20-14E offers superior manageability and reliability for enterprise edge networks at minimum costs. The router provides a consolidated service infrastructure that enables scalable deployment of new applications to better address the diversified demands for future business development.

KEY FEATURES

- Integration of Routing and Switching
- Built-in 2-port GE WAN, 24-port FE LAN and 4 SIC Slots
- IPv6 Support
- 3G/4G WAN Module Support
- Integrated VPN Functions
- Packet Forwarding Rate: 600Kpps



RG-RSR20-14E

Integration of Routing and Switching

The RG-RSR20-14E router provides 24 Layer 2 Fast Ethernet ports and 2 Layer 3 GE ports with a wide range of switching features on Layer 2 and Layer 3. All switching Ethernet ports can be configured to support Layer 2 or Layer 3 interfaces and Layer 3 applications such as ACL (access control list) and QoS (Quality of Service).

3G/4G WAN Module Support

With optional CDMA 2000 and WCDMA 3G WAN SIC module and 4G TD-LTE and FDD-LTE WAN SIC module, the RG-RSR20-14E meets the customer needs of deploying 3G/4G resilience or offload solution. The router supports up to 2 3G/4G modules, and thus 2 different Mobile ISPs can be selected for additional resiliency.

High Performance

The forwarding capacity of the router is up to 600Kpps, which achieves high performance for all services such as ACL, PBR (Policy Based Routing), NAT (Network Address Translation), etc. Furthermore, the RG-RSR20-14E router is integrated with 2 Gigabit WAN combo ports, which can meet customers' current and future needs.

Efficient and Fast Forwarding

The RG-RSR20-14E adopts REF (Ruijie Express Forwarding), a high-speed packet forwarding technology of Ruijie Networks, which optimizes the data forwarding efficiency and offers high performance.

Separate Management and Data Forwarding

With the advanced virtual CPU design concept adopted in the RGOS, the RG-RSR20-14E can divide CPU resources into management resources and data forwarding resources which are allocated automatically based on the traffic. This guarantees the management applications like CLI (command-line interface) and SNMP (Simple Network Management Protocol) are protected against malicious attack traffic.

Specifications

Model	RSR20-14E
Module Slots	4 SIC slots
Fixed Ports on Routing Engine	1 USB2.0 port 1 MGMT port 1 console port 1 FUNC port 1 AUX port 1 SD card slot
Fixed Ports	24 10/100BASE-T LAN ports 2 10/100/1000BASE-T ports 2 GE SFP combo WAN ports 1 console port 1 AUX port 1 USB2.0 port 1 SD slot
Available Modules	SIC-1HS: 1-Port High-speed Synchronous Module SIC-1A: 1-Port Asynchronous Module SIC-8A: 8-Port Asynchronous Module SIC-1B-U: 1-Port ISDN Module (U Interface) SIC-1B-S/T: 1-Port ISDN Module (S/T Interface) SIC-1E1-F: 1-Port E1 Module SIC-1CE1: 1-Port E1 Module SIC-2FXS: 2-Port FXS Voice Module SIC-2FXO: 2-Port FXO Voice Module SIC-3G-WCDMA: 3G Wireless WAN Interface Module, WCDMA Mode SIC-3G-WCDMA-H-E: 3G Wireless WAN Interface SIC Module, HSPA+, WCDMA Mode SIC-3G-CDMA: 3G Wireless WAN Interface Module, CDMA2000 Mode
Flash	128MB
Memory	512MB
3G/4G Support	3G SIC card (WCDMA, CDMA2000) 4G SIC card (TD-LTE, FDD-LTE)
Packet Forwarding Rate	600Kpps
LAN Protocol	Ethernet, 802.1Q, AP, ARP
WAN Protocol	PPPoE Client, FR, HDLC, MP, SIC-3G (WCDMA, CDMA2000), SIC-4G (TD-LTE, FDD-LTE), X.25, LAPB, SLIP
Routing Protocol	Static routing, RIPv1/v2, OSPFv2, BGP4, IGMP v1/v2/v3, PIM-SM, PIM-DM, PIM-SSM, PBR
MPLS	LDP, MPLS FW, MPLS VPN (L3/L2 VPN)
IP Application	Ping, Trace, Telnet/Reverse Telnet, DNS Client, DDNS, NTP server/client, SNTP, DHCP Server/DHCP Relay/DHCP Client, uRPF, UDP helper
IP Rating	IP20

Model		RSR20-14E
IPv6	Basic IPv6 Functions	IPv6 Forwarding, ND, IPv6 PMTU, IPv6 FIB, IPv6 ACL, IPv6 Ping, IPv6 Tracert
	IPv6 Transition Technology	Manual tunnel, Auto tunnel, GRE tunnel, 6to4 tunnel, ISATAP tunnel
	Dynamic Routing Protocol	RIPng, OSPFv3, BGP4+
QoS	Congestion management	FIFO, PQ, WFQ, CBWFQ, LLQ, RTPQ, MQC
	Congestion avoidance	WRED
	Flow classifying	Standard ACL, extended ACL, DSCP, IP Precedence
	Flow supervision	CAR, LCAR
	Flow shaping	GTS
	Link efficiency	CTCP, CRTP
	Others	VLAN sub-interface QoS, channelized interface, MP QoS
Network Security	AAA	Local User, RADIUS, TACACS+, IP Account
	SSH	SSH v1.5, SSH v2.0
	802.1X	Support
	Firewall	Dynamic packet filter, state detection, attack defense, URL filtering, ARP and DOS attack protection
	NAT	NAT, NAT, NAT Log, cross VPN NAT
	GRE	Support
	IPIP	Support
	VPDN	Support
	IPsec	IPsec VPN, reverse route injection, certificate import, NAT traversal, IPsec VRRP backup, QoS for Ipsec
	ACL	Standard ACL, extended ACL
	Authentication modes	Web and MAC authentication modes, port security, MAC address restriction, MAC binding with IP and VLAN
	IPFIX traffic management and analytics	Support
	SDG	Support
IPsec	IPsec Tunnel	1K
	IPsec one-way forwarding capacity (AES256)	Up to 310Mbps
	IPsec VPN QoS	Support

Model		RSR20-14E
Voice	Signal interface	FXS, FXO
	IPPBX	Basic Function, Dial Policy
	H.323	Support
	GK client	Support
	SIP	Support
High Availability		VRRP, DLDP, TRACK, BFD for USR, BFD for RIP, BFD for OSPF, BFD for BGP, BFD for VRRP, BFD for MPLS, IP FRR, GR for RIP, GR for OSPF, GR for ISIS, GR for BGP, GR for LDP
Management		SNMP v1/v2/v3, MIB, SYSLOG, Console login, Telnet (VTY) remote, SSH management
Dimensions (D x W x H) (mm)		300 × 440 × 44
Rack Height		1RU
Weight (Maximum)		5kg
MTBF		>140K hours
Power Consumption		47W
Input Voltage		110V to 240V AC
Input Frequency		50Hz to 60Hz
Temperature		0°C to 45°C
Humidity		10% to 95% RH

Ordering Information

Model	Description
RSR20-14E	24-Port 10/100 BASE-T LAN, 2-Port 10/100/1000BASE-T and 2 GE SFP Combo WAN, 1 Console Port, 1 AUX Port, 1 USB Port, 1 SD Slot, 4 SIC Slots
RSR20-14E Router SIC Modules	
SIC-1HS	1-Port High-speed Synchronous Serial Port Interface Card
SIC-1B-U	1-Port ISDN Basic-Rate U Interface Card
SIC-1B-S/T	1-Port ISDN Basic-Rate S/T Interface Card
SIC-1E1-F	1-Port Non-channelized E1 Interface Card
SIC-1CE1	1-Port Channelized E1 Interface Card
SIC-1A	1-Port High-speed Asynchronous Serial Port Interface Card
SIC-8A	8-Port High-speed Asynchronous Serial Port Interface Card
SIC-2FXS	2-Port FXS Voice Interface Card
SIC-2FXO	2-Port FXO Voice Interface Card
SIC-4ESW	4-Port 100Base-T Fast-Ethernet Switching Interface Card
SIC-3G-WCDMA	3G Wireless WAN Interface SIC Module Card Supporting GPRS/EDGE/UMTS/HSPA
RSR20-14E Router Interface Accessories	
Adapter/RJ45F-DB9F	RJ45F-DB9F Converter
Adapter/RJ45F-DB25M	RJ45F-DB25M Converter
Adapter/RJ45F-DB25F	RJ45F-DB25F Converter
Adapter/BNCF-BNCF/75ohm	BNCF-BNCF Converter
CAB-Dual core Multimode Fiber/LC-LC/3m	LC-LC Dual core Multimode Fiber
CAB-Asy/SCSDB68-8*RJ45M/1.5m	68 Pin to 8 Male RJ-45 Router Asynchronous Card SCSI Interface Cable
CAB-Asy/SCSDB68-8*RJ45F/1.5m	68 Pin to 8 Female RJ45 Router Asynchronous Card SCSI Interface Cable
CAB-V.35DTE/POS26-34PM/3m	V.35DTE Cable/POS26-V.35
CAB-V.35DCE/POS26-34PF/3m	V.35DCE Cable/POS26-V.35
CAB-V.24DTE/POS26-DB25M/3m	232DTE Cable/POS26-DB25
CAB-V.24DCE/POS26-DB25F/3m	232DCE Cable/POS26-DB25

Model	Description
CAB-V.35DTE-V.35DCE/POS26-POS26/1m	Cable for Network Lab, V.35 DTE-V.35 DCE (POS26 at Both Ends), 1m
CAB-E1 balanced/DB9M-RJ45F/120ohm/3m	E1 Cable, DB9M/RJ-45F (120ohm), 3m
CAB-E1 unbalanced/DB9M-2*BNC/75ohm/3m	E1 Cable, DB9M/2*BNC (75ohm), 3m
CAB-E1 balanced/DB9M-RJ45M/120ohm/3m	E1 Cable, DB9M/RJ-45M (120ohm), 3m
CAB-E1 unbalanced/ DB25M-8*BNC/75ohm/3m	E1 Cable, DB25M/8*BNC (75ohm), 3m
CAB-E1 balanced/ DB25M-4*RJ45M/120ohm/3m	E1 Cable, DB25M/4*RJ-45M (75ohm), 3m
Mini-GBIC-SX	1000Base-SX SFP Transceiver, MM (850nm, 550m, LC)
Mini-GBIC-LX	1000Base-LX SFP Transceiver, SM (1310nm, 10km, LC)
Mini-GBIC-LH40	1000Base-LH SFP Transceiver, SM (1310nm, 40km, LC)
Mini-GBIC-ZX50	1000Base-ZX SFP Transceiver, SM (1550nm, 50km, LC)
Mini-GBIC-ZX80	1000Base-ZX SFP Transceiver, SM (1550nm, 80km, LC)
SDH155-SFP-SX-MM850	155M SFP Transceiver, MM (850nm, 1km, LC)
SDH155-SFP-SX-MM1310	155M SFP Transceiver, MM (1310nm, 2km, LC)
SDH155-SFP-LH80-SM1550	155M SFP Transceiver, MM (1550nm, 80km, LC)
ANT-RJ3G0MA-S	Spare Antenna for 3G Module (Omnidirectional Antenna, 824-960MHz, 1.8dBi/1710-2170MHz, 2.0dBi, SMA-J Interface)
ANT-RJ3G3MA	Omnidirectional Antenna, 824~960MHz/1710~2170MHz, 3.5dBi, Vertical Polarization, 50W, SMA-J Interface, Fixing by magnetic force, mobile terminal antenna, 3m Extension Cable

Router

RG-RSR10-02E Router



OVERVIEW

Ruijie RG-RSR10-02E Router provides a next-generation network solution for enterprise branches while reducing deployment and operational costs. Through the power of Ruijie's advanced software technology and hardware support, the router offers superior manageability and reliability for enterprise edge networks at minimum costs. The RG-RSR10-02E also provides a consolidated service infrastructure that enables scalable deployment of new applications to better address the diversified demands for future business development.

KEY FEATURES

- Integration of Routing and Switching
- Built-in 2-Port GE WAN and 8-Port FE LAN
- IPv6 Support
- 3G/4G WAN Module Support
- Integrated VPN Functions



RG-RSR10-02E

Integration of Routing and Switching

The RG-RSR10-02E router supports up to 8 10/100M switching Ethernet ports with a wide range of switching features on Layer 2 and Layer 3. The device also provides 2 fixed 10/100/1000M routing Ethernet ports that support routing protocols such as RIP, OSPF and BGP. All switching Ethernet ports can be configured to support Layer 2 or Layer 3 interfaces and Layer 3 applications such as ACL (access control list) and QoS (Quality of Service).

Rich Software Features

The RG-RSR10-02E runs on the advanced RGOS (Ruijie General Operating System), which offers industry-leading network services, including MPLS (Multiprotocol Label Switching), BGP (Border Gateway Protocol) and Voice.

3G/4G WAN Module Support

With optional CDMA 2000 and WCDMA 3G WAN SIC module and 4G TD-LTE and FDD-LTE WAN SIC module, the RG-RSR10-02E meets the customer needs of deploying 3G/4G resilience or offload solution. The router supports up to 2 3G/4G modules, and thus 2 different Mobile ISPs can be selected for additional resiliency.

Separate Management and Data Forwarding

With the advanced virtual CPU design concept adopted in the RGOS, the RG-RSR10-02E router can divide CPU resources into management resources and data forwarding resources which are allocated automatically based on the traffic. This guarantees the management applications like CLI (command-line interface) and SNMP (Simple Network Management Protocol) are protected against malicious attack traffic.

Specifications

Model		RSR10-02E
Module Slots		2 SIC slots
Fixed Ports		8 10/100BASE-T LAN ports 2 10/100/1000BASE-T WAN ports 1 console port 1 AUX port 1 USB2.0 port 1 SD slot
Available Modules		SIC-1HS: 1-Port High-speed Synchronous Module SIC-1A: 1-Port Asynchronous Module SIC-8A: 8-Port Asynchronous Module SIC-1B-U: 1-Port ISDN Module (U Interface) SIC-1B-S/T: 1-Port ISDN Module (S/T Interface) SIC-1E1-F: 1-Port E1 Module SIC-1CE1: 1-Port E1 Module SIC-2FXS: 2-Port FXS Voice Module SIC-2FXO: 2-Port FXO Voice Module SIC-3G-WCDMA: 3G Wireless WAN Interface Module, WCDMA Mode SIC-3G-WCDMA-H-E: 3G Wireless WAN Interface SIC Module, HSPA+, WCDMA Mode SIC-3G-CDMA: 3G Wireless WAN Interface Module, CDMA2000 Mode
Flash		128MB
Memory		512MB
3G/4G Support		3G SIC card (WCDMA, CDMA2000) 4G SIC card (TD-LTE and FDD-LTE)
Packet Forwarding Rate		500Kpps
LAN Protocol		Fast Ethernet, VLAN, ARP, 802.1Q, 802.1ad
WAN Protocol		PPPoE Client, FR, HDLC, MP, SIC-3G (WCDMA, CDMA2000), SIC-4G (TDLTE, FDD-LTE), X.25, LAPB, SLIP
Routing Protocol		Static routing, RIPv1/v2, OSPFv2, Tag route filtering
MPLS		LDP, MPLS FW, MPLS VPN (L3/L2 VPN)
IP Application		Ping, Trace, Telnet/Reverse Telnet, DNS Client, DDNS, NTP server/client, SNTP, DHCP Server/DHCP Relay/DHCP Client, uRPF, UDP helper
IP Rating		IP20
IPv6	Basic IPv6 Functions	IPv6 Forwarding, ND, IPv6 PMTU, IPv6 FIB, IPv6 ACL, IPv6 Ping, IPv6 Tracert
	IPv6 Transition Technology	Manual tunnel, Auto tunnel, GRE tunnel, 6to4 tunnel, ISATAP tunnel
	Dynamic Routing Protocol	RIPng, OSPFv3, BGP4+

Model		RSR10-02E
QoS	Congestion management	FIFO, PQ, CQ, WFQ, CBWFQ, LLQ, RTPQ, MQC
	Congestion avoidance	RED, WRED
	Flow classifying	Standard ACL, extended ACL, DSCP, IP Precedence
	Flow supervision	CAR
	Flow shaping	GTS
	Link efficiency	CTCP, CRTP
	Others	VLAN sub-interface QoS, channelized interface, MP QoS
Network Security	AAA	Local User, RADIUS, TACACS, Domain, TACACS+, IP Account
	SSH	SSH v1.5, SSH v2.0
	802.1X	Support
	Firewall	Dynamic packet filter, state detection, attack defense, URL filtering
	NAT	NAT, NAT, NAT Log
	GRE	Support
	IPIP	Support
	VPDN	Support
	IPsec	Support
	ACL	Support
	Authentication modes	Web and MAC authentication modes, port security, MAC address restriction, MAC binding with IP and VLAN
	IPFIX traffic management and analytics	Support
IPsec	SDG	Support
	IPsec Tunnel	1K
	IPsec one-way forwarding capacity (AES256)	Up to 310Mbps
Voice	IPsec VPN QoS	Support
	Signal interface	FXS, FXO
	IPPBX	Basic Function, Dial Policy
	H.323	Support
	GK client	Support
High Availability	SIP	Support
		VRRP, DLDP, BFD, GR, Hot-Plugging

Model	RSR10-02E
Management	SNMP v1/v2/v3, 3G MIB, SYSLOG, Console login, Telnet (VTY) remote
Dimensions (D x W x H) (mm)	205 × 288 × 44
Rack Height	1RU
Weight (Maximum)	2kg
MTBF	>150K hours
Power Consumption	20W
Input Voltage	100VAC to 240VAC
Input Frequency	50Hz to 60Hz
Temperature	0°C to 45°C
Humidity	10% to 95% RH

Ordering Information

Model	Description
RSR10-02E	8-Port 10/100BASE-T LAN, 2-Port 10/100/1000BASE-T WAN, 1 Console Port, 1 AUX Port, 1 USB port, 1 SD Slot, 2 SIC slots, 512MB DRAM
RSR10-02E Router SIC Modules	
SIC-1HS	1-Port High-speed Synchronous Serial SIC Module
SIC-1B-U	1-Port ISDN SIC Module (U Interface)
SIC-1B-S/T	1-Port ISDN SIC Module (S/T Interface)
SIC-1E1-F	1-Port Non-channelized SIC Module (E1-F)
SIC-1CE1	1-Port Channelized E1 SIC Module
SIC-1A	1-Port Asynchronous SIC Module
SIC-8A	8-Port Asynchronous SIC Module
SIC-2FXS	2-Port FXS Voice SIC Module
SIC-2FXO	2-Port FXO Voice SIC Module
SIC-3G-WCDMA	3G Wireless WAN Interface SIC Module, WCDMA Mode
SIC-3G-WCDMA-H-E	3G Wireless WAN Interface SIC Module, HSPA+, WCDMA Mode
SIC-3G-CDMA	3G Wireless WAN Interface SIC Module, CDMA2000 Mode
RSR10-02E Router Interface Accessories	
Adapter/RJ45F-DB9F	RJ45F-DB9F Converter
Adapter/RJ45F-DB25M	RJ45F-DB25M Converter
Adapter/RJ45F-DB25F	RJ45F-DB25F Converter
CAB-Asy/SCSIDB68-8*RJ45M/1.5m	68-Pin to 8 Male RJ-45 Router Asynchronous Card SCSI Interface Cable, 1.5m
CAB-Asy/SCSIDB68-8*RJ45F/1.5m	68-Pin to 8 Female RJ-45 Router Asynchronous Card SCSI Interface Cable, 1.5m

Model	Description
CAB-V.35DTE/POS26-34PM/3m	RS449 Serial Cable, V.35 DTE/POS26-34PM, 3m
CAB-V.35DCE/POS26-34PF/3m	RS449 Serial Cable, V.35 DCE/POS26-34PF, 3m
CAB-V.24DTE/POS26-DB25M/3m	RS449 Serial Cable, V.24 DTE/POS26-DB25M, 3m
CAB-V.24DCE/POS26-DB25F/3m	RS232 Serial Cable, V.24 DCE/POS26-DB25F, 3m
CAB-V.35DTE-V.35DCE/POS26-POS26/1m	Cable for Network Lab, V.35 DTE-V.35 DCE (POS26 at Both Ends), 1m
CAB-E1 balanced/DB9M- RJ45F/120ohm/3m	E1 Cable, DB9M/RJ-45F (120ohm), 3m
CAB-E1 unbalanced/ DB9M-2*BNC/75ohm/3m	E1 Cable, DB9M/2*BNC (75ohm), 3m
CAB-E1 balanced/DB9M- RJ45M/120ohm/3m	E1 Cable, DB9M/RJ-45M (120ohm), 3m
FL-RSR10-02E	RSR10-02E Rack Mount Kit
ANT-RJ3G0MA-S	Spare Antenna for 3G Module (Omnidirectional Antenna, 824-960MHz, 1.8dBi/1710-2170MHz, 2.0dBi, SMA-J Interface)
ANT-RJ3G3MA	Omnidirectional Antenna, 824~960MHz/1710~2170MHz, 3.5dBi, Vertical Polarization, 50W, SMA-J Interface, Fixing by magnetic force, mobile terminal antenna, 3m Extension Cable

Router

RG- RSR10-01G-T(W) Router



OVERVIEW

The RG-RSR10-01G-T(W) 4G Wireless Router is specifically designed for small and medium businesses to power next-gen network solutions. The leading device supports routing, switching, security, 4G/3G connection all in one to adapt to various deployment scenarios. Extensive software features are also available to support VPN, MPLS, multicast applications and so on. Together with a wide range of backup solutions and H-QoS features, the RG-RSR10-01G-T(W) router is an ideal companion for access solutions involving data and videos.

KEY FEATURES

- All-in-One with 4G WAN, Wireless AP, Routing and Switching Features
- Wide 3G/4G Band Support (TDD/FDD/WCDMA/TD-SDMA/GSM/GPRS)
- Small Desktop Form Factor Design
- Out-of-box with Advanced Routing Features
- Built-in with 5 10/100BASE-T LAN Ports
- Industrial-grade & Compact Design



RG-RSR10-01G-T(W)

Built-in 4G LTE Support

The RG-RSR10-01G-T(W) router supports a wide range of 4G standards including TD-LTE, FDD-LTE, etc. Fully satisfy user demands on 4G wireless key uplink and backup link applications. The router offers a full set of IP services and features including interface backup, traffic analytics, network attack defense, etc. Two operating modes, namely the permanently online mode and on-demand dial mode, are available. Users can flexibly choose the best-fit mode based on their account billing type. Antenna module is ready as an optional component for signal enhancement. The antenna professionally solves signal blockage and attenuation problems caused by obstacles in the deployment environment.

Industrial-grade & Compact Design

The IP30-rated router can withstand a harsh temperature range of -30oC to 70oC. The compact design is adaptive to various scenarios, offering painless deployment with ultimate flexibility.

Security Features

The built-in encryption engine largely enhances coding/decoding efficiency as the processes are completed by hardware. The feature fulfills demanding encryption requirements of resources such as multimedia data. The engine ensures that the forwarding and encryption take place at the same time. It also reduces the total invest costs as fewer number of interface slots is required. The router supports an extensive library of security features including firewall, IPsec VPN, Secure Shell (SSH), protection against invasion, DDoS protection, digital certificate, AAA (Authentication, Authorization and Accounting), RADIUS and TACACS+, etc.

Painless Management

The router supports web management for easier operation and lower costs on learning, operation and maintenance. The leading device also enables SNMP to enable TFTP upload and download of configuration files as well as Telnet for remote control and management. Maintenance cost can be further reduced by deploying flexible management methods using USB and SMS.

Specifications

Model		RG-RSR10-01G-T(W) (v2.1)
Fixed Ports		5 10/100BASE-T LAN ports 1 USB2.0 port 1 restore button 4 SMA external antenna interfaces (2*4G, 2*Wi-Fi)
Flash		128MB
Memory		512MB
3G/4G Support		FDD-LTE cat 4: DL 150Mbps/UL 50Mbps TD-LTE cat 3: DL 68Mbps/UL 17Mbps TDD-LTE: B38/B39/B40/B41 LTE FDD: B1/B3/B8 WCDMA: B1/B5/B8/B9 TDS: B34/B39 GSM: 900/1800MHz
Wi-Fi Support	Radio	Single-band single-radio
	Protocol	802.11b/g/n
	Spatial Streams	2
	Antenna	2*2 MIMO
	Max Throughput	300Mbps@2.4GHz
	Maximum clients per AP	60
	SSID capacity	3
	Data encryption	WEP, WPA-PSK, WPA2-PSK
Routing Protocol		Unicast protocols: RIPv1/v2, OSPF, BGP, ISIS, OSPFv3, IS-ISv6, BGP4+ Multicast protocols: IGMP, PIM-DM, PIM-SM, PIM-SSM, DVMRP, MSDP
MPLS		MPLS, LDP, MPLS QoS, MPLS VPN, nested MPLS VPN
IP Rating		IP30
IPv6	IPv6 Transition Technology	IPv4/IPv6, Manual tunnel, Automatic GRE tunnel, Automatic 6to4 tunnel, ISATAP tunnel
QoS	Congestion management	LLQ
	Congestion avoidance	WRED
	Flow supervision	CAR
	Flow shaping	GTS
	Others	QoS, H-QoS
Network Security	AAA	Support
	SSH	Support
	802.1X	Support

Model		RG-RSR10-01G-T(W) (v2.1)
Network Security	Firewall	Dynamic packet filter, state detection, attack defense, URL filtering, ARP and DOS attack protection
	NAT	NAT, NATP, NAT Log, cross VPN NAT
	GRE	Support
	IPIP	Support
	VPDN	L2TP, PPTP
	IPsec	IPsec VPN, reverse route injection, certificate import, NAT traversal, IPsec VRRP backup, QoS for IPsec
	ACL	Standard ACL, extended ACL
	Authentication modes	Web and MAC authentication modes, port security, MAC address restriction, MAC binding with IP and VLAN
	IPFIX traffic management and analytics	Support
High Availability		VRRP, DLDP, TRACK, BFD for USR, BFD for RIP, BFD for OSPF, BFD for BGP, BFD for VRRP, BFD for MPLS, IP FRR, GR for RIP, GR for OSPF, GR for ISIS, GR for BGP, GR for LDP
Dimensions (D x W x H) (mm)		100 × 120 × 40
Rack Height		1RU
Power Consumption		<6W
Input Voltage		100V to 240V AC
Input Frequency		50Hz to 60Hz
Temperature		Operating temperature: -30°C to 70°C
		Storage temperature: -40°C to 85°C
Humidity		Operating humidity: 5% to 95% RH
		Storage humidity: 5% to 95% RH

Ordering Information

Model	Description
RG-RSR10-01G-T(W) (v2.1)	Industrial-class 4G Wireless Router, 5 10/100BASE-T LAN ports, 1 USB2.0 port, 4 SMA external antenna interfaces (2*4G, 2*Wi-Fi), 1 SIM card slot, support TD-LTE, FDD-LTE, WCDMA, TD-SCDMA, GSM, 802.11b/g/n (Bundled with Wi-Fi and 4G antennas)
Optional Accessories	
RG-ANT-2G3G4G0M	4G Rod Antenna, support 7 standards (all 2G/3G/4G bands)
SL10653G-2M	Omnidirectional 4G Extension Antenna, 2 meter, magnetic mount, support 698MHz to 2700MHz, support 4G/3G/2G of China Mobile, China Unicom, and China Telecom
C168-JL-2156-6M	Low-loss Extension Cable, 6 meter, for 3G/4G antenna (antenna sold separately)
C168-JL-2157-15M	Low-loss Extension Cable, 15 meter, for 3G/4G antenna (antenna sold separately)

Next-Generation Firewall

RG-WALL 1600 Series



OVERVIEW

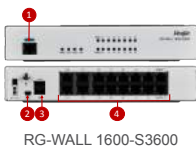
Ruijie RG-WALL 1600 Series is a collection of next-gen firewalls offering security, routing and switching features all in one with extensive interface varieties and flexible configuration. The firewall is an ideal partner for government, medical, enterprise, carrier, finance, education and military network deployments. Teaming up with Ruijie’s leading switch and router series, the firewall can act as a network gateway and provide a secure connection between different policy areas, providing users with an end-to-end solution that best fits their actual needs.

KEY FEATURES

- Hardware Acceleration with Superior Performance (From 1.5Gbps to 80Gbps FW Throughput)
- Built-in Advanced Firewall, IPS, Anti-X Features Protection
- Security, Switching & Routing All-In-One (Up to 42 GE Ports & 8 10GE Ports)
- Comprehensive Logs and Audits (With Internal Storage)

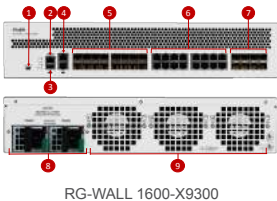


Hardware Highlights



Interfaces

1. Console Port
2. USB Management Port
3. 2 USB Ports
4. 16 GE Ports



Interfaces

1. USB Management Port
2. Console Port
3. USB Port
4. 2 Management Ports
5. 16 SFP Ports
6. 18 GE Ports (Including 2 Management Ports)
7. 8 SFP+ Ports
8. Dual Power Supply
9. 3 Fan Trays

Firewall

Hardware Acceleration with Superior Performance

With ASIC hardware chip acceleration technology, the firewall's performance is independent of the number of policies and dialogues. The internal core layer at the same time handles all the reception, categorization, forwarding of packets to fully eliminate network traffic bottleneck. The firewall greatly enhances the processor performance on the application layer security inspection. Various modules such as anti-virus, IPS, behavior monitoring and anti-spam are available to enhance the overall performance.

New Security & Protection Features

The RG-WALL 1600 Firewall Series enables user-based, intelligent network deployment and access control in terms of users, resources and applications. The feature-rich firewall offers in-depth status inspection, defense against external attacks, intranet security, traffic control, email filtering, website filtering, application filtering, etc. The firewall also delivers an extensive library of smart analysis and management features, supporting email alerts and various system logs for streamlined operation. Multiple forms of VPN deployment are enabled with GRE, L2TP and IPsec supporting features. The firewall sustains exceptional routing performance for NAT, static/RIP/OSPF routing policies. It also supports hot backup of dual devices, allowing Active/Active and Active/Standby modes and comprehensive QoS features. The RG-WALL 1600 Firewall Series fully meets the demands of high network reliability.

Security, Switching & Routing All-In-One

The security, routing and switching all-in-one product supports a wide range of firewall features such as security policies, NAT, VPN and web protection. The firewall also delivers various switching interfaces, which enable direct firewall deployment for government branch offices, hospitals, primary and secondary schools, enterprise branches and settings alike. Deploying as network gateway, the RG-WALL 1600 Firewall Series is an ideal replacement for router and hence offers exceptional cost savings.

Comprehensive Logs and Audits

The RG-WALL 1600 Firewall Series offers a broad spectrum of logs, traffic statistics and analysis functions. It also provides event monitoring, statistical features, email alerts, working with the log management system to complete log record, enquiry and analysis.

Specifications

Model		RG-WALL 1600-S3100	RG-WALL 1600-S3600	RG-WALL 1600-M5100	RG-WALL 1600-M6600	RG-WALL 1600-X9300
Hardware Specifications	Fixed Ports	10 GE ports (RJ45)	16 GE ports (RJ45)	42 GE ports (RJ45) 2 GE ports (SFP)	10 GE ports (RJ45) 8 GE ports (SFP)	18 GE ports (RJ45) 16 GE ports (SFP) 8 10GE ports (SFP+)
	Management Port	N/A	N/A	1	2	2
	Console Port	1 (RJ45)				
	USB Ports	2 (1 client, 1 server)	3 (1 client, 2 server)	2 (1 client, 1 server)	3 (1 client, 2 server)	2 (1 client, 1 server)
	Internal Storage	4GB	32GB	64GB	16GB	240GB
Performance and Capacity	Firewall Throughput (64/ 512/ 1518 bytes)	1.5Gbps	3.5Gbps	4Gbps	16Gbps	80Gbps
	Firewall Latency	4µs	4µs	6µs	3µs	3µs
	Concurrent Sessions	500K	1.5M	3.2M	6M	12M
	New Sessions/ Sec	4K	4K	77K	200K	250K
	IPsec VPN Throughput	1Gbps	1Gbps	1.3Gbps	14Gbps	50Gbps
	IPsec Tunnels	200	200	2K	2K	10K
	IPS Throughput	200Mbps	275Mbps	2.1Gbps	2.8Gbps	11Gbps
Operating Mode	Antivirus Throughput (Proxy Based / Flow Based)	35Mbps / 50Mbps	35Mbps / 65Mbps	600Mbps / 1.1Gbps	1.4Gbps / 2.5Gbps	4.3Gbps / 13Gbps
	Layer 2 (Transparent Mode)	Support				
	Layer 3 (Routing and NAT Mode)	Support				
	Hybrid Mode	Support				
	NAT (Network Address Translation)	Support				

Firewall

Model		RG-WALL 1600-S3100	RG-WALL 1600-S3600	RG-WALL 1600-M5100	RG-WALL 1600-M6600	RG-WALL 1600-X9300
Operating Mode	PAT (Port Address Translation)	Support				
	VLAN Routing	Support				
	Number of Users Per Port	Unlimited				
Firewall Features	Stateful Inspection	Support				
	Packet Filtering					
	Application Layer Protocol Inspection	Support				
	MAC/IP Binding	Support				
	Security Domain	Support				
	Anti-Scanning and Anti-DoS Attack	Support				
	Anti ARP Spoofing, ARP Active Probing	Support				
	Connection Limits	Support				
	Temporary Blocking	Support				
Routing Features	Customized Packet Capture	Support				
	OSPF Dynamic Routing	Support				
	RIP Dynamic Routing	RIPv1/v2 support				
	Static Routing	Support				
	Multicast Routing	Support				
	H.323 over NAT	Support				
	Policy-Based Routing, Rule-based Routing	Support				
	DHCP	Support DHCP Server, DHCP Client, DHCP Relay				
VPN Features	PPPoE	Support				
	VPN Tunnels	Flexible on-demand configuration				
	Types of VPN Supported	GRE, L2TP, IPsec				
	Encryption Standard	DES, 3DES, AES				

Model		RG-WALL 1600-S3100	RG-WALL 1600-S3600	RG-WALL 1600-M5100	RG-WALL 1600-M6600	RG-WALL 1600-X9300
VPN Features	Authentication Algorithm	SHA1, MD5				
	Perfect Forward Secrecy (PFS)	Support				
	IPsec Protocol	Support				
	Manual Key, IKE	Support				
	Peer Authentication	Extensible Authentication Protocol Support				
	IPsec NAT Traversal	Support				
	Dynamic VPN Access	Support				
	QoS	Support				
	Collaboration With Other Mainstream VPN Devices	Support				
Content Filtering	URL Filtering	Support				
	Web Content Filtering	Support				
	Script, Cookie Filtering	Support				
	Web Proxy Filtering	Support				
	Anti-Spam	Support				
	Email Address Filtering	Support				
	Email Attachments Shield	Support				
	Email Size Filtering	Support				
	Policy-Based Content Filtering	Support				
Anti-Virus	Virus Filtering Based on HTTP\FTP\ SMTP\POP3\ IMAP Protocol	Support				
	Virus Filtering for IM File Transfers	Support				
	VPN Traffic Virus Filtering	Support				

Model		RG-WALL 1600-S3100	RG-WALL 1600-S3600	RG-WALL 1600-M5100	RG-WALL 1600-M6600	RG-WALL 1600-X9300
Anti-Virus	Blocking Specific File Types	Support				
	Online Virus Database Updates	Support				
Intrusion Detection and Prevention	Self- Recognition Protocol	Support				
	Attack Signature Database	Support				
	Anti Worms, Backdoor Trojans, Phishing and Other Attacks	Support				
	Multiple Policy Sets	Support				
	Signature Database Upgrade	Support				
	Customized Signature Database	Support				
IPv6	IPv6 Ready Certificate	Support				
	IPv4/IPv6 Dual Stack	Support				
	Policy/Content Filtering/IPS Inspection/ Traffic Control/ VPN	Support				
	Static Route/ RIPng/OSPFv3	Support				
	IP-based Traffic Control	Support				
	DHCPv6 Server and Relay	Support				
Internet Behavior Management	IM Software Login and File Transfer Control	Support				
	Speed Control of P2P Software	Support				

Model		RG-WALL 1600-S3100	RG-WALL 1600-S3600	RG-WALL 1600-M5100	RG-WALL 1600-M6600	RG-WALL 1600-X9300
Internet Behavior Management	Streaming Media Software Speed Control	Support				
	Online Game Control	Support				
	Stock Software Control	Support				
System Management	Local Administrator Database	Support				
	Restrictive Management Network	Support				
	Administrators Classification	Support				
	Software and Signature Updates	Support				
	Time Synchronization	Support				
	Configuration Changes	Support web, command line				
	Certificate Authentication	Support				
	Management Methods	Support web, command line				
	Standard MIB or Private MIB	Support				
	SNMP	Support SNMPv1/v2/v3				
	Centralized Management	Support				
	Local Management	Support				
	Remote Management	Support				
	Shell Session	Support				
Logs Monitoring	Virus Database Updates	Support				
	Internal Log Database	Support				
	External Log Server	Support				
	Remote System Log Server	Support				
	Real-Time Statistics	Support				

Model		RG-WALL 1600-S3100	RG-WALL 1600-S3600	RG-WALL 1600-M5100	RG-WALL 1600-M6600	RG-WALL 1600-X9300
Logs Monitoring	Log Level	Support				
	Log Backup	Support				
	System Status Display	Support				
	Alarm Mode	Support				
High Availability	HA Mode	Support routing mode and transparent mode HA				
	Configuration File / Change Synchronization	Support configuration and status synchronization				
	Signature Database Synchronization	Support				
	HA Device Authentication	Support				
	HA Data Encryption	Support				
Dimensions (W x D x H) (mm)		216 x 148 x 38	216 x 223 x 44	432 x 298 x 44	432 x 322 x 44	438 x 554 x 89
Rack Height		1RU	1RU	1RU	1RU	2RU
Weight		0.9kg	1.6kg	4.2kg	4.9kg	14.7kg
Power Redundancy		N/A	N/A	Support (External FRPS- 100)	Support (External FRPS- 100)	Support (Internal dual power supply)
Power Consumption		14W	22W	98W	202W	406W
Temperature		Operating Temperature: 0 to 40°C				
		Storage Temperature: -25 to 70°C				
Humidity		Storage Humidity: 20% to 95%				

Ordering Information

Model	Description
RG-WALL 1600-S3100	RG-WALL 1600-S3100 Next-Gen Firewall (10 GE ports, 1U)
RG-WALL 1600-S3600	RG-WALL 1600-S3600 Next-Gen Firewall (16 GE ports, 1U)
RG-WALL 1600-M5100	RG-WALL 1600-M5100 Next-Gen Firewall (42 GE ports, 2 SFP ports, 1U)
RG-WALL 1600-M6600	RG-WALL 1600-M6600 Next-Gen Firewall (10 GE ports, 8 SFP ports, 1U)
RG-WALL 1600-X9300	RG-WALL 1600-X9300 Next-Gen Firewall (18 GE ports, 8 SFP+ ports, 16 SFP ports, 2U)
License	
RG-WALL 1600-S3100-LIS-1Y	RG-WALL 1600-S3100 Anti-Virus Signature Database, IPS Signature Database, Application Signature Database, Spam Database and Website Classification Database 1-Year License
RG-WALL 1600-S3600-LIS-1Y	RG-WALL 1600-S3600 Anti-Virus Signature Database, IPS Signature Database, Application Signature Database, Spam Database and Website Classification Database 1-Year License
RG-WALL 1600-M5100-LIS-1Y	RG-WALL 1600-M5100 Anti-Virus Signature Database, IPS Signature Database, Application Signature Database, Spam Database and Website Classification Database 1-Year License
RG-WALL 1600-M6600-LIS-1Y	RG-WALL 1600-M6600 Anti-Virus Signature Database, IPS Signature Database, Application Signature Database, Spam Database and Website Classification Database 1-Year License
RG-WALL 1600-X9300-LIS-1Y	RG-WALL 1600-X9300 Anti-Virus Signature Database, IPS Signature Database, Application Signature Database, Spam Database and Website Classification Database 1-Year License
Optional Accessories	
FRPS-100	External Redundant Power System (RPS) System for RG-Wall 1600-M5100 and M6600 series firewall

Software

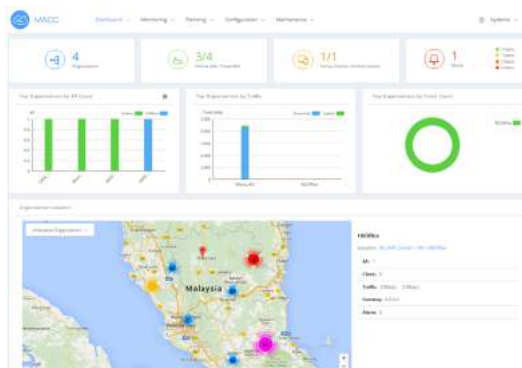
RG-MACC Mobile Access Cloud Center

OVERVIEW

Ruijie RG-MACC-INTL (Mobile Access Cloud Center, MACC in short) is a revolutionary cloud management platform which supports unified management and configuration of PoE switches and gateway devices²⁴, designed for chain stores, small and medium businesses, enterprise branches, network carriers and settings alike. In conjunction with leading platforms from Ruijie including RG-MCP (Marketing Cloud Platform), RG-LBS (Location-Based Services), RG-RBIS (Ruijie Business Intelligence Analysis System), the MACC software offers you a holistic solution for cloud wireless management. The MACC supports device planning, configuration, control, and operation and maintenance on cloud. The platform largely reduces the total cost of investment while ensures high usability of the Ruijie managed cloud network.

KEY FEATURES

- Intuitive Deployment on Map
- Smart Status Monitoring
- Master Real-time Online User Experience
- Centralized Upgrade Control



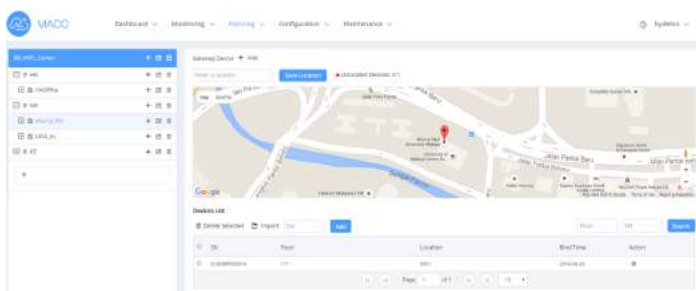
RG-MACC Main Interface

Note:

²⁴ Future release support

Intuitive Deployment on Map

The MACC achieves location and RF planning for power and channel auto organization and optimization. For projects of any sizes, careful deployment planning always plays a critical role. It provides clear and easy guidance for any technical staff to carry out the installation work. The MACC supports deployment design based on map or floor plan, making it more intuitive and easier to master.



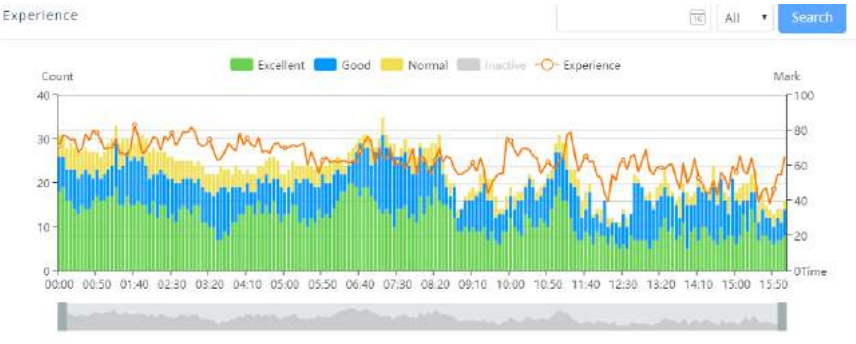
Smart Status Monitoring

Visualize and monitor all device and user status in a unified manner. You can check and monitor the device profile in real time, including AP online/offline count, hardware utilization, connection status, graphical traffic trend, etc. Other multi-dimensional details like online user endpoint count and user's level of activity in past 7 days are also available for easy reference. Just by scanning through the alert/log details and notifications, you can quickly master if the whole system is operating normally.



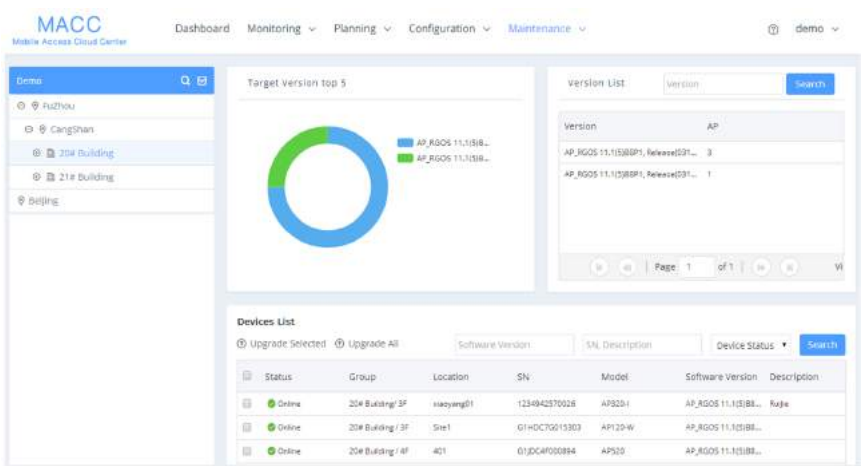
Master Real-time Online User Experience

Analyze operating status of the system from the end user perspective. The MACC also enables you to find out the user experience at each hotspot, providing details of signal quality during various time slots and overall experience indicators.



Centralized Upgrade Control

With MACC, you can easily manage hardware version and upgrade devices in batch. Select devices that need to be upgraded, click the “Upgrade” button and that’s it. You can also observe the whole executing process and read device logs for upgrade history in full details.



Specifications

Specifications	Description
RG-MACC-INTL Hardware Platform	
Processor	8-core, each core clocked at 2GHz or above
Memory	8G or above
Storage	1T or above
Network Interface Adapter	100M or above
Software Platform	
Operating System	CentOS 6.5, 6.6
Database	MySQL 5.5
Basic Component	
Information Integration	Support overview of device data (including total no. of devices, online devices, online users)
Deployment Planning	Support auto RF planning for all APs on cloud (including auto channel and power planning)
Device Configuration	Support centralized AP configuration (including radio, SSID, authentication, etc.)
	Support unified management and configuration of gateway device
Device Control	Support real-time status monitoring of all APs (basic AP info: product model, serial no., MAC address, hardware model; online status; online/offline records; IP address; associated endpoint status)
	Support real-time status monitoring of all users (user MAC, IP, SSID, associated bands, online duration, traffic usage, online/offline records, user scheduling latency, packet drop rate, RSSI, endpoint manufacturer and model, etc.)
	Support real-time RF monitoring (channel utilization of all APs, peripheral RF signal scanning)
Roaming	Support L2 roaming under the cloud architecture (SSID under Open, WPA/WPA2-PSK/web authentication mode supports L2 roaming)
	Support L3 roaming under the cloud architecture (SSID under Open, WPA/WPA2-PSK/web authentication mode supports L3 roaming)
Authentication	Support China Mobile portal 2.0 authentication and cloud AC as NAS (MACC acts as NAS and directly collaborates with RADIUS and portal servers for user portal redirection and granting access on AP)
	Support WeChat Wi-Fi Connect 3.x integration with MCP/WMC authentication
	Support standard WiFiDog integration with third-party authentication server
	Support and provide RESTful API integration with third-party authentication server
	802.1x/MAC authentication/LDAP/local user database ²⁵
	Guest WiFi ²⁶

Note:

^{25,26} Future release support

Specifications	Description
Authentication	Free radius server ²⁷
	Radius proxy ²⁸
	Hostpot2.0 and 802.11r ²⁹
Probe	Support AP probe for data collection (info collection and basic statistics of unassociated STAs around the AP)
Alert	Offline warning
	Performance warning
Privilege Management	Hierarchical privilege (accounts of different privilege levels can only check/view the respective devices)
	Management privilege (monitoring account: support checking only but not configuration; management account: support both checking and configuration)
WLAN Troubleshooting	Diagnosis tools (ping/ssh/ap syslog)
	Intelligent analysis ³⁰
Advanced Wireless Management	RRM2.0 and Channel utilization
	Load balancing ³¹
	5G priority ³²
	RF auto schedule and client math ³³
Online Support	Online document support ³⁴
	SMS/Email/WeChat warning ³⁵
In-Car Component	
Property Management	Automatically associate device and SIM; Support grouping management
Traffic Management	Monitor and manage 3G/4G signal strength, traffic alert and trend
GPS Management	Support GPS trajectory

Note:

²⁷⁻³⁵ Future release support

Ordering Information

Model	Description
RG-MACC-INTL-Base	Ruijie Mobile Access Cloud Center (MACC) software, providing cloud-based management for Ruijie registered devices, included: 10 registered device license and 1-year Software Support Service (i.e. software patches and maintenance support)
License & Service	
RG-MACC-INTL-MTFI	RG-MACC License for MTFI device (Bus Wi-Fi solution)
RG-MACC-INTL-LIC-100	RG-MACC License for 100 registered devices
RG-MACC-INTL-LIC-500	RG-MACC License for 500 registered devices
RG-MACC-INTL-LIC-1K	RG-MACC License for 1K registered devices
RG-MACC-INTL-LIC-5K	RG-MACC License for 5K registered devices
RG-MACC-INTL-LIC-10K	RG-MACC License for 10K registered devices
RG-MACC-INTL-CDS	RG-MACC Customization Development Service, charging based on workload (man-day)
RG-MACC-INTL-SSS	RG-MACC Software Support Service for 1 year, including software patches and maintenance support
RG-MACC-INTL-CLUSTER-10K	RG-MACC Cluster Implementation Service, applicable for cluster deployment of less than 10K registered devices
RG-MACC-INTL-CLUSTER-50K	RG-MACC Cluster Implementation Service, applicable for cluster deployment of 10K-50K registered devices
RG-MACC-INTL-CLUSTER-100K	RG-MACC Cluster Implementation Service, applicable for cluster deployment of 50K-100K registered devices
RG-MACC-INTL-CLUSTER-100K+	RG-MACC Cluster Implementation Service, applicable for cluster deployment of more than 100K registered devices

Software

RG-MCP Marketing Cloud Platform

OVERVIEW

The Ruijie RG-MCP Marketing Cloud Platform is especially designed to fulfill the advertising demand of chain stores, hotels, shopping malls, Wireless City Projects, transportation, tourist attractions, etc. The RG-MCP not only supports authentication protocols including WiFiDog and Tr069, but also offers a wide variety of user-friendly authentication modes such as SMS and WeChat. The platform also enables the push of rich advertising content when users are waiting for the authentication process to complete. During authentication, the RG-MCP also collects user network behavior data to visualize a clear picture for the operator, providing data support for big data mining, profit realization, etc.

KEY FEATURES

- Flexible Advertising Push Strategies
- Rich Ad Page Template
- Social Authentication (e.g. Wechat, Facebook) Bundled Support
- Comprehensive User Data Display & Analysis



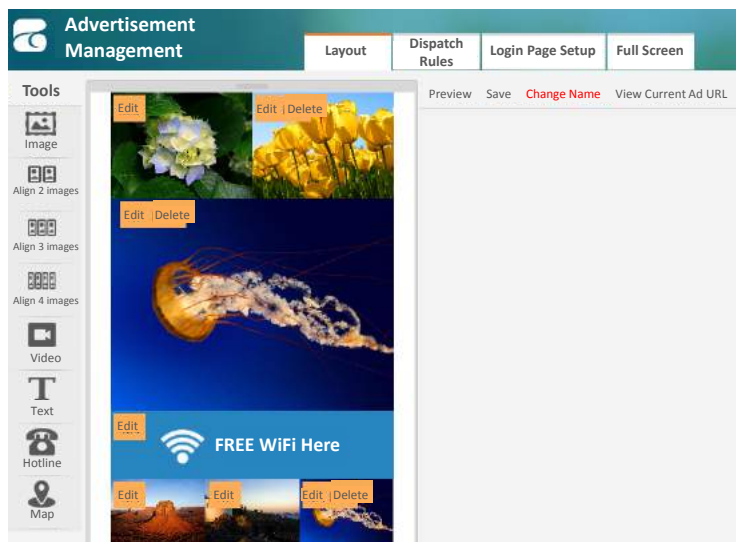
RG-MCP Main Interface

Versatile Advertising

RG-MCP provides a multi-page advertising platform for the operators with advertising push of full-screen ads, homepage ads and after-authentication ads. In order to increase the advertising content, the RG-MCP supports the WeChat portal which contains multi-page ads.

Rich Ad Page Template

The RG-MCP portal page is highly customizable. Clients can build an advertising page that fits their needs with various modules like images (multiple static images or rolling pictures), texts, videos, login button, hotline button, location map, App download, survey, etc. The platform automatically sends an advertising page with size that best fits the end device. There are more links to other platforms and systems such as online store and lucky draw. The editing page is intuitive and user-friendly. Any staff member can assemble a presentable advertising page in 5 minutes.



Flexible Advertising Push Strategies

The RG-MCP can customize different advertising push strategies for different time and locations. Different ads can be pushed to different shops and floors in any time period and even according to the type of devices. Most importantly, the RG-MCP can customize different ads for different SSIDs.

Social Authentication Bundled Support

The Marketing Cloud Platform is built in with a user authentication database. It offers multiple login modes via SMS, WeChat and App. For WeChat authentication, customers have to subscribe to the shop's official WeChat account to access the wireless network, which is an efficient way to increase the number of followers. Another authentication method is SMS authentication, which allows the operators to collect customers' phone numbers. The platform also allows fixed account authentication using the shopping mall account or shop membership system. Besides these authentication modes, the RG-MCP also offers authentication-free access, App authentication, etc. Customers have to download the App to access the wireless network which will give the App usage a boost. In order to meet the needs of different user scenarios, the RG-MCP can support WeChat authentication, SMS authentication and fixed account authentication at the same time.



Specifications

Model	RG-MCP	
Hardware Platform Requirement		
Processor	2GHz Dual Core	
Memory	24G or above	
Hard Disk	1T or above	
Network Card	1000M or above	
Software Platform Requirement		
Operation System	CentOS6.6 64 bit	
Database	MySQL5.5	
Software Features		
Internet Access Authentication	Fixed account authentication, one-click authentication, WeChat authentication, seamless authentication, App authentication	
	Authentication Management	Customized authentication: Clients can select one or multiple authentication modes
		Wireless network watcher: Customize the accumulative Internet access duration
		After authentication succeeded, users will be redirected to a specific URL address
		On-off switch for seamless authentication, validity period, etc.
		Show ads at regular time intervals

Model	RG-MCP
Customized SMS Content	Customize the SMS welcoming message
Batch-delete Registered Users	Support batch-delete of registered user information After deleting the user information, users are required to re-authenticate for Internet access
Ad Content Editor	Support content modules such as texts, images (multiple static images or scrolling images), videos, disclaimers, full screen ads, maps, hotlines and so on to achieve hyperlink service inside and outside the network
	Support drag and drop editing
	Optimize advertisement template preview
Ad Presentation	Support sliding effect and forced playback
	The size of the ad can be automatically adjusted to users' screen size
	Pop up ads based on different time period, SSIDs and areas
Comprehensive Guest Statistics	Display the total number of registered users, peak number of online users, number of current online users, WeChat followers count, number of user phone numbers, total hit count of the advertising page, 24-hour online user graph, ad browsing analysis, Internet access pie chart, user operating system pie chart, user browser pie chart, flow analysis diagram, Top 5 ads with highest hit rates and user statistics analysis graph
Online User Information	View the online user list, store number, name of stores, phone numbers, IP, MAC, authentication method, device type, device OS, online time and duration which can be sorted accordingly
Registered User Information	View all registered users, store number, name of stores, phone numbers, MAC, authentication method, device type, device OS, online frequency and total online duration which can be sorted accordingly Support export all registered phone numbers in MS Excel format Support delete registration information
Management Privilege Distribution	Organization administrators of any level are able to establish subordinate organization departments and subordinate administrators
	The interface customization is only provided for tenant administrators
	Organization administrators of any level can only manage the subordinate divisions and the relevant information
Integration Support	Support multiple SMS gateways to achieve SMS authentication
	Support integration with cloud AC to deliver authentication and advertising features

Ordering Information

Model	Description
RG-MCP-INTL-Base	Ruijie Marketing Cloud Platform (MCP) software, providing customized marketing portal, Ads management & analytics and built-in with wide social community authentication options such as WeChat and Facebook, included 1-year Software Support Service (i.e. patches and maintenance support)
License (Purchase based on the number of devices in actual deployment)	
RG-MCP-INTL-License-5K	RG-MCP License for 5000 registered users
RG-MCP-INTL-License-10K	RG-MCP License for 10000 registered users
RG-MCP-INTL-License-50K	RG-MCP License for 50000 registered users
RG-MCP-INTL-CDS	RG-MCP Customization Development Service. charging based on workload (man-day)
RG-MCP-INTL-SSS	RG-MCP Software Support Service for 1 year. Including software patches and maintenance support
RG-MCP-INTL-CLUSTER-50K	RG-MCP Cluster Implementation Service, applicable for cluster deployment of less than 50K registered users
RG-MCP-INTL-CLUSTER-100K	RG-MCP Cluster Implementation Service, applicable for cluster deployment of 50K-100K registered users
RG-MCP-INTL-CLUSTER-500K	RG-MCP Cluster Implementation Service, applicable for cluster deployment of 100K-500K registered users
RG-MCP-INTL-CLUSTER-1000K	RG-MCP Cluster Implementation Service, applicable for cluster deployment of 500K-1000K registered users
RG-MCP-INTL-CLUSTER-1000K+	RG-MCP Cluster Implementation Service, applicable for cluster deployment of more than 1000K registered users

Software

RG-SAM+ Security Accounting Management System

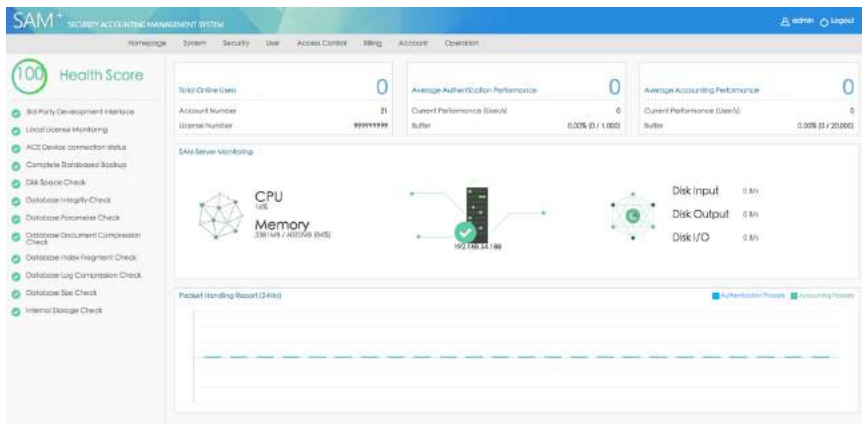


OVERVIEW

Ruijie RG-SAM+ is a smart authentication and billing system based on RADIUS. The RG-SAM+ has integrated with most of the available authentication modes including 802.1X, Web, PPPoE, IPoE and remote VPN access. The system also supports access control, unified entry/exit control, gateway and flattened authentication modes. The RG-SAM+ hence offers remarkable flexibility for users to formulate the best solution to meet their needs. On one single platform, the RG-SAM+ fully supports access control, billing, log management, and unified external interfaces for all the authentication modes. Users benefit from both minimized investment costs and enhanced management efficiency.

KEY FEATURES

- Support Abundant Protocols (e.g. 802.1X, Web, PPPoE, IPoE, etc.)
- User-centric Design
- Streamlined Authentication and Billing
- No Client Installation is Required



RG-SAM+ for Intelligent Authentication and Billing Management

User-centric Design

The RG-SAM+ understands what users are looking for - a system that is simple and easy-to-use. As users' needs come first, the system re-organizes information architecture, removes redundant content, supports at-a-glance icons and buttons for utmost user-friendliness.

Streamlined Authentication

The RG-SAM+ supports PEAP based on 802.1X and Web. Guests log in for their first visit and seamless authentication is enabled when they return. It gets rid of all the tedious login procedure and reconnects automatically when the connection is dropped. In addition, no client installation is required for the whole network regardless of where the users are and what end devices they are using for network access. Professional hardware design guarantees stable real-name control.

Enable Real-name Control Without Client

Working with RG-ASME, the RG-SAM+ can monitor agent and sharing behavior. To protect real-time control and operating revenue, the system enables operation without client installation. Also, the feature highlight further enhances user experience.

Zone-based Refined Management

The RG-SAM+ handles the following aspects with ease: management target variety, access mode flexibility, billing complexity and service policy combination. The refined operating solution enables the higher education institutes to centrally manage the integrated operating mode, and offer refined management services for users from different zones. The system totally guarantees the network users with highly personalized services.

- Zone management: zone division, service customization, user grouping
- Multiple access modes and flexible billing modes as the solution core
- Access modes: 802.1X, Web, PPPoE, IPoE, VPN
- Billing modes: Periodic billing, traffic-based billing, time-based billing and various user-defined billing modes

Users can flexibly define the zone, access and billing modes based on the actual demands. Accordingly to the service nature, the system supports implementation of one billing policy under an access mode of a designated area. In other words, it can deliver a set of customized services to a certain group of users.

Specifications

Product Specifications

Specifications	Description
User Authentication	Support multi-service unified authentication through variety of access methods such as wired, wireless, 802.1X, PPPoE, VPN, Web, and gateway or egress access. The same user also can access different services based on different needs and requirement.
	Support MAC Address Bypass (MAB) authentication for devices which cannot support IEEE 802.1x protocol.
	Support credential (username, password) security encryption and management through https, MS-CHAPv2, PEAP.
Access Control	Support comprehensive authentication policy management with at least the combination of who, how, what, where and when information criteria.
	Support account binding with IP, MAC, access switch IP, port though wired access; support account binding with the user MAC, AP MAC binding, SSID, wireless switches IP through wireless access.
	Support restriction control on users' static IP or dynamic IP access method.
	Support flexible control of the access periods such by day / week / holiday time or customized duration. Different access time interval control to allow the users access the network or internet with different independent policy.
Seamless Authentication	Support region / zone policy control according to user's IP and NAS IP, this can prevent specific area to have internet access
	Support seamless authentication for 802.1x, Web-Authentication and Wireless access. The registered user is only required to login once and the authentication system will able to recognize and allow the user to login to network without any username / password input in the future whenever the user access the network / wireless in the authenticated zone.
	Support seamless authentication based on location.
	Support seamless authentication with different accounting/billing policy.
	Support wireless and dot1x seamless authentication with LDAP encrypted mode.
	Support seamless authentication for certain hardware equipment through MAC address.
Authentication Performance	Support flexibility option for user to enable or disable the seamless authentication when necessary.
	Support high availability clustering technology (RG-AC), effectively solve the performance limitations of single server failover with high-speed services synchronization to ensure high availability and flexible scalability. At the same time, high availability clustering technology enables synchronization of information between multiple servers can support cross-regional roaming account, disaster recovery and continuous system operation.
	MAC authentication performance: 2500/sec
	IPOE performance: 1000/sec
	Support external captive portal for better performance and resiliency.
Big Data Operation	Support web portal performance monitoring.
	Support 1000w online details queries.

Specifications	Description
Big Data Operation	Support 5w user export.
Egress Bandwidth and Quota Policy (Required to interact with N18K/MSK, RSR77, ACE or compatible gateway)	Support 1000w online details queries.
	Support quota management feature that will intelligently identify the user traffic destination so that quota management will only be applied to Internet access but not the intranet or LAN access for the each individual user at the same time.
	Administrator has an option to put the user account in suspend mode or automatically switch to lowest fair usage policy if that particular user has reached the quota threshold.
	Support different bandwidth according to user.
	Support 100K online users bandwidth policy.
	Support by user or by IP bandwidth policy.
User Management	Support number of device limitation can be authenticated per user and allow user to automatic register the device on the first successful login access.
	Support unified user management such as user info viewing / management, detail log by username, online user statistic, access control, user notification, website redirection, online / offline log, MAC/IP binding control and other comprehensive features to help administrator manage the authentication system easily.
	Provide the functions of flexible account pre-opening and account pre-destroyed. These will automatically achieve a large group of user such as students graduated from campus to reduce administrator workload and improve productivity. This also helps to save investment by release the user count.
	Support powerful log function. This function enables record and query of the RADIUS service logs, system logs, manager operation logs such as password changes, user Web self-help logs, and bill server logs, and this is helpful for audit. Working with the RG-elog, the RG-SAM+ provides analysis and inquiry functions based on user's NAT log and URL log.
	Support flexible authority customization. Hierarchical management must be available and support up to 3 levels of authorized management and menu access.
	Support customized inquiry. Different administrators can have their own inquiries and their recent inquiry search can be saved for future use.
	Support batch management operations such as batch modification of user information, batch information importing, batch information modification, batch binding and unbinding functions to reduce the workload of the administrator and prevent human error during the data entry process.
	Support batch user information import through flexible import policy. All the import activities will be logged.
	Support automatic user blocking function based on customization policy.
Accounting Policy	Support an option to blacklist user with customize notification message and flexibility effective periods such as range of date, time, or permanent.
	Support web authentication accounting / billing policy by month, duration, or traffic usage.
	Support flexible accounting / billing such as by day, month, traffic usage, duration, customized period, or customized rule such as accounting / billing exception for a week.

Specifications	Description
Accounting Policy	Support policy management by area / location and service classification by area. Different users in different areas may access to different services. For example, in the reading area and student hostel area, a student can use different access services and proper accounting policies with the same account.
	Support option to enable authentication mode with fees charging / billing and virtual fee charging with accounting for statistic purpose.
Account Management	Account management, account flow management, manual account login, account / billing report management.
Operation Management	Support visible star-map containing information of online user distribution and amount.
	Support online user management, online user analysis, online usage ranking, detailed online management, network repair management, log management, wireless roaming management, and the system can generate the operational reports automatically.
	Support intelligent maintenance functions such as automatically monitor, maintain and backup database files and operation status to reduce manual workload as well as minimize the risk of data lost.
	Support at least 3 months' comprehensive logs for security audit purposes. The log must contain the username, MAC, IP address, login date and time, network access devices, switch port, AP Mac, SSID, gateway IP, internet usage, internet log and other details to prove the end-to-end track record of user activities.
	With the powerful data export function, the RG-SAM+ can output all reports in the Excel format. This facilitates double-check of data outside the system and provides data for other systems or units.
Self-service Portal	Support customizable self-service platform which users can self-register, bind / unbind devices, change password, check quota, change plan, refer to FAQ and report a problem to reduce the administrator workload.
	Support guest account set up on self-service platform. Authorized staff can authenticate guest by enabling temporary internet access for the guest with predefined policy such as maximum number of guest allow, maximum internet usage period and default redirect page after login. This also allows the administrator to trace the guest activities responsible by that particular staff.
User Monitoring	Must support user star map that enables to show all the wired and wireless users on a campus map with user visual density indication to help administrator understand the user behavior for future project planning.
	Support dynamic real-time graphs or charts to show the current online user number, online user location, online user by regional distribution, access method and other information.
Guest Management	Must support easy guest authentication methods such as SMS and verification code.
	Support QR code authentication so that guests can login to the network and internet by scanning a QR code without relying on the administrator to authorize it manually.
3rd-party Integration	Support 3rd-party RADIUS authentication integration.
	Support Microsoft Windows Active Directory (AD) domain integration, including seamless Single-Sign-On integration for a complete 802.1X authentication and Windows AD authentication.

Specifications	Description
3rd-party Integration	Support the integration with LDAP server to obtain user identity information to achieve unified authentication.
	Support rich interfaces for further development such as the digital campus one-card system.
	Support standard web service interface based on SOAP protocol, other application can get user information such as user ID, group, user real name, online status through the web service interface.
End Point Compatibility	Support the latest Windows, Mac desktops and support for Apple, Android mobile device platforms.
	Support dual stack IPv4/IPv6 protocol.
	Support device-based portal page and automatic screen fit feature for various screen resolution mobile device platform.

Hardware Configuration

Recommended Configuration (SAM Server)	
Memory	Based on registered user amount, RAM recommendation as following: <10,000 users, 4G 10,000-50,000 users, 16G 50,000-100,000 users, 32G
Hard Disk	500G recommended
CPU	Intel Xeon E5630 2.53GHz, 4 Core*4
Recommended Configuration (Web Portal Server)	
Memory	32G or Above
Hard Disk	500G recommended
CPU	CPU E7-4807 @1.87GHz 1.86GHz (4 CPU)
Network Interface Card	Intel® 82576NS Gigabit Ethernet Controller*8 (NIC cluster)

Software Configuration

Recommended Configuration (SAM Server)	
Operation System	Windows Server 2008 R2 Enterprise Edition SP1 X64
Database	SQLServer 2008 R2 Enterprise Edition SP1 X64
Recommended Configuration (Web Portal Server)	
Operation System	Windows Server 2012 Standard R2
Database	Microsoft SQL Server 2012 (SP1)

Ordering Information

Model	Description
RG-SAM Plus Int. Base	SAM Plus Base platform, a standard AAA server, support 802.1X
License and Optional Accessories	
RG-SAM+ License-5000	RG-SAM+ License for 5,000 users
RG-SAM+ License-10000	RG-SAM+ License for 10,000 users
RG-SAM+ Portal Component	Support authentication on RG-SAM+ Portal, each supports concurrent devices up to 5,000 (1st-generation portal protocol) or 40,000 (2nd-generation portal protocol), require an independent server
RG-SAM+ Portal Clustering Component	Support clustering on RG-SAM+ Portal, require to deploy 2 RG-SAM+ Portal components for clustering (including the clustering component)
RG-SAM+ Self-service Component	Support web self-service platform
RG-SAM+ Clustering Component	Support clustering on RG-SAM+, require 2 RG-SAM+ products to deploy clustering (including platform, component and license)
RG-SAM+ SMS Authentication Component	Support SMS delivery for guest visit scenarios by integration with SMS gateway and GSM modem
RG-SAM+ Operation Visualization Component	Support operation details visualization
RG-SAM Plus Int. License-1000	SAM Plus License for 1000 registered user
RG-SAM Plus Int. License-5000	SAM Plus License for 5000 registered user
RG-SAM Plus Int. License-10000	SAM Plus License for 10000 registered user
RG-SAM Plus Int. Portal Component	Portal component for SAM Plus, provide Web based authentication
RG-SAM Plus Int. Base HA License	HA License for SAM Plus Base, provide HA function based on two sets of SAM Plus Base
RG-SAM Plus Int. Portal Component HA License	HA License for SAM Plus Portal component, provide HA function based on two sets of SAM Plus Portal component
RG-SAM Plus Int. Self-Service Component	Self-service license for SAM Plus, provide self-service platform for end user
RG-SAM Plus Int. SMS Component	Provide SMS server docking function to do SMS based authentication, need to work with Portal component
RG-SAM Plus Int. Visualization Component	Provide operation visualization function for SAM plus, such as end user star map
RG-SMS	Ruijie Software product Standard Maintenance Service Including bug fix, software upgrade for 1 year and implementation support
RG-CDS	Ruijie software product Customization development service (By Man-day)
RG-SIS	Ruijie software system integration service for SAM plus docking to other system such as Windows AD, etc. (By Man-day)

Software

RG-SNC Smart Network Commander

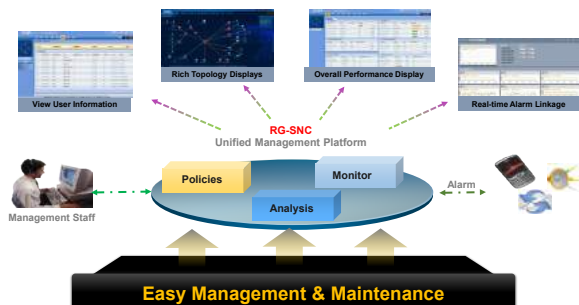


OVERVIEW

The next-generation RG-SNC (Smart Network Commander) by Ruijie is a network management system especially designed for network performance management and configuration. With a single, integrated web-based UI, the RG-SNC enables organizations to gain insight and control of the entire topology through remote collaboration. By avoiding tedious and repetitive workloads, the RG-SNC saves time and minimizes complexity as it is easier to operate and maintain. Administrators can benefit from customized task plans that help to manage the network, monitor network status in real-time, backup configuration and respond to network fault instantly. The software also displays a logical topology view of the network infrastructure, allowing administrators to gain a deeper insight of the whole network so that they can better understand and respond to threat patterns and risks.

KEY FEATURES

- Centralized Wireless Management
- Professional Topology Management
- Real-Time Performance Monitoring
- Rich and Customized Reports
- Proactive Alarm Notifications: Email & SMS



RG-SNC Offers Diversified Services for Simplified Management

Centralized Wireless Management

The RG-SNC software offers the latest RG-SNC-WLAN module to achieve centralized management of wireless devices. It supports real-time topology display of wireless device operation status, hotspot-based statistical analysis and management on APs and unified management for wireless controllers, FIT APs and end users. It is enriched with real-time spectrum analysis including spectrum chart, duty cycle diagram and real-time FFT chart.

Professional Topology Management

The RG-SNC displays a logical topology view of the network infrastructure, enabling organizations to gain insight and control of the entire network through a single, integrated user interface. The RG-SNC can discover and monitor network devices through ARP table, routing table and network segment, allowing users to monitor the connectivity among device network segments, device status and link bandwidth in real-time.



Real-Time Performance Monitoring

Real-time performance monitoring provides a better understanding of network infrastructure, facilitating network management. This function includes the features of Real-Time Performance Curve Display, TOP-N Performance Statistic, Performance Monitoring Indicator Setting, Performance Threshold Self-Define and Historical Performance Query.

Rich and Customized Reports

Extensive on-demand and customized reports can be generated to address performance, security and alarms. The RG-SNC offers customers a powerful reporting platform that assists administrators on network troubleshooting to facilitate network management.

Proactive Alarm Notifications

The RG-SNC provides comprehensive alarm features including notification via Email or SMS. It allows flexible real-time alarm monitoring, customized alarm rules and schedule, display of alarm history and trap & syslog event monitoring.

Specifications

Product Specifications

Specifications	Description
RG-SNC Basic Component	
B/S Architecture	The product should deploy pure B/S architecture. No client installation is required for users. Enable system access using any standard browsers.
System Management	Support system restart and shutdown using web browser; Monitor server CPU, memory and network card status; Support retrieval of system operation logs via the web page.
License Management	Support file licensing mode.
System Integration	Support integration of authentication-free feature of the network control interface with customer system.
	Support forwarding of network management alert, syslog, trap to customer system.
	Support integration with web services, or network management properties, alerts, performance data.
Unified Wired and Wireless Management	Support unified wired and wireless management on devices such as routers, switches, firewalls and WLAN by modularization.
IP Surveillance	Support low-threshold bandwidth monitoring, remote power management and flexible icon management.
Component Scalability	Support wireless networking for the ease of future unified management and surveillance on wired and wireless devices.
Device Management	Support a variety of device management features. Include a good presentation and basic operating features for creating, deleting or editing device interfaces and data.
	Support batch software upgrade for multiple devices.
	Support a graphical presentation of the actual physical boards, line cards and ports. Support operation directly on the page.
	Support auto software upgrade checking. Support batch software upgrade.
	Support management based on hierarchy and categorization. Enable users to set status of one device or multiple devices to be read-only, writable or hidden. For hidden devices, markings are required to be shown on topology.
	Support editing of device information such as organization name, purchase date, warranty validity, etc.
Device Configuration Management	Support auto retrieval of configuration files on a regular basis and synchronization to management server. Support comparison of the collected data with the previous configuration files. Notify the administrator via email if any difference is found.

Specifications	Description
Device Configuration Management	Support graphical guidelines for fast ACL and QoS deployment.
Topology Management	Support auto discovery of Layer 2 and Layer 3 network devices. Support auto topology formation.
	Support discovery of WAN link topology. Support adding virtual nodes such as "building", "cloud", etc.
	Support viewing of a customized topology by a designated IP range or through chosen devices. In every such topology diagram, only matching devices are shown.
	Support auto discovery of routing topology, showing routing relation among devices in the system network layer.
	Support export of the current topology.
	Support dynamically update network topology based on device and link status data collected in real time.
	Support dual-link STP detection. The topology shows real-time status of both links respectively.
	Support topology display in full screen.
	Under the full screen mode, proactively send topology alerts in an animated presentation.
	In the event of operating status changes or alerts triggered, the relative nodes in the topology can be highlighted in real time.
	Support VSU topology and show the many-to-one virtualization in the topology in real time. Support direct viewing of links and status of multiple device members on the topology.
	Support image upload for background customization.
	Support image upload for node icon customization.
	Support traffic topology of the Weather Map mode.
Real-time Alert	The product should be built-in with a variety of common alert categories. Support alert category customization based on the actual demand whenever necessary. Provide a minimum of 10 common syslog alert customization lists.
	The product should be built-in with a variety of common alert categories. Support alert category customization based on the actual demand whenever necessary. Provide a minimum of 50 pre-defined trap alert customization lists.
	Support setting performance indicator threshold as general, important or very important. When the indicator exceeds the threshold, respective alert will be sent based on the threshold value.
	Support traffic lower limit alert. When the traffic is lower than the designated threshold, alert will be sent.
	Support maintenance schedule for designated devices. Within such period maintenance, no alert will be sent.
Key Link Detection	Support intelligent real-time detection for key links. Upon status changes, quickly locate failure. Support multiple alert modes to notify the administrator to resume network service as soon as possible.

Specifications	Description
Report Management	Customize task for long-term surveillance of the network performance. Support report generation on a real-time or periodic basis.
	Support report creation, search, editing, deletion. Support report online viewing, import/export, etc. Support periodic export and regular publishing.
	Support history report search.
Interface Mapping Management	Support regular collection of user devices IP, MAC, port mapping table. When there are abnormalities found in the mapping table, alert administrator as an event immediately.
Integration of Topology and User Information	To protect customer's early investment, support registration integration with SAM/SMP. Support searching of online user table including user name, IP address, MAC address, etc.
Compatibility	The product should support standard SNMP MIP management base. Support management on mainstream vendor standard MIB device.
Certification	The product should be compliant with the related rules under Administration of Software Products Regulation.
	With national software copyright registration certificate.

RG-SNC WLAN Component	
Topology Management	Support viewing of all wired and wireless devices on one single topology.
Surveillance Statistics	Support accessibility and alert statistics for all wireless ACs and APs.
	Support user trend statistics for the whole network, hotspots, single AC and APs. Support online user statistics for hotspots, single AC and APs.
	Support logout rate statistics for the whole network, hotspots and single AP. Support setting a time range for logout rate statistics. Support viewing of Top N logout rate statistics.
	Support idle AP statistics for the whole network. Support viewing of Top N idle APs on a daily or monthly basis.
	Support uplink and downlink rate statistics/Top N viewing for all hotspots and APs. Support trend statistics for single hotspot, AP uplink and downlink rates.
	Support surveillance indicator customization.
Device Management	Support viewing of the following information in AP: wireless radio table, device information, originating AC and hotspot, SSID, alert statistics, etc.
	Support statistics of AP online user trend, bandwidth utilization trend, CPU/memory utilization trend and STA association failure causes.
	Support radio on/off setting of AP.
	Support manually adding, deleting and auto discovery of AC.
	Support connecting AC to Web network control and Telnet management.
	Support viewing of the following information in AC: device panel, device information, device status, management AP, SSID and alert statistics. Support AC statistics on current user trend, bandwidth utilization trend and CPU/memory performance trend.

Specifications	Description
Wireless User Management	Support viewing of wireless user MAC, IP, online status, online duration, uplink/downlink rates, signal strength and device type.
	Support viewing of user online/offline records including time of occurrence, action, user IP, WLAN ID, SSID, associated AP, originating AC, etc.
	Support real-time surveillance on designated devices for uplink/downlink traffic trend and signal strength. Data update frequency <=5s.
	Support designating several terminals as key end devices with operation quality surveillance. Issue alerts when packet retransmission rate exceeds the designated threshold.
	Issue alerts when abnormal behavior is found in the key end devices. Such events include offline, association/online failure, etc.
	Support viewing of end device statistical graphs of designated user group (hotspot). Minimum requirement: present the graphs in terms of band (2.4G, 5G), connection protocols (802.11a/ 802.11b/ 802.11g/ 802.11n).
Spectrum Analysis	Support >=8 spectrum analysis: current interference table, spectrum diagram, real-time FFT diagram, FFT occupation ratio diagram, spectrum density diagram, channel occupation ratio diagram, channel occupation ratio trend diagram and power trend diagram.
	Support configuration of AC system attribute, WLAN, security, interface, trap/syslog servers, etc.
Device Configuration Management	Support synchronization of AC blacklist.
	Support tracking of end device, authentication user, AP, AC, rogue AP based on IP, MAC, login user name, real user name, device name, SSID, AP location, AP channel ³⁶ , AP power rating ³⁷ or hotspot name.
Wireless Tracking	Support per SSID traffic usage and STA count ³⁸ , 2.4G & 5G channel usage ³⁹ .
	Support rogue AP table including rogue AP BSSID, SSID, channel, signal strength, vendor, finder AP and its location, single AP mode, countermeasure status, etc.
Rogue AP Management	Support AP operating mode and rogue AP countermeasure status statistics.
	Support graphical configuration of AP operating mode (graphical guidelines for AP operating mode configuration).
	Support setting of blacklist and whitelist.
	Support import, export and manual editing of hotspot information.
Hotspot Heat Map Management	Support existing APs management based on hotspots. Support statistics of SSID associated with hotspot, logout rate, associated user count and uplink/downlink rates.
	Support floor plan import in .jpg, .png or .gif format. Support setting AP location on the floor plan and viewing of AP coordinates.
	Support setting different kinds of obstacles. Support setting AP height and deployment scenario.
	Support viewing of AP information, AP user information on heat map and adjusting AP channel.
	Support heat map generation based on signal strength, rate, channel conflict (2.4G/5GHz).

Note:

³⁶⁻³⁹ Future release support

Specifications	Description
Alert Management	The product should be built-in with a variety of wireless alert categories. Support alert category customization based on the actual demand whenever necessary. Provide a minimum of 10 common syslog alert customization lists.
	The product should be built-in with a variety of wireless alert categories. Support alert category customization based on the actual demand whenever necessary. Provide a minimum of 15 pre-defined trap alert customization lists.
Hierarchical Management	Support AC, hotspot and SSID management based on hierarchy and categorization.
Report Management	Customize task for long-term surveillance of the network performance. Support report generation on a real-time or periodic basis.
	Support report creation, search, editing and deletion. Support report online viewing, import/export, etc. Support periodic export and regular publishing.
	Support history report search.
	Support report data filtering based on AC, hotspot or SSID.
Integration of Topology and User Information	To protect customer's early investment, support registration integration with SAM/SMP. Support searching of online user table including user name, IP address, MAC address, etc.
Compatibility	The product should support standard SNMP MIP management base. Support management on mainstream vendor standard MIB device.
Certification	The product should be compliant with the related rules under Administration of Software Products Regulation.
	With national software copyright registration certificate.

Supported Report List

Specifications	Description
Device Asset Summary	Device manufacturer summary Device model summary Device information summary Software version summary Hardware version summary
Alarm Summary	Global alarm statistics Global faulty device statistics Device alarm summary Alarm group summary
AP Utilization Report	Number of AP STAs AP rate AP utilization details
AC Utilization Report	Number of AC STAs AC rate AC utilization details
Idle AP Statistics Report	Idle AP daily statistics Idle AP monthly statistics
Out-of-service Rate Statistics Report	Global out-of-service rate AP out-of-service rate Hotspot out-of-service rate
Traffic Statistics Report	AP traffic statistics Hotspot traffic statistics Per SSID traffic usage and STA count ⁴⁰
AP Channel Report ⁴¹	Per AP channel and power rating changes ⁴² Per AP 2.4G & 5G channel usage ⁴³

System Requirements

Hardware Platform Requirement	
Processor	Quad-core, each core clocked at 2GHz (recommended) Dual-core, each core clocked at 2GHz (minimum)
Memory	4G DDR/DDRII (recommended) 2G DDR/DDRII (minimum)
Storage	160G (recommended) 80G (minimum)
Network Interface Adapter	100M or Above
Hardware Platform Requirement	
Operation System	Microsoft Windows Server 2003/2008
Database	MySQL5.5.19-win32

Note:

⁴⁰⁻⁴³ Future release support

Ordering Information

Model	Description
RG--Pro-Base-EN	Basic Component of Smart Network Commander (Node license sold separately)
RG-SNC-Pro-Topo-EN	Topology Management Component of Smart Network Commander
RG-SNC-Pro-WLAN-EN	WLAN Component of Smart Network Commander
License	
RG-SNC-Pro-EN-License-15	SNC License for 15 Nodes
RG-SNC-Pro-EN-License-25	SNC License for 25 Nodes
RG-SNC-Pro-EN-License-50	SNC License for 50 Nodes
RG-SNC-Pro-EN-License-100	SNC License for 100 Nodes
RG-SNC-Pro-EN-License-200	SNC License for 200 Nodes
RG-SNC-Pro-EN-License-500	SNC License for 500 Nodes
RG-SNC-Pro-EN-License-1000	SNC License for 1000 Nodes
RG-SNC-WLAN-License-50	SNC-WLAN License for 50 FIT APs
RG-SNC-WLAN-License-100	SNC-WLAN License for 100 FIT APs
RG-SNC-WLAN-License-200	SNC-WLAN License for 200 FIT APs
RG-SNC-WLAN-License-500	SNC-WLAN License for 500 FIT APs
RG-SNC-WLAN-License-1000	SNC-WLAN License for 1000 FIT APs
RG-SNC-WLAN-License-2000	SNC-WLAN License for 2000 FIT APs
RG-SNC-WLAN-License-5000	SNC-WLAN License for 5000 FIT APs
Optional Accessories	
RSR10-02E (for SMS gateway)	RSR10-02E Router, 8-Port 10/100 Base-T LAN, 2 -Port 10/100/1000Base-T WAN, 1 Console Port, 1 AUX Port, 1 USB port, 1 SD Slot, 2 SIC Slots, 512MB DRAM
SIC-3G-WCDMA (for SMS gateway)	3G Wireless WAN Interface SIC Module, WCDMA Mode

Software

RG-SMP Security Management Platform



OVERVIEW

Ruijie RG-SMP (Security Management Platform) is an enterprise-class security management application that provides insight into and control of Ruijie security and network devices. The RG-SMP offers comprehensive security management across a wide range of Ruijie security appliances, including intelligent switches, wireless solutions and other third-party networking devices with 802.1X protocol, enabling the AAA (authentication, authorization and accounting) network access control policy according to user requirements. The RG-SMP allows users to manage office networks of all sizes for a wide range of industries, with security compliance requirements in aspects of user identity, host health and security of network communication.

KEY FEATURES

- Unified Wired and Wireless Network Access Control
- BYOD Solution Support
- Comprehensive Identity Authentication (e.g. QR code)
- Host Endpoint Protection



RG-SMP for Unified Management of BYOD

Unified Wired and Wireless Network Access Control

The RG-SMP software offers a single, integrated security management platform for all wired, wireless and VPN (Virtual Private Network) devices. It supports not only dynamic authentication for different mobile devices but also integration with third-party RADIUS (Remote Authentication Dial-In User Service) and LDAP (Lightweight Directory Access Protocol) Directory services.

BYOD Solution Support

The RG-SMP supports dynamic Wireless Guest Account control policy based on user identity and mobile platform in use. It also supports self-service guest account creation with SMS (Short Message Services) authentication on all latest mobile device platforms such as smartphone, tablet, etc.

Comprehensive Identity Authentication

The RG-SMP supports web-based authentication and wireless identity authentication based on 802.1X protocol. Through flexible binding of user credentials, IP (Internet Protocol) address, MAC (Media Access Control) address, switch IP address, switch port and serial number of hard disk, the user identity can be verified. It provides network access authority control, user online/offline records and regular user account clearance. User blacklist can also be managed using the RG-SMP.



Identity Authentication Using QR Code

Host Endpoint Protection

By obtaining updates from Microsoft WSUS (Windows Server Update Services), the RG-SMP enables administrators to deploy the latest Windows updates to computers that are running the Windows operating system. Anti-virus software is also supported to protect the system against malicious attacks. Blacklist and whitelist can be managed on the endpoint device software to block undesirable or risky users. In addition, the RG-SMP prevents unauthorized access and MAC Address Spoofing, ensuring network and service availability and business continuity.

Specifications

Hardware Platform Requirement	
Processor	Intel Xeon 2.8GHz Quad Core x 2 or above
Memory	16G or above
Storage	500G or above
Network Card	3 x Gigabit Ports
Operating System and Database	
Operation System	Windows Server 2008 Enterprise Edition SP1 or above (x64)
Database	SQL Server 2008 Enterprise Edition SP1 or above (x64)

Ordering Information

Model	Description
RG-SMP-Pro-EN	RG-SMP 2.X professional edition, supports RADIUS identity authentication, including BYOD and NAC features Software requirements for SMP: <ul style="list-style-type: none">• Windows Server 2003 or above• SQL Server 2000 or above
License	
RG-SMP-Pro-EN- license-50	Concurrent User License for RG-SMP 2.X professional edition, includes permission for 50 concurrent users
RG-SMP-Pro-EN-license-100	Concurrent User License for RG-SMP 2.X professional edition, includes permission for 100 concurrent users
RG-SMP-Pro-EN-license-500	Concurrent User License for RG-SMP 2.X professional edition, includes permission for 500 concurrent users
RG-SMP-Pro-EN-license-1000	Concurrent User License for RG-SMP 2.X professional edition, includes permission for 1000 concurrent users

Model	Description
RG-SMP-Pro-EN-license-2000	Concurrent User License for RG-SMP 2.X professional edition, includes permission for 2000 concurrent users
RG-SMP-Pro-EN-license-5000	Concurrent User License for RG-SMP 2.X professional edition, includes permission for 5000 concurrent users
RG-SMP-Pro-EN-license-10000	Concurrent User License for RG-SMP 2.X professional edition, includes permission for 10000 concurrent users



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