RG-S2915-L Series

Simplified Gigabit Switch

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Product Pictures

RG-S2915-10GT2MS-P-L

RG-S2915-24GT4MS-L

RG-S2915-24GT4MS-P-L

RG-S2915-48GT4MS-L

Product Overview

RG-S2915-L series switches are next-generation cost-effective L2+ access switches released by Ruijie Networks for commercial real estate customers, hotels, small- and medium-sized enterprises. The series include PoE and non-POE product models and can meet requirements in wired network, wireless network, monitoring, and other scenarios.

Product Features

Strong Surge Protection Capability

The switches are capable of suppressing 10 kV surge for ports. The strong surge protection capability reduces the probability that ports are damaged by surge and improves customer network stability.

Uplink 2.5GE Ports

On the network of a video surveillance system, a large amount of continuous video data needs to be transmitted and mass burst data is generated instantaneously. To deal with the data, switches need to have stable data forwarding and bandwidth redundancy capability. More cameras connected to a switch indicates that a greater amount of data flows through the switch. If the amount of camera data forwarded by a switch exceeds the forwarding capability of the uplink port on the switch, packet loss occurs on the port and videos may get stuck. The uplink ports of the RG-S2915-L series switches support the 2.5 Gbit/s rate. Compared with the 1 Gbit/s uplink rate, the switches can connect to more terminals in HD monitoring scenarios and has better ability to cope with sudden burst data.

High Reliability

The RG-S2915-L series switches support the Spanning Tree Protocol (STP), Rapid Spanning Tree Protocol (RSTP), and Multiple Spanning Tree Protocol (MSTP), which help the switches achieve fast convergence, improve the fault tolerance capability, and ensure stable network operation and link load balancing. The switches utilize network channels appropriately to raise the utilization of aggregate links.

With the Rapid Link Detection Protocol (RLDP), the RG-S2915-L series switches can quickly detect the link connectivity and unidirectional optical fiber links. The port loop detection function helps the switches prevent network failures caused by loops resulting from unauthorized port connection to hubs.

The RG-S2915-L series switches support the Ethernet Ring Protection Switching (ERPS) technology, which is an international L2 link redundancy backup protocol designed for the core Ethernet. The loop blocking and link recovery of ERPS are implemented on the controlling device, and non-controlling devices directly report their link status to the controlling device, without processing from other non-controlling devices. Therefore, loop disruption and recovery time of ERPS is faster than that of STP. Based on the above differences, ERPS implements link recovery within milliseconds in the ideal environment.

The RG-S2915-L series switches provide an advanced hardware CPU protection mechanism: CPU protect policy (CPP). It classifies data traffic sent to the CPU, processes the traffic by queue priority, and limits the bandwidth rate as required. This protection mechanism also fully protects the CPU against illegitimate traffic occupancy, malicious attacks and resource consumption, thereby ensuring the CPU security and protecting the switches.

The RG-S2915-L series switches adopt the Network Foundation Protection Policy (NFPP) technology to limit the rate of ARP packets, ICMP requests, DHCP requests, and other packets sent from users to networks. The switches discard packets whose rate exceeds the threshold, identify attack behaviors, and isolate users who launch attacks. In this way, the basic networks are protected against network attacks, and therefore the network stability is guaranteed.

Quietness and Green Energy Saving

In response to China's call for green energy saving, Ruijie carries out an in-depth study on noise and energy consumption issues in conventional switches and integrates multiple energy-saving design ideas into the RG-S2915-L series switches. The switches fully get rid of loud noise produced by switches deployed in offices and excessive energy consumption arising from the mass deployment of access devices.

The energy efficient Ethernet (EEE) is another highlight of the RG-S2915-L series switches. If a port is always idle in a period of time, the system enables the port to enter the energy saving mode. When the port needs to receive or send a packet, the system resumes services on the port by periodically sending listening streams, achieving the effect of energy saving.

Some models of the RG-S2915-L series switches adopt

the fanless design, which ensures no noise and no forced airflow, preventing dust and chemical pollutants in the air from entering the devices and causing corrosion and static electricity accumulation.

The products support intelligent fan speed regulating. With users' low noise requirements taken into full account, Ruijie designs the products to monitor the device temperature in real time, reduce the fan speed, prolong the fan service life, and reduce the noise pollution.

In the perception of noise, 30 dB to 40 dB is an ideal sound level for a quiet environment. Ruijie products are tested in accordance with the national standard GB/T 18313-2001 and the noise meets the standard of sleeping in the living room at night.

Ease of Network Maintenance

When a fault occurs on software, the devices automatically restart all processes for recovery.

The devices are equipped with standard USB ports and can be upgraded using USB flash drive.

Engineers can plug network cables into the switches to manage and configure the switches in Web mode without extra configuration.

The switches support remote management, configuration backup and restoration, remote fault diagnosis, and history log analysis.

The RG-S2915-L series switches support cloud management and can bring customers simplified O&M management and user experience:

Ease of networking: Only a PC or mobile phone available for Internet access is required to complete the device deployment. The switches support plug and play.

Ease of O&M: The O&M is simple. The network can be managed at any time. You can manage the network wherever you go, and both the wired and wireless gateways are under your control.

Ease of monitoring: You can view the network health and device details (system status, traffic trend, connectivity, power supply status, etc.) at any time. Faults and user network experience are visible, alarms are pushed in time once they are generated, and logs are generated to facilitate event traceback.

Ease of authentication: Relying on the cloud, the whole network can provide authentication for Internet access, without any additional software and servers.

Product Specifications

Hardware Specifications

System Specifications

System Specifications	RG-S2915-48GT4MS-L	RG-S2915-24GT4MS-L	RG-S2915-24GT4MS-P-L	RG-S2915-10GT2MS-P-L
Switching Capacity	116Gbps	68Gbps	68Gbps	30Gbps
Packet Forwarding Rate	87 Mpps	51 Mpps	51 Mpps	22.5 Mpps
Fixed Service Ports	48 × 10/100/1000Base-T Ethernet ports with auto-negotiation 4 × 2.5GE/1GE SFP ports	24 × 10/100/1000Base-T Ethernet ports with auto-negotiation 4 × 2.5GE/1GE SFP ports	24 × 10/100/1000Base-T Ethernet ports with auto-negotiation 4 × 2.5G/1GE SFP ports	10 × 10/100/1000Base-T Ethernet ports with auto-negotiation 2 × 2.5GE/1GE SFP ports

System Specifications	RG-S2915-48GT4MS-L	RG-S2915-24GT4MS-L	RG-S2915-24GT4MS-P-L	RG-S2915-10GT2MS-P-L
Fixed Management Ports	1 × RJ45 console port, 1 × USB port			
Cable Hot Swapping	Supported by service interfaces and power ports			
CPU	ARM A9 CPU, 1.2GHz			
SDRAM	512MB			
MAC Address	16000	16000	16000	16000
ARP Table	512	512	512	512
Jumbo Frame	9126	9126	9126	9126
Routing Table Size (IPv4/IPv6)	64	64	64	64
ACL Entries	500	500	500	500

Dimensions and Weight

Dimensions and Weight	RG-S2915-48GT4MS-L	RG-S2915-24GT4MS-L	RG-S2915-24GT4MS-P-L	RG-S2915-10GT2MS-P-L
Device Size (W × D × H)	440 mm × 220 mm × 43.5 mm	440 mm × 220 mm × 43.5 mm	440 mm × 292 mm × 43.6 mm	297 mm × 170 mm × 44.5 mm
Weight	2.8 kg	2.5 kg	2.8 kg	2.5 kg
Rack Size	1 RU			
Installation Mode	Mounted on a workbench/wall/in a rack (cabinet)			

Power Supply and Consumption

Power Supply and Consumption	RG-S2915-48GT4MS-L	RG-S2915-24GT4MS-L	RG-S2915-24GT4MS-P-L	RG-S2915-10GT4MS-P-L
Number of Fixed Power Modules	1	1	1	1

Power Supply and Consumption	RG-S2915-48GT4MS-L	RG-S2915-24GT4MS-L	RG-S2915-24GT4MS-P-L	RG-S2915-10GT4MS-P-L
Maximum Power Consumption	30 W	15.6 W	403 W (the PoE power is 370 W)	141 W (the PoE power is 125 W)
Rated Input Voltage Range	100 V AC to 240 V AC, 50 Hz to 60 Hz			
Maximum Input Voltage Range	90 V AC to 264 V AC, 50 Hz to 60 Hz			
PoE	Not supported	Not supported	PoE/PoE+ supported	PoE/PoE+ supported

Environment and Reliability

Environment and Reliability	RG-S2915-48GT4MS-L	RG-S2915-24GT4MS-L	RG-S2915-24GT4MS-P-L	RG-S2915-10GT2MS-P-L
Number of Fixed Fans	2	0	2	1
Heat Dissipation	Air-cooled heat dissipation	Natural heat dissipation	Air-cooled heat dissipation	Air-cooled heat dissipation
Noise	≤ 37 dB	Fanless	≤ 39 dB	≤ 37 dB
Fan Speed Adjustment	Supported	N/A	Supported	Supported
Operating Temperature	0°C to 45°C			
Storage Temperature	-40°C to 70°C			
Temperature Monitoring	Supported			
Temperature Alarm	Supported			
Overtemperature Protection	Supported			
Operating Humidity	10% to 90% RH (non-condensing)			
Storage Humidity	5% to 95% RH (non-condensing)			

Software Specifications

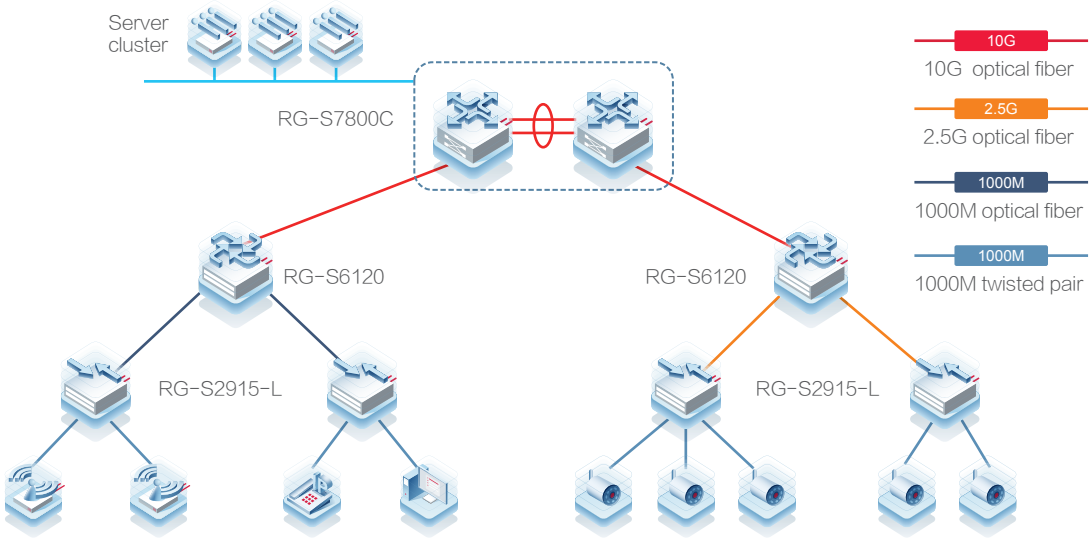
Software Specifications		RG-S2915-48GT4MS-L	RG-S2915-24GT4MS-L	RG-S2915-24GT4MS-P-L	RG-S2915-10GT2MS-P-L
Layer 2 Features	IEEE 802.1Q VLAN	Port-based VLAN Voice VLAN			
	LLDP	LLDP			
	MAC	Address filtering Static addresses			
	RLDP	RLDP			
	Spanning Tree	IEEE802.1d STP IEEE802.1w RSTP			
	QinQ	Basic QinQ Flexible QinQ			
	IGMP Snooping	IGMP v1,v2 Snooping			
Layer 3 Features	ARP	ARP proxy ARP Entry Timeout			
Interface Features	Link Aggregation	Load balancing mode configurable LACP			
	Mirror	Common service ports and aggregated ports can be configured as the source and destination ports of mirroring. One-to-many mirroring, many-to-one mirroring, RSPAN			
	Ethernet	Jumbo frames			
Application Protocol Reatures	DHCP	DHCP server DHCP client DHCP snooping DHCP relay			
	DNS	DNS Client			
	NTP	NTP Client NTP Server			
	TFTP	TFTP Client			

Software Specifications		RG-S2915-48GT4MS-L	RG-S2915-24GT4MS-L	RG-S2915-24GT4MS-P-L	RG-S2915-10GT2MS-P-L
Routing Protocol Specification	IP Routing	IPv4/IPv6 static routing RIP, RIPng			
ACL and QoS	ACL	Standard IP ACLs (IP-based hardware ACLs) Extended IP ACLs (hardware ACLs based on IP addresses or TCP/UDP port IDs) MAC-based extended ACLs (ACLs based on source MAC addresses or destination MAC addresses) ACL 80 Global ACLs ACL redirection			
	QoS	Flow-based rate limiting on the ingress Port rate limiting IEEE 802.1p/DSCP traffic classification Eight priority queues per port SP, WRR, DRR, SP+WFQ, SP+WRR, SP+DRR queue scheduling			
Security Features	Security Features	Filtering of invalid MAC addresses Hardware CPP, NFPP IP source guard IEEE 802.1X authentication RADIUS and TACACS+			
OAM Features	PoE	IEEE 802.3af and 802.3at power supply standards Automatic and energy saving power supply management mode Uninterrupted power supply in hot start mode Scheduled powering on /off PoE ports on the basis of time policy Port priority Note: Only RG-S2915-24GT4MS-P-L and RG-S2915-10GT2MS-P-L support the PoE function.			
Cloud Services	Ruijie Cloud	Ruijie Cloud			
Management Features	Management	SNMP, CLI (telnet/console), syslog/debug, NTP, TFTP, SSH, Web, and sFLOW			

Typical Application

Serving as Access Devices on Medium- and Small-sized Networks

The RG-S2915-L series switches feature universal adaptability and can be applied in various scenarios, including but not limited to offices of small- and medium-sized enterprises, small- and medium-sized hotels, primary and middle schools, and governments. In these scenarios, RG-S2915-L functions as an access switch to provide high-performance and large-capacity switching services. It also provides 2.5GE uplink ports and provide greater bandwidth for terminals.



Order Information

Model	Description
RG-S2915-48GT4MS-L	48 × 10/100/1000Base-T copper ports with auto-negotiation, 4 × 1GE/2.5GE SFP ports, fixed single AC power supply
RG-S2915-24GT4MS-L	24 × 10/100/1000Base-T copper ports with auto-negotiation, 4 × 1GE/2.5GE SFP ports, fixed single AC power supply
RG-S2915-24GT4MS-P-L	24 × 10/100/1000Base-T copper ports with auto-negotiation, 4 × 1GE/2.5GE SFP ports, fixed single AC power supply, Support PoE/PoE+ power supply. Maximum PoE output power is 370W
RG-S2915-10GT2MS-P-L	10 × 10/100/1000Base-T copper ports with auto-negotiation, 2 × 1GE/2.5GE SFP ports, fixed single AC power supply, 1 to 8 ports support PoE/PoE+ power supply.Maximum PoE output power is 125W

Model	Description
2.5G-SFP-LX03-SM1310-BIDI-I	SFP 2.5G BIDI Transceiver-TX1310/RX1550, 3km, LC
2.5G-SFP-LX03-SM1550-BIDI-I	SFP 2.5G BIDI Transceiver-TX1310/RX1550, 3km, LC
MINI-GBIC-SX-MM850	1000BASE-SX, SFP Transceiver, SM (850nm, 500m, LC).
MINI-GBIC-LX-SM1310	1000BASE-LX, SFP Transceiver, SM (1310nm, 10km, LC)
MINI-GBIC-LH40-SM1310	1000BASE-LH, SFP Transceiver, SM (1310nm, 40km, LC).
MINI-GBIC-ZX80-SM1550	1000BASE-ZX80, SFP Transceiver, SM (1550nm, 80km, LC).
GE-SFP-LX20-SM1310-BIDI	SFP BIDI Transceiver-TX1310/RX1550, 20km, LC
GE-SFP-LX20-SM1550-BIDI	SFP BIDI Transceiver-TX1550/RX1310, 20km, LC
GE-SFP-LH40-SM1310-BIDI	SFP BIDI Transceiver-TX1310/RX1550, 40km, LC
GE-SFP-LH40-SM1550-BIDI	SFP BIDI Transceiver-TX1550/RX1310, 40km, LC
Mini-GBIC-GT	1000BASE-TX, SFP Transceiver (100m)

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For further information, please visit our website https://www.ruijienetworks.com