Ruijie RG-S5750-H

Switch Series Datasheet

Ruijie RG-S5750-H 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 10G fiber ports, 4 models offer dual expansion slots, supporting high-density, high-performance port uplink performance. These leading features fully meet requirements of high-density access and demanding aggregation.

The RG-S5750-H Series, with the outstanding performance-to-price ratio, is ideal acting as aggregation of large-scaled networks, core of small to medium-sized networks, and data center server access. With the end-to-end service performance, and a wide range of security settings available, the RG-S5750-H Series fully satisfies high-speed, secure and intelligent demands of enterprise networks.

HIGHLIGHTS

- Customized for large campus network: up to 64K MAC address
- Exceptional performance & scalability: up to 598Gbps/5.95Tbps switching capacity
- Network virtualization (VSU) supported: up to 9 stack members
- Out-of-box with advanced Layer 3 routing, MPLS and SDN features
- High reliability: Hot patches, 1+1 Power module redundancy, Hot swappable components

RG-S5750C-48GT4XS-H

RG-S5750C-28GT4XS-H

RG-S5750C-28SFP4XS-H

RG-S5750C-48SFP4XS-H

RG-S5750-48GT4XS-HP-H

PRODUCT FEATURES

Exceptional Performance & Scalability

The RG-S5750-H switch series offers fixed 4 10G fiber ports. Users can flexibly choose 10G fiber or copper ports in various quantities to meet their actual deployment needs. The unparalleled scalability totally supports campus network aggregation of large-sized enterprises, or core deployment of small to medium-sized networks. The series supports MAC address capacity of up to 64K.

IPv4/IPv6 Dual Stack Multilayer Switching

The RG-S5750-H series provides hardware support for IPv4/IPv6 multilayer switching at line rates, supports distinction and processing of IPv4 and IPv6 packets by hardware, and provides flexible IPv6 network communication schemes for network implementation planning or maintaining the present network status. The switches also support rich IPv4 routing protocols, including static routing protocols, RIP, OSPF, IS-IS, and BGP4, enabling users to select appropriate protocols for network building in different environments. A wide array of IPv6 routing protocols is also available. Such include static routing protocols, RIPng, OSPFv3, and BGP4+, enabling users to select appropriate protocols for upgrading an existing network to IPv6 or building a new IPv6 network.

Virtual Switch Unit (VSU)

The Virtual Switch Unit technology, or VSU in short, enables interconnection of several physical devices by virtualizing them into one logical device. The logical device uses one single IP address, Telnet process, command-line interface (CLI), and enables auto version inspection and configuration. From the user perspective, the benefits are multiplied work efficiency and enhanced user experience of several devices operating at the same. And they only have to manage one device. The VSU technology also offers multiple benefits below:

- **Easy management:** Administrators can centrally manage all the devices at the same time. It is no longer necessary to configure and manage the switches one by one.
- **Simplified typology:** The VSU is regarded as one switch in the network. By connection of aggregation link and peripheral network devices, MSTP protocol is unnecessary as there is no Layer 2 loop network. All protocols operate as one switch.
- **Millisecond failover:** The VSU and peripheral devices are connected via the aggregation link. Upon failure event of any device or link, failover to another member link requires only 50ms.
- **Exceptional scalability:** The network is hot swappable, any devices leaving or joining the virtualized network cause zero impact on other devices.

Comprehensive Security Policies

The RG-S5750-H series effectively prevents and controls virus spread and hacker attacks with various inherent mechanisms such as anti-DoS attacks, hacker IP scanning, illegal ARP packets checking and multiple hardware ACL policies.

- **Hardware-based IPv6 ACL:** Allow coexistence of IPv4/IPv6 users and controls the resources access by IPv6 users (e.g. restrict access to sensitive network resources).
- **Industry-leading CPU protection mechanism:** The CPU protection policy (CPP) distinguishes the data flows sent to the CPU, which are processed according to their priorities, and implements limitations on the bandwidth rate as needed. In this manner, users can prevent the CPU from being occupied by illegal traffic and protect against malicious attacks to guarantee normal operation of the CPU and switch.
- **IP/MAC binding:** Implement flexible binding of a port or the system to the IP address and MAC address of users, strictly limiting user access on a port or in the entire system.
- **DHCP snooping:** Allow DHCP responses from trusted ports only; based on DHCP listening and by monitoring ARP dynamically and checking the user IP address, directly discard illegal packets inconsistent with binding entries to effectively prevents ARP frauds and source IP address frauds.
- **IP-based Telnet access control:** Prevent attacks from illegal personnel or hacker and strengthen the device security.
- **Secure Shell and SNMPv3:** Secure Shell (SSH) and Simple Network Management Protocol v3 (SNMPv3) cryptographic network protocol ensure the security of management information. Provides services such as multi-element binding, port security, time-based ACL and bandwidth rate limiting to block unauthorized users.
- **NFPP:** The NFPP (Network Foundation Protection Policy) enhances switch security. It protects switch processor and bandwidth by totally isolating the attacking sources. Normal packet forwarding and protocol are hence guaranteed.

High Reliability

The RG-S5750-H series supports spanning tree protocols of 802.1D, 802.1w, and 802.1s to ensure rapid convergence, improves fault tolerance capabilities, ensures stable running of networks and load balancing of links, and provides redundant links.

- **Virtual Router Redundant Protocol (VRRP):** Effectively ensure network stability.
- **Rapid Link Detection Protocol (RLDP):** Detect the

connectivity of links and whether an optical fiber link is normal from both ends, and supports the loop detection function based on the port to prevent network faults caused by loops generated by the connection of devices such as hubs to ports.

- **Ethernet Ring Protection Switching (ERPS) (G.8032):** Implements loop blocking and link recovery on the master device. Other devices directly report link status to the master device. Without passing through other standby devices, the failover time of loop interruption and recovery is hence faster than STP. The ERSP's link failover rate can be completed within 50ms under ideal conditions.
- **Rapid Ethernet Uplink Protection Protocol (REUP):** When Spanning Tree Protocol (STP) is disabled, the Rapid Ethernet Uplink Protection Protocol (REUP) can provide basic link redundancy through the rapid uplink protection function and provide faster sub second-level fault recovery than STP.
- **Bidirectional Forwarding Detection (BFD):** Provide a method for upper-layer protocols such as routing protocols and MPLS to rapidly detect the connectivity of forwarding paths between routing devices, reducing the convergence time of upper-layer protocols greatly in the case of changes in link status.
- **Exceptional business support performance:** Support IPv4 and IPv6 multicast with abundant multicast protocols, e.g. IGMP Snooping, IGMP, MLD, PIM, PIM for IPv6, MSDP, etc. The switches offer multicast service for IPv4 network, IPv6 network, and IPv4/IPv6 co-existing network. IGMP source port and source IP inspection is also enabled to crack down on rouge multicast sources. The series offers rich Layer 3 features (e.g. ECMP) to meet various link planning needs. All products of the RG-S5750-H Switch Series support lightning protection of above 6KV.
- **Nonstop PoE (Z-PoE):** RG-S5750-48GT4XS-HP-H supports 48-port PoE+ power supply. Since more IoT (Internet of Things) devices depend on PoE (Power over Ethernet) power supply nowadays, Z-PoE (Nonstop PoE) feature is introduced to Ruijie PoE switches. With such feature, the switch can provide nonstop PoE power supply to IP cameras, IP phones and other PD (Powered Device), even when a reboot happens. So operators can feel free to do maintenance job like firmware upgrade any time.

Abundant QoS Policies

The RG-S5750-H series offers outstanding multilayer traffic categorization and control for MAC traffic, IP traffic, application layer traffic and so on. The feature achieves traffic policies such as refined bandwidth control and forwarding priority. The series also supports customized QoS features for various applications. The QoS system, with Diff-Serv as the core, supports a complete set of policies covering 802.1P, IP TOS, Layer 2 to 7 filtering, SP, and WRR.

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.

Energy Efficiency

The RG-S5750-H series adopts next-gen hardware architecture with a highly energy-saving circuit design and component selection. The device achieves a marked reduction in energy consumption. In addition to maximized energy saving, the RG- S5750-H series also significantly lowers noise pollution. All models in the series deploy variable-speed axial fans, which support intelligent speed adjustment based on the current ambient temperature. All the features enable the switches to work smoothly and reduce power consumption and noise pollution at the same time.

The RG-S5750-H series also supports auto-power-down mode. 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.

Easy Network Maintenance

The RG-S5750-H 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.

TECHNICAL SPECIFICATIONS

Product Model		RG-S5750C-28GT4XS-H	RG-S5750C-48GT4XS-H	RG-S5750C-28SFP4XS-H	RG-S5750C-48SFP4XS-H	RG-S5750-48GT4XS-HP-H
Fixed port	GE RJ45 port	28	48	8 (Combo)	n/a	48
	GE SFP port	4 (Combo)	n/a	28	48	n/a
	10GE SFP+ port	4	4	4	4	4
Flexible card	Card slot	2	2	2	2	n/a
	Card type	1-port QSFP+ dedicated stack card	1-port QSFP+ dedicated stack card 4-port 10GE SFP+ interface card	1-port QSFP+ dedicated stack card	1-port QSFP+ dedicated stack card 4-port 10GE SFP+ interface card	n/a
Management port	ETH management port	1	1	1	1	1
	Console port (RJ45)	1	1	1	1	1
	Console port (Mini USB)	1	1	1	1	1
	USB 2.0 port	1	1	1	1	1
Performance	Switching capacity	216 Gbps	256 Gbps	216 Gbps	256 Gbps	176Gbps
	Forwarding rate	162 Mpps	192 Mpps	162 Mpps	192 Mpps	132 Mpps
	MAC table size	64,000	64,000	64,000	64,000	64,000
	ARP table size	20,000	20,000	20,000	20,000	20,000
	Jumbo frame	9216 Bytes	9216 Bytes	9216 Bytes	9216 Bytes	9216 Bytes
CPU and Storage	CPU	1GHz qual-core processor				
	Storage	DDR4 1 GB; 512MB Flash Memory				
	Data packet buffer	4 MB				
Power over Ethernet	Maximum PoE power budget	n/a	n/a	n/a	n/a	1480W (w/ 2 RG-PA1150P-F)
	PoE/PoE+ enabled port	n/a	n/a	n/a	n/a	48
	Standard	n/a	n/a	n/a	n/a	IEEE802.3af/at
Physical	Dimensions (WxDxH)	440 X 280 X 44mm	440 X 300 X 44mm	440 X 300 X 44mm	440 X 340 X 44mm	440 X 420 X 44mm 440 X 450 X 44mm w/ PG-PA1150P-F
	Unit weight	3.9kg	4.2kg	4.2kg	4.7kg	6.1kg

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Power supply	Type	Hot swappable				
	Redundancy	1+1				
	AC frequency	50/60Hz				
	Rated AC voltage	100~240V				
	Maximum AC voltage	90~264V				
	Rated HVDC voltage	240V DC				
	Maximum HVDC voltage	192~288V DC				
	Rated DC voltage	-36V ~ -72V DC				
	Maximum power rating	140W	140W	140W	300W	2300W
	Idle power rating	45W	45W	55W	100W	70W
Heat dissipation system	Dissipation mode	Air-cooled heat dissipation. Intelligent speed adjustment				
	Number of fans	3				
	Airflow	Air flows in from the left and exhausts from the right				
Certifications	Safety	EN 60960-1, IEC 60950-1			EN 60960-1	
	EMC	EN 300 386				
	Emissions	EN 55022, EN55032				
	Immunity generic	EN 55024				
	ESD	EN 61000-4-2				
	Radiated	EN 61000-4-3				
	EFT/Burst	EN 61000-4-4				
	Surge	EN 61000-4-5				
	Conducted	EN 61000-4-6				
	Power frequency magnetic field	EN 61000-4-8				
	Voltage dips and interruptions	EN 61000-4-11				
	Harmonics	EN 61000-3-2				
	Flicker	EN 61000-3-3				
	Anti-gas corrosion	GB-T2423.51-2012(Refer to IEC 60068-2-60)				
Operating temperature		0°C~ 50°C				

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Storage temperature		-40°C~ 70°C				
Operating humidity		10%~90% RH				
Storage humidity		5%~95% RH				
Operating altitude		-500 ~ 5000m				
MTBF(hours)		555960	513460	506320	523510	451400
Ethernet features	Ethernet	Full-duplex, Half-duplex, Auto negotiation, Flow control on interface, Jumbo frames, Link aggregation(IEEE802.3ad, LACP, maximum 8 member ports per AP), 2048 maximum aggregation ports, Load balancing, Broadcast storm control				
	VLAN	IEEE802.1Q, 4094 VLAN ID, 4094 VLANIF interface, Access mode, Trunk mode, Default VLAN, Port-based VLAN, MAC-based VLAN, Protocol based VLAN, IP subnet-based VLAN, Voice VLAN, GVRP, Super VLAN, Private VLAN, Guest VLAN				
	MAC	Automatic learning and aging of MAC addresses, Static and dynamic MAC address entries, Interface-based and VLAN-based MAC address learning limiting, Sticky MAC, MAC address spoofing guard				
	ARP	Static ARP, Trusted ARP, Gratuitous ARP, Proxy ARP, Local proxy ARP, ARP trustworthiness detection, ARP-based IP guard				
	STP	STP(IEEE802.1D), RSTP(IEEE802.1w), MSTP(IEEE802.1s), 64 MST instances, Port Fast, BPDU guard, BPDU filter, TC guard, TC filter, Root guard, Auto edge, BPDU transparent transmission, BPDU tunnel, VLAN-Specific Spanning Tree(VSST, working with PVST, PVST+ and RPVST)				
	ERPS	G.8032 v1/v2, Single-ring, Tangent-ring, Intersecting-ring, Load balancing				
	L2 multicast	IGMP v1/v2/v3 snooping, IGMP filter, IGMP fast leave, IGMP querier, IGMP security control, IGMP profile, MLD v1/v2 snooping, MLD filter, MLD fast leave, MLD source check				
	QinQ	Basic QinQ, Selective QinQ(Flexible QinQ), 1:1 VLAN switching, N:1 VLAN switching VLAN mapping, TPID configuration, MAC address replication, L2 transparent transmission, Priority replication, Priority mapping				
IPv4/IPv6	IPv4 unicast routing	IPv4 static routing, RIPv1/v2, OSPFv2, BGP4, MBGP, IS-IS, PBR, VRF, ECMP, WCMP, Routing policies, 12000 IPv4 routing table				
	IPv6 unicast routing	IPv6 static routing, RIPng, OSPFv3, BGP4+, IS-ISv6, PBRv6, VRFv6, Packet–based load balancing and flow-based load balancing, 6000 IPv6 routing table				
	IPv6 feature	ND(Neighbor Discovery), 10000 ND entries, ND snooping, 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 extender option head, Manually configure local address, Automatically create local address, 0-64 bit mask, 65-128 bit mask				
	Multicast routing	IGMPv1/v2/v3, MLDv1/v2, PIM-DM, PIM-SM, PIM-SSM, PIM-DMv6, PIM-SMv6, MSDP, MCE, IGMP proxy, MLD proxy, Multicast static routing, 8000 IPv4 multicast routing table, 4000 IPv6 multicast routing table				
	DHCP	DHCP server/relay/client, DHCPv6 server/relay/client, DHCP option 43/82/138				
MPLS	MPLS	MPLS labels and forwarding, LSP, LDP, Inter-domain LDP LSP				
	MPLS L3 VPN	BGP VPN, IS-IS VPN, OSPF VPN				

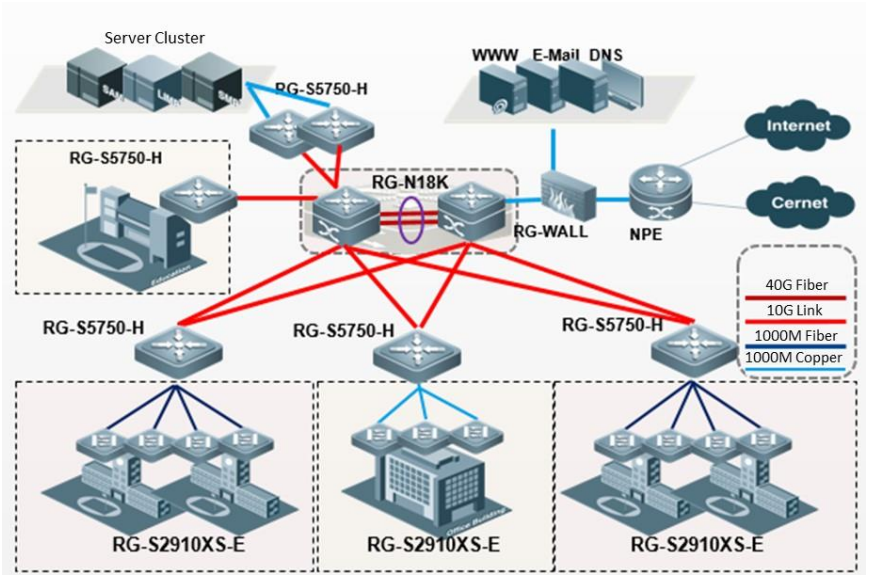
Product Model		RG-S5750C-28GT4XS-H	RG-S5750C-48GT4XS-H	RG-S5750C-28SFP4XS-H	RG-S5750C-48SFP4XS-H	RG-S5750-48GT4XS-HP-H
Reliability	BFD	Single-hop BFD, BFD for IPv4 static routes/OSPF/IS-IS/BGP4/VRRP/MPLS/PBR, BFD for IPv6 static routes/OSPFv3/IS-ISv6/BGP4+/VRRPv6/PBRv6				
	DLDP	DLDP for IPv4 static routes/OSPF/BGP4/VRRP/PBR				
	LLDP	IEEE802.1AB 2005, ANSI/TIA-1057, LLDP, LLDP-MED, LLDP-PoE				
	RLDP	Uni-directional link detection, Bi-directional forwarding detection, Downlink loop detection				
	VSU	9 VSU(Virtual Switch Unit) stacked members, 80Gbps maximum stacking bandwidth with service port VSL connection, Traffic balancing				
	VRRP	VRRPv3, VRRP+				
	REUP	REUP(Ruijie Rapid Ethernet Uplink Protection Protocol) for dual uplink backup, VLAN load balancing				
	GR	GR for RIP/OSPF/IS-IS/BGP/MPLS L3 VPN/LDP				
	RNS	RNS test for ICMP/DNS/TCP, Track support for RNS				
QoS	Stream classification	Classification based on IEEE802.1p/DSCP/TOS				
	Shaping	Rate-limit on ingress/egress traffic on interface				
	Congestion avoidance	RED, WRED, Tail drop				
	Congestion management	SP, WRR, DRR, WFQ, SP+WFQ, SP+WRR, SP+DRR, 8 queue priorities per port				
ACL	ACL entries	3500 IPv4/v6 rules				
	ACL type	Standard IP ACL, Extended IP ACL, MAC-extended ACL, Time-based ACL, Expert ACL, ACL80, IPv6 ACL, SVI router ACL, ACL logging, ACL counter, ACL remark, ACL redirection, Security channel, Protected port, Port security				
Security	ARP security	ARP check, DAI, Trusted ARP, ARP trustworthiness detection, Gateway-targeted ARP spoofing prevention, ARP rate-limit,				
	Attack defense	CPP(CPU Protection Policy), NFPP(Network Foundation Protection Policy) guard for ARP/IP/ICMP/DHCP/DHCPv6/ND/Self-defined attack, URPF				
	IP	IP source guard v4/v6, 3500 IPv4 source guard user capacity, 1500 IPv6 source guard user capacity				
	DHCP	DHCP snooping, DHCPv6 snooping, DHCP snooping on option 82				
	AAA	Local, RADIUS, RADIUS v6, TACACS+				
	IEEE802.1X	IEEE802.1X port/MAC based authentication, Dynamic VLAN and ACL assignment, MAC authentication bypass				
	Web portal	Ruijie 1st-Gen and 2nd-Gen portal authentication, Portal authentication/accounting, Portal detection and escape				
Configuration	Login	CLI, Console, Telnet, Telnet for IPv6, SSH v1.5/v2.0, SSH for IPv6, SCP, SNMP-based NMS, Web-based UI, Fast deploy(Ruijie Cloud App), Cloud management				
	File	Multiple boot configuration, Multiple firmware				
Management	Network	Ping(v4/v6), Traceroute(v4/v6), sFlow, SNMPv1/v2c/v3, HTTP, HTTPS, RMON(1,2,3,9), CWMP(TR069), Syslog, MIB,				
	Application	DNS client v4/v6, TFTP Server/Client, TFTP Client v6, FTP Server/Client, FTP Server/Client v6, NTP Server/Client, NTP Server/Client v6, SNTP, EEE(IEEE802.3az), OpenFlow v1.0, OpenFlow v1.3, Hot patch, Z-PoE (Non-stop PoE)				
	Mirroring	Many-to-one mirroring, One-to-many mirroring, Flow-based mirroring, Overdevices mirroring, VLAN-based mirroring, VLAN-filtering mirroring, AP-port mirroring,SPAN, RSPAN, ERSPAN				
	Hardware monitoring	Power supply monitoring, Fan status and alarm monitoring				

TYPICAL APPLICATIONS

- Aggregation layer of a large network, core layer of medium-sized network, access of a server cluster, and full Gigabit Layer 3 access of buildings in large enterprise or campus networks.
- The 4 fixed 10G BASE-X ports upgrade the network to a 10G uplink backbone to protect user investment.
- Strong security management mechanisms provide network security defense, high-security access control, and effective network access control.
- Superior management policies facilitate bandwidth management and ensure the performance of key applications such as voice/ video conference, music and video streaming and Video on Demand (VoD).

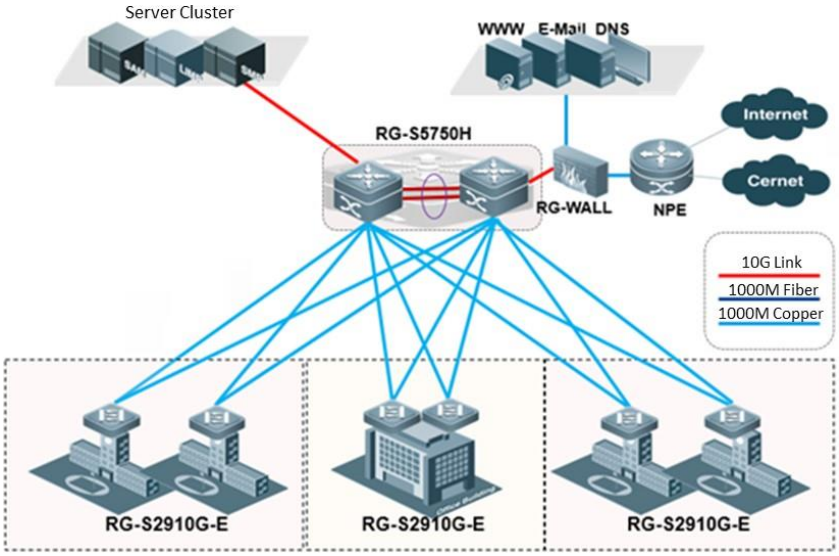
Typical Application 1

As the aggregation layer switch of large campus network, RG-S5750-H Series Switches offers high-performance bandwidth link with 10G aggregation to core and higher bandwidth for the access device to meet the growing demand of user traffic.



Typical Application 2

The RG-S5750-H Series Switches can be deployed as core switches in small and medium enterprises. The VSU technology not only simplifies the network architecture, but also significantly improves the reliability and efficiency of the network system.



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
RG-S5750C-48SFP4XS-H	48 100/1000BASE-X SFP ports, 4 1G/10GBASE-X SFP+ ports, 2 extension slots, 2 modular power slots, required to purchase at least 1 RG-PA150I-F power module
RG-S5750-48GT4XS-HP-H	48 10/100/1000BASE-T PoE+ ports, 4 1G/10GBASE-X SFP+ ports, 2 modular power slots, required to purchase at least 1 RG-M5000E-AC500P power module
Module	**Description**
M5000H-01QXS	1-port QSFP+ stacking module (stacking module for QSFP+ BASE-X ports, only for stacking between S5750C-H Series)
M5000H-04XS	4-port 10GE SFP+ interface module (Only for RG-S5750C-48GT4XS-H and RG-S5750C-48SFP4XS-H models; Only extension Slot-1 of RG-S5750C-48GT4XS-H and RG-S5750C-48SFP4XS-H models supports the module, the extension Slot-2 cannot be used.)
Power Supply	**Description**
RG-M5000E-AC500P	AC power module, 500W power budget, max 370W for PoE, for RG-S5750-48GT4XS-HP-H
RG-PA1150P-F	AC power module, 1150W power budget, max 740W for PoE, for RG-S5750-48GT4XS-HP-H
RG-PA150I-F	AC power module, 150W power budget, for RG-S5750C-48SFP4XS-H
RG-PA70I	AC power module, 70W power budget, for RG-S5750C-28GT4XS-H, RG-S5750C-28SFP4XS-H, RG-S5750C-48GT4XS-H
RG-PD70I	DC power module, 70W power budget, for RG-S5750C-28GT4XS-H, RG-S5750C-28SFP4XS-H, RG-S5750C-48GT4XS-H
Transceiver	**Description**
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-MM850	1000BASE-SX mini GBIC transceiver (850nm)
Mini-GBIC-LX-SM1310	1000BASE-LX mini GBIC transceiver (1310nm)
Mini-GBIC-LH40-SM1310	1000BASE-LH mini GBIC transceiver (1310nm, 40km)
Mini-GBIC-ZX50-SM1550	1000BASE-ZX mini GBIC transceiver (1550nm, 50km)
Mini-GBIC-ZX80-SM1550	1000BASE-ZX mini GBIC transceiver (1550nm, 80km)
Mini-GBIC-ZX100-SM1550	1000BASE-ZX mini GBIC transceiver (1550nm, 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-AOC-5M	40G QSFP+ optical stack cable (included both side transceivers) for S5750-H Series, S6220 Series, S8600E Series and N18000 Series Switches, 5 meters

Transceiver	Description
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)