

RG-CS83 Series

Switches





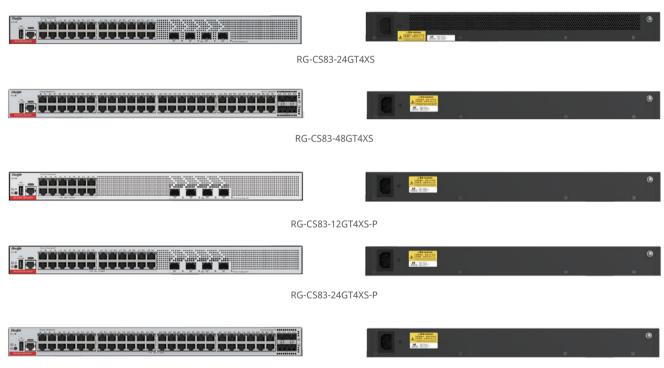


Product Overview

The RG-CS83 series switches are next-generation 1000M Ethernet switches launched by Ruijie Networks, featuring security, high efficiency, energy saving, and innovation. They provide full 1000M access and 10GE uplink data exchange with flexible scaling. With

the new hardware architecture and Ruijie RGOS12. X modular operating system, the switch provides more resource entries, faster hardware processing performance, and better operation experience.

Product Appearance



RG-CS83-48GT4XS-P

Product Highlights

- Multiple port types 1000BASE-T ports and uplink 10GE ports, PoE/PoE+ power supply, faster speed, and experience enhancement
- VSU, delivering flexible networking
- Diverse Layer 3 protocols: OSPF, RIP, and multicast
- Depth of 220 mm (8.66 in.) and compact design, which can be easily installed in a small cabinet
- Resistance to harsh environments and excellent anti-corrosion performance
- 10 kV surge protection on an interface, 8 kV surge protection for PoE power, 6 kV surge protection for non-PoE power, higher performance, and greater anti-interference capability
- Intelligent variable-speed fans, advanced heat



dissipation architecture, operating noise less than 35 dB, and fanless design

- Free Ruijie Cloud management, supporting selforganizing networking (SON), remote O&M, mobile VLAN configuration, and simplified ACL configuration
- Multiple network management modes, achieving simple and easy network maintenance
- RGOS modular operating system, providing more entries, faster hardware processing, and better operation experience
- Open and programmable RGOS modular operating system: Basic functions are

- incorporated into the main version, and custom functions are released in app mode, ensuring stability of basic functions.
- Rectification of faults related to processes online in seconds, without interrupting network operations
- Python that allows applications across the platform
- Online upgrade and extension of functions to ensure nonstop services
- Uses two flash chips to store boot software (system boot program), achieving hardwarelevel boot redundancy and avoiding switch startup failures caused by flash chip failures

Product Features

High Reliability

The RG-CS83 supports STP (IEEE 802.1D), RSTP (IEEE 802.1w), and MSTP (IEEE 802.1s) to achieve fast convergence, improve fault tolerance capability, and ensure stable network operation and link load balancing. It effectively utilizes network channels to improve utilization of redundant links.

The Virtual Router Redundancy Protocol (VRRP) ensures network stability for the switch.

With the Rapid Link Detection Protocol (RLDP), the RG-CS83 can quickly detect link connectivity and unidirectional optical fiber links. Through loop detection on a port, the RG-CS83 can prevent network failures caused by the loops due to unauthorized connection between the port and hubs.

The RG-CS83 supports the Ethernet Ring Protection Switching (ERPS) technology, which is a Layer 2 link redundancy protocol designed for the core Ethernet. The control device blocks loops and restores links, and non-control devices directly report their link status to the control device, without processing from other non-control devices. Therefore, loop elimination and service recovery time of ERPS is faster than that of STP. ERPS implements link restoration within milliseconds.

When STP is disabled, the Rapid Link Protection Protocol (RLDP) can still provide basic link redundancy and millisecond-level fault rectification faster than STP.

With the Bidirectional Forwarding Detection (BFD), the RG-CS83 can detect links within milliseconds, and quickly converge routing and other services through association with upper-layer routing protocols, ensuring service continuity.

Energy Efficiency

Ruijie integrates multiple energy-saving designs into the RG-CS83. The RG-CS83 reduces loud noise produced by deployment in offices and solves excessive energy consumption resulting from the large-scale deployment of access devices.

In addition, the RG-CS83 adopts the next-generation hardware architecture as well as advanced energy-efficient circuit design and components, to significantly save energy and lower noise. It is equipped with variable-speed axial fans to intelligently control the fan speed based on the ambient temperature, which reduces the power consumption and noise while ensuring stable device operation.

The energy efficient Ethernet (EEE) is another highlight of the RG-CS83 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.

The RG-CS83 provides automatic and energy-saving PoE modes.



Easy Network Maintenance

The RG-CS83 supports routine network diagnosis and maintenance based on SNMP, RMON, Syslog, and USB-based backup log and configuration. A network administrator can use various management and maintenance modes such as command line interface (CLI), web network management, Telnet, and CWMP-based zero-touch configuration to facilitate device management.

An LED mode button is available on the panel of the switch. You can press this button to check the current communication status and PoE status of all ports on the switch.

IPv4/IPv6 Dual-Stack Multi-Layer Switching

The RG-CS83 hardware supports both IPv4 and IPv6 dual stacks, as well as multi-layer line-rate switching to differentiate and process packets of each protocol effectively. With flexible IPv6 network communication solutions, the RG-CS83 can meet various IPv6 network demands such as planning or maintenance. The RG-CS83 supports a wide range of IPv4 routing protocols, covering IPv4 static routing, RIP, and OSPFv2. You can select a routing protocol based on the network situation for flexible network building. Additionally, the RG-CS83 also supports abundant IPv6 routing protocols such as IPv6 static routing, RIPng, and OSPFv3. These protocols can be flexibly selected to either upgrade an existing network to IPv6 or establish a new one.

Specifications

Hardware Specifications Port Specifications

| Port Specifications | RG-CS83-24GT4XS | RG-CS83-48GT4XS | RG-CS83- 12GT4XS-P | RG-CS83- 24GT4XS-P | RG-CS83- 48GT4XS-P |
|-----------------------|--|--|--|--|--|
| Fixed service ports | 24 x 10/100/ 1000BASE-T ports 4 x 1GE/10GE SFP+ ports | 48 x 10/100/ 1000BASE-T ports 4 x 1GE/10GE SFP+ ports | 12 x 10/100/ 1000BASE-T ports, supporting PoE/ PoE+ 4 x 1GE/10GE SFP+ ports | 24 x 10/100/ 1000BASE-T ports, supporting PoE/ PoE+ 4 x 1GE/10GE SFP+ ports | 48 x 10/100/ 1000BASE-T ports, supporting PoE/ PoE+ 4 x 1GE/10GE SFP+ ports |
| Fixed management port | 1 x RJ45 console port | | | | |
| USB | 1 x USB 2.0 port (No capacity limit, 2G/4G/8G capacity tested) | | | | |
| Cable hot swapping | Cable hot swapping for all ports | | | | |

System Specifications

| System Specifications | RG-CS83-24GT4XS | RG-CS83-48GT4XS | RG-CS83- 12GT4XS-P | RG-CS83- 24GT4XS-P | RG-CS83- 48GT4XS-P |
|------------------------|--|--|-----------------------|-----------------------|-----------------------|
| Packet forwarding rate | 96 Mpps | 132 Mpps | 78 Mpps | 96 Mpps | 132 Mpps |
| Switching capacity | 128 Gbps | 176 Gbps | 104 Gbps | 128 Gbps | 176 Gbps |
| CPU | Dual-core CPU, each | Dual-core CPU, each core with the clock speed of 1.0 GHz | | | |
| BootROM | 16 MB (storing boot software for 1+1 boot redundancy) | | | | |
| Flash memory | 512 MB (storing boot software for 1+1 boot redundancy) | | | | |



| System Specifications | RG-CS83-24GT4XS | RG-CS83-48GT4XS | RG-CS83- 12GT4XS-P | RG-CS83- 24GT4XS-P | RG-CS83- 48GT4XS-P |
|---------------------------------|-------------------------------|-----------------|-----------------------|-----------------------|-----------------------|
| Memory | 1 GB | | | | |
| Switch buffer | 4 MB | | | | |
| MAC address table size | 16,000 | | | | |
| ARP table size | 4,000 | | | | |
| Number of IPv4 unicast routes | 6,000 | | | | |
| Number of IPv4 multicast routes | 1,000 | | | | |
| Number of IPv6 unicast routes | 2,000 | | | | |
| Number of IPv6 multicast routes | 750 | | | | |
| Number of ACEs | Ingress: 1,750 Egress: 800 | | | | |
| Number of VSU members | 4 | | | | |

Dimensions and Weight

| Dimensions and Weight | RG-CS83-24GT4XS | RG-CS83-48GT4XS | RG-CS83- 12GT4XS-P | RG-CS83- 24GT4XS-P | RG-CS83- 48GT4XS-P |
|------------------------------------|-----------------------|---|-----------------------|-----------------------|------------------------|
| Unit dimensions (W x D x H) | 442 mm x 220 mm x | 442 mm x 220 mm x 43.6mm (17.40 in. x 8.66 in. x 1.72 in.) | | | |
| Shipping dimensions (W x D x H) | 540 mm x 338 mm x | 540 mm x 338 mm x 154 mm (21.26 in. x 13.31 in. x 6.06 in.) | | | |
| Rack height | 1 RU | 1 RU | | | |
| Unit weight | 3 kg (6.61 lbs) | | | | |
| Shipping weight | 4.10 kg (9.04 lbs) | 4.10 kg (9.04 lbs) | 4.18 kg (9.22 lbs) | 4.25 kg (9.37 lbs) | 4.90 kg (10.80 lbs) |

Power supply and Consumption

| Power supply and Consumption | RG-CS83-24GT4XS | RG-CS83-48GT4XS | |
|---------------------------------|---|---|--|
| Power supply | 1 x fixed power supply | 1 x fixed power supply | |
| Power input | AC input Rated input voltage: 100 V AC to 240 V AC, 50 Hz to 60 Hz Maximum input voltage: 90 V AC to 264 V AC, 47 Hz to 63 Hz Maximum input current: 0.6 A | AC input Rated input voltage: 100 V AC to 240 V AC, 50 Hz to 60 Hz Maximum input voltage: 90 V AC to 264 V AC, 47 Hz to 63 Hz Maximum input current: 1.5 A | |



| Power supply and Consumption | RG-CS83-24GT4XS | RG-CS83-48GT4XS |
|---------------------------------|-----------------------------|-----------------------------|
| Maximum output power | Built-in power supply: 25 W | Built-in power supply: 40 W |
| Maximum power consumption | 25 W | 40 W |
| Energy saving | Supported | Supported |

| Power supply and Consumption | RG-CS83-12GT4XS-P | RG-CS83-24GT4XS-P | RG-CS83-48GT4XS-P |
|---------------------------------|---|---|---|
| Power supply | 1 x fixed power supply | 1 x fixed power supply | 1 x fixed power supply |
| Power input | AC input Rated input voltage: 100 V AC to 240 V AC, 50 Hz to 60 Hz Maximum input voltage: 90 V AC to 264 V AC, 47 Hz to 63 Hz Maximum input current: 6 A | AC input Rated input voltage: 100 V AC to 240 V AC, 50 Hz to 60 Hz Maximum input voltage: 90 V AC to 264 V AC, 47 Hz to 63 Hz Maximum input current: 6 A | AC input Rated input voltage: 100 V AC to 240 V AC, 50 Hz to 60 Hz Maximum input voltage: 90 V AC to 264 V AC, 47 Hz to 63 Hz Maximum input current: 6 A |
| Maximum output power | Built-in power supply: 409 W | Built-in power supply: 409 W | Built-in power supply: 460 W |
| Maximum power consumption | 35 W (non-PoE) 405 W (PoE full load) | 35 W (non-PoE) 405 W (PoE full load) | 52 W (non-PoE) 460 W (PoE full load) |
| PoE port | All RJ45 ports support PoE/PoE+ (IEEE802.3af/at) power supply | All RJ45 ports support PoE/PoE+ (IEEE802.3af/at) power supply | All RJ45 ports support PoE/PoE+ (IEEE802.3af/at) power supply |
| PoE power cable pairs | Mode A (1-2, 3-6 pairs) | Mode A (1-2, 3-6 pairs) | Mode A (1-2, 3-6 pairs) |
| PoE output power | Each PoE port provides up to 30 W of power The maximum power is 370 W | Each PoE port provides up to 30 W of power The maximum power is 370 W | Each PoE port provides up to 30 W of power The maximum power is 405 W |
| Energy saving | Supported | Supported | Supported |

Note: The maximum number of powered devices supported by the switch is determined by the available power of the switch and the actual power consumption of each device.

Environment and Reliability

| Environment and Reliability | RG-CS83-24GT4XS | RG-CS83-48GT4XS | RG-CS83- 12GT4XS-P | RG-CS83- 24GT4XS-P | RG-CS83- 48GT4XS-P |
|----------------------------------|---|---|-----------------------------------|-----------------------------------|-----------------------------------|
| Temperature | | Operating temperature: 0°C to 45°C (32°F to 113°F) Storage temperature: –40°C to +70°C (–40°F to +158°F) | | | |
| Humidity | | Operating humidity: 10% to 90% RH (non-condensing) Storage humidity: 5% to 95% RH (non-condensing) | | | |
| Altitude | Operating altitude: 0 m to 5,000 m (0 ft. to 16,404.20 ft.) Storage altitude: 0 m to 5,000 m (0 ft. to 16,404.20 ft.) | | | | |
| Mean time between failure (MTBF) | 207,962 hours (about 23 years) | 208,926 hours (about 23 years) | 211,466 hours (about 24 years) | 209,714 hours (about 23 years) | 200,253 hours (about 22 years) |



| Environment and Reliability | RG-CS83-24GT4XS | RG-CS83-48GT4XS | RG-CS83- 12GT4XS-P | RG-CS83- 24GT4XS-P | RG-CS83- 48GT4XS-P |
|--------------------------------|---|---|---|---|---|
| Fan | No fan | 1 x fixed fan module |
| Heat dissipation | Front-to-right and le | ft-to-right airflow | | | |
| Acoustic noise | Fanless, quiet, < 20 dB | 270 (80.6°F): 32 dB | 270 (80.6°F): 35 dB | 27 (80.6°F): 32 dB | 270(80.6°F): 35 dB |
| Fan monitoring | Fanless design | PID-based multi- level speed adjustment Fan speed control (manual configuration not supported) Fan failure alarming |
| Temperature monitoring | Supported | Supported | Supported | Supported | Supported |
| ESD | ESD contact/air discharge: 6 kV/8 kV ESD susceptibility contact/air discharge: 8 kV/15 kV | | | | |
| Surge protection | Power port: common mode 6 kV, differential mode 6 kV Communication port: 10 kV | Power port: common mode 6 kV, differential mode 6 kV Communication port: 10 kV | Power port: common mode 6 kV, differential mode 8 kV Communication port: 10 kV | Power port: common mode 6 kV, differential mode 8 kV Communication port: 10 kV | Power port: common mode 6 kV, differential mode 8 kV Communication port: 10 kV |
| Conformal coating | Conformal coating su | Conformal coating supported (key components only) | | | |

Certifications and Regulatory Compliance

| Certifications and Regulatory Compliance | RG-CS83 Series |
|---|---|
| Safety regulation | IEC 62368-1 |
| EMC regulation | EN 300386, EN 55032 Class A, EN 55035, EN IEC 61000-3-2, EN 61000-3-3, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-11 |
| Communication standard | IEEE 802.3-2005 Ethernet standard IEEE 803.ab, IEEE 802.3af, IEEE 802.1d, IEEE 802.1q, IEEE 802.3-2005 (802.3ae), and IEEE 802.3ba (2010) standards, supporting 802.1X authentication |
| RoHS | Supported |



Software Specifications

| RG-CS83 Series | | | | | | |
|--------------------|---|--|--|--|--|--|
| Feature | Description | | | | | |
| | Jumbo frame (maximum length: 9,216 bytes) | | | | | |
| | 802.3az EEE | | | | | |
| | IEEE 802.1Q (4K VLANs) | | | | | |
| | Voice VLAN | | | | | |
| | Super-VLAN and private VLAN | | | | | |
| Ethernet switching | MAC address-based VLAN, interface-based VLAN, protocol-based VLAN, and IP subnet-based VLAN | | | | | |
| J | GVRP | | | | | |
| | Basic QinQ Selective QinQ | | | | | |
| | STP, RSTP, and MSTP | | | | | |
| | ERPS (G.8032) | | | | | |
| | LLDP/LLDP-MED | | | | | |
| | ARP | | | | | |
| | DHCP client, DHCP relay, and DHCP server | | | | | |
| | DHCP snooping | | | | | |
| IP service | DNS | | | | | |
| | DHCPv6 client, DHCPv6 relay, and DHCPv6 server | | | | | |
| | DHCPv6 snooping | | | | | |
| | Neighbor Discovery (ND) and ND snooping | | | | | |
| | Static routing | | | | | |
| | RIP and RIPng | | | | | |
| IP routing | OSPFv2 and OSPFv3 | | | | | |
| | IPv4 and IPv6 VRF | | | | | |
| | IPv4 and IPv6 PBR | | | | | |
| | IGMP v1/v2/v3, and IGMP proxy | | | | | |
| | IGMP v1/v2 snooping | | | | | |
| | PIM-DM, PIM-SM, and PIM-SSM | | | | | |
| Multicast | MSDP | | | | | |
| | MLD v1/v2 | | | | | |
| | MLD snooping v1/v2 | | | | | |
| | PIM-SMv6 and PIM-SSM v6 | | | | | |



| RG-CS83 Series | | | | |
|-----------------------|--|--|--|--|
| Feature | Description | | | |
| | Standard IP ACLs Extended IP ACLs Extended MAC ACLs Time-based ACLs Expert-level ACLs ACL80 IPv6 ACL | | | |
| ACL and QoS | ACL redirection | | | |
| | Traffic rate limiting on an interface | | | |
| | Congestion management: RR, SP, WRR, DRR, WFQ, SP+WRR, SP+DRR, and SP+WFQ | | | |
| | Congestion avoidance: tail drop | | | |
| | 802.1p/DSCP/ToS traffic classification Eight priority queues per interface | | | |
| | Multiple AAA modes | | | |
| | RADIUS and TACAS+ | | | |
| | Interface-based and MAC address-based 802.1x authentication | | | |
| | Web authentication | | | |
| | HTTPS | | | |
| Security | SSHv1 and SSHv2 | | | |
| | Global IP-MAC binding | | | |
| | Port isolation and port security | | | |
| | IP source guard | | | |
| | SAVI | | | |
| | CPP and NFPP | | | |
| | REUP, RLDP, DLDP | | | |
| | IPv4 VRRP v2/v3 and IPv6 VRRP | | | |
| | BFD | | | |
| Reliability | Link tracing, fault notification, and remote loopback based on 802.3ah (EFM) | | | |
| | Dual-Boot Redundancy | | | |
| | Fan speed adjustment Fan fault alarm | | | |
| Device virtualization | Virtual Switching Unit (VSU) | | | |
| | SPAN, RSPAN | | | |
| NMS and maintenance | sFlow | | | |
| and manifestative | NTP and SNTP | | | |
| | FTP and TFTP | | | |



| RG-CS83 Series | | | | | |
|---------------------|---|--|--|--|--|
| Feature | Description | | | | |
| NMS and maintenance | SNMP v1/v2/v3 | | | | |
| | RMON (1, 2, 3, 9) | | | | |
| | NETCONF | | | | |
| | CWMP (TR-069) | | | | |
| | gRPC | | | | |
| | Cloud and SON | | | | |
| PoE | RG-CS83-12GT4XS-P, RG-CS83-24GT4XS-P, and RG-CS83-48GT4XS-P: IEEE 802.3af and 802.3at Warm start Interface priority | | | | |

Protocol Compliance

| RG-CS83 Series | |
|----------------|---|
| Organization | Standards and Protocol |
| IETF | RFC 1157 A Simple Network Management Protocol (SNMP) RFC 1305 Network Time Protocol Version 3 (NTP) RFC 1349 Internet Protocol (IP) RFC 1350 TFTP Protocol (revision 2) RFC 1519 CIDR RFC 1519 CIDR RFC 1519 CIDR RFC 1519 Tomain Name System Structure and Delegation RFC 1643 Ethernet Interface MIB RFC 1757 Remote Network Monitoring (RMON) RFC 1812 Requirements for IP Version 4 Router RFC 1901 Introduction to Community-based SNMPv2 RFC 1902-1907 SNMP v2 RFC 1902-1907 SNMP v2 RFC 1918 Address Allocation for Private Internet RFC 2131 Dynamic Host Configuration Protocol (DHCP) RFC 2132 DHCP Options and BOOTP Vendor Extensions RFC 2571 SNMP Management Frameworks RFC 2863 The Interfaces Group MIB RFC 2925 Definitions of Managed Objects for Remote Ping, Traceroute, and Lookup Operations (Ping only) RFC 3046 DHCP Option82 RFC 3417 (SNMP Transport Mappings) RFC 3418 Management Information Base (MIB) for the Simple Network Management Protocol (SNMP) RFC 4022 MIB for TCP RFC 768 User Datagram Protocol (UDP) RFC 783 TFTP Protocol (revision 2) RFC 793 Transmission Control Protocol (TCP) RFC 781 SWindow and Acknowledgement Strategy in TCP RFC 815 IP datagram reassembly algorithms RFC 826 Ethernet Address Resolution Protocol (ARP) RFC 835 Tenter Protocol RFC 959 File Transfer Protocol (FTP) RFC 2865 Remote Authentication Dial In User Service (RADIUS) RFC 3579 RADIUS Support For EAP RFC 3579 RADIUS Support For EAP RFC 1058 Routing Information Protocol (RIP) |



| RG-CS83 Series | | | |
|----------------|---|--|--|
| Organization | Standards and Protocol | | |
| IETF | RFC 1583 OSPF Version 2 RFC 1981 Path MTU Discovery for IP version 6 RFC 2236 IGMP RFC 22328 OSPF Version 2 RFC 2460 Internet Protocol, Version 6 (IPv6) RFC 2461 Neighbor Discovery for IP Version 6 (IPv6) RFC 2462 IPv6 Stateless Address Auto configuration RFC 2463 Internet Control Message Protocol for IPv6 (ICMPv6) RFC 2711 IPv6 Router Alert Option RFC 2787 Definitions of Managed Objects for the Virtual Router Redundancy Protocol RFC 2934 Protocol Independent Multicast MIB for IPv4 RFC 3101 OSPF Not so stubby area option RFC 3137 OSPF Stub Router Advertisement sFlow RFC 3509 Alternative Implementations of OSPF Area Border Routers RFC 3513 IP Version 6 Addressing Architecture RFC 3623 Graceful OSPF Restart RFC 3768 VRRP RFC 3768 VRRP RFC 3810 Multicast Listener Discovery Version 2 (MLDv2) for IPv6 RFC 3973 PIM Dense Mode RFC 4552 Authentication/Confidentiality for OSPFv3 RFC 4750 OSPFv2 MIB partial support no SetMIB RFC 4940 IANA Considerations for OSPF RFC 5187 OSPFv3 Graceful Restart RFC 5340 OSPFv3 Graceful Restart RFC 5340 OSPFv3 Graceful Restart RFC 5340 OSPFv3 for IPv6 RFC 6620 FCFS SAVI | | |
| IEEE | IEEE 802.2 Logical Link Control IEEE 802.1ab Link Layer Discovery Protocol IEEE 802.1ad Provider Bridges IEEE 802.1ax/IEEE802.3ad Link Aggregation IEEE 802.1D Media Access Control (MAC) Bridges IEEE 802.1D Spanning Tree Protocol IEEE 802.1Q Virtual Bridged Local Area Networks (VLAN) IEEE 802.1S Multiple Spanning Tree Protocol IEEE 802.1w Rapid Spanning Tree Protocol IEEE 802.3ad Link Aggregation Control Protocol (LACP) IEEE Std 802.3x Full Duplex and flow control | | |

Typical Applications

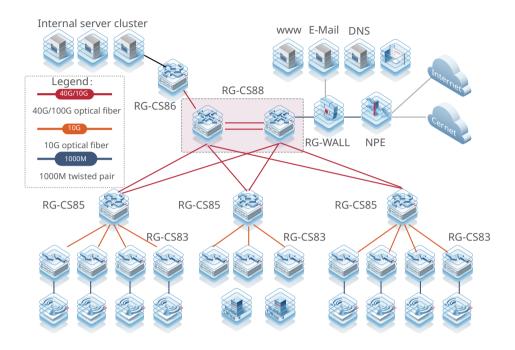
The RG-CS83 series switches are characterized by security, high efficiency, intelligence, and energy saving to fully meet network requirements in the following scenarios:

- Full 1000M access to a local area network (LAN) in a large-scale institution or enterprise campus, such as the government building, university, and manufacturing/energy/metallurgy unit
- 1000M access to a commercial system such as the healthcare, library, exhibition center, and website
- Access for IP telephones, WLAN access points (APs), and HD cameras
- 1000M access for server groups and high-bandwidth 10GE uplink
- Flexible and diverse security control policies are needed to prevent and control network viruses and attacks, ensuring user access security.



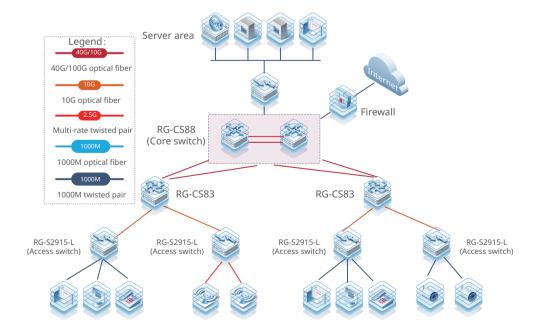
Scenario 1

The RG-CS83 series switches used as access switches are connected to the RG-CS85 series aggregation switches and the RG-CS88 series campus core switches. They provide 1000M access to the desktop and high-performance 10GE links between aggregation and core layers, meeting growing demands of access to user information.



Scenario 2

The RG-CS83 series switches used as aggregation switches are connected to the RG-2915L series indoor access switches and the RG-CS88 series core switches. They provide 1000M access to the desktop and 10GE links between aggregation and core layers, meeting growing demands of access to user information. This networking provides cost-effectiveness, high performance, and high bandwidth.





Ordering Guide

Follow the steps to order the RG-CS83 series switches.

- Select a switch and expansion modules based on port requirements.
- Select optical transceivers based on port requirements.

Models marked with asterisks (*) in the ordering information are available later.

Ordering Information

Order switches, expansion modules, power supply modules, and other components as needed. Before ordering an expansion module or power supply module, please contact our online customer service team for the latest support information about the module.

Switches

| Model | Description | | | |
|--|--|--|--|--|
| RG-CS83-24GT4XS | 24 x 10/100/1000BASE-T ports, 4 x 1GE/10GE SFP+ ports, and built-in power module | | | |
| RG-CS83-48GT4XS | 48 x 10/100/1000BASE-T ports, 4 x 1GE/10GE SFP+ ports, and built-in power module | | | |
| RG-CS83-12GT4XS-P | $12 \times 10/100/1000$ BASE-T ports, 4×1 GE/10GE SFP+ ports, PoE/PoE+ power supply, a maximum of 370 W PoE output, and built-in power module | | | |
| RG-CS83-24GT4XS-P | 24 x 10/100/1000BASE-T ports, 4 x 1GE/10GE SFP+ ports, PoE/PoE+ power supply, a maximum of 370 W PoE output, and built-in power module | | | |
| RG-CS83-48GT4XS-P 48 x 10/100/1000BASE-T ports, 4 x 1GE/10GE SFP+ ports, PoE/PoE+ power supply, a maximum PoE output, and built-in power module | | | | |

Note: 4 x 1GE/10GE SFP+ ports support 1GE SFP transceivers and 10GE SFP+ transceivers.

Optical Transceivers and Cables

1GE

| Model | Description |
|-----------------------|---|
| Mini-GBIC-GT | 1000BASE-X to 1000BASE-T, copper SFP transceiver, RJ45, 100 m over Cat 5e/6/6a The port needs to be configured with auto-negotiation |
| MINI-GBIC-SX-MM850 | 1000BASE-SX, SFP transceiver, 850 nm, Duplex LC, 500 m over MMF |
| MINI-GBIC-LX-SM1310 | 1000BASE-LX, SFP transceiver, 1310 nm, Duplex LC, 10 km over SMF |
| MINI-GBIC-LH40-SM1310 | 1000BASE-LH, SFP transceiver, 1310 nm, Duplex LC, 40 km over SMF |
| MINI-GBIC-ZX80-SM1550 | 1000BASE-ZX, SFP transceiver, 1550 nm, Duplex LC, 80 km over SMF |



| Model | Description |
|-------------------------|--|
| GE-SFP-LX20-SM1310-BIDI | 1000BASE-LX, SFP transceiver, Tx1310/Rx1550, BiDi LC, 20 km over SMF |
| GE-SFP-LX20-SM1550-BIDI | 1000BASE-LX, SFP transceiver, Tx1550/Rx1310, BiDi LC, 20 km over SMF |
| GE-SFP-LH40-SM1310-BIDI | 1000BASE-LH, SFP transceiver, Tx1310/Rx1550, BiDi LC, 40 km over SMF |
| GE-SFP-LH40-SM1550-BIDI | 1000BASE-LH, SFP transceiver, Tx1550/Rx1310, BiDi LC, 40 km over SMF |

Note: BiDi transceivers must be used in pairs. If one end uses GE-SFP-LX20-SM1310-BIDI, the other end must use GE-SFP-LX20-SM1550-BIDI.

10**G**E

| Model | Description | | | |
|------------------|---|--|--|--|
| XG-SFP-SR-MM850 | 10GBASE-SR, SFP+ transceiver, 850nm, Duplex LC, 300 m over MMF | | | |
| XG-SFP-LR-SM1310 | 10GBASE-LR, SFP+ transceiver, 1310nm, Duplex LC, 10 km over SMF | | | |
| XG-SFP-ER-SM1550 | 10GBASE-ER, SFP+ transceiver, 1550nm, Duplex LC, 40 km over SMF | | | |
| XG-SFP-AOC1M | 10GBASE, SFP+ active optical cable (AOC), 1 m, including one cable and two optical transceivers | | | |
| XG-SFP-AOC3M | 10GBASE, SFP+ active optical cable (AOC), 3 m, including one cable and two optical transceivers | | | |
| XG-SFP-AOC5M | 10GBASE, SFP+ active optical cable (AOC), 5 m, including one cable and two optical transceivers | | | |

Package Contents

| Item | RG-CS83- 12GT4XS-P | RG-CS83- 24GT4XS | RG-CS83- 48GT4XS | RG-CS83- 24GT4XS-P | RG-CS83- 48GT4XS-P |
|---|---|---------------------|---------------------|-----------------------|-----------------------|
| Host | 1 | 1 | 1 | 1 | 1 |
| Mounting bracket | 2 | 2 | 2 | 2 | 2 |
| Rubber pad | 4 | 4 | 4 | 4 | 4 |
| Mounting Bracket Installation Guide | 1 | 1 | 1 | 1 | 1 |
| Warranty Manual and Network Product Hazardous Substance Table | 1 | 1 | 1 | 1 | 1 |
| Cross recessed countersunk head screw, M4x8, GB819-85M4X8 | 8 | 8 | 8 | 8 | 8 |
| Grounding wire | 1 | 1 | 1 | 1 | 1 |
| Shipping dimensions(W x D x H) | 540 mm x 338 mm x 154 mm (21.26 in. x 13.31 in. x 6.06 in.) | | | | |
| Shipping weight | 4.18 kg(9.22 lbs) | 4.10 kg(9.04 lbs) | 4.10 kg(9.04 lbs) | 4.25 kg(9.37 lbs) | 4.90 kg(10.80 lbs) |





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

- Warranty terms: https://www.ruijienetworks.com/support/servicepolicy
- Warranty period: https://www.ruijienetworks.com/support/servicepolicy/Service-Support-Summany/

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

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