



# RG-CS83 Series

## Switches

# 01

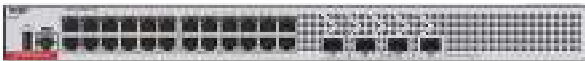
## Product Overview

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.

# 02

## Product Appearance



RG-CS83-24GT4XS



RG-CS83-48GT4XS



RG-CS83-12GT4XS-P



RG-CS83-24GT4XS-P



RG-CS83-48GT4XS-P



# 03

## 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 self-organizing 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 hardware-level boot redundancy and avoiding switch startup failures caused by flash chip failures

## 04 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.

# 05 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)				

### 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 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)				
Memory	1 GB				

System Specifications	RG-CS83-24GT4XS	RG-CS83-48GT4XS	RG-CS83-12GT4XS-P	RG-CS83-24GT4XS-P	RG-CS83-48GT4XS-P
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 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 154 mm (21.26 in. x 13.31 in. x 6.06 in.)				
Rack height	1 RU				
Unit weight	3.1 kg (6.83 lbs)	3.25 kg (7.17 lbs)	3.3 kg (7.28 lbs)	3.4 kg (7.50 lbs)	4.0 kg (8.82 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 <ul style="list-style-type: none"> <li>Rated input voltage: 100 V AC to 240 V AC, 50 Hz to 60 Hz</li> <li>Maximum input voltage: 90 V AC to 264 V AC, 47 Hz to 63 Hz</li> <li>Maximum input current: 0.6 A</li> </ul>	AC input <ul style="list-style-type: none"> <li>Rated input voltage: 100 V AC to 240 V AC, 50 Hz to 60 Hz</li> <li>Maximum input voltage: 90 V AC to 264 V AC, 47 Hz to 63 Hz</li> <li>Maximum input current: 1.5 A</li> </ul>

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 <ul style="list-style-type: none"> <li>Rated input voltage: 100 V AC to 240 V AC, 50 Hz to 60 Hz</li> <li>Maximum input voltage: 90 V AC to 264 V AC, 47 Hz to 63 Hz</li> <li>Maximum input current: 6 A</li> </ul>	AC input <ul style="list-style-type: none"> <li>Rated input voltage: 100 V AC to 240 V AC, 50 Hz to 60 Hz</li> <li>Maximum input voltage: 90 V AC to 264 V AC, 47 Hz to 63 Hz</li> <li>Maximum input current: 6 A</li> </ul>	AC input <ul style="list-style-type: none"> <li>Rated input voltage: 100 V AC to 240 V AC, 50 Hz to 60 Hz</li> <li>Maximum input voltage: 90 V AC to 264 V AC, 47 Hz to 63 Hz</li> <li>Maximum input current: 6 A</li> </ul>
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	1 x fixed fan module	1 x fixed fan module	1 x fixed fan module
Heat dissipation	Fanless design, natural heat dissipation	Front-to-right and left-to-right airflow			
Acoustic noise	Fanless, quiet, < 20 dB	27°C (80.6°F): 32 dB	27°C (80.6°F): 35 dB	27°C (80.6°F): 32 dB	27°C(80.6°F): 35 dB
Cable hot swapping	Cable hot swapping for all ports				
Fan monitoring	Fanless design	PID-based multi-level speed adjustment Fan speed control (manual configuration not supported) Fan failure alarming	PID-based multi-level speed adjustment Fan speed control (manual configuration not supported) Fan failure alarming	PID-based multi-level speed adjustment Fan speed control (manual configuration not supported) Fan failure alarming	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 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
Ethernet switching	Jumbo frame (maximum length: 9,216 bytes)
	802.3az EEE
	IEEE 802.1Q (4K VLANs)
	Voice VLAN
	Super-VLAN and private VLAN
	MAC address-based VLAN, interface-based VLAN, protocol-based VLAN, and IP subnet-based VLAN
	GVRP
	Basic QinQ Selective QinQ
	STP, RSTP, and MSTP
	ERPS (G.8032)
	LLDP/LLDP-MED
IP service	ARP
	DHCP client, DHCP relay, and DHCP server
	DHCP snooping
	DNS
	DHCPv6 client, DHCPv6 relay, and DHCPv6 server
	DHCPv6 snooping
	Neighbor Discovery (ND) and ND snooping
IP routing	Static routing
	RIP and RIPng
	OSPFv2 and OSPFv3
	IPv4 and IPv6 VRF
	IPv4 and IPv6 PBR
Multicast	IGMP v1/v2/v3, and IGMP proxy
	IGMP v1/v2 snooping
	PIM-DM, PIM-SM, and PIM-SSM
	MSDP
	MLD v1/v2
	MLD snooping v1/v2
	PIM-SMv6 and PIM-SSM v6

RG-CS83 Series	
Feature	Description
ACL and QoS	Standard IP ACLs Extended IP ACLs Extended MAC ACLs Time-based ACLs Expert-level ACLs ACL80 IPv6 ACL
	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
Security	Multiple AAA modes
	RADIUS and TACAS+
	Interface-based and MAC address-based 802.1x authentication
	Web authentication
	HTTPS
	SSHv1 and SSHv2
	Global IP-MAC binding
	Port isolation and port security
	IP source guard
	SAVI
	CPP and NFPP
Reliability	REUP, RLDP, DLDP
	IPv4 VRRP v2/v3 and IPv6 VRRP
	BFD
	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)
NMS and maintenance	SPAN, RSPAN
	sFlow
	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

## 06 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 1591 Domain 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 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 792 Internet Control Message Protocol (ICMP) RFC 793 Transmission Control Protocol (TCP) RFC 813 Window and Acknowledgement Strategy in TCP RFC 815 IP datagram reassembly algorithms RFC 826 Ethernet Address Resolution Protocol (ARP) RFC 854 Telnet Protocol RFC 959 File Transfer Protocol (FTP) RFC 2865 Remote Authentication Dial In User Service (RADIUS) RFC 3575 IANA Considerations for RADIUS 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 2328 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 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 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

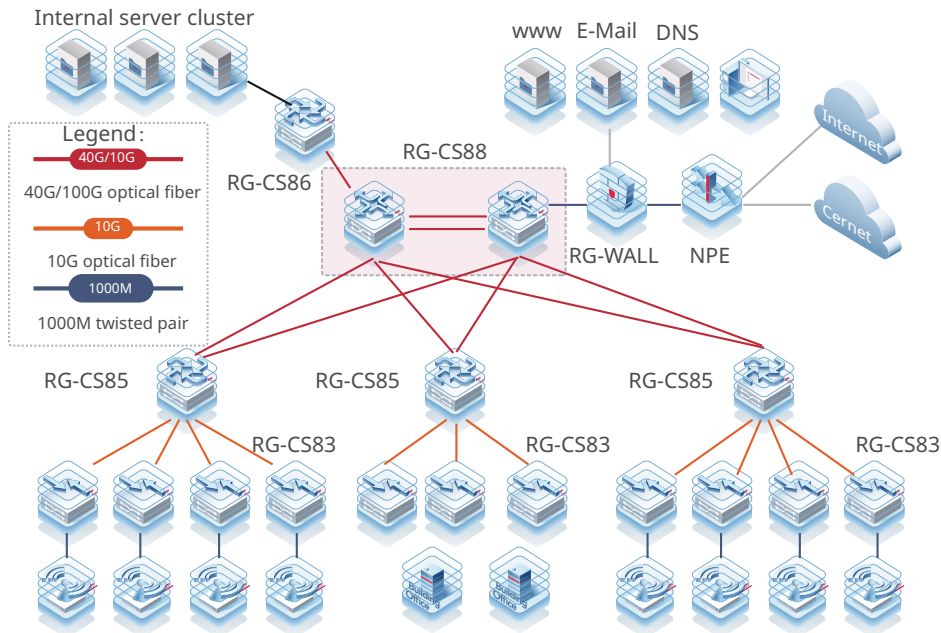
## 07 Typical Applications

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.

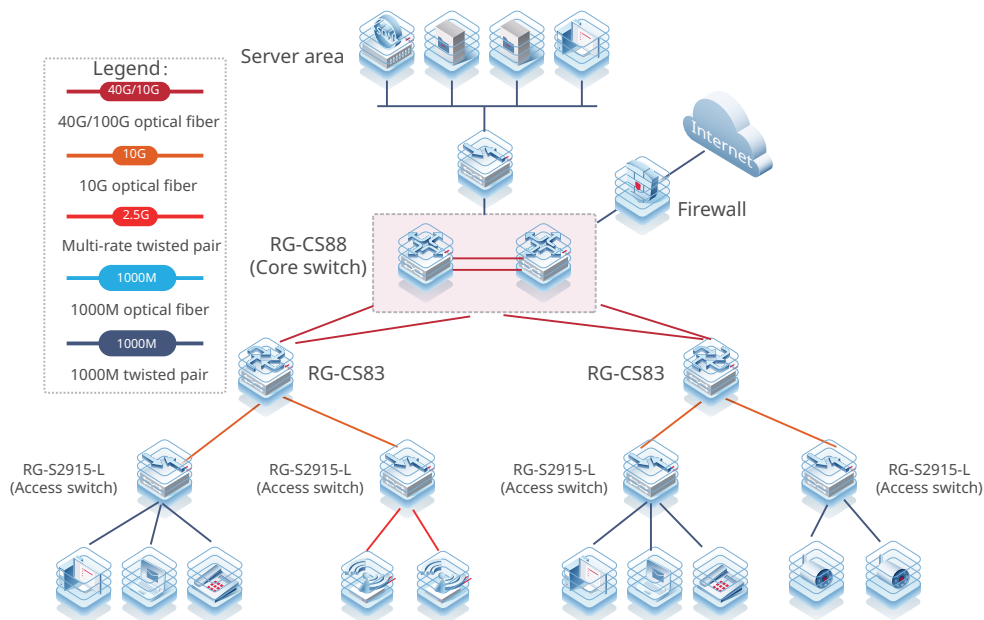
### Scenario 1

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.



# 08

## 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.

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## 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 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-CS83-24GT4XS-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 of 405 W 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.

## 10GE

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

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## Package Contents

Item	RG-CS83-24GT4XS	RG-CS83-48GT4XS	RG-CS83-12GT4XS-P	RG-CS83-24GT4XS-P	RG-CS83-48GT4XS-P
Chassis	1	1	1	1	1
Power cord	1	1	1	1	1
Grounding wire	1	1	1	1	1
Nylon buckle	1	1	1	1	1
Mounting bracket	2	2	2	2	2
Rubber pad	4	4	4	4	4
Cross recessed countersunk head screw, M4x8, GB819-85	8	8	8	8	8
M6*16 screw	4	4	4	4	4
M6 cage nut	4	4	4	4	4
Mounting Bracket Installation Guide	1	1	1	1	1

Item	RG-CS83-24GT4XS	RG-CS83-48GT4XS	RG-CS83-12GT4XS-P	RG-CS83-24GT4XS-P	RG-CS83-48GT4XS-P
Warranty Manual and Network Product Hazardous Substance Statement	1	1	1	1	1
Ruijie Networks Access Product Management Software	1 (pre-installed)	1 (pre-installed)	1 (pre-installed)	1 (pre-installed)	1 (pre-installed)
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	4.10 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)

## 11 Warranty

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

- Warranty terms: <https://www.ruijienetworks.com/support/servicepolicy>
- Warranty period: <https://www.ruijienetworks.com/support/servicepolicy/Service-Support-Summary/>

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

## 12 More Information

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

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

The Ruijie logo is displayed in a bold, red, italicized sans-serif font. It is centered on a light blue background that features abstract, overlapping geometric shapes and curved lines, creating a modern and dynamic feel.

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