

# **Ruijie**

# **RG-S5310-48SFP4XS-E**

## **Datasheet**

## Product Overview

- The RG-S5310-48SFP4XS-E is a member of the Ruijie RG-S5310-E series, designed for secure, efficient, and energy-saving network environments.
- Designed with security, energy efficiency, and innovation in mind, this switch features 48 × 1GE SFP ports and 4 × 1GE/10GE SFP+ uplink ports, ensuring smooth, high-speed service transmission for bandwidth-intensive applications.
- It supports advanced Layer 3 protocols including VXLAN and SDN, making it ideal for scalable and flexible deployments.
- Powered by Ruijie’s latest RGOS12.X modular operating system and a new hardware architecture, it offers increased resource entries, faster processing, and an enhanced user experience.
- With built-in support for virtual switch units (VSU), Python scripting, container-based applications, and non-disruptive software upgrades, the RG-S5310-48SFP4XS-E enables intelligent, programmable, and future-proof networking.
- The RG-S5310-48SFP4XS-E stands out as a reliable and flexible solution for next-generation network infrastructure.

## Product Highlights

- **Full-Gigabit Access Design:** 48 × 1GE SFP ports ensure stable and high-speed service transmission across enterprise or campus networks.
- **10GE Uplink Capability:** 4 × 1GE/10GE SFP+ uplink ports support high-bandwidth aggregation and rapid data exchange.
- **Advanced Layer 3 Features:** Supports VXLAN, SDN, and various L3 protocols for flexible and scalable deployments.
- **Modular RGOS Architecture:** Enhances system resource allocation, stability, and update efficiency.

## Detailed Features



RG-S5310-48SFP4XS-E

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Component	Specification
Uplink Interfaces	4 × 1GE/10GE SFP+ ports for high-speed data uplink
Downlink Interfaces	48 × 1GE SFP ports for high-density fiber access
Switching Capacity	Up to 176 Gbps, ensuring fast packet forwarding
Layer 3 Routing Capabilities	Supports up to 64 APs
Virtual Switching Unit (VSU)	Enables up to 9 devices to operate as a single logical unit



## High-Density Fiber Access

The RG-S5310-48SFP4XS-E delivers 48 gigabit SFP ports for high-density fiber access, ideal for enterprise and campus networks requiring short-distance, high-speed service connections. Combined with 4 × 1GE/10GE SFP+ uplink ports, it ensures scalable and high-bandwidth data transmission.

## Advanced Layer 3 Routing Capabilities

Supporting advanced L3 protocols such as RIP, OSPF, BGP, and IS-IS, as well as VXLAN and SDN, the switch provides flexible routing capabilities for dynamic and large-scale network deployments.

## Modular Operating System Architecture

The RGOS 12.X modular OS enables streamlined system management with greater processing efficiency. By separating core functions from optional apps, it ensures a stable base while allowing for customized functional expansion.

## Real-Time Process Fault Rectification

The switch supports online fault recovery for software processes. Faults can be identified and resolved in real time without affecting system operations, ensuring service stability and reducing downtime.

## Virtual Switching Unit (VSU) Support

With VSU technology, multiple RG-S5310-E switches can be virtualized into a single logical device. This simplifies topology, unifies configuration, and enhances operational efficiency across the network.

## Programmable Platform with Python Integration

Open software architecture with integrated Python support and high-speed northbound interfaces allows seamless third-party integration and controller communication. Users can write custom scripts to automate routine operations, improving manageability and workflow efficiency in complex environments.

## x86-Based Container Support

Based on an x86 hardware platform, the switch enables containerized applications to run directly on the device. This supports the deployment of monitoring, security, or automation tools without needing additional servers, streamlining network management and reducing infrastructure costs.

## Comprehensive Network Security Features

Equipped with advanced security features like ARP inspection, DHCP snooping, MAC filtering, and ACLs, the switch provides multi-layer protection. These functions effectively prevent unauthorized access and ensure secure, stable operation in enterprise and data center networks.

## Non-Disruptive Service Upgrades

The RG-S5310-48SFP4XS-E supports online feature upgrades and module expansions. New services can be activated without system reboot or service disruption, helping maintain network uptime and enabling continuous business operations during maintenance or enhancement.

# Technical Specifications

## Product Specifications

Feature	Value
Product Model	RG-S5310-48SFP4XS-E
Dimensions (W x D x H)	442.0 mm × 420.0 mm × 43.6 mm (17.40 in. × 16.54 in. × 1.72 in.)
Shipping Dimensions	570.0 mm × 565.0 mm × 172.0 mm (22.44 in. × 22.24 in. × 6.77 in.)
Rack Height	1 RU
Unit Weight	4.5 kg (9.92 lbs)
Shipping Weight	6.58 kg (14.51 lbs)

Feature	Value
Power Supply	2 × pluggable power modules
Power Input	-RG-PA150IB-F (AC): 100–240 V AC, 50/60 Hz; Max current: 3 A -RG-PD150IB-F (DC): –48 to –60 V DC; Max current: 5 A
Maximum Output Power	-RG-PA150IB-F: 150 W -RG-PD150IB-F: 150 W
Maximum Power Consumption	108 W
Operating Temperature	0°C to 45°C (32°F to 113°F)
Storage Temperature	–40°C to +70°C (–40°F to +158°F)
Operating Humidity	10% to 90% RH (non-condensing)
Storage Humidity	5% to 95% RH (non-condensing)
MTBF	289,080 hours (dual PSU); 175,200 hours (single PSU)
Fan Configuration	1 × fixed fan module
Cooling	Fan cooling, left-to-right and front-to-right airflow
Surge Protection	MGMT port: 4 kV; Service port: 10 kV; Power port: 6 kV (common and differential modes)
Certifications	IEC 62368-1 (Safety); EN 300386, EN 55032 Class A, EN 55035, and other EMC regulations; RoHS compliant

## Product Comparison

Feature	RG-S5310-24SFP4XS-E	RG-S5310-48GT4XS-E	RG-S5310-48SFP4XS-E
Port Configuration	24 x SFP, 4 x 10G SFP+	48 x Gigabit Ethernet, 4 x 10G SFP+	48 x SFP, 4 x 10G SFP+
Switching Capacity	320 Gbps	176 Gbps	320 Gbps
Forwarding Rate	238 Mpps	130 Mpps	238 Mpps
MAC Address Table Size	128K	128K	128K
IPv4 Routing Table Size	8K	8K	8K
VLAN Support	4K VLANs	4K VLANs	4K VLANs
Multicast Groups	8K	8K	8K
Power Supply Modules	2 x pluggable power modules	2 x pluggable power modules	2 x pluggable power modules
Max Power Consumption	85 W	55 W	108 W



Feature	RG-S5310-24SFP4XS-E	RG-S5310-48GT4XS-E	RG-S5310-48SFP4XS-E
PoE Support	No	No	No
Fan Modules	1 x fixed fan module	2 x fixed fan modules	1 x fixed fan module
Operating Temperature	0°C to 45°C	0°C to 45°C	0°C to 45°C
Dimensions (W×D×H)	442 × 420 × 43.6 mm	442 × 420 × 43.6 mm	442 × 420 × 43.6 mm
Weight	4.2 kg (9.26 lbs)	4.3 kg (9.48 lbs)	4.5 kg (9.92 lbs)
MTBF (Dual Power Modules)	306,600 hours (~35 years)	350,400 hours (~40 years)	289,080 hours (~33 years)

## Accessories

Category	Accessories
Included Accessories	- Power Adapter
	- Mounting Bracket
	- Quick Installation Guide
Optional Accessories	- SFP Transceivers
	- PoE Injector
	- Rack Mount Kit



## Support & Warranty



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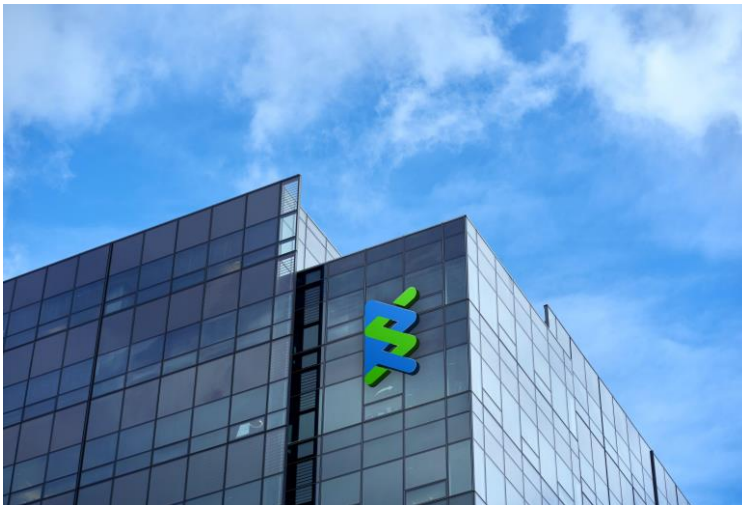


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## References

[1] Ruijie Networks. (2023). RG-S5310-E Series Switches Datasheet (V1.0). Retrieved from <https://www.ruijie.com/en-global/resources/preview/RG-S5310-ESeriesDatasheet>