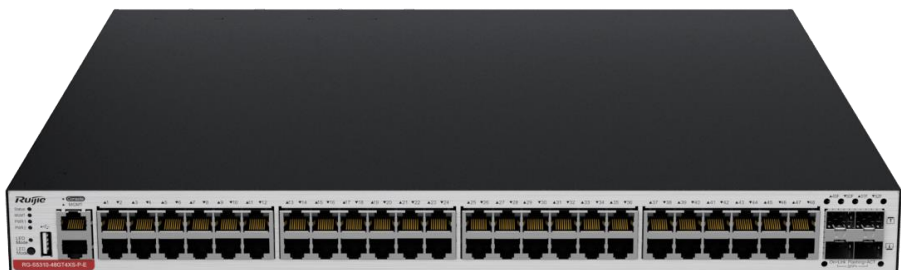# Ruijie RG-S5310-48GT4XS-P-E

Datasheet

Product Overview

- The RG-S5310-48GT4XS-P-E is a Layer 3 access switch from Ruijie's S5300 series, built for full-gigabit access with high-performance 10G uplink capabilities.

- Equipped with 48 x 10/100/1000BASE-T ports supporting PoE/PoE+ and 4 x 1GE/10GE SFP+ uplinks, it ensures high-speed transmission and seamless connectivity for dense terminal environments.

- With support for IEEE 802.3af/at, it can deliver up to 30W per port, meeting the power requirements of devices such as wireless APs, surveillance cameras, and VoIP phones.

- The switch features VSU (Virtual Switch Unit) technology, enabling flexible expansion, simplified networking, and millisecond-level failover, greatly enhancing network reliability.

- Integrated with CPP and NFPP security policies, it effectively protects the CPU and isolates malicious users, ensuring stable network operations.

- Supporting plug-and-play onboarding via the Ruijie INC controller, it simplifies O&M and enables automated deployment with minimal manual configuration effort.

Product Highlights

- **High-Speed Access:** Offers 48 Gigabit PoE/PoE+ ports and 4 × 10G SFP+ uplinks, delivering fast and stable data transmission for enterprise networks.

- **Power over Ethernet (PoE+):** Supports IEEE 802.3af/at standards with a maximum PoE power budget of 1,570 W, ideal for IP cameras, APs, and VoIP phones.

- **VSU Virtualization:** Enables multiple switches to function as one, ensuring flexible scalability and millisecond-level failover for enhanced reliability.

- **Simplified O&M:** Supports plug-and-play via INC Controller with automatic registration, zero-touch provisioning, and auto-sensing ports.

Detailed Features

RG-S5310-48GT4XS-P-E

Component	Specification
Port Configuration	48 x 10/100/1000BASE-T ports, 4 x 1GE/10GE SFP+ ports
System Switching Capacity	211 Gbps
System Forwarding Rate	158 Mpps
Maximum Power Consumption	75 W (without PoE load), 1,570 W (full PoE load)
Unit Dimensions	442.0 mm x 420.0 mm x 43.6 mm (17.40 in. x 16.54 in. x 1.72 in.)

Robust ARP Spoofing Prevention

The RG-S5310-48GT4XS-P-E offers multi-mode ARP spoofing protection by recording IP and MAC address bindings regardless of whether clients use DHCP or static IPs. It filters out forged packets in real-time, securing the network from common ARP attacks and protecting users from external threats.

Comprehensive DDoS Defense Mechanism

This model provides strong defenses against Distributed Denial of Service (DDoS) attacks such as ARP flooding, ICMP flooding, and DHCP request flooding. It leverages advanced hardware-based CPU protection (CPP), which classifies and rate-limits CPU-bound traffic to ensure uninterrupted performance during abnormal traffic spikes.

Network Foundation Protection Policy (NFPP)

The switch uses Ruijie's NFPP technology to detect and isolate malicious users by rate-limiting ARP, ICMP, and DHCP requests. It intelligently drops traffic that exceeds thresholds, identifies attack behaviors, and shields the network from instability and performance degradation.

High Availability with VSU Virtualization

Supporting Virtual Switching Unit (VSU) technology, the RG-S5310-E series allows multiple physical switches to be managed as a single logical unit. This enables centralized management, simplified topologies, rapid failover (within 50–200ms), and seamless scalability—enhancing operational efficiency.

Layer 2 and Layer 3 Redundancy for High Reliability

To ensure maximum uptime, the device supports STP, RSTP, MSTP, and ERPS protocols for loop protection and fast recovery. Rapid Link Detection Protocol (RLDP) and Bidirectional Forwarding Detection (BFD) help detect faults and provide millisecond-level convergence, reducing service interruptions.

SDN-Ready Architecture

The RG-S5310-48GT4XS-P-E is compatible with OpenFlow 1.3 and Ruijie's SDN controller. It enables centralized access control, policy orchestration, and visualized O&M, making it easier to transition from traditional to programmable networks while lowering maintenance complexity.

Energy-Saving Design and PoE Optimization

Equipped with variable-speed axial fans and energy-efficient circuitry, the switch reduces power consumption and noise. It supports smart PoE power saving modes that dynamically adjust power allocation based on device status and ambient temperature—ideal for office deployments.

Rich Management and Diagnostic Capabilities

The switch supports CLI, web management, SNMP, Syslog, RMON, and USB-based backups. An LED mode button offers quick visibility into port status and PoE operation. With gRPC-based telemetry, it collects key performance data for real-time monitoring and proactive maintenance.

Technical Specifications

Product Specifications

Feature	Value
Product Model	RG-S5310-48GT4XS-P-E
Fixed Ports	48 × 10/100/1000Base-T, 4 × 1G/10G SFP+
Switching Capacity	176 Gbps
Forwarding Rate	132 Mpps
MAC Address Table	32K
Jumbo Frame Size	9,216 Bytes

Feature	Value
PoE Output Power	370 W
Maximum Power Consumption	470 W
Power Supply	- Dual Power Supply Slots (1 default PSU included)
Fan	2 Hot-swappable Intelligent Fans
Weight	4.8 kg
Dimensions (W × D × H)	442 × 420 × 43.6 mm
Installation	1U Rack-mountable
Operating Temperature	0°C to 50°C
Storage Temperature	-40°C to 70°C
Operating Humidity	10%–90% RH (non-condensing)
Storage Humidity	5%–95% RH (non-condensing)
Electrostatic Discharge (ESD) Immunity	±8 kV contact discharge, ±15 kV air discharge (compliant with IEC 61000-4-2)
Surge Immunity	Power port: ±6 kV; Ethernet port: ±2 kV (compliant with IEC 61000-4-5)

Product Comparison

Feature	RG-S5310-48GT4XS-P-E	S5310-48GT4XS	S5310-24GT4XS
Model Type	48-port PoE+ Gigabit with 10G Uplinks	48-port Non-PoE Gigabit with 10G Uplinks	24-port Non-PoE Gigabit with 10G Uplinks
10/100/1000BASE-T Ports	48 × RJ45	48 × RJ45	24 × RJ45
10GE SFP+ Ports	4 × 1G/10G SFP+	4 × 1G/10G SFP+	4 × 1G/10G SFP+
PoE Support	Full PoE+ on all ports	Not supported	Not supported
Switching Capacity	211 Gbps	211 Gbps	154 Gbps
Forwarding Rate	158 Mpps	158 Mpps	115 Mpps
MAC Address Table	32K	32K	32K
ARP Table Size	20K	20K	20K
VLANs Supported	4K	4K	4K

Feature	RG-S5310-48GT4XS-P-E	S5310-48GT4XS	S5310-24GT4XS
Redundant Power	Dual hot-swappable AC	Dual hot-swappable AC	Dual hot-swappable AC
Max Power Consumption	1,570 W	55 W	50 W
Fan Design	2 × fixed, smart fans	2 × fixed, smart fans	1 × fixed, smart fan
Weight (w/ PSU)	4.6 kg	4.3 kg	4.3 kg
Size (W×D×H)	440 × 360 × 44 mm	440 × 360 × 44 mm	440 × 360 × 44 mm
Deployment Scenarios	Power-demanding devices: APs, cameras, IoT	Aggregation/core switching without PoE	Ideal for SMBs, access layer without PoE

Accessories

Category	Accessories
Included Accessories	- Chassis ×1
	- Grounding Wire ×1
	- Mounting Brackets ×2
	- Rubber Pads ×4
	- M4×8 Cross Recessed Countersunk Head Screws ×8
	- Mounting Bracket Installation Guide ×1
	- Network Product Warranty Manual and Hazardous Substance Statement ×1
	- Ruijie Networks Access Product Management Software (pre-installed)
Optional Accessories	- Rack Mount Kit: RG-RMK-S5310
	- Console Cable
	- SFP Transceivers (various models)
	- External Power Supply (for PoE models)

Support & Warranty

24/7 Online Service

3-Year Premium Warranty

Professional Technical Support
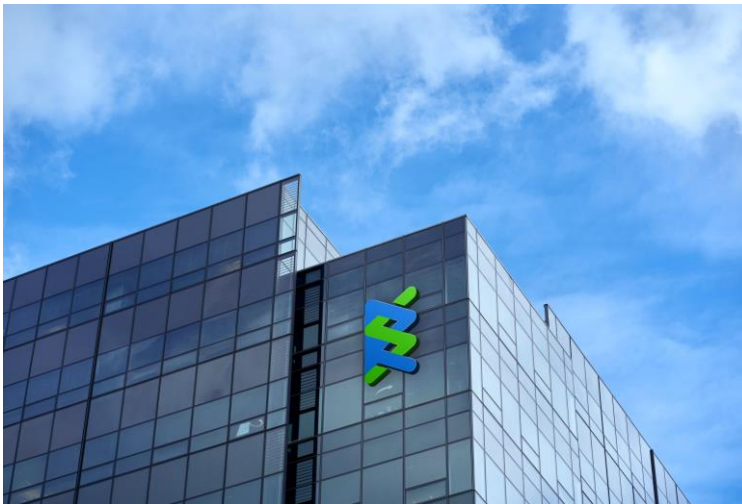
100% Low Price Guarantee

100% Quality Assurance

100% Money Back Guarantee

About Us

Router-switch.com, headquartered in Hong Kong since 2002, has been a trusted global leader in ICT distribution for 23 years. We provide cutting-edge networking, cybersecurity, data center, and AI solutions to meet evolving business needs. Our wide range includes products from top brands like Cisco, Arista, Aruba, Fortinet, Mellanox, and Huawei, ensuring access to the latest technology and innovations.

18,000+
global customers

600,000+
end-users

200+
countries & regions

23
years experience

500+
global vendors

100,000+
SKUs available

700+
local sales experts

50-98%
off global list prices

Contact Us

Email

Sales Inquiries: sales@router-switch.com
Expert Technical Support: ccie-support@router-switch.com
Cooperative Partnerships: partner@router-switch.com

Phone

USA: +1-626-655-0998
Hong Kong: +852-25925389 / +852-25925411

Follow Us

Facebook: @Routerswitchdotcom
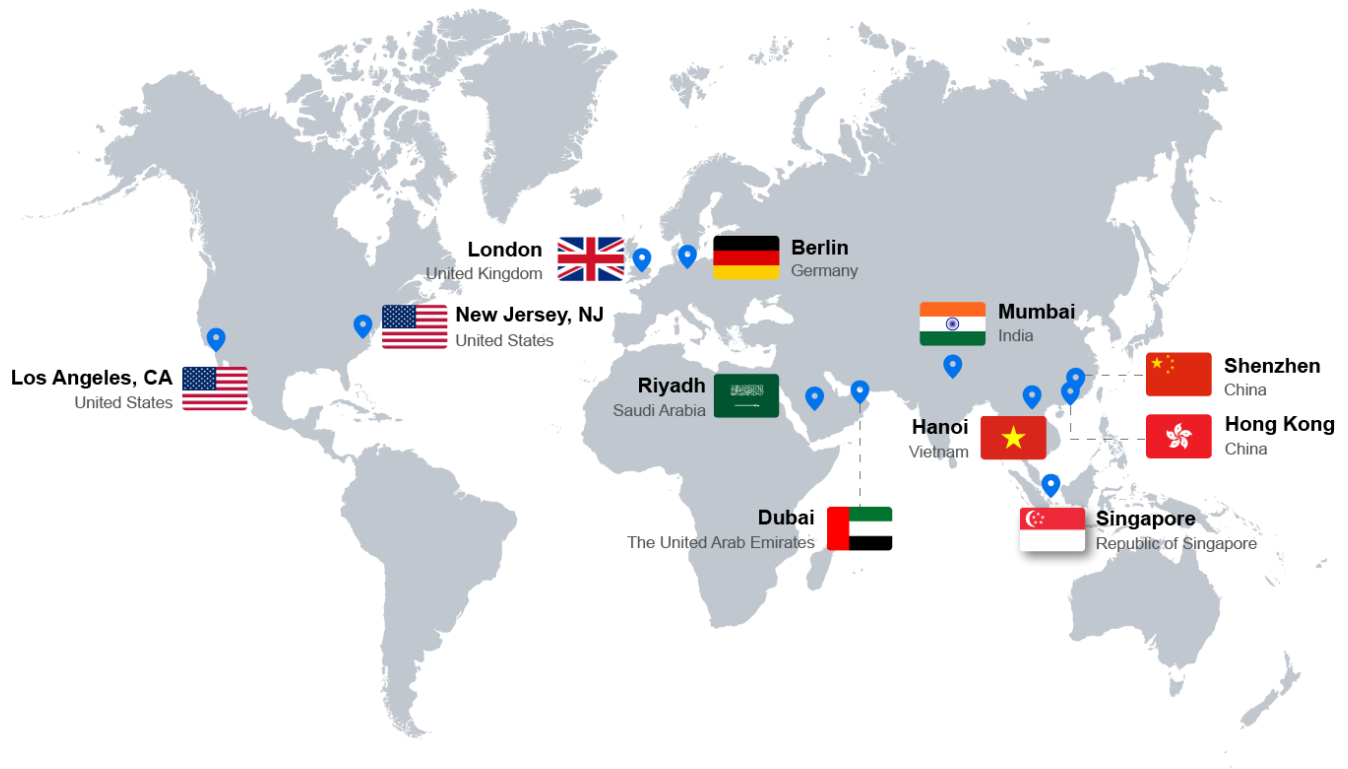**LinkedIn:** Router-switch.com
X: @routerswitchcom
Instagram: @routerswitchdotcom

Global Footprint

Global Warehouses & Service Centers Across Continents.

Global Branches

Headquarters (Hong Kong)

Rm 605, 6/F, Fa Yuen Comm Bldg, 75-77 Fa Yuen St, Mongkok, Kowloon, Hong Kong, China

Shenzhen Branch

Jingfeng Building, 1001 Shangbu South Road, Futian District, Shenzhen, China

USA Branch

3592 Rosemead Blvd, B #220, Rosemead, CA 91770, USA

UK Branch

Third Floor, 207 Regent Street, London W1B 3HH, UK

References

[1] Ruijie Networks. (n.d.). RG-S5310-E Series Switches Datasheet (V1.0). Retrieved April 18, 2025, from https://www.ruijienetworks.com/resources/preview/RG-S5310-ESeriesDatasheet/