

Ruijie RG-IS2708M-4P Industrial Ethernet Switch Datasheet

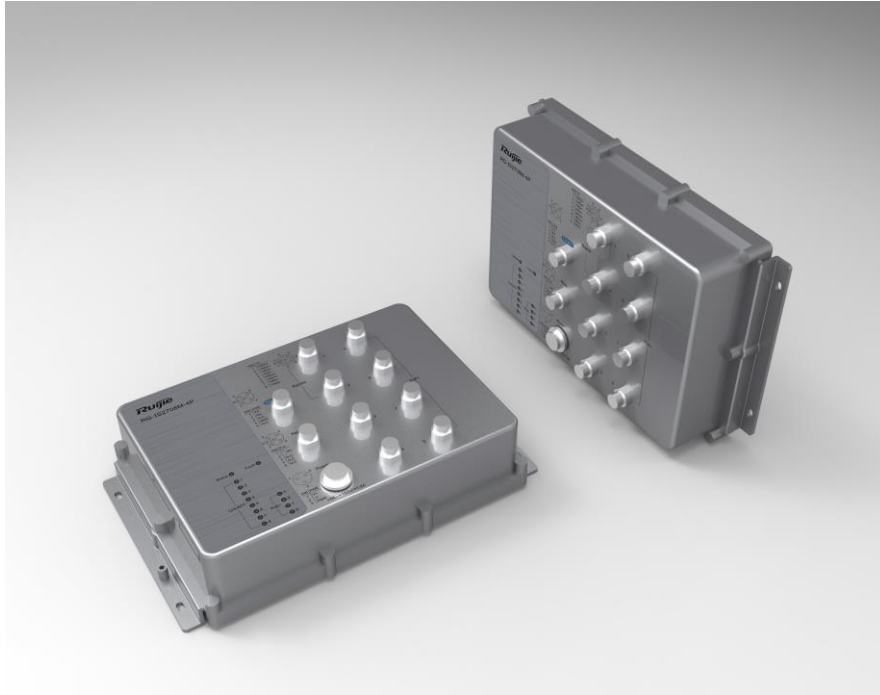
Ruijie Networks Co., Ltd.

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1 Product Photo



RG-IS2708M-4P

2 Product Overview

Ruijie Industrial Ethernet Switch RG-IS2708M-4P offers a cost-effective solution to power various industrial applications. To meet the harsh deployment requirements, the industrial switch totally improves technical performance in terms of real-time communication, network availability and security features. The RG-IS2708M-4P with top-class design and components completely outperforms commercial switches to perform in industrial-specific environments.

With fanless convention cooling, wide temperature range and strengthened protection, the switch provides exceptional shock, dust, water, lightning and extreme temperatures resistance for the most demanding working environment. Among a broad variety of routing, switching and security protocols, the switch also features Ethernet Ring Protection Switching (ERPS) that improves network flexibility, resiliency and security. The M12 connectors can withstand tough shock and impact for reliable and stable operation. The RG-IS2708M-4P offers 8 Gigabit Ethernet M12 ports in total and half of them support IEEE 802.3at PoE+. Each power port offers output up to 30W. Virtualization, as another feature highlight, increases communication link bandwidth twofold and enables auto-switching in the event of link failure. The switch is an ideal match for railway transport, IP surveillance and other harsh environments alike. The RG-IS2708M-4P switch provides customers with a robust, highly secure and easy-to-use switching infrastructure.

3 Product Features

3.1 Advanced Hardware Architecture

- **Advanced hardware design.** The RG-IS2708M-4P switch embodies in a durable aluminum case mainstream industrial chips, high-performance CPU, and industrial-level power module to meet the demanding industrial requirements.
- **Designed tough for industrial use.** Support fanless convection cooling, -40 to 70°C operating temperature range, IP67 class protection, lightning protection power \geq 6KV, power supply with shock, and electromagnetic interference, shock and impact resistance.

3.2 Comprehensive Network and Security Features

- **Extensive Layer 2 features.** Support VLAN, STP/RSTP, ERPS, multicast, port mirroring, QoS, port security, broadcast storm suppression. Also offer Layer 3 features such as static route.
- **Advanced security protection.** Support binding of static and dynamic ports, port isolation, multiple kinds of hardware ACL control features, bandwidth speed limitation based on data traffic, user access control, etc. The features effectively defend against virus spreading, network traffic attacks and rogue network access.
- **Outstanding network stability.** Network Foundation Protection Policy (NFPP) implements speed restriction based on different packet categories (management, forwarding and protocol packets) and attack inspection. The switch fully protects CPU and channels from network attacks, delivering stable forwarding and protocol operation.

3.3 Flexible Networking & Easy Management

- **Best price-to-performance ratio.** Support the traditional star topology as well as the Ethernet Ring Protection Switching (ERPS) to achieve a ring network with high redundancy and reliability. Data can still be forwarded from the other end upon failure of any node of the ring network. In addition, less fiber cabling is used in the ring network compared with the star topology, which can save the construction cost for the customers.
- **Unique Virtualization Technology.** Support many-to-one virtualization (VSU) simplifying the management of multiple devices into one. With the VSU and link aggregation technologies, the switch can effectively increase the link bandwidth.
- **Control with Ease.** Support switch configuration via the traditional CLI command line and the graphical web configuration interface. Complicated command line and terminal emulation program are no longer required, which allows simple and fast configuration of the switch,

thereby simplifying the deployment procedure.

3.4 Leading Switch Virtualization Technology

- **Simplified Management.** Support virtualization technology. Assuming each train compartment is deployed with one Gigabit automotive switch, the technology greatly simplifies the management and policy enforcement by virtualizing all the switches into one logical device. Wired link redundancy can also be achieved via the ring network.
- **Excellent Agility.** After virtualization, the communication links between all train compartments as well as the links between the train and the control center can form a cross-device aggregation link to double the bandwidth between the train and the control center based on load balancing of multiple strategies (IP, MAC and port). It hereby achieves real-time video synchronization. If failure occurs in one of the links, automatic link switchover can be completed with 20ms to ensure system stability.

4 Technical Specifications

Model	RG-IS2708M-4P
Ethernet Port	8 10/100/1000M copper ports M12 connector 2 of the ports support bypass feature
Management Port	1 console port M12 connector
Alarm Port	1 alarm port M12 connector
Power Input Port	1 power input port M16 connector
Switching Capacity	16G
Packet Forwarding Rate	11.9Mpps
802.1q VLAN	4K
Operating Temperature	-40~70° C
Operating Humidity	5~95%RH
Protection Rating	IP67
MTBF	Over 30 years
PoE	4-port 802.3at standard, up to 90W PoE power output
EMI	FCC Part 15 Subpart B Class A, EN 55022 Class A
EMS	EN 61000-4-2 (ESD) Level 3, EN 61000-4-3 (RS) exceeds Level 3, EN 61000-4-4 (EFT) Level 3, EN 61000-4-5 (Surge) Level 3, EN 61000-4-6 (CS) Level 3, EN 61000-4-8, EN 61000-4-11
Mechanical Standard	IEC61373 (shock and vibration), IEC60068-2-32 (free fall)
Railway Standard	EN50155, EN50121
Virtualization	Support virtualization of up to 8 devices into 1 logical unit. Support cross-device link load balancing and redundancy feature. The redundancy

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	switchover time is less than 20ms.
L2 Protocols	G.8032 (ERPS), IEEE802.3, IEEE802.3u, IEEE802.3z, IEEE802.3x, IEEE802.3ad, IEEE802.1p, IEEE802.1x, IEEE802.3ab, IEEE802.1Q, IEEE802.1d, IEEE802.1w, IEEE802.1s, IGMP Snooping v1/v2/v3
ACL	Standard IP ACL (IP address-based hardware ACL) Extended IP ACL (hardware ACL based on IP address and TCP/UDP port number) Extended MAC ACL (optional Ethernet-type hardware ACL based on the source MAC address and destination MAC address) Time-based ACL Expert-level ACL (hardware ACL based on random combination of the VLAN number, Ethernet type, MAC address, IP address, TCP/UDP port number and protocol type)
IPv6 ACL & QoS	IPv6 ACL and IPv6 QoS based on source/destination IPv6 address and source/destination port Priority queue: 8
Security	Binding of IP address, MAC address, and port address Binding of IPv6, MAC address, and port address Filter illegal MAC addresses Port-based and MAC 802.1x Concurrent web authentication, 802.1x, ARP-Check and ACL ARP-Check DAI ARP packet rate limit Broadcast storm suppression Account privileges and password security policy AAA security authentication (IPv4/IPv6) in device login management SSH BPDU Guard
IP Routing	Default route, static routing of the host and direct network segments
IPv6 Protocols	IPv6 addressing, Neighbor Discovery Protocol (NDP), ICMPv6, IPv6 Ping, IPv6 Tracert
Management Features	SNMPv1 / v2c / v3, CLI (Telnet / Console), RMON (1, 2, 3, 9), SSH, Syslog, NTP / SNTP, Web
Dimensions (W x D x H) (mm)	287 x 180 x 65.7
Installation Mode	DIN-rail or wall mounting

Model	RG-IS2708M-4P
Power Supply	DC input: Nominal voltage: +66-+160V Maximum input current: 1.8A Anti-reverse protection
Power Consumption	15W without PoE, 120W with PoE
Heat Dissipation	Fanless design with highly efficient cooling fins

5 Ordering Information

Model	Description
RG-IS2708M-4P	RG-IS2708M-4P Industrial-grade Switch (IP67 Rated), 8-Port 10/100/1000BASE-T and 4-Port support PoE+ (M12 connector) , 1 Console port (M12 connector), 1 Fault Alarm port (M12 connector), 1 DC power input (M16 connector)

6 More Information

For more information about the Ruijie RG-IS2708M-4P Industrial Ethernet Switch, please visit <http://www.ruijienetworks.com> or contact our local Ruijie sales representative.

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