



RG-IS2706G

Industrial Ethernet Switch Datasheet

Ruijie Networks Co.,Ltd

For further information, please visit our website <http://www.ruijienetworks.com>

Product Overview

The Ruijie RG-IS2700G Series is a range of rugged and compact industrial Ethernet switches designed to power various industrial applications. The RG-IS2700G switches offer abundant routing, switching and security protocols and advanced features including vibration resistance, wide temperature range, dust proof, and lightning arrester to cope with harsh operating environments. Ethernet Ring Protection Switching (ERPS) is another highlight to improve network flexibility, resiliency and security. The RG-IS2700G switches provide customers with a robust, highly secure and easy-to-use switching infrastructure.

Product Features

Advanced Hardware Architecture

- Advanced hardware design. RG-2706G switch embodies in a durable aluminum case mainstream industrial chips, high-performance CPU, and industrial-level power module to meet the demanding requirements across industrial networks.
- Designed tough for industrial use. Support for fanless cooling, -40 to 85°C operating temperature range, IP40 class protection, lightning protection power≥6KV, power supply with anti-vibration feature, electromagnetic interference 4-class standard, shock and vibration resistance.

Complete Set of Network and Security Features

- An extensive library of Layer 2 features. Support for 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 for binding of static and dynamic ports, port isolation, multiple kinds of hardware ACL control highlights, bandwidth speed limitation based on data traffic, user access control, etc. RG-2706G switch supports effective protection against virus spreading, network traffic attacks and rogue network access.
- High network stability. Network Foundation Protection Policy (NFPP) implements speed restriction based on different packet categories (management, forwarding, protocol packets, etc.) and attack inspection. RG-2706G switch fully protects CPU and channels from network attacks, delivering normal forwarding and protocol operation.

Flexible Deployment and Management

- Best price-to-performance ratio. Support for the traditional star network model and also the Ethernet Ring Protection Switching (ERPS) technology. ERPS achieves ring network formation with superior redundancy and reliability. Once there is a node in the ring fails, data can be forwarded from the other end. The ERPS model is more cost-effective as it minimizes the investment cost on optical fiber.
- Flexible network deployment. Support for Gigabit copper and optical (non-combo) combination.
- Easy maintenance and management. Support for Syslog that enables centralized logs collection, maintenance, analysis, troubleshooting and backup.

Technical Specifications

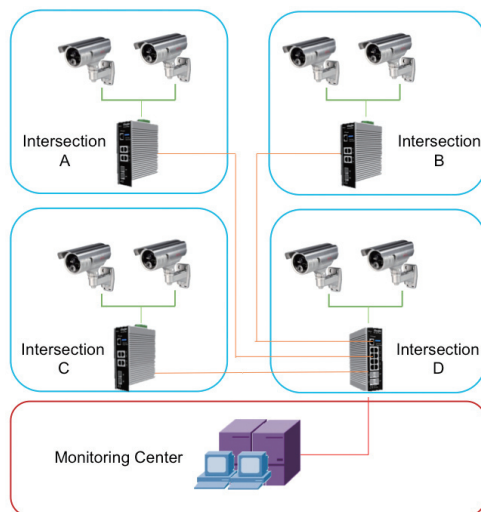
Model	Description
Fixed Ports	4 10/100/1000M copper ports 2 1000BASE-X SFP ports (not support 100M adaptive)
Management Port	1 Console Port
Switching Capacity	18G
Forwarding Rate	13.4Mpps
802.1q VLAN	4K
Environment	Operating temperature: -40 to 85°C
	Operating Humidity: 5 to 95%RH
	Protection Class: IP40
	MTBF: >30 years
Electromagnetic Interference	ESD (IEC 61000-4-2) Level 4 (8K/15K)
	RS (IEC 61000-4-3) Level 3 (10V/m)
	EFT (IEC 61000-4-4) Level 3 (1V/2V)
	CS (IEC 61000-4-6) Level 3 (10V/m)
	PFMF (IEC 61000-4-8) Level4 (30A/m)
	Surge (IEC 61000-4-5) Level 4+ (6KV/2KV)
	DIP (IEC 61000-4-11) Level3 (10V)
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 (hardware ACL based on IP address)
	Expanded IP ACL (hardware ACL based on IP address and TCP/UDP port number)
	MAC Extended ACL (hardware ACL based on source MAC address, target MAC address and optional Ethernet hardware)
	Time-based ACL
	Expert ACL (hardware ACL based on VLAN number, Ethernet type, MAC address, IP address, TCP/UDP port number, protocol type, time, etc.)
IPv6 ACL & QoS	Support IPv6 ACL and IPv6 QoS based on source/target IPv6 address and port Priority queue: 8
Security Features	Binding of IP, MAC and port
	Binding of IPv6, MAC and port
	Filter rogue MAC address
	802.1X based on port and MAC
	Support WEB authentication and simultaneous operation of 802.1X, ARP-Check and ACL
	Support ARP-Check, DAI
	Support speed limitation on packet transmission
	Support storm broadcast suppression
	Support administrator hierarchy and password protection
	AAA authentication for device login management (IPv4/IPv6)
	Support SSH, BPDU Guard

Model	Description
IP Routing	Support default routing, host and static routing between directly connected network segments
IPv6 Protocols	IPv6 address assignment, Neighbor Discovery (ND), ICMPv6, IPv6 Ping, IPv6 Tracert
Management Features	SNMPv1/v2c/v3, CLI (Telnet/Console), RMON (1, 2, 3,9), SSH, Syslog, NTP/SNTP, Web
Hardware Architecture	Dimensions: 52 x 115 x 160mm (W×H×D)
	Installation Mode: DIN rail-mounted or wall-mounted
Power	AC Input: Rated voltage range: 100-240V~ Max voltage range: 90-264V~ Frequency: 50-60Hz Rated current: 0.5A
Power Consumption	≤8W
Cooling	Fanless design with highly efficient cooling fins

Typical Application

Intelligent IP Surveillance System

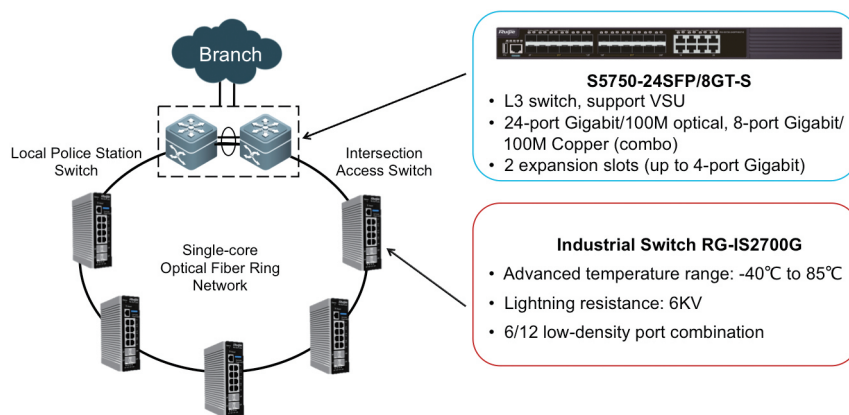
Each intersection is deployed with four directional CCTVs (each respectively pointing north, south, east and west). Three RG-IS2706G switches supply channels with images and videos to three CCTVs and the remaining is installed with one RG-IS2712G. Data is transmitted to the intersection via Gigabit optical fiber. The RG-IS2712G switch aggregates and transmits traffic lights control details, environmental monitoring data and video data to the control branch through optical fiber. Such data are finally sent to the town center via the core network.



Intelligent IP Surveillance System

Safe City

An RG-IS2712G switch connects all the switches of a local police station and the intersections along the way to form a ring protection network. The deployment is cost-efficient as it saves investment cost on single-core optical fiber. The implementation of ERPS achieves quick failover <=20ms to enhance device reliability.



Safe City Network Solution

Ordering Information

Model	Description	Remarks
RG-IS2706G	4-port 10/100/1000M copper 2-port 1000BASE-X SFP (non-combo)	Mandatory
GE-SFP-LX20-SM1310-BIDI	SFP Gigabit BIDI optical module, TX1310/RX1550 (20km, LC)	Optional
GE-SFP-LX20-SM1550-BIDI	SFP Gigabit BIDI optical module, TX1550/RX1310 (20km, LC)	Optional
GE-SFP-LH40-SM1310-BIDI	SFP Gigabit BIDI optical module, TX1310/RX1550 (40km, LC)	Optional
GE-SFP-LH40-SM1550-BIDI	SFP Gigabit BIDI optical module, TX1550/RX1310 (40km, LC)	Optional
Mini-GBIC-GT	1000BASE-TX, SFP Transceiver (100m)	Optional
Mini-GBIC-SX	1000BASE-SX, SFP Transceiver, MM (850nm, 550m, LC)	Optional
Mini-GBIC-LX	1000BASE-LX, SFP Transceiver, SM (1310nm, 10km, LC)	Optional
Mini-GBIC-LH40	1000BASE-LH, SFP Transceiver, SM (1310nm, 40km, LC)	Optional
Mini-GBIC-ZX50	1000BASE-ZX, SFP Transceiver, SM (1550nm, 50km, LC)	Optional
Mini-GBIC-ZX80	1000BASE-ZX, SFP Transceiver, SM (1550nm, 80km, LC)	Optional
Mini-GBIC-ZX100	1000BASE-ZX, SFP Transceiver, SM (1550nm, 100km, LC)	Optional



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