

4-Port Gigabit Managed Industrial Switch ISRGM104GS-2F



- ✓ 4 10/100/1000Mbps RJ45 ports
- ✓ 2 Gigabit SFP ports
- ✓ Supports port management, link aggregation, STP, loop protection, IMGP, 802.

- 12-56V DC redundant dual supply voltage input
- Support reverse connection protection, over current protection
- IP40 level protection
- Operating temperature: -40~ 75°C
- Support the management of Apollo cloud



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Product Introduction

The ISRGM104GS-2F is 4-port industrial managed Ethernet switch that provides 4 10/100/1000Mbps RJ45 Ports, 2 Gigabit SFP ports, it is especially suitable for applications where it is difficult to provide AC power and has high requirements on wiring costs. Corrugated high-strength aluminum profile housing, IP40 grade, low power design, seismic rail mounting, -40°C-75°C work temperature, can work in harsh environments. ISRGM104GS-2F can also support rich network management functions: RUN-Ring (self-healing time 10ms), RSTP, VLAN, QoS, SNMPv1/v2c/v3, IEEE802.1X, SSH/SSL, port mirroring, port aggregation, etc. Switching and security management features make it a reliable solution for smart traffic, video surveillance and other harsh industrial environments. Supports OC Linux Kernel version 3.18 in web site. Supports the management of Apollo cloud.

Introduction To Parameters

- 4 10/100/1000Mbps RJ45 ports
- 2 Gigabit SFP ports
- Support port management, link aggregation, STP, loop protection, IMGP, 802.1X
- 12-56V DC redundant dual supply voltage input
- Support reverse connection protection, overcurrent protection
- IP40 level protection
- Working temperature: -40~ 75°C

Support APOLLO visual cloud management operation and maintenance-"139" mode

- 1: The equipment is centralized on one platform, namely the APOLLO platform, which manages operations and maintenance in a unified manner.
- 3: The device can be managed, operated, and maintained in three ways: mobile, PC, and local.
- 9: APOLLO platform can realize 9 core technical service sections—cloud topology, resource visualization, risk early warning, prevention before they occur, AI blessing intelligent scheduling, business analysis and decision-making support, real-world map, fast fault location, cloud Operation and

maintenance, configuration, upgrade batch processing, multi-user, multi-dimensional authority, hierarchical management and control, open interfaces, and customer service import.

Hardware Features

- The full range of switches are based on industrial-grade hardware device support platforms, and component reliability is significantly higher than commercial devices under the same conditions.
- It adopts fan less cooling energy loop design, and it has the same heat dissipation structure, such as built-in heat sink and heat-dissipating adhesive, which can consistently perform in various harsh environments with an operating temperature range of -40-75 °C.
- Support DC power supply dual redundant power supply or dual DC/AC redundant power supply to meet the power requirements in different power supply environments.
- Supports anti-vibration and dustproof, and complies with the IP40 IP protection standard.
- Support high-level electromagnetic compatibility protection, support electrostatic discharge immunity, support radiation electromagnetic field anti-interference, support electric fast transient pulse group anti-interference, support surge immunity, support 6KV high voltage lightning protection.
- Support rail mount.

Hardware Standard

- EMI:FCC CFR47 Part 15, EN55022/CISPR22, Class A
- EMS:
- IEC61000-4-2 (ESD): ±8kV (contact), ±15kV (air)
- IEC61000-4-3 (RS): 10V/m (80MHz-2GHz)
- IEC61000-4-4 (EFT): Power Port: ±4kV; Data Port: ±2kV
- IEC61000-4-5 (Surge): Power Port: ±2kV/DM, ±4kV/CM; Data Port: ±6kV
- IEC60068-2-6 (Vibration)
- IEC60068-2-27 (Shock)
- IEC60068-2-32 (Free Fall)

Software Features

- Supports IEEE 802.1Q VLANs, MAC VLANs, IP VLANs, and voice VLANs. You can flexibly assign VLANs according to different requirements.
- Supports GVRP to implement dynamic VLAN distribution, registration, and attribute propagation. This reduces manual configuration and ensures correct configuration.
- Supports the VLAN VPN function. The public network access device encapsulates the outer VLAN tag for the private network packets of the user, so that the packets carry two VLAN tags across the public network.
- Support QoS, support port-based, 802.1P-based and DSCP-based three priority modes and WFQ, SP,

WRR, SP+WRR four queue scheduling algorithms.

- Supports ACLs by configuring matching rules, processing operations, and time permissions to filter packets and provide flexible security access control policies.
- Supports IGMP V1/V2 multicast protocol and supports IGMP Snooping to meet the requirements of multi-terminal HD video surveillance and video conference access.
- Support hardware watchdog, the device has a suspended animation state and automatically restarts to resume normal working state.
- Support IPV6 Ping, IPV6 Tracert, IPV6 Telnet IPV6 SSH IPV6 SSL.

Security Mechanism

- Supports IP address, MAC address, and port ternary binding to filter packets.
- Supports ARP protection, and protects against ARP spoofing and ARP flood attacks, such as gateway spoofing and man-in-the-middle attacks.
- Support IP source protection to prevent illegal address spoofing including MAC spoofing, IP spoofing, and MAC/IP spoofing.
- Supports DoS protection and supports attacks such as Land Attack, Scan SYNFIN, Xmascan, and Ping Flooding.
- Supports 802.1X authentication, provides authentication functions for LAN computers, and controls the authorization status of controlled ports based on the authentication results.
- Supports port security. When the port learns the maximum number of MAC addresses, it stops learning to prevent MAC address attacks and control port network traffic.
- Support DHCP Snooping to effectively prevent private DHCP servers and ensure the validity of the DHCP server.

Reliability Protection

- Support RUN-Ring technology Ring network self-healing time can reach 10ms, while supporting public Ethernet multi-ring protection technology (ERPS).
- Supports the STP/RSTP/MSTP production tree protocol to eliminate Layer 2 loops and implement link backup.
- Supports spanning tree security to prevent devices in the spanning tree network from being subjected to various forms of malicious attacks.
- Supports static aggregation and dynamic aggregation, which effectively increases link bandwidth, implements load balancing, link backup, and improves link reliability.

Operation And Maintenance

- Supports various management and maintenance methods such as Web network management, CLI command line (Console, Telnet), and SNMP (V1/V2/V3).
- Supports encryption methods such as HTTPS, SSL V3, and SSHV1/V2 for more secure management.

- Support RMON, system log, and port traffic statistics for network optimization and transformation.
- Supports cable detection, ping detection, and Tracert detection operations to easily analyze failed network nodes.

HARDWARE TECHNICAL SPECIFICATION

Switch	PSRGM2010G
Buttons	AI Loop Protect AI VLAN
Hardware Watchdog	Support
Traffic Statistics	Support
Port Energy Saving	Support
DHCP	DHCP relay HCP Snooping
VLAN	HCP Snooping 802.1Q VLAN、MAC VLAN, IP VLAN Voice VLAN
MAC address table	Follow the IEEE 802.1d standard Support MAC address automatic learning and aging Support static, dynamic, filtering address table
Safety features	Password protection Support user access based on port number, IP address, and MAC address HTTPS、SSL V3、TLS V1、SSH V1/V2 Support IP-MAC-PORT ternary binding Support ARP protection, IP source protection, DoS protection Support DHCP Snooping and DHCP attack protection Support 802.1X authentication, AAA Support port security, port isolation Support CPU protection
QoS	Support 8 port queues Support port priority, 802.1P priority, DSCP priority Support SP, WRR, SP+WRR, Equ priority scheduling algorithm
Spanning tree	Support STP (IEEE 802.1d) , RSTP (IEEE 802.1w) and MSTP (IEEE 802.1s) protocol Support loop protection, root bridge protection, TC protection, BPDU protection, BPDU filtering
Multicast	Support IGMP v1/v2 Snooping Support fast leave mechanism Support multicast VLAN Supports multicast filtering, packet statistics, and unknown multicast discards
Storm suppression	Support for multicast suppression Support broadcast suppression Support for unknown unicast suppression
Link aggregation	Support static aggregation Support dynamic aggregation Support IP, MAC, and hybrid load balancing modes Supports up to 32 aggregation groups
IPv6	Support IPv6 Ping、IPv6 Tracert、IPv6 Telnet IPv6 SSH 、IPv6 SSL
Management and maintenance	Support web management (HTTP、HTTPS、SSL V3) Support CLI (Telnet, SSH V1/V2, local serial port) Support SNMP V1/V2/V3 Support LLDP、RMON Support ARP protection, IP source protection, DoS protection Support CPU monitoring, memory monitoring Support system log, grading warning Support Ping, Tracert detection, cable detection