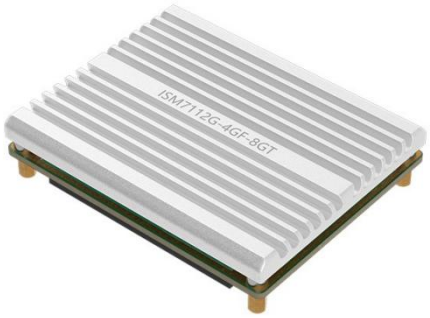
ISM7112G-4GF-8GT

12-Port Layer 2 Gigabit Managed Embedded Switch Module



- Support 4 Gigabit fiber ports, 8 Gigabit copper ports
- Support the ring network redundancy protocols such as MW-Ring, ERPS and STP/RSTP/MSTP to improve the network reliability
- Compact structure and size, convenient for installation, maintenance, and PCB board making
- Support DC3.3V power input
- Working temperature from -40 ℃ to +70 ℃

Product Description

ISM7112G-4GF-8GT is a layer 2 gigabit managed embedded switch module with 4 Gigabit fiber ports and 8 Gigabit copper ports. This switch adopts a storage and forward mechanism, with powerful bandwidth processing capabilities, automatically troubleshooting data packet errors, reducing transmission failures, and ensuring stable, reliable, and efficient data transmission. The hardware is a low-power, wide temperature, and modular design, with a compact structure and small size, which is easy to install and maintain. It can flexibly install and customize interface connection methods. It uses industrial grade components, operating at a wide temperature from -40 ℃ to+70 ℃, embedded installation.

The ISM7112G-4GF-8GT follows the main communication standards in the industrial field, meeting technical requests of real-time communication and network security. It provides multiple ways to manage switches, such as accessing the switch command line (CLI) through the CONSOLE port or TELNET/SSH protocol, accessing the switch web interface through HTTP/HTTPS, and accessing the device MIB through the SNMP protocol. It supports multiple network protocols and industry standards, such as MW-Ring, ERPS, STP/RSTP/MSTP, VLAN, GVRP, QoS, LACP, IGMP, IGMP Snooping, GMRP, LLDP, 802.1X,ACL, SNTP, port mirroring, Ping, Tracert, etc. It supports system management such as uploading and downloading configuration files, and upgrading image files online. The product is widely applicable in fields such as comprehensive energy, smart cities, rail transit, intelligent transportation, smart factories, and industrial automation.

Features and Benefits

- Support rate limits for broadcast, multicast, and unknown unicast messages, detect broadcast and multicast packet storms, and prevent broadcast storms
- Support link static aggregation and dynamic aggregation LACP, which can increase transmission bandwidth, improve link reliability and realize network load balance
- Support 802.1Q VLAN, provide Access, Trunk, Hybrid interface easy to divide multiple broadcast domain, enhance the security of the network
- Support VLAN division based on port, MAC, protocol, IP subnetwork, etc., which can be applied to networks in different environments
- Support GVRP protocol, realize dynamic distribution, registration and propagation of VLAN attributes, and maintain dynamic VLAN
- Support the MAC address table and the aging time limit, and the static unicast / multicast MAC address is bound with the interface, to ensure the use of legitimate users
- Support IGMP Snooping, GMRP multicast protocol, reduce multicast data broadcasting in the network, and save network resources
- Support LLDP link layer discovery protocol, obtains LLDP neighbor device information, monitors link status, facilitates topology management and fault localization
- Support ERPS Ethernet multi ring protection technology, provide multi ring networking, perform link backup, achieve fast convergence, and improve network stability
- Support EAPS loop protection protocol and MW-RingV2 private loop network protocol, enhance the reliability of system communication
- Support STP, RSTP, MSTP generating tree protocol, which can eliminate network loop and improve network reliability
- Support loop back detection to prevent the network from ring and causing the network storm
- Support HTTP, HTTPS, TELNET, SSH network access mode, SSH can provide a secure remote login
- Support SNMPv1/v2c/v3, information query, information modification and troubleshooting through the MIB network management system, to achieve centralized management
- Support QoS service quality, give priority to voice, video and important data in network devices, and solve network congestion
- Support ACL access control list, filtering TCP/UDP/ICMP/IGMP messages based on source/destination IP and MAC address
- Support 802.1X port authentication, authentication and access control for access users

Specification

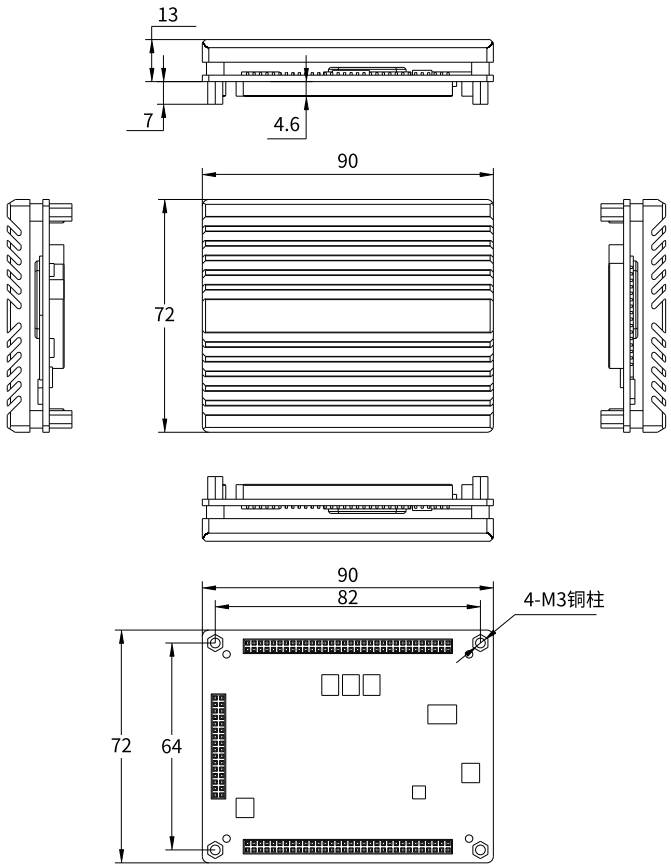
Software	
Switching	Support port configuration, port speed limit, storm suppression, storm detection, static port trunk, LACP Support 802.1Q VLAN, port / MAC / subnet / protocol based VLAN division, GVRP, port isolation Support MAC address aging, static MAC address forwarding and filtering, MAC address binding and learning restrictions
Redundancy	Support MW-RingV2 private ring network technology Support EAPS, ERPS Support STP/RSTP/MSTP
Multicast	Support IGMP Snooping Support static multicast GMRP
Security Management	Support HTTP, HTTPS, TELNET, and SSH access mode Support ACL and filtering data on the L2-L4 layer Support 802.1X port authentication and MAC address authentication Support lookback detection and alarm
Management and Maintenance	Support QoS, SNMP v1/v2c/v3, SNMP v1/v2c TRAP, LLDP Support port mirror, Ping, Tracert Support user rights management, system logs, local time setting synchronization, and SNTP network time synchronization Support online restart, factory reset, system upgrade, configuration file upload / download Support master computer software management
Switch Capability	
Processing Type	Store-and-Forward
Backplane Bandwidth	24Gbps
Buffer Size	4Mbit
MAC Table Size	8K
Interface	
Gigabit Fiber port	4*1000Base-X Gigabit fiber ports, suitable for SFP
Gigabit Copper port	8*10/100/1000Base-T(X) auto-sensing copper ports, of which 4 are SGMII ports and can be used as fiber or copper ports
I/O Alarm	1 alarm output for relay alarms, 2 alarm input for power outage warning
CONSOLE	1 TTL UART for equipment debugging and command line configuration
Status LED	indicator LED for PWR, RUN, and ARM

Specification

Power Supply	
Input Voltage	DC3.3V
Power Consumption	<10W@DC3.3V (full load)
Physical Characteristics	
Dimensions	90×72×21.6(mm)
Installations	Embedded
Weight	About 0.14kg
Working Environment	
Operating Temp	-40℃~+70℃
Storage Temp	-40℃~+85℃
Relative Humidity	5%~95% (non-condensing)

Dimensions

Unit: mm



Ordering Information

Standard Model	Gigabit Fiber port	Gigabit Copper port	Input Voltage
ISM7112G-4GF-8GT	4	8	DC3.3V

Contact Us

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