



IEM7112G-4GS

Embedded Mounting

12-port Full Gigabit Layer 2 Managed Industrial Ethernet Switch Module

- Support 8 Gigabit copper ports and 4 Gigabit SFP ports
- Adopt SW-Ring patent technology, support single ring, coupling ring, chain ring, Dual-homing ring network function, automatic recovery time of network failure < 20ms
- Input voltage: 3.3VDC
- Support -40 ~ 75°C wide operating temperature range



Introduction

IEM7112G-4GS is 12-port full Gigabit layer 2 managed embedded industrial Ethernet switch modules featuring high integration level, small size, rich functions, easy and convenient usage. It provides 8 Gigabit ports and 4 Gigabit SFP ports. It also adopts embedded mounting that user can custom the specification of PCB motherboard and freely choose Ethernet interface type through module pin to meet the requirements of different scenes.

Network management system supports various network protocols and industrial standards, such as STP/RSTP/MSTP, 802.1Q VLAN, QoS, IGMP Static Multicast, LLDP, Port Trunking, Port Mirroring, etc. It also possesses complete management functions, including Port Configuration, Port Statistics, Access Control, Network Diagnosis, Rapid Configuration, Online Upgrading and so on. CLI, WEB, Telnet, SNMP and other access methods are also supported. The network management system can provide users with good experience with friendly design of network management system interface, simple and convenient operation.

Hardware adopts fanless, low power consumption, wide temperature design and has passed rigorous industrial standard tests, which can suit for the industrial scene environment with harsh requirements for EMC. It can be widely used in smart grid, railway transportation, smart city, safe city, new energy, intelligent manufacturing and other industrial fields.

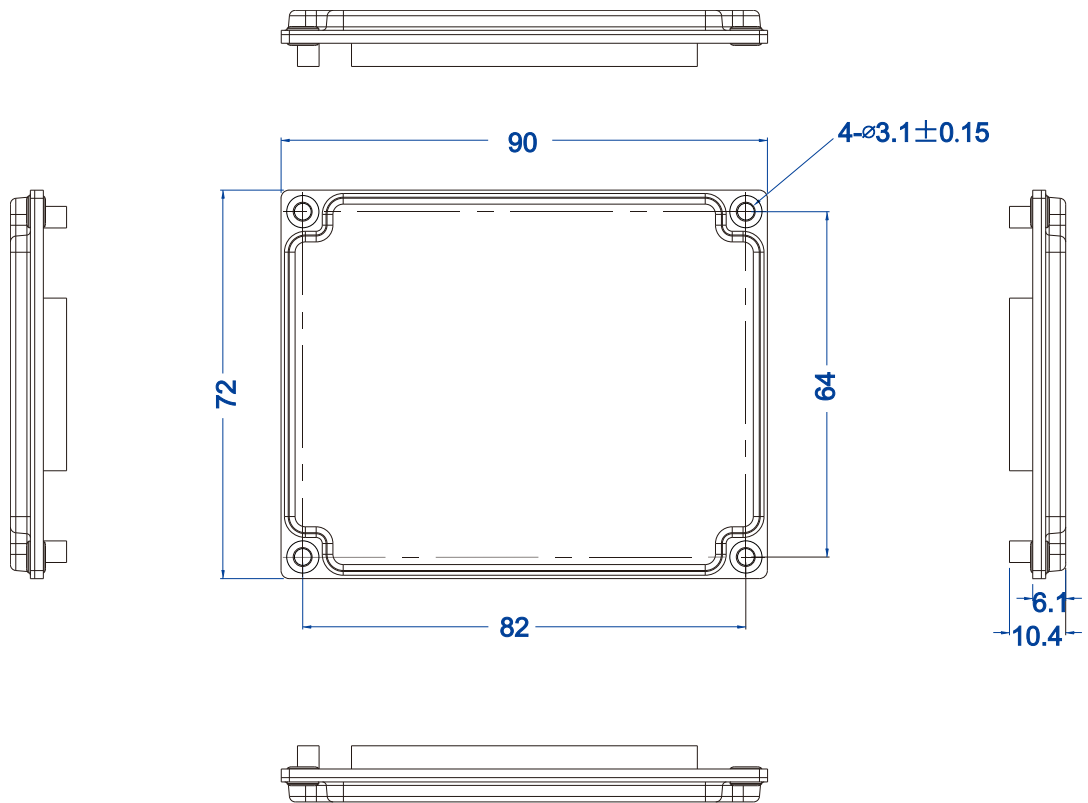
Features and Benefits

- ⊙ SNMPv1/v2c is used for network management of various levels
- ⊙ Port mirroring can conduct data analysis and monitoring, which is convenient for online debugging
- ⊙ QoS supports real-time traffic classification and priority setting
- ⊙ File management is convenient for rapid configuration and online upgrade of the device
- ⊙ Bandwidth management can reasonably distribute network bandwidth, preventing unpredictable network status
- ⊙ Port statistics can be used for the port real time traffic statistics
- ⊙ User password can conduct user hierarchical management to improve the device administrative security
- ⊙ Relay alarm is convenient for troubleshooting of construction site
- ⊙ Storm suppression can restrain broadcast, unknown multicast and unknown unicast
- ⊙ VLAN can simplify the network planning
- ⊙ Port trunking can increase network bandwidth and the reliability of network connection to achieve optimal bandwidth utilization
- ⊙ IGMP-Snooping and static multicast can be used for filtering multicast traffic to save the network bandwidth

- ⦿ Ring and STP/RSTP can achieve network redundancy, preventing network storm
- ⦿ Ping, Traceroute and port loopback can be used for network diagnosis and troubleshooting
- ⦿ Log management records the boot information, operation information, connection information
- ⦿ The SSHD configuration encrypts data and prevents DNS and IP spoofing
- ⦿ RMON can be used for efficient and flexible network monitoring
- ⦿ DHCP servers and DHCP clients can be used to assign IP addresses for different policies
- ⦿ LLDP can realize automatic topology discovery and facilitate visual management
- ⦿ The Telnet configuration and HTTPS configuration ensure secure access to the data

Dimension

Unit:mm



Specification

Standard & Protocol	IEEE 802.3 for 10Base-T IEEE 802.3u for 100Base-TX and 100Base-FX IEEE 802.3z for 1000Base-X
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	<p>IEEE 802.3ab for 1000Base-T IEEE 802.3x for Flow Control IEEE 802.1D for Spanning Tree Protocol IEEE 802.1w for Rapid Spanning Tree Protocol IEEE 802.1Q for VLAN IEEE 802.1p for CoS 802.1AB for LLDP 802.3ad for LACP</p>
Management	<p>SNMP v1/v2c Centralized Management of Equipment, RMON Port Mirroring, QoS, LLDP, DHCP Server, DHCP Client, File Management, Port Statistics</p>
Security	<p>Classification of User Permissions, ACL, 802.1X certification, Port Alarm, Power Supply Alarm, Storm suppression, SSHD configuration, Telnet configuration, HTTPS configuration</p>
Switch Function	<p>802.1Q Vlan, Static Port Aggregation, Bandwidth Management, Flow Control, Port isolation</p>
Unicast / Multicast	<p>Static Multicast, GMRP, IGMP-Snooping</p>
Redundancy Protocol	<p>Ring, STP/RSTP</p>
Fault Diagnosis	<p>Ping, Traceroute, Port loopback</p>
Time Management	<p>SNTP</p>
Interface	<p>Gigabit copper port: 10/100/1000Base-T(X) Gigabit SFP port: 1000Base-SFP Console port: TTL level serial data Alarm port: support 2 alarm information inputs and 1 alarm information output</p>
Switch Property	<p>Gigabit forwarding speed: 1488100pps Transmission mode: store and forward MAC address: 8K Packet buffer size: 4Mbit Backplane bandwidth: 7.6G Switch time delay: <10μs</p>
Power Requirement	<p>3.3VDC</p>
Power Consumption	<p>No-load: 3.5W Full-load: 6.6W</p>



Environmental Limit	Operating temperature: -40~75°C Storage temperature: -40~85°C Relative humidity: 5% ~ 95%(no condensation)
Physical Characteristic	Installation: embedded mounting Dimension (W x D): 90mm×72mm
Certification	CE, FCC, RoHS
Warranty	5 years



Ordering Information

Available Models	Gigabit Copper Port	Gigabit SFP Port	Power Supply
IEM7112G-4GS	8	4	3.3VDC



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