

MES7112G-4GF-8GT

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



- ◆ Support 8 10/100/1000 Base-T(X) Ethernet electrical ports, 4 1000Base-X SFP optical ports;
- ◆ The patented technology of fast ring network redundancy (MW-Ring) less than 20ms enhances the reliability of system communication;
- ◆ Support GRMP, IGMP Snooping and static multicast;
- ◆ Support QoS, IEEE802.1q and ToS/DiffServer to improve communication quality;
- ◆ Ultra-small size design, small size, convenient installation and matching;
- ◆ Support user secondary development, support software online upgrade, import and export configuration files Features;
- ◆ Industrial grade power input, support relay power failure, fiber loss, storm alarm output, low power consumption design;
- ◆ -40°C~70°C working temperature, meet the application requirements of harsh industrial environment.



Product Description

The MES7112G series products produced by MAIWE are a two-layer full Gigabit embedded industrial Ethernet switch independently developed by MAIWE, which is specially designed and developed for industrial communication network applications. In order to fully consider the user's requirements for the size of embedded products, this series of products is small in size and has no shell design. At the same time, it has rich communication interfaces. This series of products provides 4 gigabit optical ports + 8 gigabit electrical interfaces configuration models, of which the optical ports are 1000Base-LX full-duplex single Mode or multi-mode fiber interface, using SFP hot-swappable devices, fiber interface types are all LC interfaces. The electrical port is 10/100/1000Base-T Ethernet RJ45 port, RJ45 is shielded, and each RJ45 port has an adaptive function, of which 10/100Base-T supports full-duplex or half-duplex 1000Base-T supports full-duplex mode, and can automatically connect MDI/MDI-X. It can meet the needs of upgrading and expansion, and has strong compatibility, providing a strong guarantee for mine information automation, making industrial communication smoother, more reliable, and faster, and meeting customers' needs for continuous innovation to improve value-added applications.

MAIWE's embedded switches provide a wide range of DC power input. In terms of structural installation, MES7112G series switches use industrial embedded installation. This series of products adopts high-quality imported chips, low power consumption, fanless design, and the power supply has reliable over current, reverse connection and EMC protection, suitable for intrinsically safe power supply applications. The industrial-grade quality design scheme is adopted on the core components. The products have passed the strict tests in line with industry standards, and can adapt to the harsh industrial site environment. They can be widely used in large-scale coal mines, mine video surveillance, AP wireless communication and other large-scale networking sites middle.

Product Features

- ◆ Support 8 10/100/1000 Base-T(X) Ethernet electrical ports, 4 1000Base-X SFP optical Supports;Support
- ◆ perfect QoS policy and multiple priority queue scheduling algorithms, support ACL access control list;
- ◆ Embedded web server, which can be managed and configured remotely through a browser;
- ◆ Link redundancy self-recovery technology based on MW-Ring technology, self-recovery time is less than 20ms;
- ◆ Trunk port aggregation;
- ◆ Implement broadcast storm detection control (including broadcast, multicast, unknown unicast and other storm types detection);
- ◆ Dynamic IGMP Snooping support, filtering multicast traffic;
- ◆ Online firmware upgrade, bandwidth management, prevent unpredictable network problems
- ◆ Based on IEEE 802.1Q VLAN;
- ◆ Support QoS, IEEE802.1p and ToS/DiffServe to improve communication quality;
- ◆ Support SNMP V1/V2C different levels of network management;
- ◆ Support RMON and private MIB, effective remote data monitoring and forecasting capabilities;
- ◆ Support port mirroring for online debugging, real-time network time synchronization;
- ◆ Ultra-small size design, small size, convenient installation and matching;
- ◆ Support user secondary development, support software online upgrade, configuration file import and export functions;

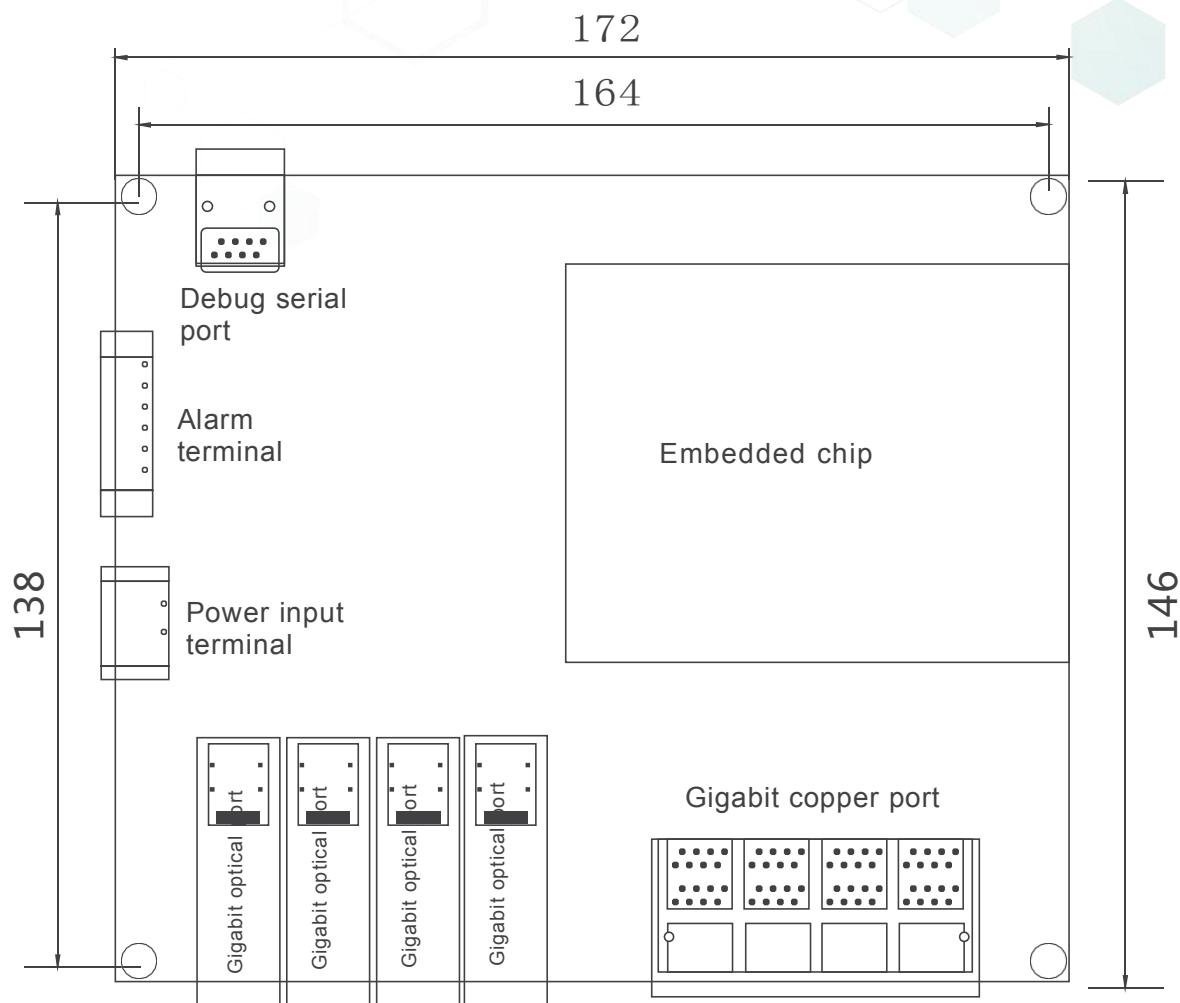
Technical Specifications

| Product Parameters | |
|-----------------------|---|
| IEEE Standard | 802.3、802.3u/802.3x、802.3z、802.3ab、802.1Q、802.1p、802.1D、802.1W、802.1S,etc |
| Exchange function | Support VLAN, GVRP |
| | Support port speed limit, support storm suppression |
| | Support port aggregation |
| | Support port flow control |
| Redundancy technology | Support VRRP, EAPS |
| | Support MW-Ring ring network technology |
| | Support MSTP/RSTP, compatible with STP |
| Multicast technology | Support IGMP v1/v2/v3, IGMP Snooping |
| | Support GMRP |
| | Support static multicast |

Product Parameters

| | |
|----------------------------|---|
| Management and maintenance | Support CLI, WEB management, LLDP, SNTPv4 |
| | Support SNMPv1/v2c, ACL |
| | Support unified host computer management |
| Exchange method | Store and forward |
| Backplane bandwidth | 24Gbps |
| Packet Forwarding rate | 17.856Mpps |
| Gigabit port | 8* 10/100/1000Base-T+ 4 *1000Base-LX ports |
| Electrical port parameters | Physical interface: RJ45 with shielding, IEEE802.3 standard |
| | RJ45 port: 10/100/1000Base-T (Gigabit) supports auto-negotiation function |
| | Transmission distance: 100 meters (standard CAT5/CAT5e cable) |
| Optical port parameters | Luminous power: >-12dBm (single mode) >-17dBm (multimode) |
| | Receiver sensitivity: <-38dBm (single mode) <-35dBm (multimode) |
| | Wavelength: 1310nm (single-mode) 1550nm (single-mode) 850 nm (multi-mode) 1310 nm (multi-mode) |
| | Transmission distance: multimode fiber 850nm, 2km; 1310 nm, 2/5km Single-mode fiber 1310nm, 20/40/60km; 1550nm, 20/40/60/120km |
| | Connector Type: LC |
| | Transmission rate: 1.25Gbps (Gigabit) |
| Power parameters | Input voltage: DC12~48V |
| | Input power consumption: 12W (MAX) |
| | Over current Protection: Built-in |
| Mechanical parameters | Physical Dimensions (W×H×D): 172mm×27mm×146mm |
| | Installation method: positioning hole installation |
| | Cooling form: air cooling |
| Working environment | Working temperature: -40 °C ~ +70 °C |
| | Storage temperature: -40 °C ~ +85 °C |
| | Humidity: 5%~95% (non-condensing) |
| EMC standard | EN61000-4-2 (ESD): ±8kV contact discharge, ±15kV air discharge |
| | EN61000-4-3: 10V/m (80-1000MHz) |
| | EN61000-4-6 : 3V (10kHz~150 kHz), 10V (150kHz~80 MHz) |
| | EN55022: EN55022 ClassA |

Installation Size



Ordering Information

| Model No | Gigabit SFP port | 10/100/1000M Tx port | Power Supply |
|------------------|------------------|----------------------|-----------------|
| MES7112G-4GF-8GT | 4 | 8 | Single DC12~48V |