

MES8120G-4GF-16GT

20 port Layer 3 Full Gigabit Managed Embedded Industrial Ethernet Switch



- ◆ 20 Gigabit Ethernet interfaces, providing users with flexible networking methods;
- ◆ Gigabit SFP interface, which can support hot-swappable LC fiber interface module and RJ45 electrical interface module;
- ◆ 16 10/100/1000Base-T adaptive Ethernet ports, 4 Gigabit SFP ports;
- ◆ Support static routing, support RIP, OSPF and other routing protocols;
- ◆ Support optical module DDM diagnosis function;
- ◆ Ultra-small size design, small size, convenient installation and matching;
- ◆ Support user secondary development, support software online upgrade, configuration file import and export functions;
- ◆ Support SNMP, SSH and other network management protocols



Product Description

The MES8120G series products produced by MAIWE are a three-layer full Gigabit embedded industrial Ethernet switch 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 + 16 gigabit electrical interfaces. Plug-in devices and fiber-optic interface types all use LC interfaces. The electrical port is a 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 mode, 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, MES8120G 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 standard strict test can adapt to the harsh industrial site environment, and can be widely used in large-scale coal mines, mine video surveillance, AP wireless communication and other large-scale networking sites.

Product Features

- ◆ 16 10/100/1000Base-T adaptive Ethernet ports, 4 Gigabit SFP ports;
- ◆ Support VLAN based on IEEE802.1Q;
- ◆ Support MSTP, RSTP, STP, ERPS and other redundant protocols;
- ◆ Support static routing, RIP v1/v2, OSPF v1/v2 and other routing protocols;
- ◆ Support IGMP, PIM-SM, PIM-DM and other multicast protocols;
- ◆ Support perfect QOS strategy and multiple queue scheduling algorithms;
- ◆ Support SNMP, SSH and other network management protocols;
- ◆ Support ACL function, provide ACL filtering based on L2-L7 layer data;
- ◆ Support IGMP Snooping detection function;
- ◆ Support broadcast, multicast and unknown unicast storm suppression;
- ◆ Support half-duplex and full-duplex mode flow control;
- ◆ Mean time between failures $\geq 300,000$ hours;
- ◆ Supports power alarms and port alarms.

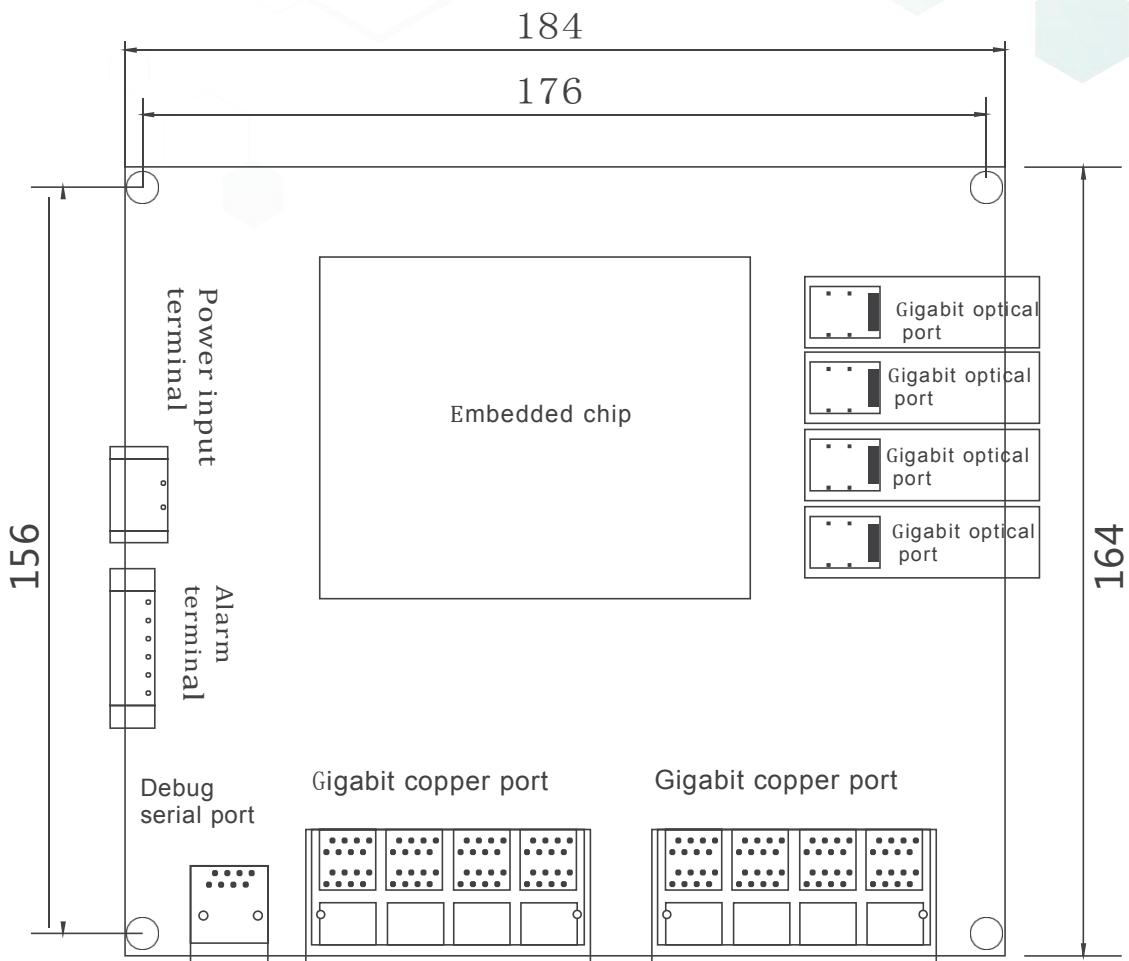
Product Specifications

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, ERPS
	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, support PIM-SM, PIM-DM
Routing technology	Support RIPv1/v2, RIPng, OSPFv1/v2
	Support static routing protocol

Product Parameters

Service Quality Management	Support ACL to filter L2-L7 layer data
	Support SP, WRR queue scheduling
Management and maintenance	Support Console, Telnet, WEB management, RMON
	Support SNMPv1/v2c, can be centrally managed through MaxView
	Support FTP, TFTP file transfer and software upgrade
	Support power failure alarm, power alarm, port alarm, ring network storm alarm
	Supports port mirroring, Syslog, LLDP, RTC, SNTPv4
	IP supports DHCP server/relay/client
Exchange method	store and forward
Backplane bandwidth	40Gbps
Packet forwarding rate	29.76Mpps
Gigabit port	16 10/100/1000Base-T+4 1000Base-LX interfaces
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 (multi mode)
	Receiver sensitivity: <-38dBm (single mode) <-35dBm
	Wavelength: 1310nm (single-mode) 1550nm (single-mode) 850 nm (multi-mode) 1310 nm (multi-mode)
	Transmission distance: multimode fiber 850nm, 2km; 1310nm, 2/5km single mode fiber 1310nm, 20/40/60km; 1550nm, 20/40/60/80/120km
	Connector Type: LC
	Transmission rate: 1.25Gbps (Gigabit)
Power parameters	Input voltage: DC12~48V
	Input power consumption: 15W (MAX)
	Over current Protection: Built-in
Mechanical parameters	Physical Dimensions (W×H×D): 184mm×28.6mm×164mm
	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 Anti-conduction: 3V (10kHz~150 kHz), 10V (150kHz~80 MHz)
	EN55022: EN55022 Class A

Installation Size



Ordering Information

Model No	Gigabit optical port	10*100/1000M Tx port	Power supply
MES8120G-4GF-16GT	4	16	Single DC12~48V