

# INDUSTRIAL SWITCH PRODUCTS

Industrial Gigabit L2+ managed POE switch, 8 10/100/1000Mbps RJ45 ports, 2xGigabit SFP



## PRODUCT DESCRIPTION

The IPS-M8GT-2SFP is a 10 port full Gigabit industrial fully managed PoE switch equipped with eight 30W PoE+ ports and two SFP slots. All RJ45 ports compliance with the 802.3af/at PoE+ standard, supports up to 30 W on each PoE port.

## FEATURE

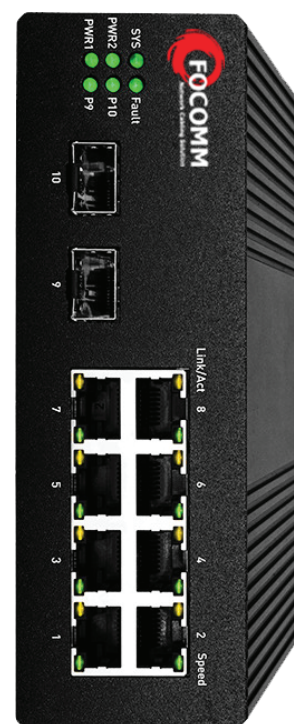
- Offers high-bandwidth connectivity with high-speed 8× Gigabit RJ45 ports and 2× Gigabit SFP slots.
- Supports IEEE 802.3, 802.3i, 802.3u, 802.3x, 802.3z, 802.3ab, 802.3af, 802.3at.
- 8 IEEE 802.3af/at PoE+ ports with a total output power of 150 W, and up to 30 W per port.
- 8GE RJ45 ports and 2GE SFP slots feature a total 20 Gbps switching capacity.
- Support 802.1X certification , IPV6, SSL, SNMP(V1/V2/V3), IGMP Snooping, etc.
- As a PoE power supply device, it can automatically detect and identify the electrical equipment that meets the standard and supply power through the cable.

## Full gigabit port

- All series supports "Ethernet port + SFP port" combination, which enables users to flexibly build networking to meet the needs of various scenarios.
- Support non-blocking wire speed forwarding .
- Support full duplex based on IEEE802.3x and half duplex based on backpressure .

## Intelligent PoE power supply function

- 8\*10/100/1000 Base-T RJ45 ports support POE power supply to meet the needs of POE in various industrial fields.
- Conforms to the IEEE 802.3af POE power supply standard, automatically recognizes POE devices for power supply, without damaging non-POE devices. The maximum POE output power of the entire device reaches 120W(at-240W), and the maximum POE output power of a single port is 30 W.
- Support POE network management function, through the network management configuration, POE port power allocation, priority setting, port power status view, time scheduling, etc.



### Strong business processing capability

- Support IEEE 802.1Q VLAN, users can flexibly divide VLAN according to needs, and support QinQ configuration.
- Support QoS, support port based, 802.1P based and DSCP based three priority modes and Equ, SP, WRR, SP+WRR four queue scheduling algorithms.
- ACL supports the filtering of data packets by configuring matching rules, processing operations and time permissions, and provides a flexible access control strategy.
- Support IGMP V1/V2 multicast protocol and support IGMP Snooping to meet the multi terminal HD video surveillance and video conference access requirements.
- Support STP/RSTP/MSTP production tree protocol, eliminates two layers of loops, and realizes link backup.
- Support static convergence and dynamic convergence, effectively increases link bandwidth, achieves load balancing, link backup, and improves link reliability.

### Complete safety protection mechanism

- Support 802.1X authentication, provide authentication function for LAN computer, and control the authorized status of controlled port according to the result of authentication.
- Support port isolation , port mirroring
- Support port broadcast storm suppression
- Support port +MAC binding, IP+MAC+ port binding function

### The equipment is stable and reliable

- The host has low power consumption, no fan mute design, aluminum alloy metal shell, excellent heat dissipation, and ensure stable operation of products.
- The equipment fully meets the requirements of CCC, CE, FCC and RoHS safety regulations, and is safe and reliable.
- The user can easily understand the working status of the device through the power indicator/ system indicator (SYS), port status indicator (Link,L/A), and POE operation indicator.

### Easy operation and maintenance management

- Supports various management and maintenance methods such as Web management, CLI command line (Console, Telnet), SNMP (V1/V2/V3).
- Supports encryption methods such as HTTPS, SSLV3, and SSHV1/V2 for more secure management.
- Support RMON, system log, port traffic statistics, easy network optimization and transformation.
- Support LLDP, which is convenient for the network management system to query and judge the communication status of the link.
- Support CPU monitoring, memory monitoring, ping detection, cable length detection.

### APPLICATIONS

pecifically Designed for Industrial Environments Widely used to build a cost-effective, stable and reliable communication network for a variety of industrial scenarios.

- Energy
- Transportation
- Shipping
- Oil
- Mining
- Metallurgy

## TECHNICAL SPECIFICATION

Power Supply	44~ 57 VDC/ 3A(MAX)
Standards	IEEE 802.3, 802.3i, 802.3u, 802.3x, 802.3z, 802.3ab, 802.3af, 802.3at
Ports	8×10/100/1000Mbps RJ45 ports+2×SFP ports
Indicators	Speed Indicators, Link/Act Indicators, SFP Indicators, PWR1,PWR2, SYS
Ethernet Port Feature	10/100/1000BaseT (X) automatic detection, full / half duplex MDI/MDI-X adaptive
SFP Port Characteristic	Gigabit SFP optical fiber interface, default matching optical modules, need to buy separately, (optional order mode / multi-mode, single fiber / double fiber optical module.
Forwarding Mode	Store and Forward(Full Wire Speed)
Dimensions	153 mm * 122 mm * 50 mm
PoE port	8 802.3at/af standard POE
Max / Average Power Port	30W per port
Power Consumption	Standby:<10W(NOT PoE);Full load:<150W(with PoE)
MAC Address Table	8K
Switching Capacity	20Gbps
Packet Forwarding Rate	14.88Mpps
Packet Buffer	4Mbit
Installation	DIN-rail/wall mount
Net /Gross Weight	<1.2kg / <1.5kg
System Configuration	Web browser
Environment	Operating Temperature: -40°C — 75°C (-40°F~167°F) Storage Temperature:-40°C — 85°C (-40°F ~185°F) Operating Humidity: 10%~90% non-condensing Storage Humidity: 5%~90% non-condensing
Warranty	3 years , lifelong maintenance
Twisted Pair Transmission	10BASE-T: Cat3,4,5 UTP(≤100 meter) 100BASE-TX: Cat5 or later UTP(≤100 meter) 1000BASE-T: Cat5 or later UTP(≤100 meter)
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Optical Cable	Multi mode: 850nm 0 ~ 550M,single mode: 1310nm 0 ~ 40KM, 1550nm 0 ~ 120KM.
Lightning protection / protection level	Lightning protection: 6KV 8/20us;Protection level: IP40 IEC61000-4-2(ESD):±8kV contact discharge,±15kV air discharge IEC61000-4-3(RS):10V/m(80~1000MHz) IEC61000-4-4(EFT): power cable:±4kV; data cable:±2kV IEC61000-4-5(Surge):power cable:CM±4kV/DM±2kV; data cable:±4kV IEC61000-4-6(radio frequency transmission):10V(150kHz~80MHz)

IEC61000-4-8(power frequency magnetic field):100A/m;1000A/m ,1s to 3s

IEC61000-4-9(pulsed magnet field):1000A/m

IEC61000-4-10(damped oscillation):30A/m 1MHz

IEC61000-4-12/18(shockwave):CM 2.5kV,DM 1kV

IEC61000-4-16(common-mode transmission):30V; 300V,1s

FCC Part 15/CISPR22(EN55022):Class A

IEC61000-6-2(Common Industrial Standard)

**Mechanical Properties**

IEC60068-2-6 (anti vibration)

IEC60068-2-27 (anti shock)

IEC60068-2-32 (free fall)

**Certification**

CCC;CE mark, commercial; CE/LVD EN60950;FCC Part 15 Class B; RoHS;

## BUSINESS FEATURES (ONLY RESTRICTED MANAGEMENT FUNCTION MODELS)

<b>Port</b>	Support IEEE802.3x flow control (full duplex) Support for broadcast storm suppression based on port rate support speed limit for incoming and offline message traffic, with a minimum particle size of 64Kbps. Support port temperature protection settings
<b>PoE Management</b>	Support port EEE green Ethernet energy saving configuration Support total power limit configuration for POE power supply Support PoE output power allocation per port, close / start af/at Support PoE output priority configuration per port Support PoE work status per port display Support power delay start Support PoE work and time scheduling
<b>Layer 3 Function</b>	L2+ network management function Support IPV4/IPV6 management Support layer3 soft routing (weak three tier) forwarding, Support different network segments, communication between different VLAN Support static routing / default routing 128, 1024 ARP software forwarding
<b>VLAN</b>	Support port based VLAN (4K), IEEE802.1q Support protocol based VLAN Support Voice VLAN Support for MAC address-based VLANs Support Access, Trunk, Hybrid three types of port configuration Support QinQ configuration
<b>Port Aggregation</b>	Support LACP Support static polymerization Support the largest 8 aggregation groups, each aggregation group supports 8 ports.
<b>Spanning Tree</b>	Support STP (IEEE802.1d) Support STPRSTP (IEEE802.1w) Support STP MSTP (IEEE802.1s)Support G.8032 (ERPS),
<b>Industrial Ring</b>	support 255 loops at most, and supports 1024 devices per ring.
<b>Network Protocol</b>	The self healing time of the ring network is less than 20ms
<b>Multicast</b>	Support IGMP Snooping V1/V2 and support 1024 multicast groups at most. Support the user's quick departure mechanism Support MLD Snooping V1/V2 Support multicast VLAN
<b>Mirror</b>	Bi-directional traffic mirroring supporting the basic port
<b>QoS</b>	Support Diff-Serv QoS Each port supports 8 output queues Support 802.1p/DSCP priority mapping Support queue scheduling mechanism (SP, WRR, SP+WRR) Support priority tag Mark/Remark Support stream based packet filtering Support for stream based redirection Support flow based speed limit

<b>ACL</b>	Support L2 to L4 packet filtering function, can match the first 80 bytes of the message, provide based on the source MAC address, destination MAC address, source IP address, destination IP address, IP protocol type, TCP/UDP port, TCP/UDP port range, VLAN and other definition ACL. Support <b>ACL</b> based on port and VLAN
<b>Safety Characteristics</b>	Support user grading management and password protection Support IEEE802.1X authentication / centralized MAC address authentication Support AAA&RADIUS authentication Support the number of MAC address learning restrictions Support MAC address black hole Support SSH 2.0 to provide secure passwords for user login. Support SSL to ensure data transmission security Support port isolation Support the speed limit function of ARP message Support IP source address protection Support ARP intrusion detection function Support against DoS attacks Support port broadcast message suppression Support host data backup mechanism Binding capabilities of IP+MAC+VLAN+ ports
<b>DHCP</b>	Support DHCP Client Support DHCP Snooping Support DHCP Serve Support DHCP Relay
<b>Management And Maintenance</b>	Support Console/AUX Modem/Telnet/SSH2.0 CLI command line configuration Support WEB network management (HTTPS) Support FTP, TFTP, Xmodem, SFTP file download management Support SNMP V1/V2C/V3 Support one bond reduction Support NTP clock Support system work log Support Ping detection Support cable state detection Support CPU instant utilization status view Support link layer discovery protocol LLDP Support ONV NMS intelligent management center
<b>System Requirements</b>	Web browser: Mozilla Firefox 2.5 or higher, Google browser chrome V42 or higher, Microsoft Internet Explorer10 or later; Cat5e or later Ethernet cable; TCP/ IP, network adapter and network operating system (Microsoft Windows, Linux or Mac OS X) installed on on every computer in the network.

## ORDER INFOMATION

PRODUCT	PART NUMBER
Industrial Gigabit L2+ managed POE switch, 8 10/100/1000Mbps RJ45 ports, 2xGigabit SFP	IPS-M8GT-2SFP