## 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.
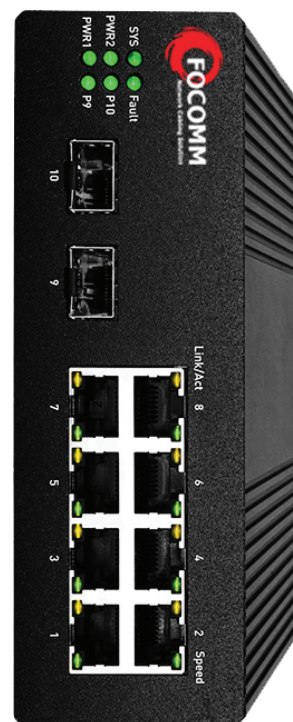
Full gigabit port

- 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 veriety of
industrial scenarios.

- Energy
- Transsportation
- 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
LED	System indicator:SYS(green); Network Indicator: Link(yellow); SFP Indicator: L/A (green) ; PoE Indicator: PoE (green)
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)
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)
Optical Cable	Multi mode: 850nm 0 ~ 550M,single mode: 1310nm 0 ~ 40KM, 1550nm 0 ~ 120KM.
Lightning protection /	Lightning protection: 6KV 8/20us;Protection level: IP40

protection level	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)

Port	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
PoE Management	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
Layer 3 Function	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
VLAN	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
Port Aggregation	Support LACP
	Support static polymerization
	Support the largest 8 aggregation groups, each aggregation group supports 8 ports.
Spanning Tree	Support STP (IEEE802.1d)
	Support STPRSTP (IEEE802.1w)
	Support STP MSTP (IEEE802.1s)Support G.8032 (ERPS),
Industrial Ring	support 255 loops at most, and supports 1024 devices per ring.
Network Protocol	The self healing time of the ring network is less than 20ms
Multicast	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
Mirror	Bi-directional traffic mirroring supporting the basic port
QoS	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

ACL	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 ACL based on port and VLAN
Safety Characteristics	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
DHCP	Support DHCP Client Support DHCP Snooping Suport DHCP Serve Suport DHCP Relay
Management And Maintenance	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
System Requirements	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