

INDUSTRIAL SWITCH PRODUCTS

L2+ managed industrial PoE fiber switch 10x10/100/1000M RJ45 ports and 4x100/1000M uplink SFP slot ports



PRODUCT DESCRIPTION

IPS-M10GT-4SFP is a full gigabit managed industrial PoE switch independently developed by Focomm. It has 8*10/100/1000M PoE ports and 2*10/100/1000M RJ45 ports and 4*100/1000M SFP fiber slot ports. Port 1-8 can support IEEE802.3af/at standard POE power supply, single port POE power up to 30W, and the maximum POE output power is 120W. 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. It can supply the POE terminal equipment, such as wireless AP, network camera, network telephone, industrial sensor and so on, to meet the demand for high density PoE power supply network environment. It is suitable for intelligent transportation, rail transportation, electric power industry, mining, metallurgy and green energy construction and so on. A reliable communication network.



FEATURE

Gigabit access, SFP fiber port uplink

- All series support "Gigabit Ethernet port and Gigabit 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.

Powerful port lightning protection, ultra-wide voltage input

- Contact discharge 8KV, air discharge 15KV; port lightning protection common-mode 4KV, differential mode 2KV.
- Industrial dual power input
- DC INPUT: 48V-57V, non-PoE DC INPUT: 12-48V

Security

- 802.1X authentication.
- Port isolation, Storm control.
- IP-MAC-VLAN-Port binding.
- TACACS+

Intelligent PoE power supply

- 8*10/100/1000Base-T RJ45 ports, meeting the needs of security monitoring, teleconferencing system, wireless coverage, and other scenarios.
- IEEE 802.3af/at PoE standard, without damaging non-PoE devices.
- Priority system for PoE port, it will supply power to the high priority level port first when the power budget is insufficient and avoid overwork of the device.
- PoE network management, realize PoE port power allocation, priority setting, port power status viewing, time scheduling, etc.

PoE network management and fast Ring function

- IEEE802.1Q VLAN, flexible VLAN division and QinQ configuration.
- QoS, Priority mode based on 802.1P, Port & DSCP, queue scheduling algorithm including EQU, SP, WRR & SP+WRR.
- ALC, filter data packet through configuring matching rules, processing operation & time permission, and provide flexible and safe access control.
- IGMP V1/V2 and IGMP Snooping.
- ERPS/STP/RSTP/MSTP.
- Static and dynamic aggregation.

Stable and reliable

- Low power consumption, fan-less design, aluminum shell.
- CE, FCC, RoHS.
- The user-friendly panel, it can show the device status through the LED indicator of PWR, SYS, Link, PoE.

One-stop remote control and management

- Web management, CLI command line (Console, Telnet), SNMP (V1/V2/V3).
- HTTPS, SSLV3, and SSHV1/V2.
- RMON, system log, LLDP, and port traffic statistics.
- CPU monitoring, memory monitoring, Ping test, and cable diagnose.

TECHNICAL SPECIFICATION

Interface Characteristics	
Fixed Port	8*10/100/1000Base-T PoE ports (Data/Power) 2*10/100/1000Base-T uplink RJ45 ports (Data) 4*100/1000Base-X uplink SFP slot ports (Data) 1 * RS232 console port (115200, N,8,1) 2 set of V+, V- redundant DC power interface (6 Pin Phoenix terminal) Power-off alarm switch (FAULT)
Ethernet Port	10/100/1000Base-T,Auto-sensing,Full/half duplex MDI/MDI-X self-adaption
SFP Slot Port	Gigabit SFP optical fiber interface, default matching optical modules (optional order single-mode / multi-mode, single fiber / dual fiber optical module. LC)
Chip Parameter	
Network Management Type	L2+
Network Protocol	IEEE802.3 10BASE-T; IEEE802.3i 10Base-T; IEEE802.3u 100Base-TX/FX; IEEE802.3ab 1000Base-TX IEEE802.3z 1000Base-X IEEE802.3x
Forwarding Mode	Store and Forward (Full Wire Speed)
Forwarding delay	<10us
Switching Capacity	256Gbps
Forwarding Rate@64byte	20.83Mpps
MAC	8K
Buffer Memory	6M
Jumbo Frame	9.6K

PoE & Power Supply	
PoE Port	Port 1 to port 8
Power Supply Pin	Default: 1/2 (+), 3/6 (-)
Max Power Per Port	30W; IEEE802.3af/at
Total PWR / Input Voltage	120W (48VDC)
Power Consumption	Standby:<10W;Full load:<120W
Working Voltage	48-57VDC; 6 Pin industrial Phoenix terminal, support anti-reverse protection.
Power Supply	No, optional 48V/120W or 48V/240W industrial power supply
LED Indicator	Power/System: SYS (green); Network: Link (yellow); SFP: L/F (green); PoE: PoE (green); Speed:100/1000 (green)
Physical Parameter	
Twisted Pair Transmission	10BASE-T: Cat3,4,5 UTP (≤100 meter) 100BASE-TX: Cat5 or later UTP (≤100 meter) 1000BASE-T: Cat5e or later UTP (≤100 meter)
Optical Cable	Multi-mode: 850nm 0 ~ 550M, single mode: 1310nm 0 ~ 40KM, 1550nm 0 ~ 120KM.
Reset Switch	Yes, One-button factory reset
Operation TEMP / Humidity	-40~+80°C;5%~95% RH Non condensing
Storage TEMP / Humidity	-40~+85°C;5%~95% RH Non condensing
Dimension (L*W*H)	165*148*54mm
Net /Gross Weight	<1.1kg / <1.5kg
Installation	Desktop, DIN rail
Certification & Warranty	
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;
Warranty	3 years

Network Management Features	
Interface	<p>IEEE802.3X (Full-duplex)</p> <p>Port temperature protection setting</p> <p>Port green Ethernet Energy-saving setting</p> <p>Broadcast storm control based on port speed</p> <p>The speed limit of the message flow in the access port.</p> <p>The minimum particle size is 64Kbps.</p>
Layer 3 Features	<p>L2+ network management, IPV4/IPV6 management</p> <p>L3 soft routing forwarding,</p> <p>Static route, Default route @ 128 pcs, APR @ 1024 pcs</p>
VLAN	<p>4K VLAN based on port, IEEE802.1q</p> <p>VLAN based on the protocol</p> <p>VLAN based on MAC</p> <p>Voice VLAN, QinQ configuration</p> <p>Port configuration of Access, Trunk, Hybrid</p>
Port Aggregation	<p>IEEE 802.3ad, LACP, Static aggregation</p> <p>Max 7 aggregation groups and 8 ports per group.</p>
Spanning Tree	STP (IEEE802.1d), RSTP (IEEE802.1w), MSTP (IEEE802.1s)
Industrial Ring Network	G.8032 (ERPS), Recovery time less than 20ms
Protocol	250 Ring at most, Max 1024 devices per ring.
Multicast	<p>MLD Snooping v1/v2, Multicast VLAN</p> <p>IGMP Snooping v1/v2, Max 1024 multicast groups, Fast log out</p>
Port Mirroring	Bidirectional data mirroring based on port
QoS	<p>Flow-based Rate Limiting</p> <p>Flow-based Packet Filtering</p> <p>8*Output queues of each port</p> <p>802.1p/DSCP priority mapping</p> <p>ToS, Diff-Serv QoS, Priority Mark/Remark</p> <p>Queue Scheduling Algorithm (SP, WRR, SP+WRR)</p>
ACL	<p>Port-based Issuing ACL, ACL based on port and VLAN</p> <p>L2 to L4 packet filtering, matching first 80 bytes message. Provide ACL based on MAC, Destination MAC address, IP Source, Destination IP, IP Protocol Type, TCP/UDP Port, TCP/UDP Port Range, and VLAN, etc.</p>
Security	<p>IP-MAC-VLAN-Port binding</p> <p>ARP inspection, Anti-DoS attack</p> <p>AAA & RADIUS, MAC learning limit</p> <p>Mac black holes, IP source protection</p> <p>IEEE802.1X & MAC address authentication</p> <p>Broadcast storm control, Backup for host datum</p> <p>SSH 2.0, SSL, Port isolation, ARP message speed limit</p> <p>User hierarchical management and password protection</p>

DHCP	DHCP Client, DHCP Snooping, DHCP Server, DHCP Relay
Management	<p>One-key recovery</p> <p>Cable Diagnose, LLDP</p> <p>Web Management (HTTPS)</p> <p>NTP, System work log, ICMP, Ping Test</p> <p>CPU instant utilization status view</p> <p>Console/AUX Modem/Telnet/SSH2.0 CLI</p> <p>Download & Management on FTP, TFTP, Xmodem, SFTP, SNMP V1/V2C/V3</p> <p>ONV NMS - smart network management system platform (LLDP+SNMP)</p>
System	<p>Category 5 Ethernet network cable</p> <p>Web browser: Mozilla Firefox 2.5 or higher, Google browser chrome V42 or higher, Microsoft Internet Explorer10 or later; TCP/IP, network adapter, and network operating system (such as Microsoft Windows, Linux, or Mac OS X) installed on each computer in a network</p>

ORDER INFORMATION

PRODUCT	PART NUMBER
L2+ managed industrial PoE fiber switch 10x10/100/1000M RJ45 ports and 4x100/1000M uplink SFP slot ports	IPS-M10GT-4SFP