INDUSTRIAL SWITCH PRODUCTS

L2+ managed industrial Ethernet fiber switch with 10x10/100/1000M RJ45 ports 4x100/1000M SFP fiber ports

FOCOMM

PRODUCT DESCRIPTION

The **IES-M10GT-4SFP** series is a full gigabit managed industrial Ethernet fiber switch independently developed by Focomm. It has 10*10/100/1000Base-T RJ45 ports and 4*100/1000Base-X SFP fiber ports. Each port can support wire-speed forwarding.

The **IES-M10GT-4SFP** has L2+ network management function, supports IPV4/IPV6 management, supports static route forwarding, complete security protection mechanism, ACL/QoS policy, and VLAN function, and is easy to manage and maintain. Supports multiple network redundancy protocols STP/RSTP/MSTP (<50ms) and (ITU-T G.8032) ERPS (<20ms) to improve link backup and network reliability. When a one-way network fails, it can be quickly Resume communication and ensure uninterrupted communication. Configure the port management, routing address management, port traffic control, VLAN division, IGMP, and security policy based on the network management methods such as Web, CLI, SNMP, and Telnet. The **IES-M10GT-4SFP** industrial Ethernet switch follows the industrial product design and materials. The outer casing is made of aluminum alloy to enhance the heat dissipation performance. It has excellent industrial field environment adaptability (mechanical stability, climatic environment adaptability, electromagnetic environment adaptability, etc.) and protection. grade IP40, support dual redundant power supply, low power fanless cooling technology, MTBF mean time between failures up to 35 years, 5 years warranty. It is suitable for industrial channels such as intelligent transportation, rail transit, power industry, mining, petroleum, shipping, metallurgy and green energy construction to form a cost-effective, stable and reliable communication network.

FEATURE

Full gigabit port access

- All series supports 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.

ISO 9001   ISO 14001   OHSAS 18001   UL

Network management and fast Ring function

- IGMP V1/V2 and IGMP Snooping.
- ERPS/STP/RSTP/MSTP.
- Static and dynamic aggregation.
- 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.

Security

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

Stable and reliable

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

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	10*10/100/1000Base-T RJ45 ports (Data)
	4*100/1000Base-X uplink SFP fiber 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
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)
SFP Slot Port	Gigabit SFP optical fiber interface, default not matching optical modules
	(optional order single-mode / multi-mode, single fiber / dual fiber optical module. LC)
SFP Port Expansion	Turbo overclocking 2.5G optical module and ring
Optical Fiber / Distance	Multi mode: 850nm / 0 ~500m, single mode: 1310nm / 0~ 40km, 1550nm /0~120km.
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)
Switching Capacity	256Gbps
Forwarding Rate@64byte	20.83Mpps
MAC	8K
Buffer Memory	6M
Forwarding delay	<10us
Jumbo Frame	9.6K
LED Indicator	Power: PWR (green), System : SYS (green), Network: Link (yellow), SFP: L/F (green)
Reset Switch	Yes, Press and hold the reset switch for 10s and release it to restore the factory settings
Power	
Working Voltage	12-48VDC, 6 Pin industrial Phoenix terminal, support anti-reverse protection.
Power Consumption	Standby<10W;Full load<15W
Power Supply	No, optional 24V/24W industrial power supply
Physical Parameter	
Operation TEMP / Humidity	-40~+80°C;5%~90% 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 / <1.4kg
Installation	Desktop, DIN rail
Certification	
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;

Network Management Features	
Interface	IEEE802.3X (Full-duplex)
	Port temperature protection setting
	Port green Ethernet Energy-saving setting
	Broadcast storm control based on port speed
	The speed limit of the message flow in the access port.
	The minimum particle size is 64Kbps.
Layer 3 Features	L2+ network management ,IPV4/IPV6 management
	L3 soft routing forwarding,
	Static route, Default route @ 128 pcs, APR @ 1024 pcs
VLAN	4K VLAN based on port, IEEE802.1q
	VLAN based on the protocol
	VLAN based on MAC
	Voice VLAN, QinQ configuration
	Port configuration of Access, Trunk, Hybrid
Port Aggregation	LACP, Static aggregation
	Max 3 aggregation groups and 8 ports per group.
Spanning Tree	STP (IEEE802.1d),RSTP (IEEE802.1w),MSTP (IEEE802.1s)
Industrial Ring Network Protocol	G.8032 (ERPS),Recovery time less than 20ms250 Ring at most, Max 250 devices per ring.
Multicast	MLD Snooping v1/v2,Multicast VLAN
	IGMP Snooping v1/v2, Max 1024 multicast groups, Fast log out
Port Mirroring	Bidirectional data mirroring based on port
QoS	Flow-based Rate Limiting
	Flow-based Packet Filtering
	8*Output queues of each port
	802.1p/DSCP priority mapping
	Diff-Serv QoS,Priority Mark/Remark
	Queue Scheduling Algorithm (SP, WRR, SP+WRR)
ACL	Port-based Issuing ACL,ACL based on port and VLAN
	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.
Security	IP-MAC-VLAN-Port binding ,ARP inspection,Anti-DoS attack
	AAA & RADIUS,MAC learning limit
	Mac black holes,IP source protection
	IEEE802.1X & MAC address authentication
	Broadcast storm control,Backup for host datum
	SSH 2.0,SSL,Port isolation,ARP message speed limit
	User hierarchical management and password protection

DHCP	DHCP Client,DHCP Snooping,DHCP Server,DHCP Relay
Management	One-key recovery, Cable Diagnose,LLDP
	Web Management (HTTPS), NTP,System work log,Ping Test
	CPU instant utilization status view, Console/AUX Modem/Telnet/SSH2.0 CLI
	Download & Management on FTP, TFTP, Xmodem, SFTP,SNMP V1/V2C/V3
	ONV NMS - smart network management system platform(LLDP+SNMP)
	Category 5 Ethernet network cable
	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
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Warranty	3years

ORDER INFOMATION

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