

PoEstack Series - Cost-Effective Family of PoE devices

INDUSTRIAL 1G/10G POE+ L3 MANAGED SWITCH

Our PoEstack EN-ML3ISW10G-4T8P+4S+ switch is managed PoE+ Industrial 1G/10G switch designed for harsh environments and provides 12x Gigabit Ethernet RJ-45 ports and 4 10 Gigabit SFP+ uplink ports. The switch meets IEEE 802.3af/at standard. 8x RJ-45 ports support PoE and deliver up to 30W power per port.



PRODUCT FEATURES

- Multi-port PoE+ switch
- L3 Industrial 10G Managed switch supports
 - 4*1/10G uplink SFP+ ports (Data)
 - 8*10/100/1000Base-T 30W PoE ports (Data/Power)
 - 4*10/100/1000Base-T uplink RJ45 ports (Data)
- Ruggedized and temperature hardened PoE switch
- Redundant power supply
- Fan-less metal shell design
- Relay Alarm for power failure, cable link down and PoE link down
- Intelligent PoE power supply
- Easy operation and maintenance management
- Network Redundancy Support/Fast Ring: RSTP and ERPS v1/v2 (Recovery Time <20ms)
- Supports QoS (IEEE 802.1p) and CoS/ToS
- Supports IEEE 802.1Q VLAN, SNMP v1/v2c
- Configuration: Web, CLI and SNMP, and multiple access methods, including HTTP, HTTPS, Telnet and SSH
- Working temperature: -40~75°C
- 8kV contact discharge, 12kV air discharge ESD protection.
- DIN-rail installation



ORDERING INFORMATION

Part Number	Description	Recommended Power Supply
EN-ML3ISW10G-4T8P+4S+	PoEstack L3 managed industrial PoE fiber switch with 4*1/10G uplink SFP+ ports (Data), 8*10/100/1000Base-T PoE ports (Data/Power), 4*10/100/1000Base-T uplink RJ45 ports (Data)	120W/240W

OPTIONAL POWER SUPPLY

Product	Model	Description	Unit
120W DIN Rail Industrial Power Supply	GWS-DP120-48	Din Rail 240W single set of output power supply Input Voltage:AC100V~240V 50-60Hz, 1.5A Output Voltage: DC48V 2.5A Operation Temperature: -40°C—+70°C	PC
240W DIN Rail Industrial Power Supply	GWS-DP240-48	Din Rail 240W single set of output power supply Input Voltage:AC100V~240V 50-60Hz, 3.0A Output Voltage:DC48V 5A Operation Temperature:-40°C—+70°C	PC
480W DIN Rail Industrial Power Supply	GWS-DP480-48	Din Rail 480W single set of output power supply Input Voltage: AC100V~240V 50-60Hz, 5.0A Output Voltage: DC48V 10A Operation Temperature: -40°C to 70°C	PC
250W Desktop Power Adapter	GWS-AP250-52	Desktop 250W single set of output power adapter Input Voltage: AC100V~240V 50-60Hz, 4.1A Output Voltage: DC52V 4.8A Operation Temperature: -20°C to 65°C	PC

TECHNICAL SPECIFICATION

Model	EN-ML3ISW10G-4T8P+4S+
Interface Characteristics	
Fixed Port	4*1/10G uplink SFP+ ports (Data) Power off alarm switch port (FAULT) 8*10/100/1000Base-T PoE ports (Data/Power) 4*10/100/1000Base-T uplink RJ45 ports (Data) 2 set of V+, V- redundant DC power ports (6 Pin Phoenix terminal)
Ethernet Port	Port 1-12 support 10/100/1000Base-T autosensing, full/half duplex MDI/MDI-X self-adaption
Twisted Pair Transmission	10BASE-T: Cat3,4,5 UTP(≤100 meters) 100BASE-TX: Cat5 or later UTP(≤100 meters) 1000BASE-T: Cat5e or later UTP(≤100 meters)
Optical Fiber Port	1/10G SFP+ optical fiber port, optical modules not included (optional order single-mode / multi-mode, single fiber / dual fiber optical module. LC)
Optical Fiber Port Expansion	Turbo overclocking 2.5G optical module expansion and ring network
Optical Cable/Distance	Multimode: 850nm / 0~500m, 0~300M(10G), Single mode: 1310nm / 0~ 40km, 1550nm / 0~120km.
Chip Parameter	
Network Management Type	L3
Network Protocol	IEEE802.3 10BASE-T, IEEE802.3i 10Base-T IEEE802.3u 100Base-TX, IEEE802.3ab 1000Base-T, IEEE802.3z 1000Base-X, IEEE802.3ae 10GBase-SR/LR, IEEE802.3x

Forwarding Mode	Store and Forward(Full Wire Speed)
Switching Capacity	176Gbps
Forwarding Rate@64byte	77.38Mpps
CPU	500MHz
DRAM	2G
FLASH	128M
MAC	32K
Buffer Memory	32M
Jumbo Frame	9.6K
LED Indicator	System: SYS (Green), Network: Link (Yellow), PoE: PoE (Green), Fiber port: L/A (Green)
Reset Switch	Yes, press and hold the switch for 10 seconds and release it to restore the factory settings
PoE & Power Supply	
PoE Port	Port 1 to 8, IEEE 802.3 af/at
PoE Management	PoE output power allocation, on/off & af/at, PoE working status Total power limit of PoE power supply, Delay starts of power supply PoE output priority configuration, Scheduling of PoE operation and time
Power Supply Pin	1/2 (+) 3/6 (-)
Max Power Per Port	30W, IEEE 802.3 af/at
Power Consumption	Standby<15W, Full load af<120W, at<240W
Working Voltage	DC48-57V, 6 Pin industrial Phoenix terminal, support anti-reverse protection.

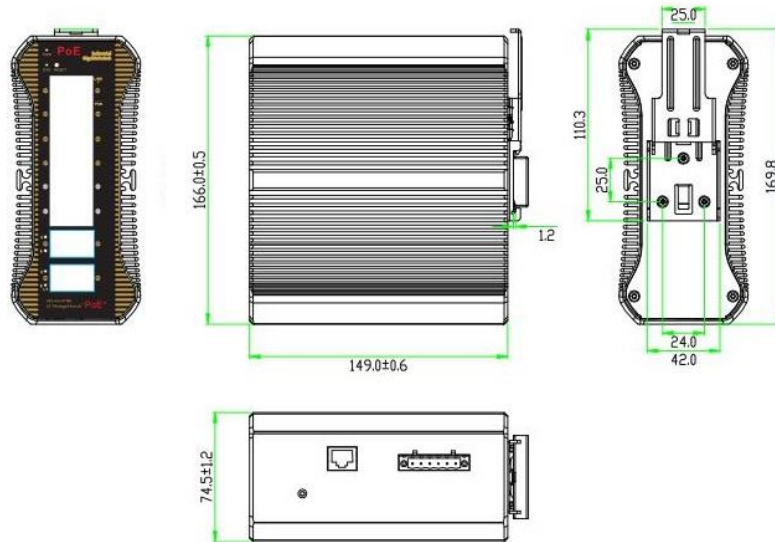
Power Supply	No, optional 48V/120W or 48V/240W industrial power supply
Physical Parameter	
Operation TEMP / Humidity	-40~+80°C, 5%~90% RH Non-condensing
Storage TEMP / Humidity	-40~+85°C, 5%~95% RH Noncondensing
Dimension (L*W*H)	166*150*75mm
Net /Gross Weight	<1.9kg / <2.4kg
Installation	Desktop, 35mm DIN rail
Certification & Warranty	
Lightning Protection	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 B 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 EN62368-1, FCC Part 15 Class B, RoHS
Warranty	5 years, lifelong maintenance.
Network Management Features	
Interface	<p>IEEE802.3X (Full duplex)</p> <p>Port temperature protection setting</p> <p>No connection port automatic sleep</p> <p>Port green Ethernet Energy-saving setting</p> <p>Broadcast storm control based on port speed</p> <p>SFP+ optical port DDMI real-time digital diagnosis</p> <p>The speed limit of the message flow in the access port, minimum particle size is 64Kbps.</p>
Layer 3 Features	<p>IPV4 Equal Cost Routing</p> <p>NG protocol, maximum 1000 entries</p> <p>ARP protocol, maximum 1000 entries</p> <p>Pingv6, Telnetv6, TFTPv6, DNSv6, ICMPv6</p> <p>IPV4/IPV6 VRRP, the maximum group is 255</p> <p>IPV4/IPV6 VLANIF interface supports up to 128</p> <p>IPV4/IPV6 static route/default route supports up to 128 entries</p> <p>IPV4 dynamic routing, RIPv1/v2, OSPFv2, BGP4+, 4000 routing entries</p> <p>IPV6 dynamic routing OSPFv3, BGP+, RIPng, IPV6 management, 1000 routing entries</p> <p>L3 network management function, IPV4/IPV6 dual-stack management</p> <p>L3 routing and forwarding, support communication between different network segments and different VLAN</p>
VLAN	Voice VLAN, QinQ configuration, IEEE802.1q

	VLAN based on MAC, VLAN based on the protocol 4K VLAN based on port, Port configuration of Access, Trunk, Hybrid.
Port Aggregation	LACP, Static aggregation Max 8 aggregation groups and 8 ports per group.
Spanning Tree	STP (IEEE802.1d), RSTP (IEEE802.1w), MSTP (IEEE802.1s)
Industrial Ring	250 Ring at most, Max 250 devices per ring.
Network Protocol	G.8032 (ERPS), Recovery time less than 20ms
Multicast	IGMP Snooping v1/v2, Max 1024 multicast groups MLD Snooping v1/v2, Multicast VLAN, Fast log out
Port Mirroring	Bidirectional data mirroring based on port
QoS	Diff-Serv QoS, Priority Mark/Remark Queue Scheduling Algorithm (SP, WRR, SP+WRR) Flow-based Rate Limiting, Flow-based Packet Filtering 8*Output queues of each port, 802.1p/DSCP priority mapping
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	Broadcast storm control, Backup for host datum SSH 2.0, SSL, Port isolation, ARP message speed limit AAA & RADIUS, MAC learning limit, Mac black holes User hierarchical management and password protection IP-MAC-VLAN-Port binding, ARP inspection, Anti-DoS attack IP source protection, IEEE802.1X & MAC address authentication
DHCP	DHCP Client, DHCP Snooping, DHCP Server, DHCP Relay

Management	<p>NMS platform cluster management (LLDP+SNMP)</p> <p>Download & Management on FTP, TFTP, Xmodem, SFTP</p> <p>One-key recovery, Cable Diagnose, LLDP, SNMP V1/V2/V3</p> <p>NTP, System work log, Ping Test, CPU instant utilization status view</p> <p>Web Management (HTTPS), Console/AUX Modem/Telnet/SSH2.0 CLI</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</p> <p>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>

MECHANICAL SPECIFICATIONS



Notice:

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For further information



E.C.I.NETWORKS

Office: 1-800-967-1672

Fax : 1-855-201-7283

<mailto:sales@ecin.ca>