#### EV-POE33016PFM-L3+

20 Port Gigabit L3 Managed Ethernet PoE Switch



#### **Product Description**

EV-POE33016PFM-L3+ is an hardened 20-port Industrial PoE Switch, provides non-blocking wire-speed performance in harsh industrial environment. It also provides 16-port 10/100/1000BASE-TX RJ45 PoE +4G SFP delivered in an IP40 rugged, strong case with redundant power system. Its slim case is suitable for such applications as surveillance system deployments, control management and wireless service in climatically demanding environments with wide temperature range from -40°C to 85°C.

The EV-POE33016PFM-L3+ provides the flexibility to all kinds of 10/100/1000Mbps Ethernet Media on RJ-45 port and performs highly stable fiber performance.

The EV-POE33016PFM-L3+ is packaged in a compact IP40 case that allows either DIN rail or panel mounting to have efficient usage of cabinet space. It provides an integrated power supply with a wide range of voltages for worldwide operation. It also offers dual-redundant, reversible polarity 48V DC to 57V DC power supply inputs for high availability applications requiring dual or backup power inputs.

#### **Features**

- Data control: support 802.3x full duplex flow control, support network storm suppression
- Redundant network: support STP/RSTP/MSTP, support ERPS (self-healing time <20ms)</li>
- Support IPv6, static routing
- Support DHCP Server, DHCP replay, Qos
- Multicast management: Support IGMP Snooping , IGMP V1/V2/V3; Support GMRP ,static multicast
- Support port-based VLAN Port, IEEE 802.1Q VLAN and GVRP protocol, simple network planning
- QoS: Support QoS (IEEE 802.1p/1Q) and TOS/ Diffserv to increase network stability
- Security management: support ACL access control list, support 802.1x, support user classification management
- Management function: support Web, SNMP management mode
- Monitoring maintenance: support port mirroring, interface status monitoring, log management
- Alarm function: support power supply, port, abnormal state relay output
- Support 1588 clock protocal

#### **Application Environment**

Metropolitan area fiber broadband network: telecommunications, cable TV, network system integration,

# **20-Port Gigabit Industrial L3 Managed Ethernet PoE Switch** etc., network operators.

- Broadband private network: Suitable for financial, government, oil, railway, electric power, public security, transportation, education and other industries.
- Multimedia transmission: image, voice, data integrated transmission, suitable for remote teaching, conference TV, videophone and other applications.
- Real-time monitoring: simultaneous transmission of real-time control signals, images, data

### **Specification**

Specification	
Model No.	EV-POE33016PFM-L3+
10/100/1000Base-TX Port	16-Port RJ-45 auto-MDI / MDI-X
PoE Specification	PoE Standard: IEEE802.3af/ IEEE802.3at
	PoE ports: Port 1-12
	Power Output:
	Max. 15.4 watts (IEEE 802.3af)
	Max. 30 watts (IEEE 802.3at)
	PoE port Auto detect AF/AT devices
	Output Voltage: DC48V
	Power Pin Assignment:1/2+;3/6-
	Power Type: End-span( Mid-span optional)
1000Base-FX Port	4G SFP Slot
	Bandwidth(switch capacity): 106Gbps
Performance Specification	Packet Buffer Memory:16Mbit
	Packet Forwarding Rate: 78Mpps
	MAC Address Table: 8K
Installation	DIN rail
Maximum Frame Size	9600bytes
Flow Control	Back pressure for half duplex, IEEE 802.3x pause frame for full
	duplex
Enclosure	IP40 Aluminum housing
	Power: Red
LED Indicator	Fiber: Link 2(Green)

	Ethernet: Yellow
Power Input	48 to 57V DC redundant power
Power Consumption	<10 watts
Surge protection	± 4KV
	IEEE802.3 10BASE-T;
Network Protocols	IEEE802.3i 10Base-T;
	IEEE802.3u;100Base-TX/FX;
	IEEE802.3ab 1000Base-T;
	IEEE802.3z 1000Base-X;
	IEEE802.3x;
Network cables	10BASE-T: Cat3,4,5 UTP(≤100 meter)
	100BASE-TX: Cat5 or later UTP(≤10meter)
	1000BASE-TX: Cat6 or later UTP(≤100 meter)
	FCC CFR47 Part 15,EN55022/CISPR22, Class A
	IEC61000-4-2 (ESD): ±8kV (contact), ±12kV (air)
	IEC61000-4-3 (RS): 10V/m (80~1000MHz)
Industry Standard	IEC61000-4-4 (EFT): Power Port: ±4kV; Data Port: ±2kV
	IEC61000-4-5 (Surge): Power Port: ±2kV/DM, ±4kV/CM; Data
	Port: ±2kV
	IEC61000-4-6 (CS): 3V (10kHz-150kHz); 10V (150kHz-80MHz)
	IEC61000-4-16 (Common mode conduction): 30V (cont.), 300V
	(1s)
Standard	CE FCC Rohs complying
MTBF	>300,000hours
Dimensions (W x D x H)	166×137×68.5mm
Weight	Product Weight: 1.25KG Packing Weight: 1.35KG
Working Environment	Working temperature: -40∼85°C ;
Tronding Environment	Storage temperature: -40 $\sim$ 85 $^{\circ}$ C
	Relative Humidity: 5%~95 %( no condensation)
Warranty	3 Years

#### Software function

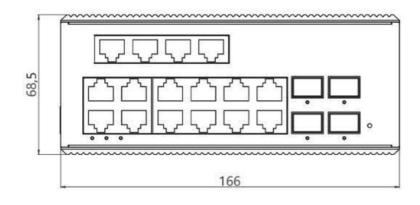
Software function	
Basic function	Support hardware factory reset, system and port LED
	Support global information, statistical information, log information
	Support User management, alarm management, configuration management
	Support Port rate, duplex, flow control, maximum frame length configuration
	Support Port mirroring, port speed limit, port energy saving
PoE function	Support PoE time management
	Support PoE automatic monitoring
	Support PoE port power configuration
	Support 4K VLAN
	Support 802.1Q VLAN, baesd on port VLAN
	SupportAccess, Trunk, Hybrid VLAN mode
VLAN	Support GVRP (VLAN registration protocol)
	Support MAC VLAN, IP VLAN
	Support Voice VLAN
MAC	Support MAC address automatic learning and aging
IMAC	Support Static, dynamic, filtered address table
	Password protection
	Support Restrict user access based on port number, IP address, MAC address
	Support HTTPS, SSH V1/V2
	Support VLAN-IP-MAC-PORT binding
So averity factors	Support ARP detection, IP source protection, DoS protection
Security features	Support DHCP Snooping, DHCP Attack protection
	Support 802.1X Certification
	Support AAA (Authentication, Authorization, Accounting), Support RADIUS
	protocol
	Support Port security, port isolation
Access control	Support L2(Layer 2)~L4(Layer 4) Packet filtering function
	Support Port mirroring, flow rate limiting, QoS remarking
QOS	Support 8 port queues

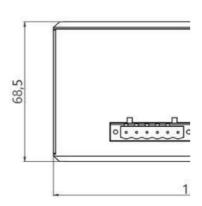
20-Port Gigabit Industrial L3 Managed Ethernet PoE Switch			
	Support Port priority, 802.1P priority, DSCP priority		
	Support SP, WRR Priority scheduling algorithm		
	Support STP(IEEE 802.1d), RSTP(IEEE 802.1w) and MSTP(IEEE 802.1s)		
Spanning tree	protocol		
opariting tree	Support Multi-instance, Support Aggregate interface		
	Support BPDU protection		
	Support IGMP v1/v2/v3 Snooping		
	Support MLD v1/v2 Snooping		
Multicast	Support Layer 2 multicast fast leave mechanism, querier		
Multicast	Support Layer 2 IPv4 static multicast		
	Support Layer 2 IPv6 static multicast		
	Support IGMP v1/v2/v3 Layer 3 multicast		
	Support multicast suppression		
Storm suppression	Support broadcast storm suppression		
	Support unknown unicast suppression		
Ring protection	Support Ring protection		
	Support Static Aggregation		
Link Aggregation	Support LACP Dynamic Aggregation		
Link Aggregation	Support based on IP, MAC, mixed load-balancing modes		
	Maximum support 8 aggregation groups (8 ports per aggregation group)		
	Support IPv6 Ping, IPv6 Traceroute, IPv6 Telnet		
IPv6	Support IPv6 SSH		
	Support IPv6 HTTP, IPv6 HTTPS		
	Support WEB Management (HTTP,HTTPS)		
	Support CLI (Telnet, SSH V1/V2, Local serial port)		
	Support SNMP V1/V2/V3		
Management and	Support RMON V2		
Maintenance	Support LLDP Device discovery		
	Support SNTP Time synchronization		
	Support CPU Monitoring, Memory Monitoring		
	Support System log, classification warning		

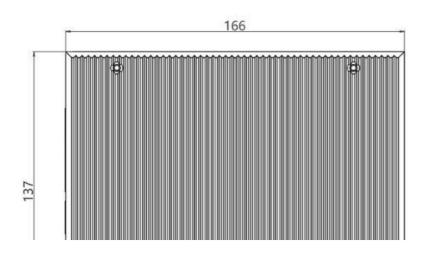
Support Ping, Trace route detection, cable detection

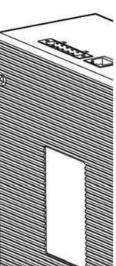
Support WEB Management (HTTP,HTTPS)

#### **Dimensions**









# **Packing List**

	20 Port Gigabit Managed Ethernet PoE Switch (EV-POE33016PFM-L3+)
Packing List	Brackets
	User Manual
	Warranty Card

# **Ordering Information**

EV-POE33016PFM-L3+	20 Port Gigabit Industrial Managed Ethernet PoE Switch
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