

**20-Port Gigabit Industrial L2 Managed Ethernet PoE Switch****EV-POE33016PFM-L2+**

20 Port Gigabit L2 Managed Ethernet PoE Switch

**Product Description**

EV-POE33016PFM-L2+ 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-L2+ 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-L2+ 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**

- 16-port 10/100Base-Tx RJ-45 with auto negotiation and auto-MDI/ MDI-X function, supplying 30W PoE, compatible with 802.3AT/AF
- 4G SFP
- 48V to 57V DC, redundant power input
- -40°C to 85°C operating temperature
- IP40 aluminum housing
- Supports 6KV DC Ethernet ESD protection
- Supports 6KV DC EFT protection for power line
- Free Fall, Shock and Vibration Stability
- DIN-rail design
- Support STP/RSTP/MSTP
- Web management, CLI
- IGMP snooping, QOS, VLAN, SNMP

**Application Environment**

- Metropolitan area fiber broadband network: telecommunications, cable TV, network system integration, etc., network operators.
- Broadband private network: Suitable for financial, government, oil, railway, electric power, public security, transportation, education and other industries.

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- 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**

|                           |   |
|---------------------------|---|
| Model No.                 | EV-POE33016PFM-L2+  |
| 10/100/1000Base-TX Port   | 16-Port RJ-45 auto-MDI / MDI-X  |
| PoE Specification         | PoE Standard: IEEE802.3af/ IEEE802.3at  |
|                           | PoE ports: 1-16 port support PoE(max.)  |
|                           | Power Output:<br>Max. 15.4 watts (IEEE 802.3af)<br>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   |
| Performance Specification | Bandwidth: 56Gbps   |
|                           | Packet Buffer Memory: 12Mbit  |
|                           | Packet Forwarding Rate: 42Mpps  |
|                           | MAC Address Table: 8K   |
| Installation              | DIN rail  |
| Maximum Frame Size        | 10240bytes packet size  |
| Flow Control              | Back pressure for half duplex, IEEE 802.3x pause frame for full duplex          |
| Enclosure                 | IP40 Aluminum housing   |
| LED Indicator             | Power: Red  |
|                           | Fiber: Link 2(Green)  |
|                           | Ethernet: Yellow  |
| Power Input               | 48 to 57V DC redundant power  |
| Power Consumption         | < 10watts   |

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|                        |  |
|------------------------|--|
| Surge protection       | ± 4KV  |
| Network Protocols      | IEEE802.3 10BASE-T;<br>IEEE802.3i 10Base-T;<br>IEEE802.3u;100Base-TX/FX;<br>IEEE802.3ab 1000Base-T;<br>IEEE802.3z 1000Base-X;<br>IEEE802.3x;   |
| Network cables         | 10BASE-T: Cat3,4,5 UTP(≤100 meter)<br>100BASE-TX: Cat5 or later UTP(≤10meter)<br>1000BASE-TX: Cat6 or later UTP(≤100 meter)  |
| Industry Standard      | FCC CFR47 Part 15,EN55022/CISPR22, Class A<br>IEC61000-4-2 (ESD): ±8kV (contact), ±12kV (air)<br>IEC61000-4-3 (RS): 10V/m (80~1000MHz)<br>IEC61000-4-4 (EFT): Power Port: ±4kV; Data Port: ±2kV<br>IEC61000-4-5 (Surge): Power Port: ±2kV/DM, ±4kV/CM; Data Port: ±2kV<br>IEC61000-4-6 (CS): 3V (10kHz-150kHz); 10V (150kHz-80MHz)<br>IEC61000-4-16 (Common mode conduction): 30V (cont.), 300V (1s) |
| Certification          | CE FCC Rohs compliance   |
| MTBF                   | >300,000hours  |
| Dimensions (W x D x H) | 179×134×46mm   |
| Weight                 | Product Weight: 1.18KG<br>Packing Weight: 1.3KG  |
| Working Environment    | Working temperature: -40~85℃ ;<br>Storage temperature: -40~85℃<br>Relative Humidity: 5%~95 %( no condensation)   |
| Warranty               | 3 Years  |

**Software function**

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|                   |  |
|-------------------|--|
| 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   |
| VLAN              | Support 4K VLAN  |
|                   | Support 802.1Q VLAN, based on port VLAN  |
|                   | Support Access, Trunk, Hybrid VLAN mode  |
|                   | Support GVRP (VLAN registration protocol)  |
|                   | Support MAC VLAN, IP VLAN  |
|                   | Support Voice VLAN   |
| MAC               | Support MAC address automatic learning and aging                                 |
|                   | Support Static, dynamic, filtered address table                                  |
| Security features | 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   |
|                   | Support ARP detection, IP source protection, DoS protection                      |
|                   | 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  |
|                   | Support Port priority, 802.1P priority, DSCP priority                            |
|                   | Support SP, WRR Priority scheduling algorithm                                    |

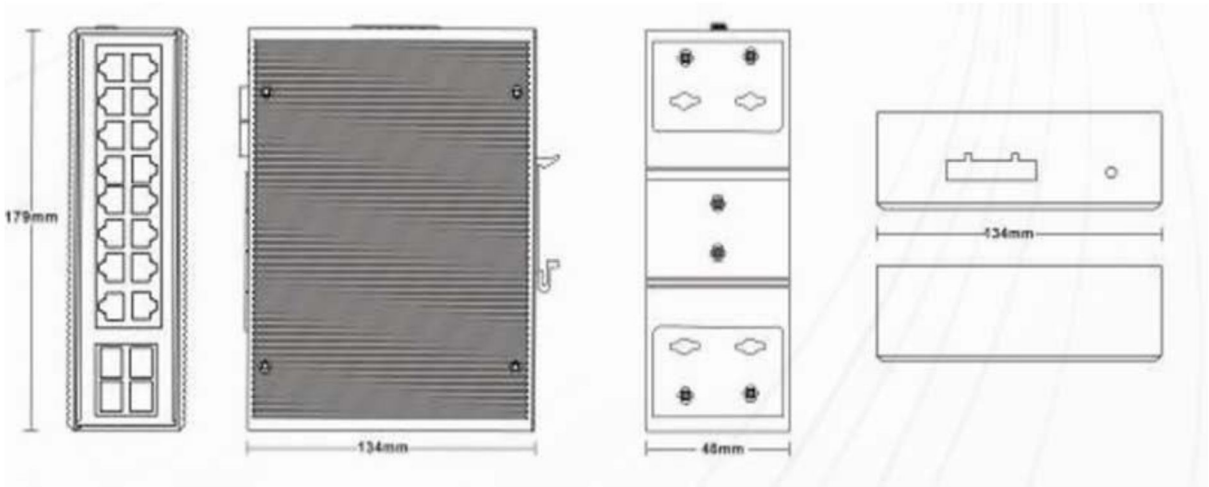


**20-Port Gigabit Industrial L2 Managed Ethernet PoE Switch**

|                            |  |
|----------------------------|--|
| Spanning tree              | Support STP(IEEE 802.1d), RSTP(IEEE 802.1w) and MSTP(IEEE 802.1s) protocol |
|                            | Support Multi-instance, Support Aggregate interface                        |
|                            | Support BPDU protection  |
| Multicast                  | Support IGMP v1/v2/v3 Snooping   |
|                            | Support MLD v1/v2 Snooping   |
|                            | Support Layer 2 multicast fast leave mechanism, querier                    |
|                            | Support Layer 2 IPv4 static multicast                                      |
|                            | Support Layer 2 IPv6 static multicast                                      |
|                            | Support IGMP v1/v2/v3 Layer 3 multicast                                    |
| Storm suppression          | Support multicast suppression  |
|                            | Support broadcast storm suppression  |
|                            | Support unknown unicast suppression  |
| Ring protection            | Support Ring protection  |
| Link Aggregation           | Support Static Aggregation   |
|                            | Support LACP Dynamic Aggregation   |
|                            | Support based on IP, MAC, mixed load-balancing modes                       |
|                            | Maximum support 8 aggregation groups (8 ports per aggregation group)       |
| IPv6                       | Support IPv6 Ping, IPv6 Traceroute, IPv6 Telnet                            |
|                            | Support IPv6 SSH   |
|                            | Support IPv6 HTTP, IPv6 HTTPS  |
| Management and Maintenance | Support WEB Management (HTTP,HTTPS)  |
|                            | Support CLI (Telnet, SSH V1/V2, Local serial port)                         |
|                            | Support SNMP V1/V2/V3  |
|                            | Support RMON V2  |
|                            | 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)  |

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Dimensions



Packing List

|              |   |
|--------------|---|
| Packing List | 20 Port Gigabit Managed Ethernet PoE Switch<br>(EV-POE33016PFM-L2+) |
|              | Brackets  |
|              | User Manual   |
|              | Warranty Card   |

Ordering Information

|                    |  |
|--------------------|--|
| EV-POE33016PFM-L2+ | 20 Port Gigabit Industrial Managed Ethernet PoE Switch |
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