



# 18-port Full Gigabit Managed Industrial PoE Switch VT-33018PFM

## Overview

The VT-33018PFM is a full gigabit managed industrial PoE fiber switch. It has 16\*10/100/1000Base-T RJ45 ports and 2\*100/1000Base-X SFP fiber slot ports. Port 1-16 can support IEEE 802.3af/at standard PoE power supply. single port PoE power reaches 30W, and the maximum PoE output power is 250W. As a PoE power supply device, it can automatically detect and recognize power-compliant devices that meet the standard and supply power through the network cable. It can supply power to POE terminal equipment such as wireless AP, webcam, VoIP, industrial sensor through the network cable, and meet the network environment that needs high-density PoE power supply. It is suitable for intelligent transportation, rail transit, power industry, mining, petroleum, Industrial scenes such as shipping, metallurgy, and green energy construction form a cost-effective, stable and reliable communication network.

The VT-33018PFM has the L2+ full network management function, support IPV4/IPV6 management,static route full line rate forwarding,security protection mechanism,ACL/QoS policy and VLAN, and is easy to manage and maintain. Support multiple network redundancy protocols STP/RSTP/MSTP (<50ms) and (ITU-T G.8032) ERPS(<20ms) to improve link backup and network reliability. When one-way network fails, communication can be quickly restored to ensure important Uninterrupted communication for applications. According to the actual application requirements, you can configure multiple application services such as PoE power management, port traffic control, VLAN division, and SNMP through the Web network management mode.

**High Performance**

- L2+ Managed PoE Switch
- Gigabit access, 1G SFP
- Intelligent PoE power supply
- IEEE802.1Q VLAN
- IGMP Snooping
- VLAN isolation function

**Certification**

- Lightning protection: 4KV 8/20us
- Protection level: IP30
- CCC ; CE mark
- CE/LVD EN60950
- FCC Part 15 Class B
- RoHS

**Easy to use**

- Plug and Play design
- No configuration
- Easy to maintain
- LED indicator



## 218-port Full Gigabit Managed Industrial PoE Switch

### VT-33018PFM

#### 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 back pressure.

#### Intelligent PoE power supply

- 16\*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.

#### Security

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

#### Strong business processing capability

- IEEE802.1Q VLAN, flexible VLAN division, Voice VLAN 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, No fan low noise design, aluminum shell.
- Self-developed power supply, high redundancy design, providing a long term and stable PoE power output.
- CCC, CE, FCC, RoHS.
- The user-friendly panel, it can show the device status through the LED indicator of PWR, SYS, Link, L/A, PoE.

#### Easy operation and maintenance 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.

### Specifications

Model	VT-33018PFM
Fixed Port	16*10/100/1000Base-T PoE ports (Data/Power) 2*100/1000Base-X uplink SFP fiber slot ports (Data) 1 * RS232 console port(115200,N,8,1)
Ethernet Port	Port 1-16 support 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)
Optical Fiber Port	Gigabit optical fiber interface, default matching optical modules (optional order single-mode / multi-mode, single fiber / dual fiber optical module.LC)
Optical Cable/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 IEEE802.3ab 1000Base-T IEEE802.3z 1000Base-X IEEE802.3x
Forwarding Mode	Store and Forward(Full Wire Speed)

Switching Capacity	256Gbps
Forwarding Rate@64byte	26.78Mpps
MAC	8K
Buffer Memory	6Mpps
Jumbo Frame	9.6K
LED Indicator	Power:PWR(yellow), System :SYS(yellow), Network ; Link/Act(yellow), POE: PoE (green), Fiber port: L/A(green)
Reset Switch	Yes, support one key to restore factory settings
<b>PoE &amp; Power Supply</b>	
PoE Port	Port 1 to 16 IEEE802.3af/at @ POE
PoE Management	PoE working status Delay start of power supply PoE output priority configuration Scheduling of PoE operation and time Total power limit of PoE power supply PoE output power allocation, off& af &at
Power Supply Pin	Default 1/2 (+), 3/6 (-)
Max Power Per Port	30W; IEEE802.3af/at
Total PWR / Input Voltage	250W (AC100-240V)
Power Consumption	Standby:<16W;Full load:<240W
Power Supply	Built-in power supply, AC 100~240V 50-60Hz 4.1A
Power Input Interface	Dual input power interface design, AC power supply priority, support anti-reverse protection, power-off automatic switching DC connection; 2 sets of DC12-48V input interface; 1-way alarm switch interface; 1 set of AC power input interface

Physical Parameter	
Operation TEMP / Humidity	-40~+85°C;5%~90% RH Non condensing
Storage TEMP / Humidity	-40~+85°C;5%~95% RH Non condensing
Dimension (L*W*H)	440*298*44.5mm
Net /Gross Weight	<4.2kg / <4.7kg
Installation	Desktop type ,19 inch 1U cabinet installation
Certification	
Lightning protection / protection level	Lightning protection: 6KV 8/20us; Protection level: IP30 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	<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>LACP, Static aggregation</p> <p>Max 9 aggregation groups and 8 ports per group.</p>
Spanning Tree	STP (IEEE802.1d),RSTP (IEEE802.1w),MSTP (IEEE802.1s)
Industrial Ring Network Protocol	<p>G.8032 (ERPS),Recovery time less than 20ms</p> <p>250 Ring at most, Max 1024 devices per ring.</p>
Multicast	<p>MLD Snooping v1/v2,Multicast VLAN</p> <p>IGMP Snooping v1/v2, Max 250 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>Diff-Serv QoS,Priority Mark/Remark</p> <p>Queue Scheduling Algorithm (SP, WRR, SP+WRR)</p>

<p>ACL</p>	<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>
<p>Security</p>	<p>IP-MAC-VLAN-Port binding</p> <p>ARP inspection,Anti-DoS attack</p> <p>AAA &amp; RADIUS,MAC learning limit</p> <p>Mac black holes,IP source protection</p> <p>IEEE802.1X &amp; 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>
<p>DHCP</p>	<p>DHCP Client,DHCP Snooping, DHCP Server,DHCP Relay</p>
<p>Management</p>	<p>One-key recovery</p> <p>Cable Diagnose,LLDP</p> <p>Web Management (HTTPS)</p> <p>NTP,System work log,Ping Test</p> <p>CPU instant utilization status view</p> <p>Console/AUX Modem/Telnet/SSH2.0 CLI</p> <p>Download &amp; Management on FTP, TFTP, Xmodem, SFTP,SNMP</p> <p>V1/V2C/V3</p> <p>ONV NMS - smart network management system platform(LLDP+SNMP)</p>
<p>System</p>	<p>Category 5 Ethernet network cable</p> <p>Web browser: Mozilla Firefox 2.5 or higher, Google browser chrome</p> <p>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>

**OPTICAL MODULE INFORMATION**

<b>1.25G Optical Module</b>	
2630	SFP optical module, 1.25G, multi mode dual fiber 850nm Transmission distance: 550m, LC interface, support DDM function Support hot plug and pull
2632	SFP optical module, 1.25G, single-mode dual fiber 1310nm, transmission distance: 20km, LC interface Support DDM function, support hot plug and pull
2612-T	SFP optical module, 1.25G, single-mode single fiber TX1310nm/RX1550nm, transmission distance: 20km LC interface, support DDM function, support hot plug and pull
2613-R	SFP optical module, 1.25G, single-mode single fiber ,TX1550nm/RX1310nm, transmission distance: 20km LC interface, support DDM function, support hot plug and pull.
2612-T-SC	SFP optical module, 1.25G, single-mode single fiber TX1310nm/RX1550nm, transmission distance: 20km, SC interface, support DDM function, support hot plug and pull.
2613-R-SC	SFP optical module, 1.25G, single-mode single fiber TX1550nm/RX1310nm, transmission distance: 20km, SC interface, support DDM function, support hot plug and pull.
<b>Power Module</b>	
2633	1.25G SFP optical module transfers to 10/100/1000M RJ45 port.