OPTICAL NETWORK VIDEO TECHNOLOGIES (SHENZHEN) CO., LTD.

Product Datasheet

18-Port Gigabit Uplink Managed PoE Switch

ONV-POE31016PFM

OVERVIEW

The ONV-POE31016PFM series is a Gigabit uplink managed PoE fiber switch independently developed by ONV. It has 16*10/100M RJ45 ports and 2*10/100/1000M RJ45 ports and 2 *100/1000M SFP fiber slot ports (combo port), Port 1-16 can support IEEE 802.3af/at standard PoE power supply, and single port PoE power reaches 30W. The maximum PoE output power is 250W(at-400W). and each port can realize line-speed forwarding.
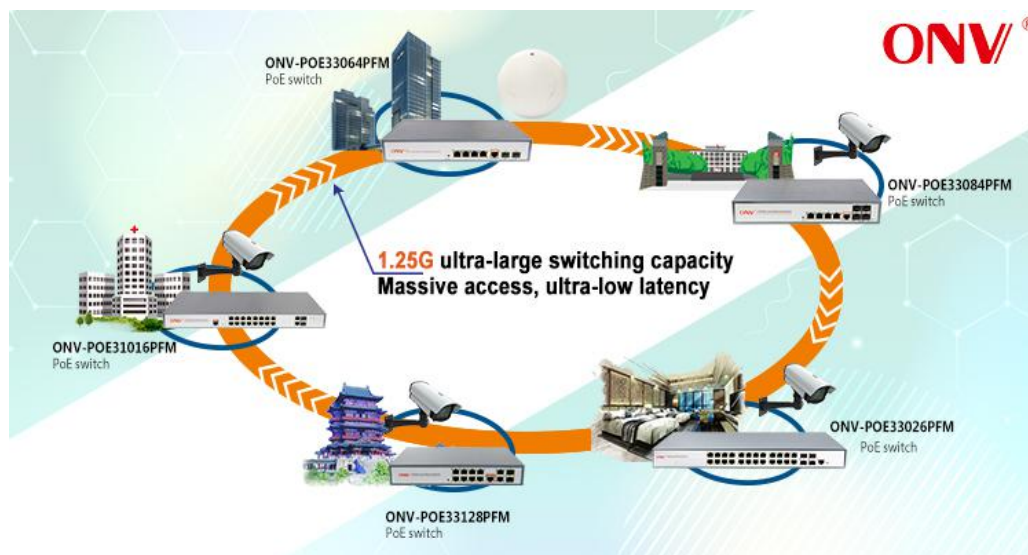
The ONV-POE31016PFM series adopts a new generation of high-performance hardware and software platforms to provide flexible and cost-effective 100Mbps access and uplink ports. It supports complete security protection mechanisms, complete ACL/QoS policies, and flexible VLAN functions, and is easy to manage and maintain. As a PoE power supply device, it can automatically detect and identify the power-receiving equipment that meets the standard and supply power through the network cable. It can supply power to POE terminal equipment such as wireless AP, webcam, VoIP, visual intelligent building intercom through the network cable, and

meet the network environment that needs high-density PoE power supply. It is suitable for hotels, campuses, parks, attractions, supermarkets, Factory quarters and small and medium-sized enterprises form a cost-effective network.
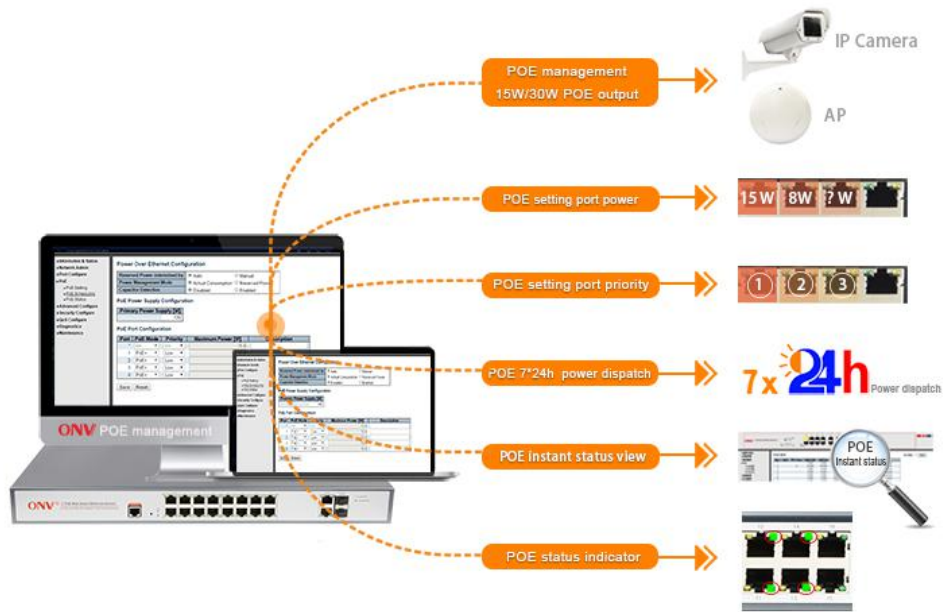
FEATURE

■ **100Mbps access, Gigabit (TP/SFP) combo port uplink**

◇ All series supports "10/100M Ethernet port and Gigabit TP/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.

■ **Intelligent PoE power supply function**

◇ 16*10/100Base-TX 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.

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■ **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.
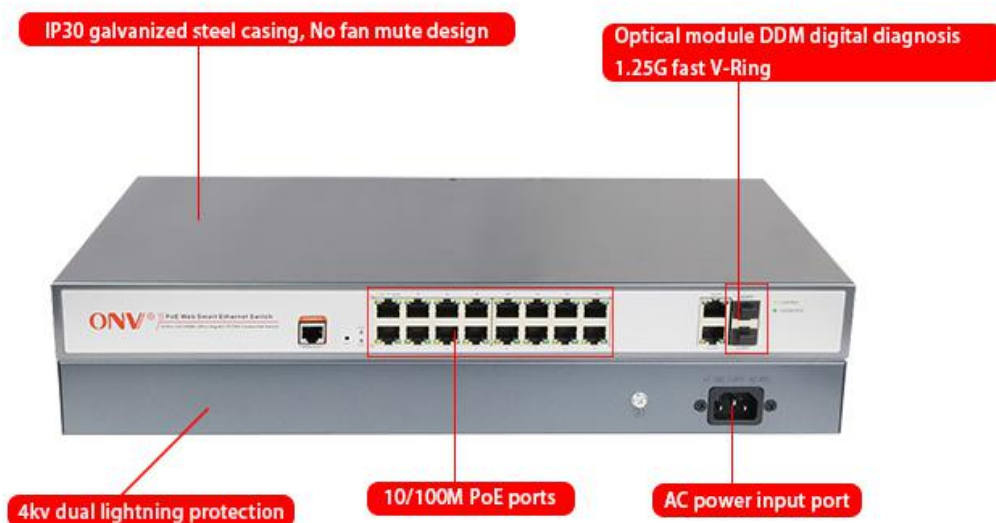
◇ ERPS/STP/RSTP/MSTP.

◇ Static and dynamic aggregation.

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■ **Security**

◇ 802.1X authentication.

◇ Port isolation,Storm control.

◇ IP-MAC-VLAN-Port binding.

■ **Stable and reliable**

◇ Low power consumption, no fan mute design, galvanized steel metal casing.

◇ 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, Link, PoE.

IP30 galvanized steel casing, No fan mute design

Optical module DDM digital diagnosis 1.25G fast V-Ring

4kv dual lightning protection

10/100M PoE ports

AC power input port

■ **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.
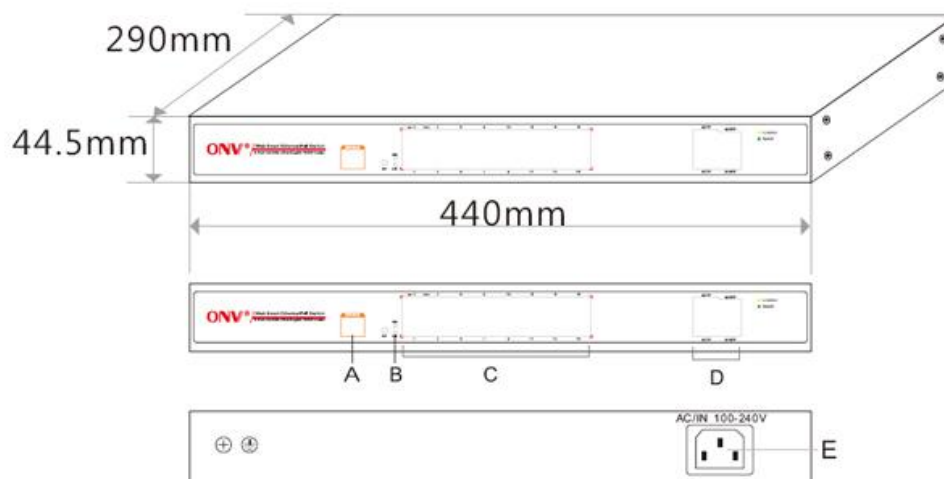
TECHNICAL SPECIFICATION

Model	ONV-POE31016PFM	ONV-POE31016PFM-at
Interface Characteristics		
Fixed Port	16*10/100Base-TX PoE ports (Data/Power) 2*10/100/1000Base-T uplink RJ45 ports (Data) 2*1000M uplink SFP fiber slot ports (Data) 1*Console port (command line)	
Ethernet Port	Port 1-16 support 10/100Base-TX, port 17-18 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)	
SFP Slot Port	Gigabit SFP optical fiber interface, default matching optical modules (optional order single-mode / multi-mode, single fiber / dual fiber optical module. LC)	
Optical Cable	Multi mode: 850nm 0 ~ 550M, single mode: 1310nm 0 ~ 40KM, 1550nm 0 ~ 120KM.	
Chip Parameter		
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	64Gbps (Non-blocking)	
Forwarding Rate@64byte	5.36Mpps	
MAC	16K	
Buffer Memory	4M	
Jumbo Frame	10K	
LED Indicator	Power:PWR(green), Data :Link,Link/Act (yellow), PoE: PoE (green), Speed: SPD (green)	
PoE & Power		
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	
Power Supply Pin	Defaul :1/2 (+), 3/6 (-),optional:4/5 (+), 7/8 (-)	
Max Power Per Port	30W; IEEE802.3af/at	
Total PWR / Input Voltage	250W (AC100-240V)	400W (AC100-240V)
Power Consumption	Standby:<15W;Full load:<240W	Standby:<20W; Full load:<380W
Power Supply	Built in power supply, AC100~240V 50-60Hz 4.1A	Built in power supply, AC100~240V 50-60Hz 5.0A
Physical Parameter		
Operation TEMP / Humidity	-20~+55°C;5%~90% RH Non condensing	
Storage TEMP /	-40~+75°C;5%~95% RH Non condensing	

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Humidity	
Dimension (L*W*H)	440*225*44mm
Net /Gross Weight	<2.8kg /<3.5kg
Installation	Desktop,wall mounted,19 inch 1U cabinet installation
Certification & Warranty	
Port lightning protection	Port lightning protection : 4KV 8/20us,Protection level: IP30
Certification	CCC;CE mark, commercial;CE/LVD EN60950; FCC Part 15 Class B;RoHS
Warranty	3 years, lifetime maintenance.
Network Management Features	
Interface	IEEE802.3X (Full-duplex) Broadcast storm control based on port speed The speed limit of the message flow in the access port. The minimum particle size is 64Kbps.
VLAN	QinQ configuration VLAN based on protocol 4K VLAN based on port, IEEE802.1q
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)
Multicast	MLD Snooping v1/v2, Multicast VLAN IGMP Snoopingv1/v2/v3, Max 64 multicast groups, Fast log out
Image	Bi-directional traffic mirroring supporting the basic port
QoS	8*Output queues of each port 802.1p/DSCP priority mapping Diff-Serv QoS,Priority Mark/Remark Queue Scheduling Algorithm (SP, WRR, SP+WRR)

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ACL	Port-based Issuing ACL
	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	Port isolation, Storm control.
	IP-MAC-VLAN-Port binding
DHCP	DHCP Client,DHCP Snooping,DHCP Relay
Management	NTP
	SNMP V1/V2C/V3
	One-key recovery
	System work log
	Web Management (HTTPS)

DIMENSION

290mm
44.5mm
440mm

A B   C   D

AC/IN 100-240V
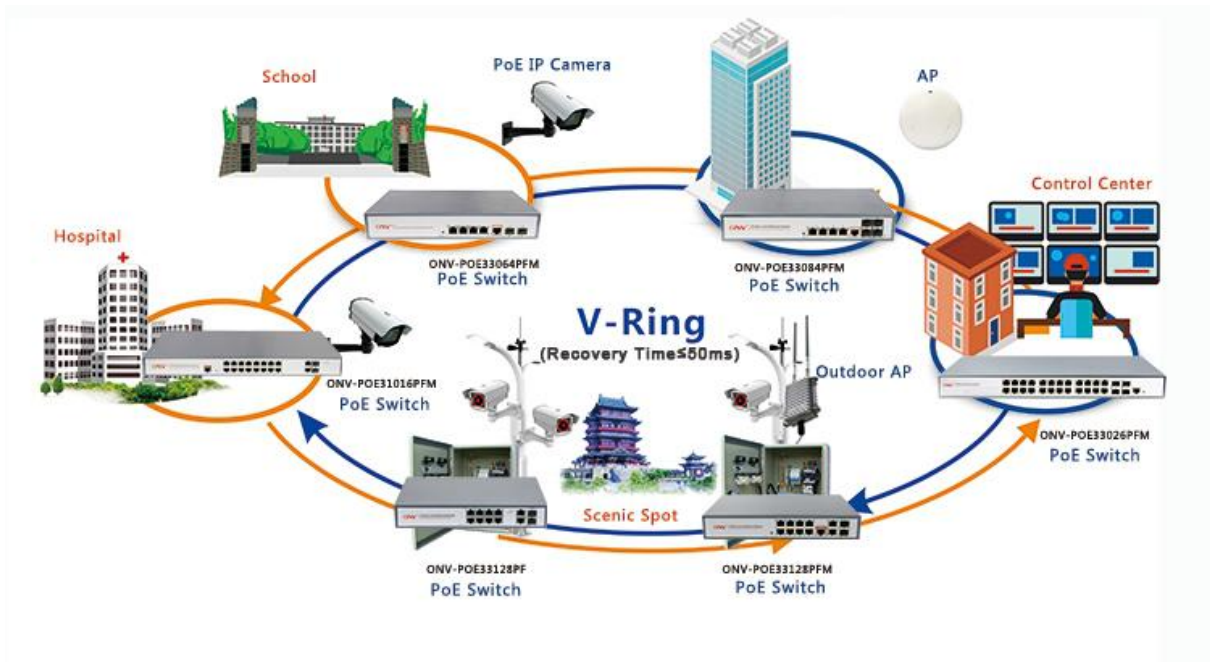E

A.Console port   B.Working indicator
C. 16* PoE Ports   D.2*Gigabit combo ports
E.AC100-240V,50/60Hz

APPLICATION

ORDERING INFORMATION

Model	Description
ONV-POE31016 PFM	L2 managed PoE fiber switch with 16* 10/100M RJ45 ports and 2*10/100/1000M RJ45 ports and 2*100/1000M SFP fiber slot ports , Port 1-16 can support IEEE 802.3af/at PoE standard, Built-in 250W power supply.
ONV-POE31016 PFM-at	L2 managed PoE fiber switch with 16* 10/100M RJ45 ports and 2*10/100/1000M RJ45 ports and 2*100/1000M SFP fiber slot ports , Port 1-16 can support IEEE 802.3af/at PoE standard, Built-in 400W power supply.
Note: PoE switch does not match SFP module by default.	

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PACKING LIST

	CONTENT	QTY	UNIT
PACKING LIST	18-Port gigabit uplink managed PoE switch	1	SET
	AC Power Cable	1	PC
	Mounting Kits (Hanging Ear)	1	SET
	User Guide	1	PC
	Warranty Card	1	PC

OPTICAL MODULE INFORMATION

Product	Model	Description	Unit
1.25G Fiber Module	ONV-2630	SFP optical module, 1.25G, multi mode dual fiber 850nm, transmission distance: 550m, LC interface, support DDM function, support hot plug and pull.	PC
	ONV-2632	SFP optical module, 1.25G, single-mode dual fiber 1310nm, transmission distance: 20km, LC interface, support DDM function, support hot plug and pull.	PC
	ONV-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.	PC
	ONV-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.	PC

	ONV-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.	PC
	ONV-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.	PC
Power Module	ONV-2633	1.25G SFP optical module transfers to 10/100/1000M RJ45 port.	PC

CONTACT US

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