

## Product Datasheet

# 12-Port Full Gigabit Managed PoE Fiber Switch

## ONV-POE33128PFM



## OVERVIEW

The ONV-POE33128PFM is a full gigabit managed PoE fiber switch independently developed by ONV. It has 10\*10/100/1000Base-T RJ45 ports and 2\*100/1000Base-X SFP fiber slot ports. Port 1-8 can support IEEE 802.3af/at standard PoE power supply. single port PoE power reaches 30W, and the maximum PoE output power is 130W(at-250W). As a PoE power supply device, it can automatically detect and recognize 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 phone, building visual access control intercom, etc. through network cable, to meet the network environment that needs high-density PoE power supply. It is suitable for hotel, campus, factory dormitory and small and medium-sized enterprise.

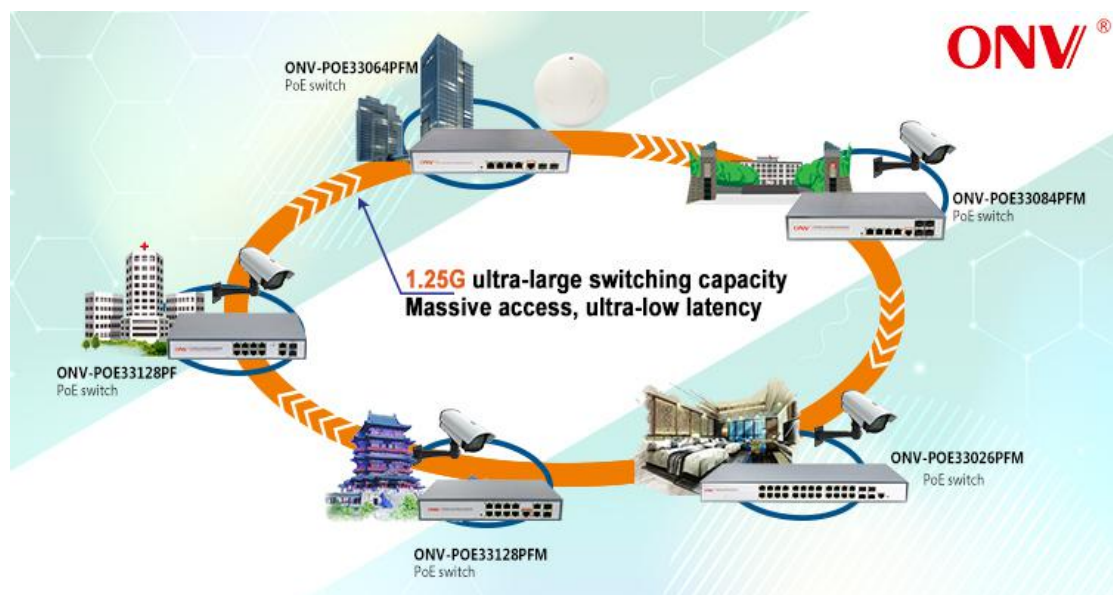
The ONV-POE33128PFM has L2+ full Web management function, supports IPV4/IPV6 management, supports static route full line rate forwarding, supports complete security protection mechanism, complete ACL/QoS policy and rich VLAN functions, and is easy to manage and maintain. Supports multiple network redundancy protocols STP/RSTP/MSTP

(<50ms) and (ITU-T G.8032) ERPS 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 management mode.

## FEATURE

### ■ Gigabit access, gigabit TP/SFP (combo port ) uplink

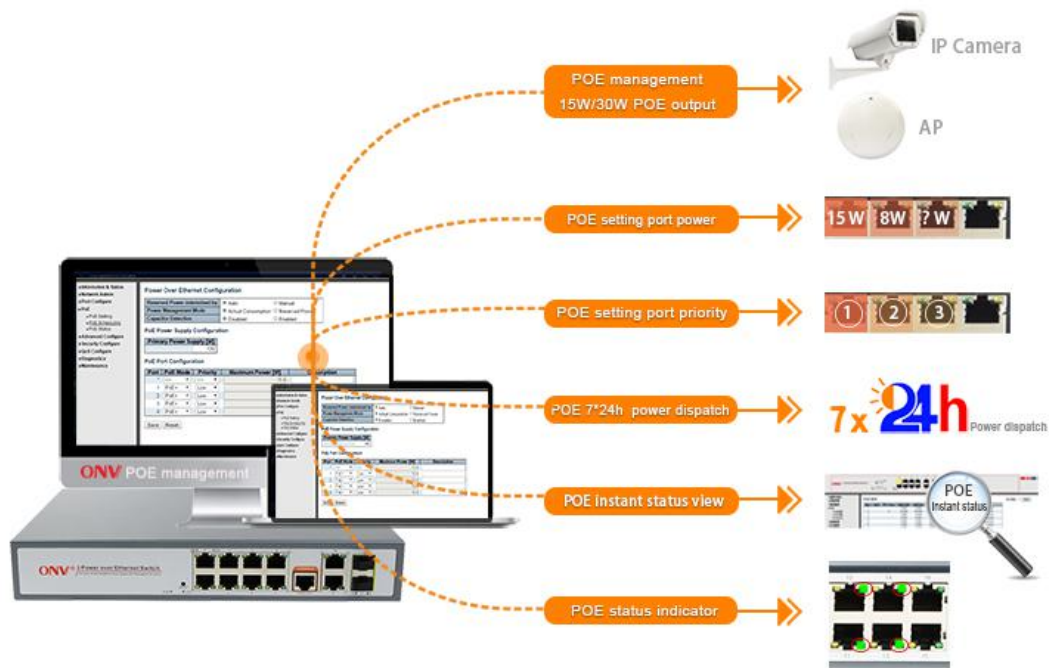
- ◇ All series supports Gigabit Ethernet port and gigabit SFP uplink port combination, which enables users to flexibly build networking to meet the needs of various scenarios.
- ◇ Support non-blocking wire speed forwarding.
- ◇ Support full duplex based on IEEE802.3x and half duplex based on backpressure.



### ■ Intelligent PoE power supply function

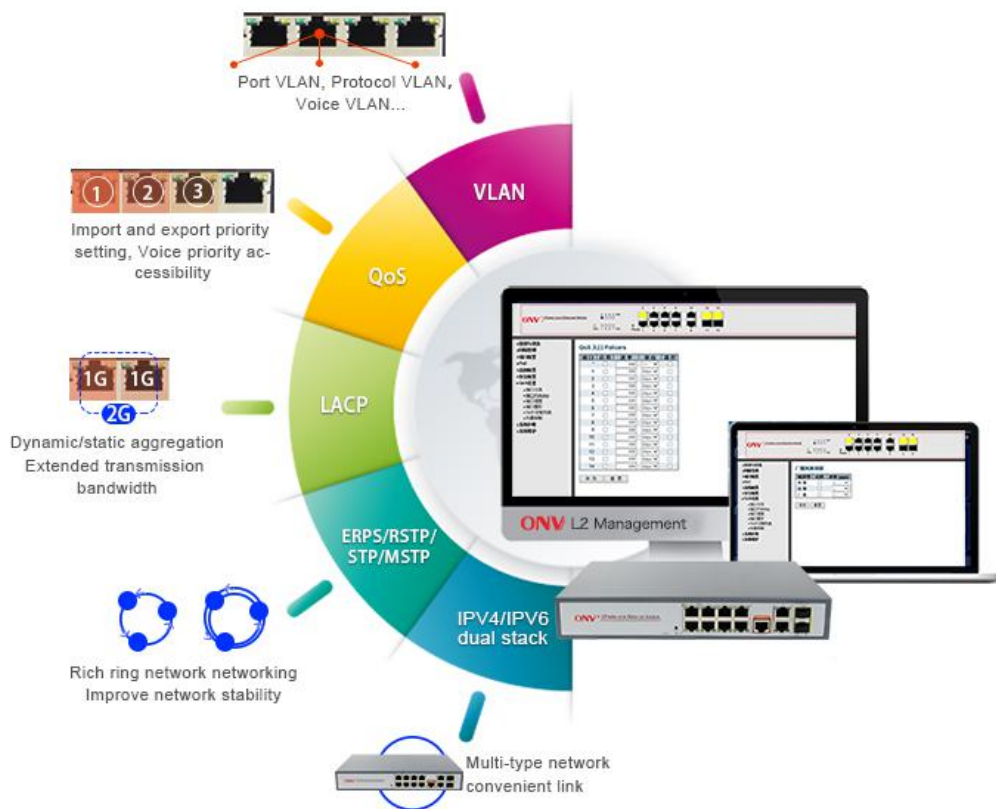
- ◇ 8\*10/100/1000Base-T RJ45 ports, meeting the needs of security monitoring, teleconferencing system, wireless coverage, and other scenarios.

- ◇ 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.



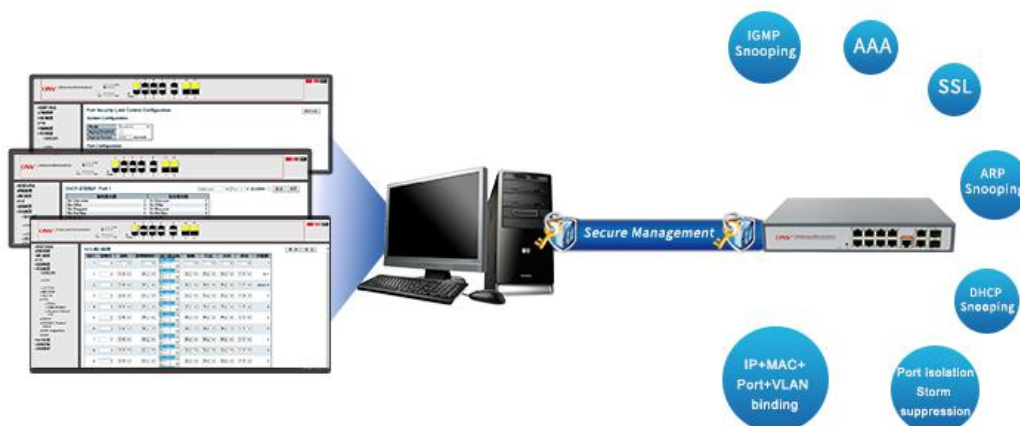
### ■ Strong business processing capability

- ◇ 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.



### ■ Security

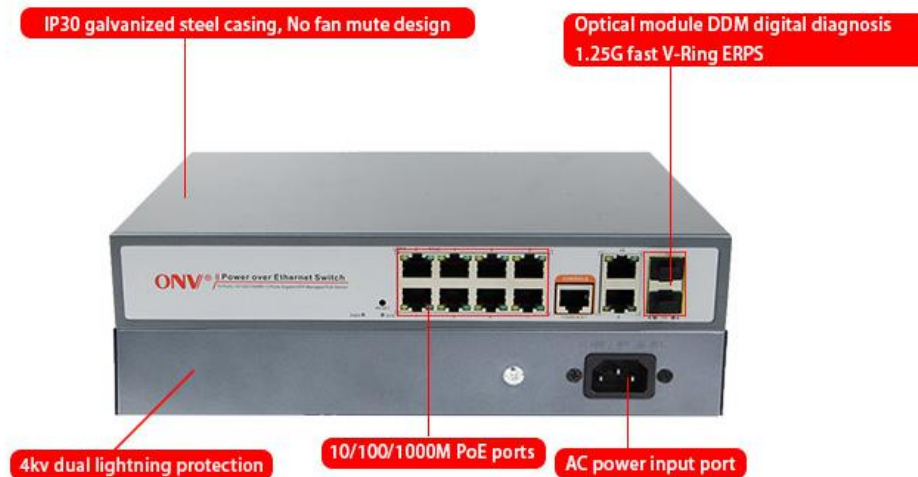
- ◇ 802.1X authentication.
- ◇ Port isolation, Storm control.
- ◇ IP-MAC-VLAN-Port binding.



### ■ Stable and reliable

- ◇ CCC, CE, FCC, RoHS.
- ◇ Low power consumption, galvanized steel casing. No fan.

- ◇ Self-developed power supply, high redundancy design, providing a long term and stable PoE power output.
- ◇ The user-friendly panel, it can show the device status through the LED indicator of PWR, Link, 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.

## TECHNICAL SPECIFICATION

Model	ONV-POE33128PFM	ONV-POE33128PFM-at
<b>Interface Characteristics</b>		
Fixed Port	8*10/100/1000Base-T PoE ports (Data/Power) 2*10/100/1000Base-T uplink RJ45 ports (Data) 2*100/1000Base-X uplink SFP ports (Data) 1*Console RS232 port (115200,N,8,1)	

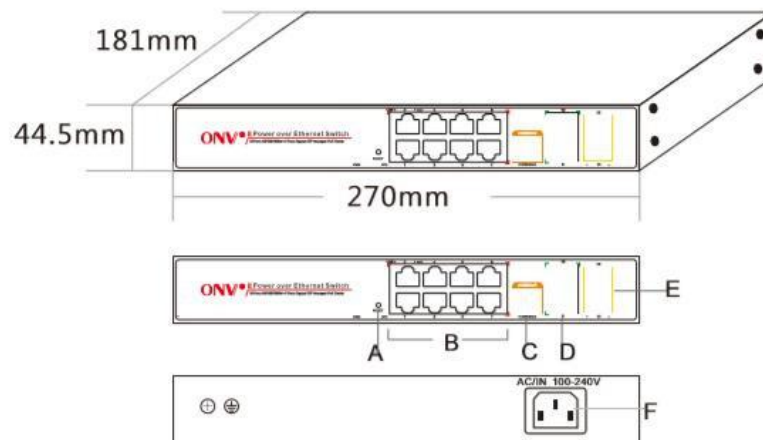
Ethernet Port	Port1-8 can support 10/100/1000Base-T(X) auto-sensing, Full/half duplex MDI/MDI-X self-adaption
Twisted Pair Transmission	10BASE-T: Cat3,4,5 UTP(≤100 meter) 100BASE-TX: Cat5 or later UTP(≤100 meter) 1000BASE-T: Cat5e or later UTP(≤100 meter)
SFP Slot Port	Gigabit SFP optical fiber interface, 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.
<b>Chip Parameter</b>	
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	192Gbps (Non-blocking)
Forwarding Rate@64byte	17.86Mpps
MAC	8K
Buffer Memory	4M
Jumbo Frame	9.6K
LED Indicator	Power:PWR (green), system : SYS ( green), network : Link/Act (yellow), fiber port: L/A (green), PoE : PoE (green)
Reset Switch	Yes, One-button factory reset
<b>PoE &amp; Power</b>	

PoE Port	Port 1 to 8 IEEE802.3af/at @ POE	
PoE Management	PoE working status Delay start of power supply Total power limit of PoE power supply PoE output power allocation, off& af &at PoE output priority configuration Scheduling of PoE operation and time	
Power Supply Pin	Defaul 1/2 (+), 3/6 (-)	
Max Power Per Port	30W; IEEE802.3af/at	
Total PWR / Input Voltage	130W /(AC100-240V)	250W /(AC100-240V)
Power Consumption	Standby<8W,Full Load<120W	Standby<10W,Full Load<240W
Power Supply	Built-in switching power supply, AC 100~240V 50-60Hz 2.3A	Built-in switching power supply, AC 100~240V 50-60Hz 4.1A
<b>Physical Parameter</b>		
Operation TEMP / Humidity	-20~+55°C;5%~90% RH Non condensing	
Storage TEMP / Humidity	-40~+75°C;5%~95% RH Non condensing	
Dimension (L*W*H)	270*181*44.5mm	
Net /Gross Weight	<1.7kg / <2.2kg	
Installation	desktop type ,wall mounted , 19 inch 1U cabinet installation	
<b>Certification &amp; Warranty</b>		
Lightning protection / protection level	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 , lifelong maintenance.	

Network Management Features	
Interface	<p>IEEE802.3X (Full-duplex)</p> <p>Port temperature protection setting</p> <p>Port green Ethernet Energy-saving setting</p> <p>Broadcast storm control based on port speed</p> <p>The speed limit of the message flow in the access port.</p> <p>The minimum particle size is 64Kbps.</p>
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 6 aggregation groups and 8 ports per group.</p>
Spanning Tree	STP (IEEE802.1d),RSTP (IEEE802.1w),MSTP (IEEE802.1s)
Industrial Ring	G.8032 (ERPS),Recovery time less than 20ms
Network Protocol	250 Ring at most, Max 254devices per ring.
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>

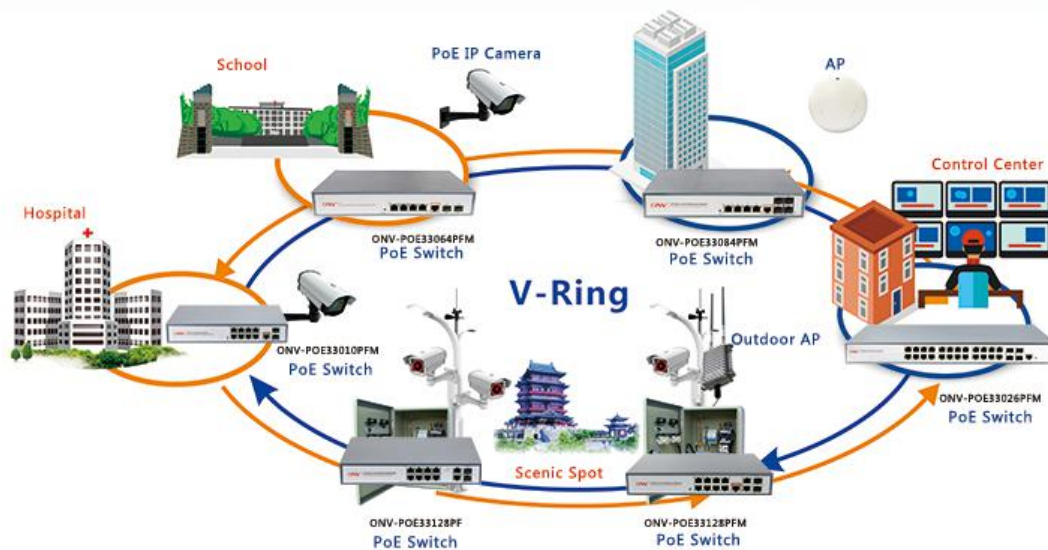
ACL	<p>Port-based Issuing ACL, ACL based on port and VLAN</p> <p>L2 to L4 packet filtering, matching first 80 bytes message. Provide ACL based on MAC, Destination MAC address, IP Source, Destination IP, IP Protocol Type, TCP/UDP Port, TCP/UDP Port Range, and VLAN, etc.</p>
Security	<p>IP-MAC-VLAN-Port 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>
DHCP	DHCP Client, DHCP Snooping, DHCP Server, DHCP Relay
Management	<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>
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 Explorer 10 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>

## DIMENSION



- A. Reset indicator    B. 8\*10/100M PoE ports
- C. Console port    D. 2\*10/100/1000M uplink RJ45 ports
- E. 2\*100/1000M uplink SFP ports
- F. Power input port AC100-240V, 50/60Hz

## APPLICATION



## ORDERING INFORMATION

Model	Description
ONV-POE33128P FM	L2+ managed PoE fiber switch with 10* 10/100/1000M RJ45 ports and 2*100/1000M SFP fiber slot ports , Port 1-8 can support IEEE802.3af/at PoE standard, Built-in 130W power supply. Support 1U/19 inch rack installation.
ONV-POE33128P FM-at	L2+ managed PoE fiber switch with 10* 10/100/1000M RJ45 ports and 2*100/1000M SFP fiber slot ports , Port 1-8 can support IEEE802.3af/at PoE standard, Built-in 250W power supply. Support 1U/19 inch rack installation.

**Note:** PoE switch does not match SFP module by default.

## PACKING LIST

	CONTENT	QTY	UNIT
PACKING LIST	12-port full gigabit managed PoE switch	1	SET
	AC Power Cable	1	PC
	RJ45-DB9 Line	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 Optical Module	ONV-2630	SFP optical module, 1.25G, multi mode dual fiber 850nm, transmission distance: 550m, LC interface, support DDM, hot plug and pull.	PC
	ONV-2632	SFP optical module, 1.25G, single-mode dual fiber 1310nm, transmission distance: 20km, LC interface, support DDM, 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, 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, hot plug and pull.	PC
	ONV-2612-T-S C	SFP optical module, 1.25G, single-mode single fiber TX1310nm/RX1550nm, transmission distance: 20km, SC interface,support DDM, hot plug and pull.	PC
	ONV-2613-R-S C	SFP optical module, 1.25G, single-mode single fiber TX1550nm/RX1310nm, transmission distance: 20km, SC interface,support DDM, hot plug and pull.	PC
Power Module	ONV-2633	1.25G SFP optical module transfers to 10/100/1000M RJ45 port.	PC

## RELATED PRODUCT

Model	Description
ONV-POE33148PFM	L2+ managed PoE fiber switch with 10*10/100/1000M RJ45 ports and 4*10/1000M SFP slot ports, Port 1-8 can support IEEE802.3af/at PoE. Built-in 130W power supply.
ONV-POE33010PFM	L2+ managed PoE fiber switch with 8*10/100/1000M RJ45 ports and 4*10/1000M SFP slot ports, Port 1-8 can support IEEE802.3af/at PoE. Built-in 130W power supply.
ONV-POE33026PFM	L2+ managed PoE fiber switch with 24*10/100/1000M RJ45 ports and 4*100/1000M SFP slot ports (2* combo ports), Port 1-24 can support IEEE802.3af/at PoE. Built-in 400W power supply.
ONV-POE33028PFM	L2+ managed PoE fiber switch with 24*10/100/1000M RJ45 ports and 4*100/1000M SFP slot ports, Port 1-24 can support IEEE802.3af/at PoE. Built-in 400W power supply.
ONV-POE36036PFM	L2+ managed PoE fiber switch with 24*10/100/1000M RJ45 ports and 8*100/1000M SFP slot ports and 4*1/10G SFP+ slot ports, Port 1-24 can support IEEE802.3af/at PoE. Built-in 400W power supply.

## CONTACT US

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