

Product Datasheet

16-port Full Gigabit Managed PoE Switch

ONV-POE33168PFM



OVERVIEW

The ONV-POE33168PFM series is a full gigabit managed PoE fiber switch independently developed by ONV. It has 8*10/100/1000Base-T RJ45 ports and 8*100/1000Base-X SFP fiber slot ports. Port 1-8 can support IEEE802.3af/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 a network cable to meet the network environment that needs high-density PoE power supply. It is suitable for hotels, campuses, parks, shopping malls, scenic spots, hospitals, factory dormitory and small and medium-sized enterprise.

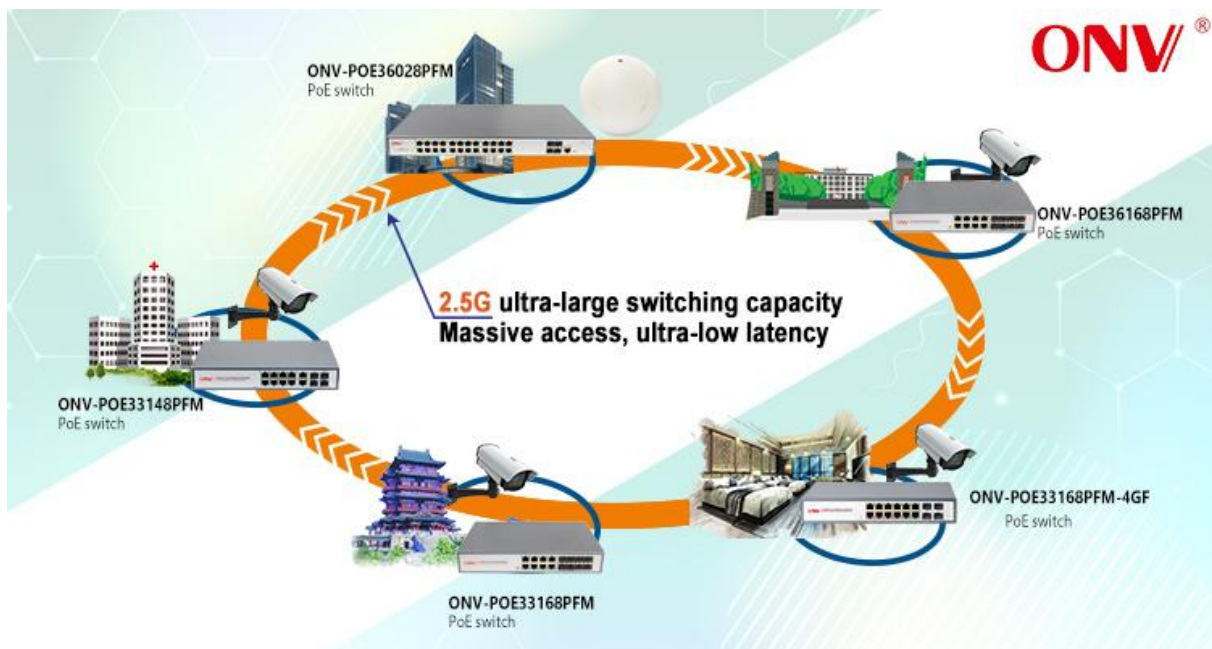
The ONV-POE33168PFM has L2+ full network management function, supports IPV4/IPV6 management, static route full line rate forwarding, complete security protection mechanism, complete ACL/QoS policy and rich VLAN functions, and is easy to manage and maintain.

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 network management mode.

FEATURE

■ Gigabit access, gigabit SFP port uplink

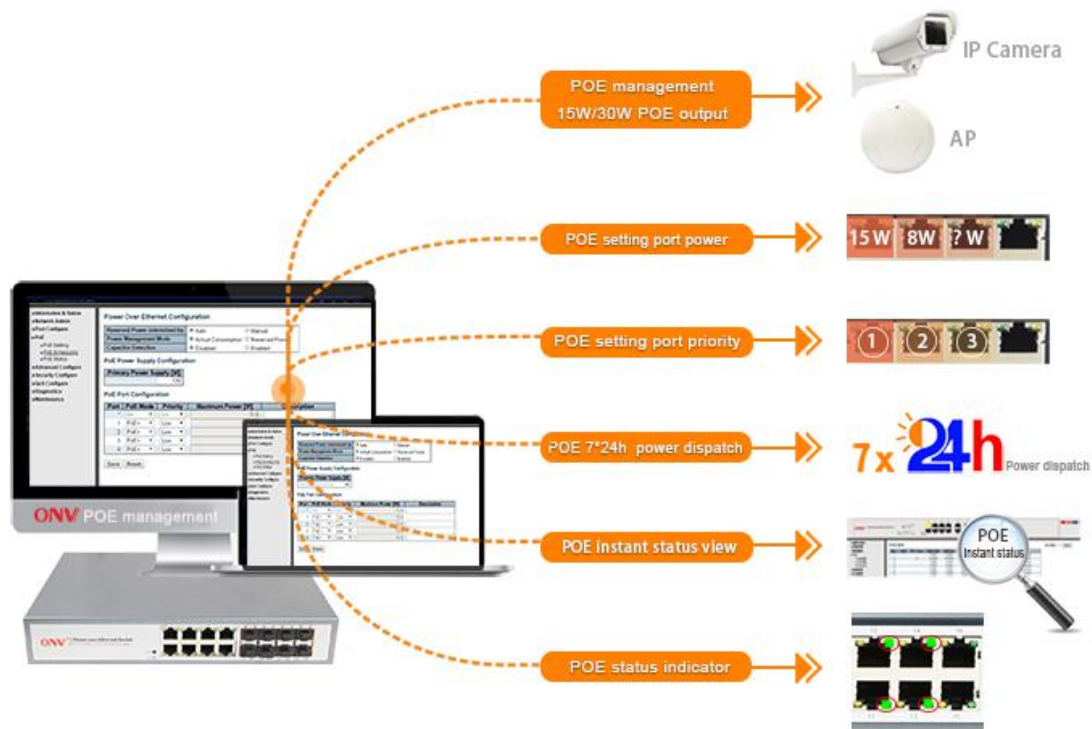
- ◇ All series supports "10/100/1000M RJ45 port + Gigabit SFP port " combination, which enables users to flexibly build networking to meet the needs of various scenarios.
- ◇ Support non-blocking wire-speed forwarding.
- ◇ Support full-duplex based on IEEE802.3x and half-duplex based on backpressure.



■ Intelligent PoE power supply

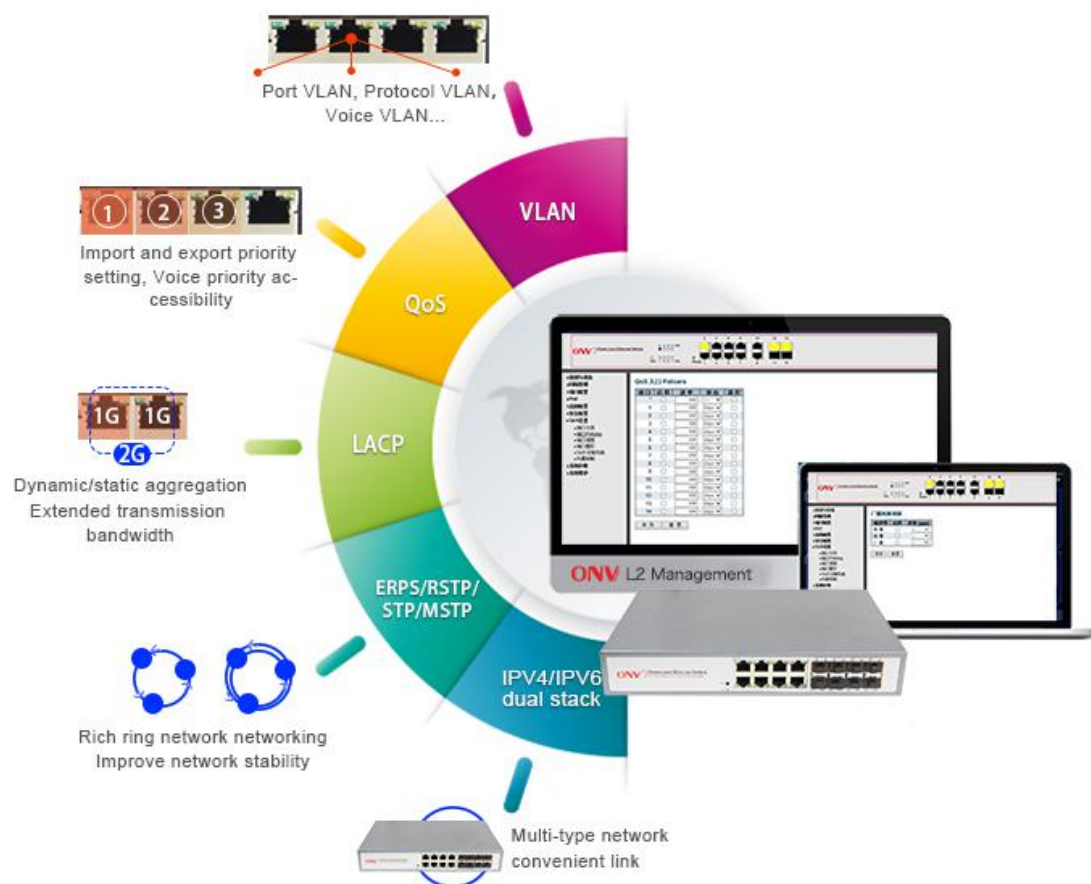
- ◇ 8*10/100/1000Base-T RJ45 ports, meeting the needs of security monitoring, teleconferencing system, wireless coverage, and other scenarios.

- ◇ 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.



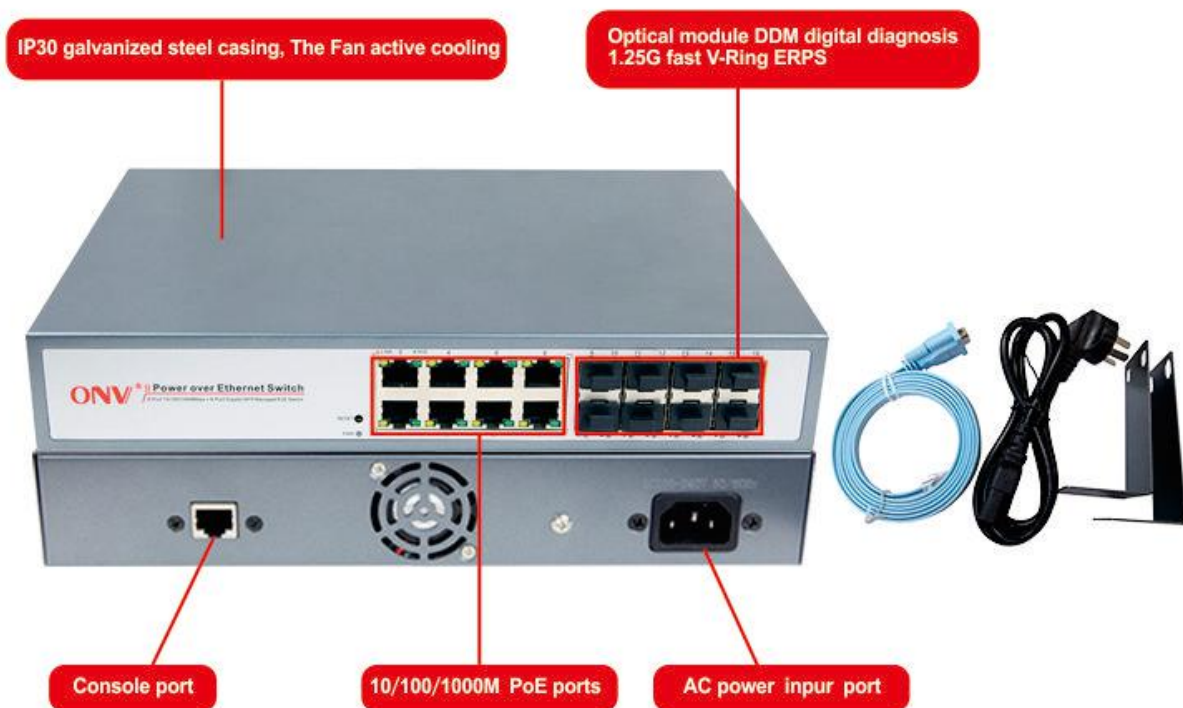
■ Security

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



■ Stable and reliable

- ◇ Low power consumption, galvanized steel casing, The Fan active cooling.
- ◇ 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.



■ 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-POE33168PFM	ONV-POE33168PFM-at
Interface Characteristics		
Fixed Port	8*10/100/1000Base-T PoE ports (Data/Power)	
	8*100/1000Base-X uplink SFP slot ports(Data)	
	1 * RS232 console port(115200,N,8,1)	
Ethernet Port	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 ~ 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 (Non-blocking)	
Forwarding Rate@64byte	23.81Mpps	

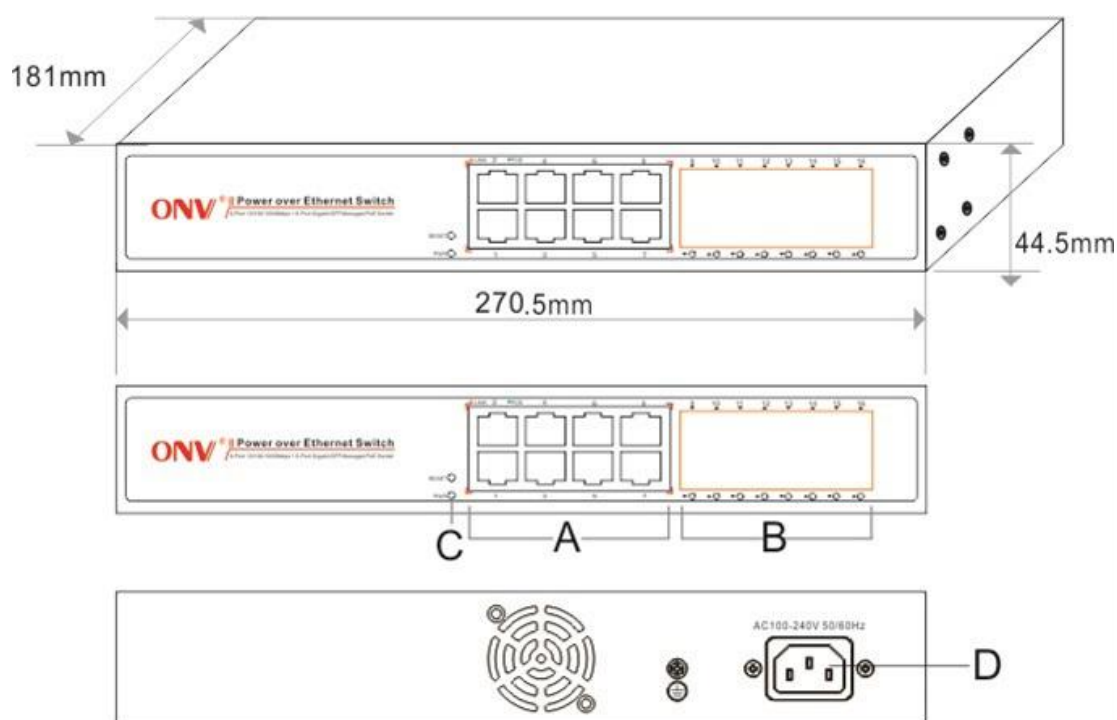
MAC	8K	
Buffer Memory	6M	
Jumbo Frame	9.6K	
LED Indicator	System: SYS (green), network:Link (yellow), POE: PoE (green), Fiber port: L/A(green)	
Reset Switch	Yes, One-button factory reset	
PoE & Power		
PoE Port	Port 1 to 8 IEEE802.3af/at @ POE	
PoE Management	Total power limit of PoE power supply	
	PoE output power allocation, off& af &at	
	PoE output priority configuration	
	PoE working status	
	Delay start of power supply	
	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<15W, Full Load<120W	Standby<16W, Full Load<240W
Power Supply	Built in power supply	Built in power supply
	AC100~240V 50-60Hz 2.3A	AC100~240V 50-60Hz 4.1A
Physical Parameter		
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)	270.5*181*44.5mm	
Net /Gross Weight	<1.7kg / <2.2kg	

Installation	Desktop, 19 inch 1U cabinet
Certification & Warranty	
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	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	L2+ network management ,IPV4/IPV6 management L3 soft routing forwarding, Static route, Default route @ 128 pcs, APR @ 1024 pcs
VLAN	4K VLAN based on port, IEEE802.1q VLAN based on the protocol VLAN based on MAC Voice VLAN, QinQ configuration Port configuration of Access, Trunk, Hybrid
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)
Industrial Ring	G.8032 (ERPS),Recovery time less than 20ms
Network Protocol	250 Ring at most, Max 1024 devices per ring.
Multicast	MLD Snooping v1/v2,Multicast VLAN IGMP Snooping v1/v2, Max 1024 multicast groups, Fast log out

Port Mirroring	Bidirectional data mirroring based on port
QoS	Flow-based Rate Limiting Flow-based Packet Filtering 8*Output queues of each port 802.1p/DSCP priority mapping Diff-Serv QoS, Priority Mark/Remark Queue Scheduling Algorithm (SP, WRR, SP+WRR)
ACL	Port-based Issuing ACL, ACL based on port and VLAN 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	IP-MAC-VLAN-Port binding ARP inspection, Anti-DoS attack AAA & RADIUS, MAC learning limit Mac black holes, IP source protection IEEE802.1X & MAC address authentication Broadcast storm control, Backup for host datum SSH 2.0, SSL, Port isolation, ARP message speed limit User hierarchical management and password protection
DHCP	DHCP Client, DHCP Snooping, DHCP Server, DHCP Relay
Management	One-key recovery Cable Diagnose, LLDP Web Management (HTTPS) NTP, System work log, Ping Test CPU instant utilization status view Console/AUX Modem/Telnet/SSH2.0 CLI Download & Management on FTP, TFTP, Xmodem, SFTP, SNMP V1/V2C/V3 ONV NMS - smart network management system platform (LLDP+SNMP)

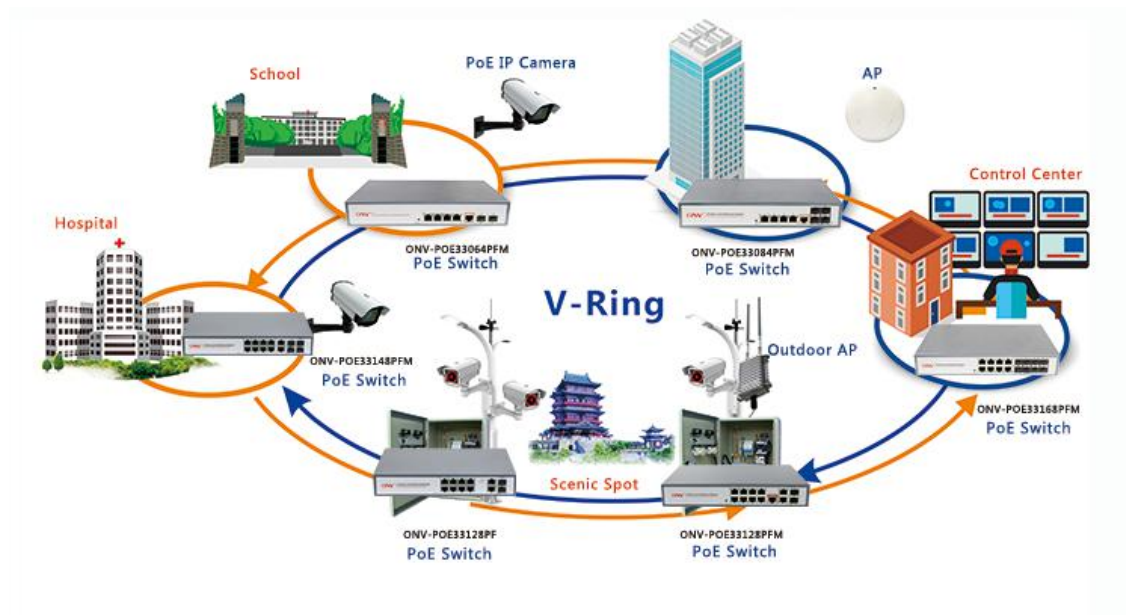
System	Category 5 Ethernet network cable Web browser: Mozilla Firefox 2.5 or higher, Google browser chrome V42 or higher, Microsoft Internet Explorer10 or later; TCP/IP, network adapter, and network operating system (such as Microsoft Windows, Linux, or Mac OS X) installed on each computer in a network
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DIMENSION



- A. 8* PoE Port B. 8* Gigabit SFP Port
 C. Working indicator D. 100-240VAC, 50/60Hz

APPLICATION



ORDERING INFORMATION

Model	Description
ONV-POE33168PFM	L2+ managed PoE fiber switch with 8* 10/100/1000M RJ45 ports and 8*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-POE33168PFM-at	L2+ managed PoE fiber switch with 8* 10/100/1000M RJ45 ports and 8*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

Packing List	CONTENT	QTY	UNIT
	16-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 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	PC

		hot plug and pull.	
	ONV-2612-T-S C	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-S C	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

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