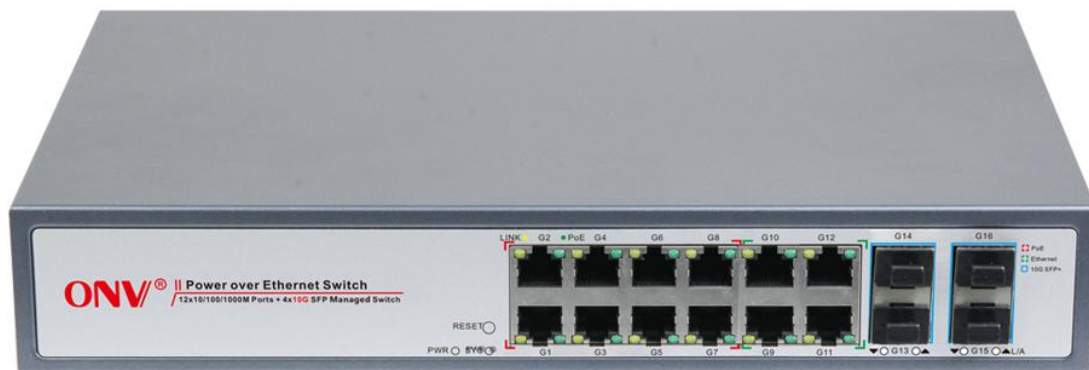**Product Datasheet**

16-port 10G Uplink L3 Managed PoE Switch

ONV-POE38168PFM

OVERVIEW

The ONV-POE38168PFM series is a 10G uplink L3 managed PoE fiber switch independently developed by ONV. It has 12*10/100/1000Base-T RJ45 ports and 4*1/10G 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-POE38168PFM has L3 full network 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 network management mode.

FEATURE

■ **Gigabit access, 10G uplink SFP+ port**

◇ All series support "10/100/1000M RJ45 port + 10G 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.
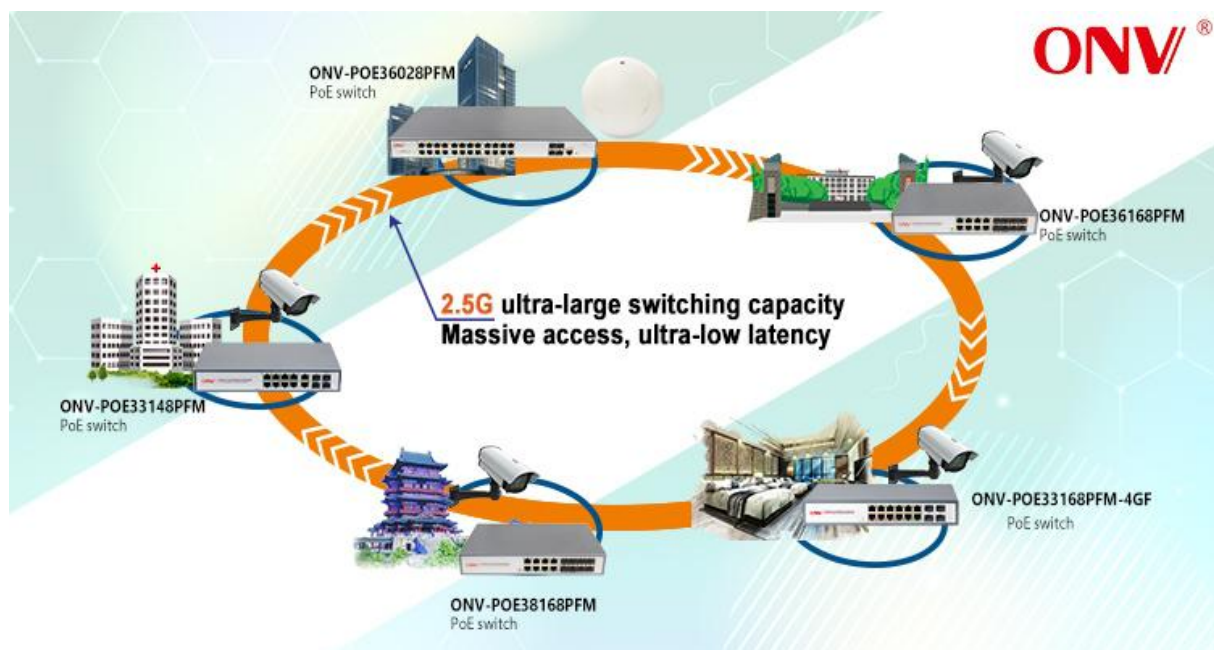
■ **Intelligent PoE power supply**

◇ 8*10/100/1000Base-T RJ45 ports can support POE power supply to meet the needs of security monitoring, teleconferencing system, wireless coverage, and other scenarios.

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◇ 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.
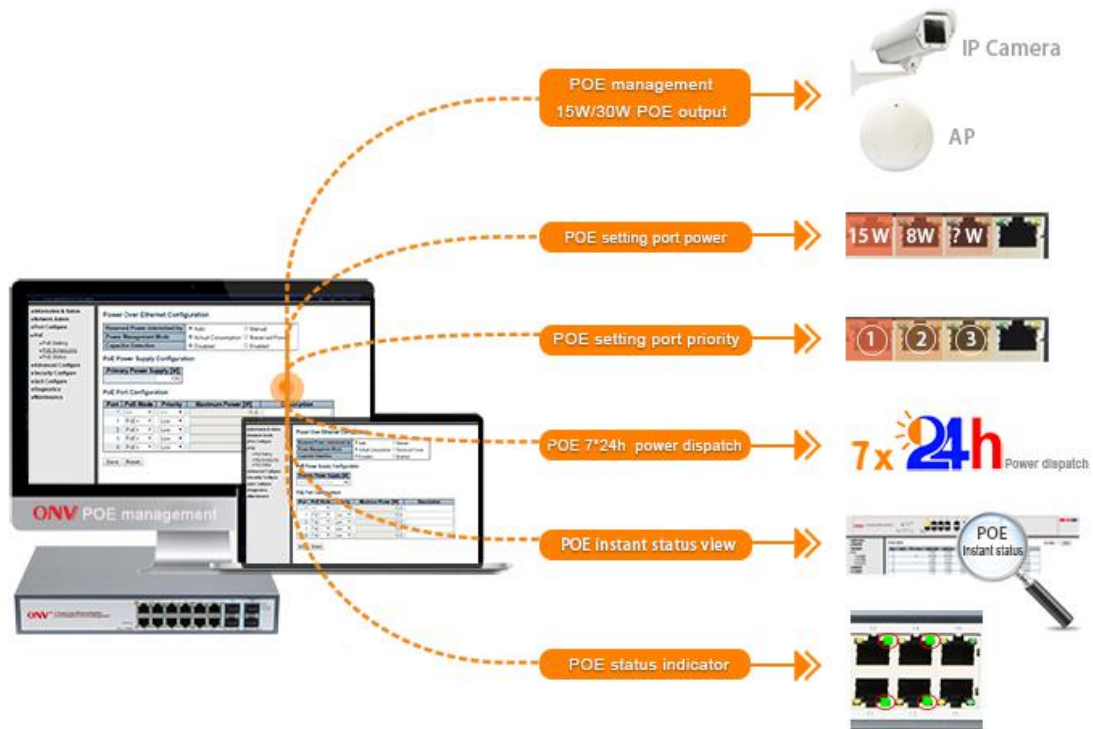

■ **Security**

◇ 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.
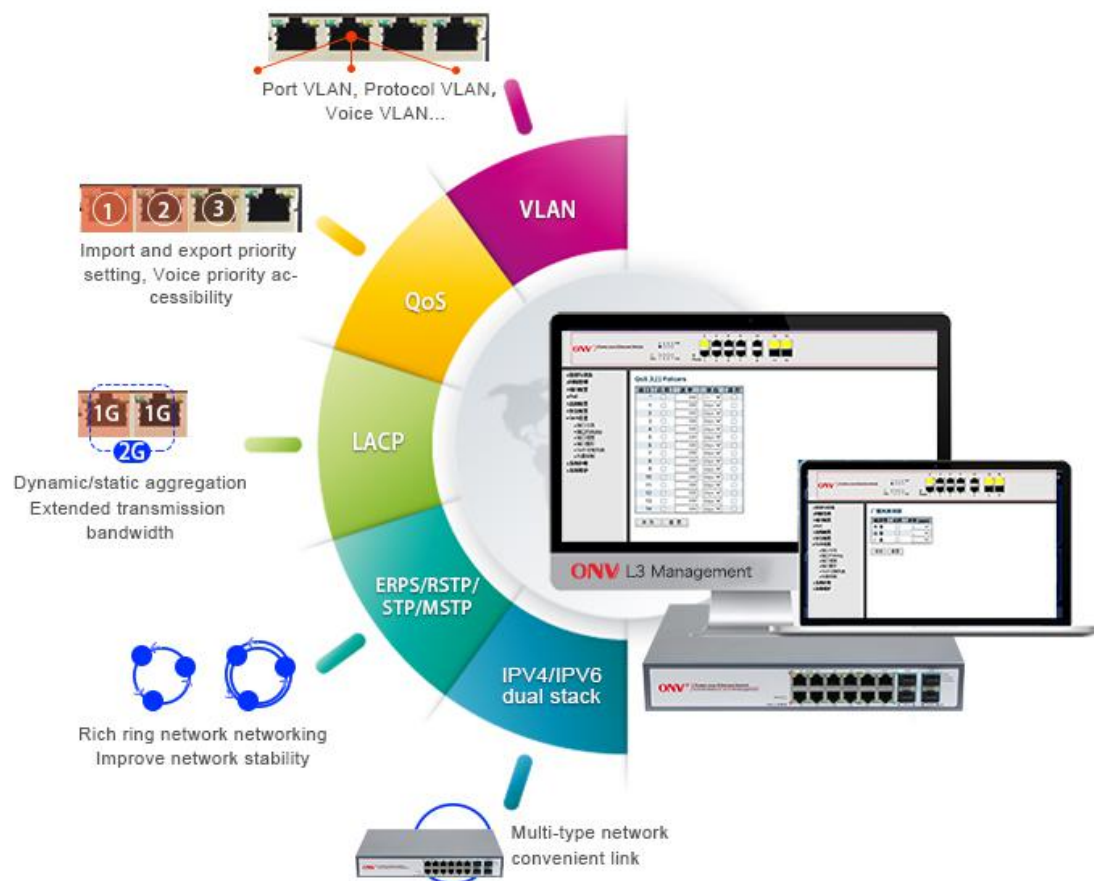
■ **Stable and reliable**

◇ Low power consumption, No fan , galvanized steel casing.

◇ Self-developed power supply, high redundancy design, providing a long term and stable PoE power output.

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◇ CCC,CE, FCC, RoHS.

◇ The user-friendly panel, it can show the device status through the LED indicator of PWR,Link,PoE.
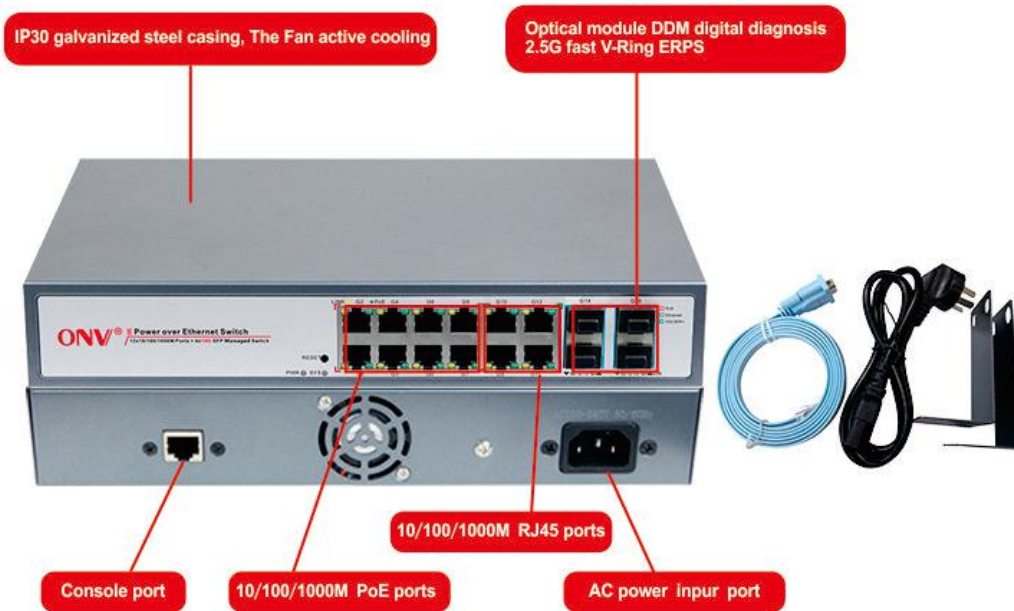
■ **Easy operation and maintenance management**

◇ 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

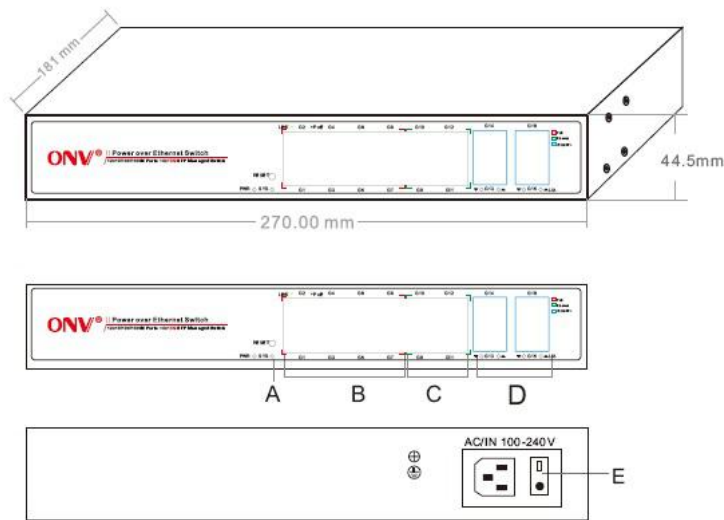| Model	ONV-POE38168PFM	ONV-POE38168PFM-at
Interface Characteristics		
Fixed Port	8*10/100/1000Base-T POE ports (Data /Power) 4*10/100/1000Base-T RJ45 ports (Data) 4*1/10G uplink SFP+ ports (Data) 1*Console RS232 port (115200,N,8,1)	
Ethernet Port	Port 1-8 can support 10/100/1000BaseT auto-sensing, full/half 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 SFP optical fiber port and 10G SFP+ optical fiber port, 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	L3
Network Protocol	IEEE802.3 10BASE-T, IEEE802.3i 10Base-T IEEE802.3u 100Base-TX, IEEE802.3ab 1000Base-T IEEE802.3z 1000Base-X, IEEE802.3ae 10GBase-LR/SR IEEE802.3x
Forwarding Mode	Store and Forward(Full Wire Speed)
Switching Capacity	598Gbps (Non-blocking)
Forwarding Rate@64byte	77.38Mpps
MAC	32K
Buffer Memory	32M
Jumbo Frame	9.6K
LED Indicator	Power: PWR (green), system: SYS (green), network: Link (yellow); fiber port: L/A (green), POE: PoE (green)
Reset Switch	Yes, support one key to restore factory settings
PoE & Power	
PoE Port	Port 1 to 8

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	130W/(AC100-240V)	250W/(AC100-240V)
Power Consumption	Standby<16W, Full Load<120W	Standby<20W, Full Load<240W
Power Supply	Built-in power supply, AC100~240V 50-60Hz 2.3A	Built-in power supply, AC100~240V 50-60Hz 4.1A

Physical Parameter

Operation TEMP / Humidity	-20~+55°C;5%~90% RH Non condensing
Storage TEMP / Humidity	-40~+80°C;5%~95% RH Non condensing
Dimension (L*W*H)	270*181*44.5mm
Net /Gross Weight	<2.8kg / <3.5kg
Installation	Desktop type ,19 inch 1U cabinet installation

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

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| 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	L3 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 Network Protocol	G.8032 (ERPS),Recovery time less than 20ms
	250 Ring at most, Max 254 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

DIMENSION

A. Working indicator
B. 8*10/100/1000M PoE ports
C. 4*10/100/1000M RJ45 ports
D. 4*1/10G SFP+ ports
E. Power input port AC100-240V, 50-60Hz

APPLICATION

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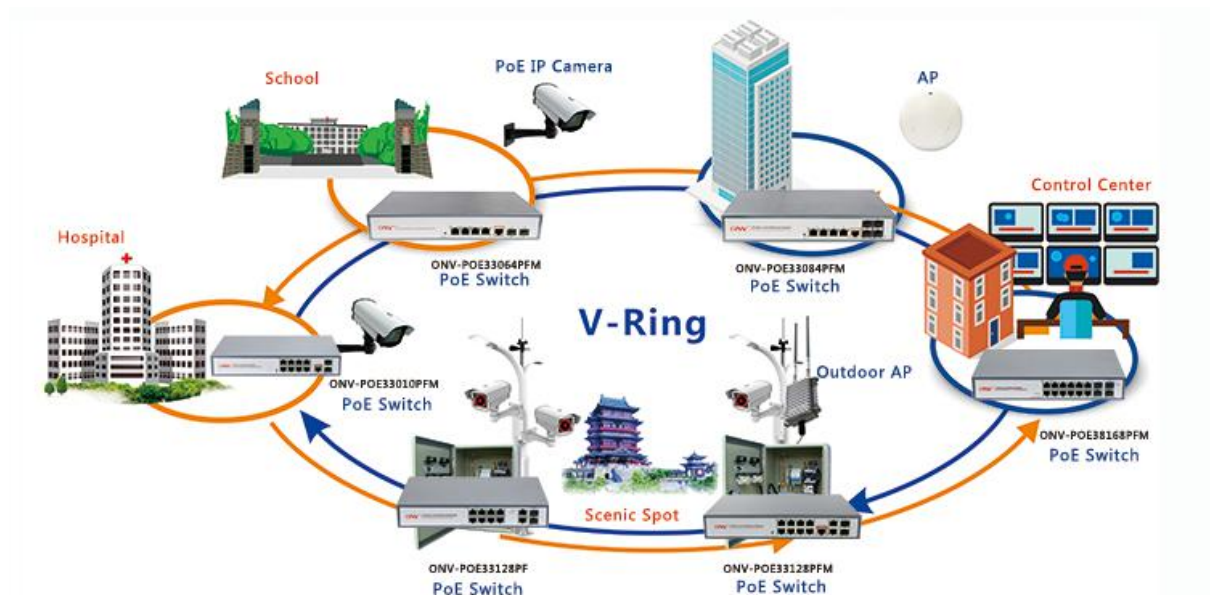
ORDERING INFORMATION

Model	Description
ONV-POE38168PFM	L3 managed PoE fiber switch with 12* 10/100/1000M RJ45 ports and 4*1/10G 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-POE38168PFM-at	L3 managed PoE fiber switch with 12* 10/100/1000M RJ45 ports and 4*1/10G 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	16-port 10G uplink L3 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

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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 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
10G	ONV-6630	SFP+ optical module,10G Multi-mode dual fiber	PC

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Optical module		850nm, transmission distance: 300m, LC interface, support DDM function,support hot plug and pull.	
	ONV-7832	SFP+ optical module,10G Single-mode dual fiber 1310nm, transmission distance: 20km, LC interface, support DDM function, support hot plug and pull.	PC
	ONV-7832-33	SFP+ optical module,10G Single-mode single fiber TX1330nm/RX1270nm , transmission distance: 20km, LC interface, support DDM function, support hot plug and pull.	PC
	ONV-7832-27	SFP+ optical module,10G Single-mode single fiber TX1270nm/RX13300nm , transmission distance: 20km, LC interface, support DDM function, support hot plug and pull.	PC

CONTACT US

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