

Product Datasheet

18-port Gigabit Uplink Managed PoE Switch

(ONV-POE31016PFM)



OVERVIEW

The ONV-POE31016PFM is Gigabit uplink L2 managed PoE fiber switch independently developed by ONV. It has 16*10/100M RJ45 ports and 2*10/100/1000M uplink RJ45 ports and 2*100/1000M uplink SFP fiber combo ports. Port 1-16 can support IEEE 802.3 af/at PoE standard and single-port PoE power up to 30W. Each port supports wire-speed forwarding.

The ONV-POE31016PFM adopts a new generation of high-performance hardware and software platforms to provide flexible and cost-effective 100M 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. PoE power supply devices can automatically detect and identify the power-receiving equipment that meets the standard and supplies power through the network cable. It can supply power to PoE terminal equipment such as wireless AP, IP camera, VoIP, and visual intelligent building intercom through the network cable, and meet the network environment that needs a high-density PoE power supply. It is suitable for hotels, campuses, parks, attractions, supermarkets, factory quarters, and small and medium-sized enterprises to form a cost-effective network.

FEATURE

■ 100M access, uplink Gigabit TP/SFP combo port

- ◇ Support non-blocking wire-speed forwarding.
- ◇ Support full-duplex based on IEEE 802.3x and half-duplex based on Backpressure.
- ◇ Support 10/100M Ethernet port and Gigabit TP/SFP combo port combination, which enables users to flexibly build networking to meet the needs of various scenarios.

■ Smart PoE power supply

- ◇ Comply with IEEE 802.3 af/at PoE standard, automatically identify PoE devices for power supply, and not damage non-PoE devices.
- ◇ PoE port support priority. When the remaining power is insufficient, priority is given to ensuring the power supply of high-priority ports to avoid equipment overload.
- ◇ PoE remote network management. through the network management function, you can check the PoE port power, define the port power, and realize 7*24h automatic port scheduling, etc.
- ◇ 16*10/100Base-TX RJ45 ports support PoE power supply to meet the PoE power supply needs of security monitoring, conference call systems, wireless coverage, and other scenarios.

■ Strong business processing capability

- ◇ Support STP/RSTP/MSTP, eliminate layer 2 loops, and realize link backup.
- ◇ IEEE 802.1Q VLAN, users can divide VLAN according to needs, and support QinQ configuration.
- ◇ Static aggregation and dynamic aggregation, increase link bandwidth, realize load balancing, link backup, and improve link reliability.
- ◇ Support QoS, port-based, 802.1P-based, and DSCP-based three priority modes and four queue scheduling algorithms: Equ, SP, WRR, SP+WRR.
- ◇ Support ACL to filter data packets by configuring matching rules, processing operations, and time permissions, and provide flexible security access control strategies.
- ◇ Support IGMP v1/v2/v3 multicast protocol and IGMP Snooping meets the needs of

multi-terminal high-definition video surveillance and video conferencing access.

■ Security

- ◇ Port isolation and storm control.
- ◇ IP+MAC+port+VLAN quadruple flexible combination binding function.
- ◇ 802.1X authentication provides authentication functions for LAN computers and controls the authorization status of controlled ports according to the authentication results.

■ Stable and reliable

- ◇ CCC, CE, FCC, RoHS.
- ◇ The user-friendly panel can show the device status through the LED indicator of PWR, PoE, Link.
- ◇ Using self-developed power supply with high redundancy design provides long-term and stable PoE power output.
- ◇ Low power consumption, with fan, galvanized steel metal casing, and excellent heat dissipation to ensure the stable operation of the switch.

■ Easy O&M management

- ◇ CPU monitoring and memory monitoring.
- ◇ HTTPS, SSLV3, SSH V1/V2 and other encryption methods make management more secure.
- ◇ RMON, system logs, and port traffic statistics facilitate network optimization and transformation.
- ◇ LLDP facilitates the network management system to query and determine the communication status of the link.
- ◇ Web network management, SNMP (V1/V2/V3) and other diversified management and maintenance methods.

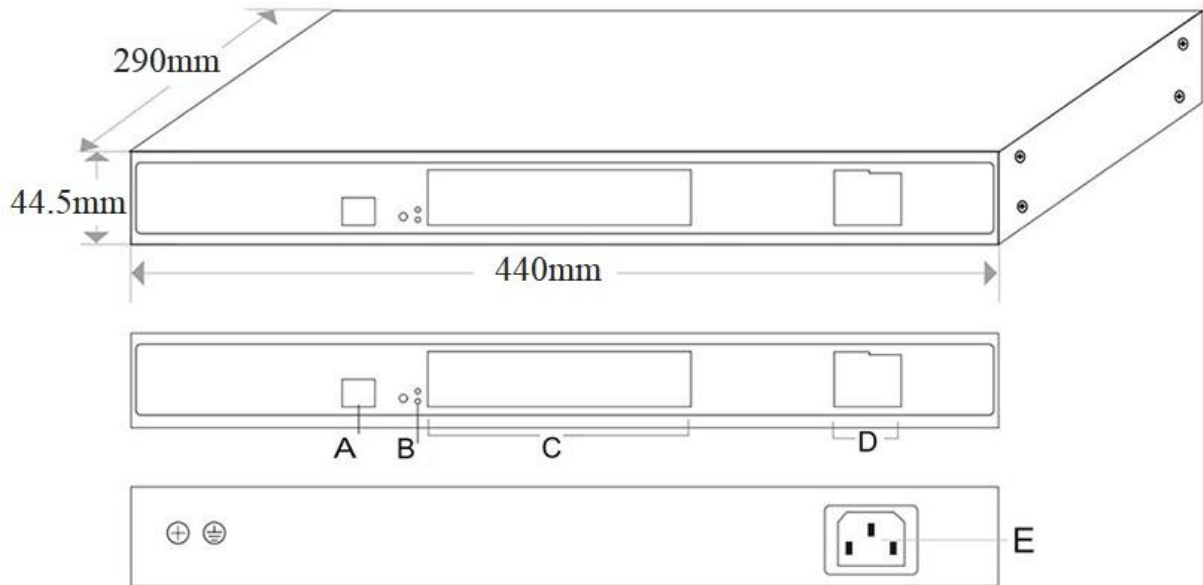
TECHNICAL SPECIFICATION

Model	ONV-POE31016PFM	ONV-POE31016PFM-at
Interface Characteristics		
Fixed Port	16*10/100Base-TX PoE ports (Data/Power) 2*10/100/1000M uplink RJ45 ports (Data) 2*100/1000M uplink SFP fiber combo ports (Data)	
Ethernet Port	Port 1-16 can support 10/100Base-T(X) and port 17-18 can 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 meters) 100BASE-TX: Cat5 or later UTP (≤100 meters) 1000BASE-T: Cat5e or later UTP (≤100 meters)	
Optical Fiber Port	Gigabit optical fiber interface, default no include optical module (optional single-mode/ multi-mode, single fiber/ dual fiber optical module. LC)	
Optical Cable/ Distance	Multi-mode: 850nm /0-550m, Single-mode: 1310nm /0-40km, 1550nm /0-120km.	
Chip Parameter		
Network Protocol	IEEE 802.3 10BASE-T, IEEE 802.3i 10Base-T, IEEE 802.3u 100Base-TX, IEEE 802.3u 100Base-FX, IEEE 802.3ab 1000Base-T, IEEE 802.3z 1000Base-X, IEEE 802.3x	
Forwarding Mode	Store and Forward (Full Wire Speed)	
Switching Capacity	14.8Gbps (non-blocking)	
Forwarding Rate@64byte	5.36Mpps	
CPU(Hz)	500M	
DRAM	1G	
FLASH	256M	
MAC	8K	
Buffer Memory	4.1M	

Jumbo Frame	10K	
LED Indicator	Power: PWR(Green), Data: Link(Yellow), PoE: PoE (Green), Speed: SPD (Green)	
PoE & Power Supply		
PoE Port	Port 1-16	
PoE Management	PoE work and time scheduling, Power delay start Port PoE output power allocation, Port PoE working status display	
Power Supply Pin	1/2(+) 3/6(-)	
Max Power Per Port	30W, IEEE 802.3 af/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°C~+55°C, 5%~90% RH Non condensing	
Storage TEMP / Humidity	-40°C~+75°C, 5%~95% RH Non condensing	
Dimension (L*W*H)	440*290*44.5mm	
Net /Gross Weight	3.5kg /4.3kg	3.8kg /4.6kg
Installation	Desktop, wall mount, 19 inch 1U cabinet	
Certification & Warranty		
Lightning Protection	Port lightning protection: 4KV 8/20us, Protection level: IP30	
Certification	CCC, CE mark, commercial, CE/LVD EN62368-1, FCC Part 15 Class B, RoHS	
Warranty	3 years, lifetime maintenance.	
Network Management Feature		
Interface	IEEE 802.3x flow control (Full duplex) Broadcast storm control based on port speed	

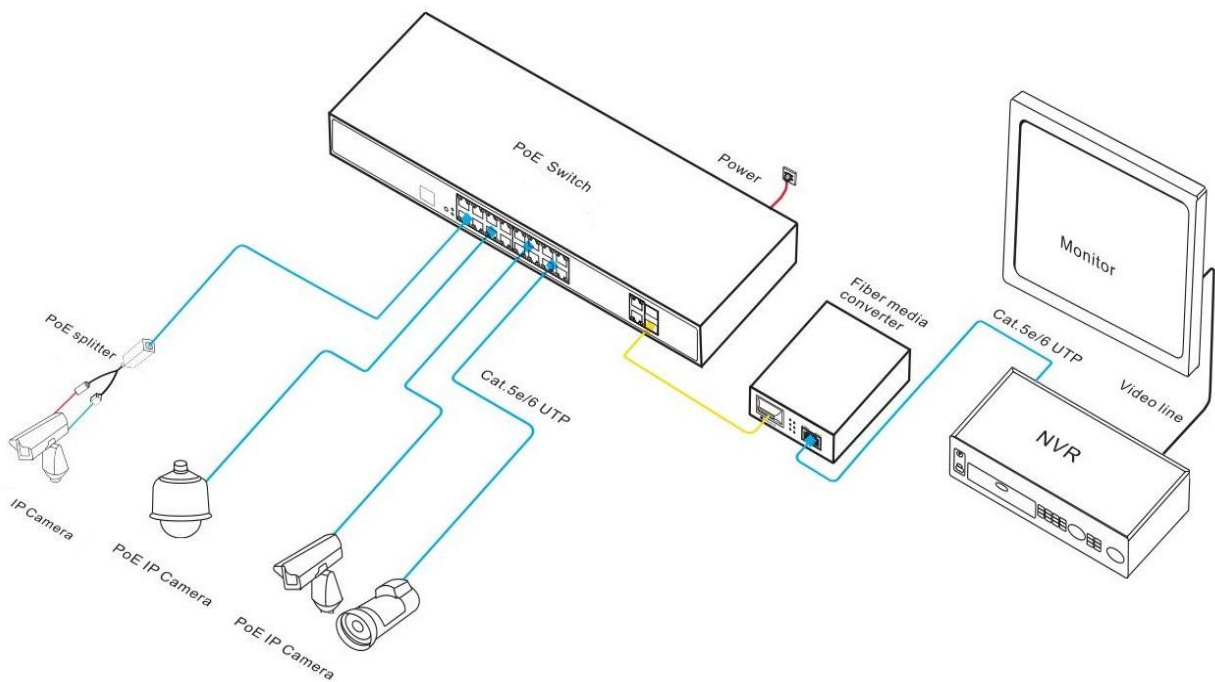
	Limit the speed of the message traffic at the inbound and outbound ports mini granularity is 64Kbps
VLAN	4K VLAN based on port, IEEE802.1q QinQ configuration, VLAN based on protocol
Port Aggregation	Support LACP, manual aggregation Max 9 aggregation groups and 8 ports per group
Spanning Tree	STP (IEEE802.1d), RSTP (IEEE802.1w), MSTP (IEEE802.1s)
Multicast	MLD Snooping, Multicast VLAN IGMP Snooping v1/v2/v3, Max 64 multicast groups, Fast log out
Mirroring	Bidirectional traffic mirroring basic ports
QoS	Diff-Serv QoS, Priority mark/ remark Queue scheduling algorithm (SP, WRR, SP+WRR) 8*Output queues of each port, 802.1p/ DSCP priority mapping
ACL	L2-L4 packet filtering function, matching the first 80 bytes of the packet, based on source MAC address, destination MAC address, source IP address, destination IP address, IP protocol type, TCP/UDP port, TCP/UDP port range, VLAN Wait to define the ACL.
Security	Port isolation, port broadcast storm suppression Port+MAC binding, IP+MAC+port binding function
DHCP	DHCP Client, DHCP Snooping, DHCP Relay
Management	NTP, One-key recovery, SNMP V1/V2/V3 System work log, Web Network Management (Https)

DIMENSION



- A. Console port
- B. Working indicator
- C. 16*10/100M PoE ports
- D. 2*10/100/1000M RJ45/SFP fiber combo ports
- E. Power input port AC100- 240V, 50/60Hz

APPLICATION



ORDERING INFORMATION

Model	Description	Built-in Power Supply
ONV-POE31016PFM	L2 managed PoE fiber switch with 16*10/100M RJ45 ports and 2*10/100/1000M RJ45 ports and 2*100/1000M uplink SFP fiber combo ports. Port 1-16 can support IEEE 802.3 af/at PoE standard. It built-in power supply and 1U/19" cabinet installation.	250W
ONV-POE31016PFM-at		400W

Note: The optical module is not included and needs to be purchased.

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

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

	2612-T	SFP optical module, 1.25G single-mode single fiber TX1310nm/ RX1550nm, transmission distance: 20km, LC interface. support DDM function and hot plugging.	PC
	2613-R	SFP optical module, 1.25G single-mode single fiber TX1550nm/ RX1310nm, transmission distance: 20km, LC interface. support DDM function and hot plugging.	PC
	2612-T-SC	SFP optical module, 1.25G single-mode single fiber TX1310nm/ RX1550nm, transmission distance: 20km, SC interface. support DDM function and hot plugging.	PC
	2613-R-SC	SFP optical module, 1.25G single-mode single fiber TX1550nm/ RX1310nm, transmission distance: 20km, SC interface. support DDM function and hot plugging.	PC
Power Module	2633	1.25G SFP optical module transfers to 10/100/1000M RJ45 port.	PC

CONTACT US

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