

Product Datasheet

10-port Gigabit Managed PoE Switch

(ONV-POE33010PFM)



OVERVIEW

The ONV-POE33010PFM is a Gigabit managed PoE fiber switch independently developed by ONV. It has 8*10/100/1000Base-T adaptive RJ45 ports and 2*100/1000Base-X uplink SFP fiber ports. Ports 1-8 support the IEEE 802.3 af/at PoE standard and single-port PoE power up to 30W. As a PoE power supply device, it can automatically detect and identify powered devices that meet standards and power them through network cables. It can power PoE terminal equipment such as wireless APs, IP cameras, IP telephones, and building visual access control intercoms through network cables to meet network environments that require high-density PoE power supply. It is suitable for hotels, campuses, parks, supermarkets, scenic spots, factory dormitories, and small and medium-sized enterprises to establish cost-effective networks.

The ONV-POE33010PFM has L2+ network management functions. It can support IPV4 management and static routing forwarding, complete security protection mechanisms, complete ACL/ QoS policies, and rich VLAN functions, making it easy to manage and maintain. Supports multiple network redundancy protocols, such as RSTP (<50ms), to improve link backup and network reliability. When a one-way network fails, communication can be quickly restored to ensure uninterrupted communication of important transmissions. According to application needs, PoE power supply management, port flow control, VLAN division, QoS, and other application

service configurations can be performed through network management methods such as Web, CLI, SNMP, and Telnet.

FEATURE

■ Gigabit access, uplink SFP fiber port

- ◇ Support non-blocking wire-speed forwarding.
- ◇ Support full-duplex based on IEEE802.3x and half-duplex based on Backpressure.
- ◇ Support Gigabit RJ45 port and SFP port combination, which enables users to flexibly build networking to meet the needs of various scenarios.

■ Smart PoE power supply

- ◇ Comply with IEEE802.3 af/at PoE power supply standard, automatically identify PoE equipment for power supply.
- ◇ Support PoE network management function, allowing users to configure PoE on/off and view port power status through the network management system.
- ◇ 8*10/100/1000Base-T RJ45 ports support PoE power to meet the power supply needs of security monitoring, conference call systems, wireless coverage, and other scenarios.

■ Strong business processing capability

- ◇ Support the RSTP for ring networks, eliminating Layer 2 loops and providing link redundancy.
- ◇ Support IEEE 802.1Q VLANs, allowing users to flexibly partition VLANs according to their requirements.
- ◇ Support QoS, with three priority modes-port-based, 802.1P-based, and DSCP-based-and four queue scheduling algorithms: SP, WRR, and WFQ.
- ◇ Support both static and dynamic aggregation, effectively increasing link bandwidth, achieving load balancing and link redundancy, and enhancing link reliability.
- ◇ Support ACL, enabling packet filtering through the configuration of matching rules and processing actions, and providing flexible security access control policies.
- ◇ Support IGMP V1/V2 multicast protocols and IGMP Snooping, meeting the access requirements for high-definition video surveillance and video conferencing across multiple

terminals.

■ Security

- ◇ Support port isolation and port broadcast storm suppression.
- ◇ Support 802.1X authentication to provide authentication functions for LAN computers, and control the authorization status of controlled ports according to the authentication results.

■ Stable and reliable

- ◇ CE, FCC, RoHS.
- ◇ The user-friendly panel can show the device status through the LED indicators of PWR, PoE, and 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 housing, and excellent heat dissipation to ensure the stable operation of the switch.

■ Easy O&M management

- ◇ Support CPU monitoring, memory monitoring, and Ping detection.
- ◇ Port traffic statistics to facilitate network optimisation and upgrades.
- ◇ Support LLDP, enabling network management systems to query and assess link status.
- ◇ Support a variety of management and maintenance methods, including web-based management, CLI (Console, Telnet), SNMP (V1/V2/V3), and Telnet.

TECHNICAL SPECIFICATION

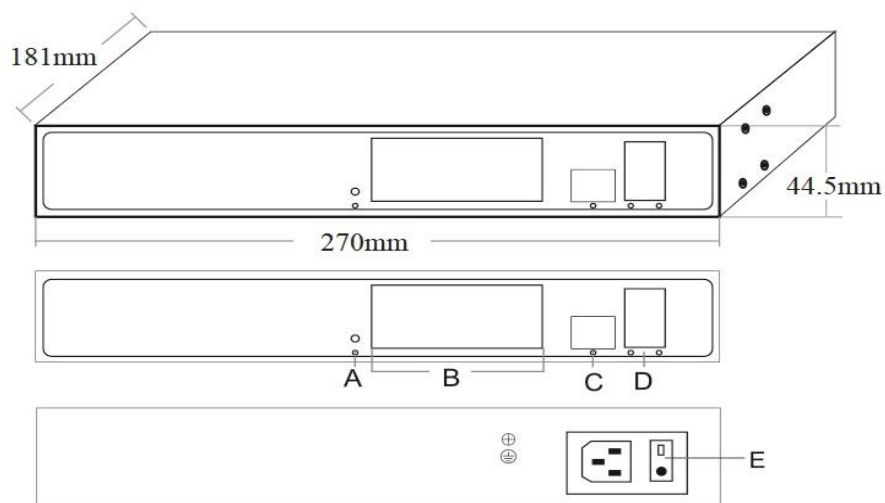
Model	ONV-POE33010PFM	ONV-POE33010PFM-at
Interface Characteristics		
Fixed Port	1*RS232 Console port (115200, N, 8,1) 8*10/100/1000Base-T PoE ports (Data/ Power) 2*100/1000Base-X uplink SFP fiber ports (Data)	

Ethernet Port	Ports 1-8 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	Default does not 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 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	36Gbps (non-blocking)
Forwarding Rate@64byte	14.88Mpps
CPU(Hz)	500M
DRAM	1G
Flash	128M
MAC	8K
Buffer Memory	4.1M
LED Indicator	Power: PWR (Yellow), System: SYS (Green), Network: Link (Yellow), PoE: PoE (Green), Fiber port: L/A(Green)
Reset Switch	Yes, One-button factory reset
PoE& Power Supply	
PoE Port	Port 1- 8
PoE Management	PoE working status display, Port PoE out on/off

Power Supply Pin	1/2(+) 3/6(-)	
Max Power Per Port	30W, IEEE 802.3 af/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 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℃, 5%~90% RH non-condensing	
Storage TEMP/ Humidity	-40℃~+80℃, 5%~95% RH non-condensing	
Dimension	270*181*44.5mm	
Net /Gross Weight	1.3kg/ 1.9kg	1.5kg/ 2.1kg
Installation	Desktop, wall mount, 1U/19” cabinet	
Certification& Warranty		
Lightning Protection	Lightning protection: 6KV 8/20us, Protection level: IP30	
Certification	CE mark, commercial, CE/LVD EN62368-1, FCC Part 15, RoHS	
Warranty	3 years, lifelong maintenance	
Network Management Feature		
Interface	IEEE802.3x flow control (Full duplex)	
	Port real-time traffic management (Flow Interval)	
	Broadcast storm suppression based on port rate	
	Limit the speed of the message traffic at the inbound and outbound ports, mini granularity is 16Kbps and max 1Gbps	
L3 Feature	IPV4 static routing/ default routing, L2+ network management	
VLAN	4K VLAN based on port, IEEE802.1q, Port configuration of Access, Trunk, Hybrid	
Port Aggregation	LACP dynamic aggregation, Static aggregation	
	Max 5 aggregation groups and 8 ports per group	
Spanning Tree	RSTP (IEEE802.1w)	
Ring Network Protocol	Support ERPS fast ring network function, recovery time less than	

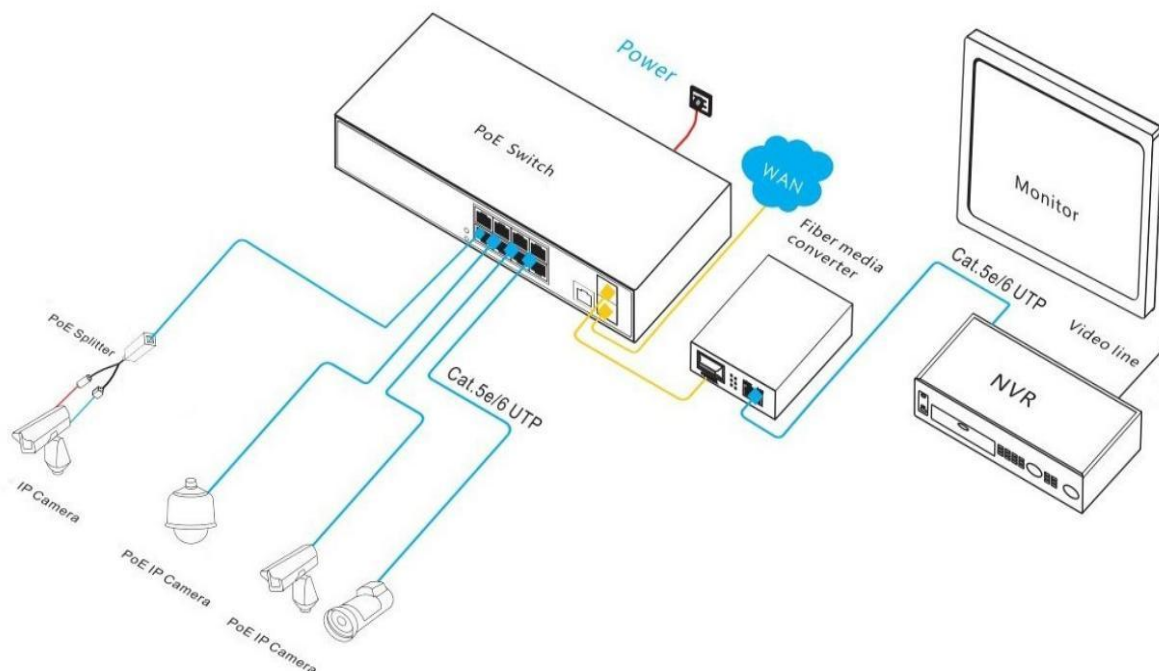
	20ms
Multicast	Multicast VLAN, IGMP Snooping v1/v2, Fast log out
Port Mirroring	Bidirectional data mirroring based on port
QoS	8*output queues of each port, 802.1p/DSCP priority mapping Diff-Serv QoS, Queue scheduling mechanism (SP, WRR, SP+WRR)
ACL	Support for port-based ACL deployment Support L2 to L4 packet filtering, enabling the definition of ACLs 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, and other criteria.
Security	User-level access control and password protection Port- and MAC-based IEEE 802.1X authentication Port broadcast suppression, Host data backup mechanism Port isolation, Limit on the number of MAC addresses that can be learned AAA & RADIUS authentication (supports authentication only; does not support authorisation or billing)
DHCP	DHCP Client, DHCP Snooping
Management	SNMP V1/V2C/V3, Web network management NTP clock, CPU real-time utilization status check Console/ Telnet/ CLI command line configuration ONV-NMS platform cluster management (LLDP+SNMP) System work log, Cable status check, Ping Test (CLI) One-click restore, Link Layer Discovery Protocol (LLDP)
System	Web browser: Mozilla Firefox 2.5 or higher, Google Chrome V42 or higher, Cat5 and above Ethernet cable TCP/IP, network adapter, and network operating system (such as Microsoft Windows, Linux, Mac OS X) installed on each computer in the network Cat5 and above Ethernet cable

DIMENSION



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

APPLICATION



ORDERING INFORMATION

Model	Description	Built-in
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		Power Supply
ONV-POE33010PFM	L2+ managed PoE switch with 8*10/100/1000M RJ45 ports and 2*100/1000M uplink SFP fiber ports. Ports	130W
ONV-POE33010PFM-at	1-8 can support the IEEE 802.3af/at PoE standard. It built-in power supply and 1U/19" cabinet installation.	250W
Note: The optical module is not included and needs to be purchased.		

PACKING LIST

	Content	Qty	Unit
Packing List	10-port Gigabit managed PoE switch	1	PC
	RJ45-DB9 Adapter Cable	1	PC
	AC Power Cable	1	PC
	Mounting Kit (Hanging Ear)	1	PC
	User Guide	1	PC
	Warranty Card and Certificate of Conformity	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. Supports DDM function and hot plugging.	PC
	2632	SFP optical module, 1.25G single-mode dual fiber 1310nm, transmission distance: 20km, LC interface. Supports DDM function and hot plugging.	PC
	2612-T	SFP optical module, 1.25G single-mode single fiber TX1310nm/RX1550nm, transmission distance: 20km, LC interface. Supports DDM function and hot plugging.	PC

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

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