Product Datasheet

16-port Full Gigabit Managed PoE Switch

(ONV-POE33168PFM)

OVERVIEW

The ONV-POE33168PFM is a full gigabit L2+ managed PoE fiber switch independently developed by ONV. It has 8*10/100/1000Base-T adaptive RJ45 ports and 8*100/1000Base-X SFP fiber ports. Port 1-8 can support IEEE 802.3 af/at PoE standard. Single-port PoE power up to 30W, and the max PoE output power is 130W (at-250W). A PoE power supply device can automatically detect and recognize 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 phone, building visual access control intercom, etc. through a network cable to meet the network environment that needs a high-density PoE power supply. It is suitable for hotels, campuses, parks, shopping malls, scenic spots, hospitals, factory dormitories, and small and medium-sized enterprises.

The ONV-POE33168PFM has L2+ full network management function. support IPV4/ IPV6 management, static route full line rate forwarding, security protection mechanism, complete ACL/QoS policy, and rich VLAN function, 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 a 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

◇ Support non-blocking wire-speed forwarding.

◇ Support full-duplex based on IEEE802.3x and half-duplex based on Backpressure.

◇ Support 10/100/1000M RJ45 port and Gigabit SFP port combination, which enables users to flexibly build networking to meet the needs of various scenarios.

■ Intelligent PoE power supply

◇ 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.

◇ 8*10/100/1000Base-T RJ45 ports support PoE power supply to meet the PoE power supply needs of security monitoring, conference call systems, wireless coverage, and other scenarios.

◇ The POE network management function can be configured through the network management to realize PoE port power allocation, priority setting, port power status viewing, time scheduling, etc.

◇ IEEE 802.3 af/at PoE standard automatically identifies PoE devices for power supply without damaging non-PoE devices. The max PoE output power is130W, and the max single-port PoE output power is 30W.

■ Strong business processing capability

◇ Support ERPS ring network and STP/RSTP/MSTP to eliminate layer 2 loops and realize link backup.

◇ IEEE 802.1Q VLAN, user 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 multicast protocol, and IGMP Snooping meets the needs of multi-terminal high-definition video surveillance and video conferencing access.

■ Security

◇ Support port isolation.

◇ Support port broadcast storm suppression.

◇ Support IP+MAC+port+VLAN quadruple flexible combination binding function.

◇ 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

◇ CCC, CE, FCC, RoHS.

◇ The user-friendly panel can show the device status through the LED indicator 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, no fan, galvanized steel metal casing, excellent heat dissipation to ensure the stable operation of the switch.

■ Easy O&M management

◇ CPU monitoring, memory monitoring, Ping detection, cable length detection.

◇ 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.

◇ Support LLDP, facilitates the network management system to query and determine the

communication status of the link.

◇ Support diverse management and maintenance methods such as Web network management, CLI command line (Console, Telnet), SNMP (V1/V2/V3), Telnet, etc.

TECHNICAL SPECIFICATION

Model	ONV-POE33168PFM	ONV-POE33168PFM-at
Interface Characteristics		
Fixed Port	1*Console RS232 port (115200,N,8,1) 8*100/1000Base-X uplink SFP ports (Data) 8*10/100/1000Base-T PoE ports (Data/Power)	
Ethernet Port	Port 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)	
SFP Slot Port	Gigabit SFP optical fiber interface, default no include optical modules (optional 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.	
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	52Gbps (Non-blocking)	
Forwarding	23.81Mpps	

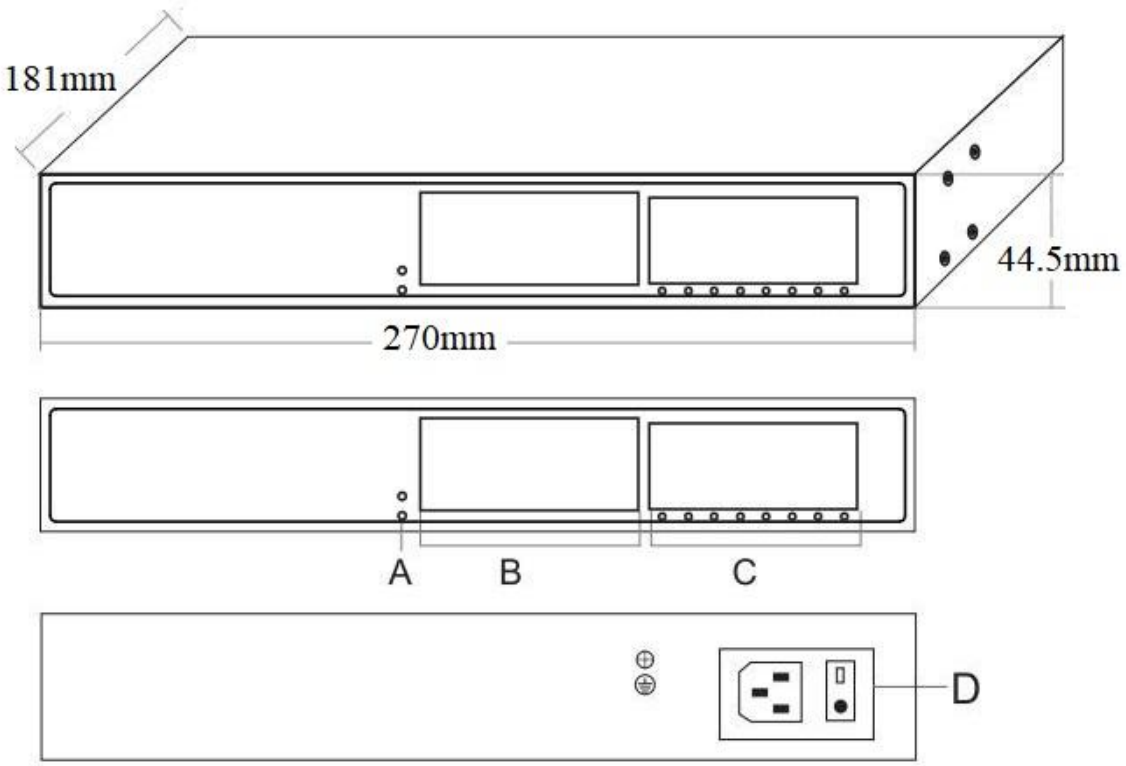
Rate@64byte		
CPU(Hz)	416M	
DRAM	1G	
FLASH	128M	
MAC	8K	
Buffer Memory	4M	
Jumbo Frame	9.6K	
LED Indicator	POE: PoE (Green), System: SYS (Green) Fiber Port: L/A(Green), Network: Link (Yellow)	
Reset Switch	Yes, One-button factory reset	
PoE & Power Supply		
PoE Port	Port 1 to 8	
PoE Management	Total power limit of PoE power supply PoE output power allocation, on/off & af/at PoE working status, Delay start of power supply PoE output priority configuration, Scheduling of PoE operation and time	
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<15W, Full Load<120W	Standby<16W, 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°C~+55°C, 5%~90% RH Non condensing	
Storage TEMP / Humidity	-40°C~+75°C, 5%~95% RH Non condensing	

Dimension (L*W*H)	270*181*44.5mm
Net /Gross Weight	<1.7kg / <2.2kg
Installation	Desktop, 19 inch 1U cabinet
Certification & Warranty	
Lightning Protection	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, lifelong maintenance.
Network Management Features	
Interface	IEEE802.3x flow control (Full duplex) Port temperature protection settings Broadcast storm suppression based on port rate Port EEE green Ethernet energy-saving configuration Limit the rate of packet traffic on incoming and outgoing ports, with mini granularity of 64 Kbps
Layer 3 Features	ARP protocol, max entries 1024 Static routing/ default routing, max entries 128 L2+ network management function, IPV4/IPV6 management L3 software routing non-line-speed forwarding supports communication between different network segments and different VLAN
VLAN	Protocol-based VLAN, MAC address-based VLAN Voice VLAN, QinQ configuration, Port-based VLAN(4K), IEEE802.1q Support three types of port configuration: Access, Trunk, and Hybrid
Port Aggregation	LACP dynamic aggregation, static aggregation Max 8 aggregation groups and 8 ports per group
Spanning Tree	STP (IEEE802.1d), RSTP (IEEE802.1w), MSTP (IEEE802.1s)
Ring Network Protocol	G.8032 (ERPS), 255 rings at most, max 254 devices per ring. recovery time less than 20ms
Multicast	IGMP Snooping v1/v2, Max 1024 multicast groups

	MLD Snooping v1/v2, Multicast VLAN, User quick exit mechanism
Port Mirroring	Bidirectional traffic mirroring basic ports
QoS	Diff-Serv QoS, Priority mark/ remark Queue scheduling algorithm (SP, WRR, SP+WRR) Flow-based rate limiting, Flow-based packet filtering 8*Output queues of each port, 802.1p/ DSCP priority mapping
ACL	Supports ACL delivery based on port and VLAN. The L2-L4 packet filtering function can match the first 80 bytes of the packet and provide filtering 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 broadcast message suppression AAA& RADIUS& TACACS+ certification SSL ensures data transmission security Limit the number of MAC addresses learned ARP packet rate limit, ARP intrusion detection Port isolation, Anti-DoS attack, Host data backup Quadruple binding function of IP+MAC+VLAN+port User hierarchical management and password protection SSH 2.0 provides a secure encrypted channel for user login MAC addresses the black hole, IP source addresses protection IEEE802.1X authentication/ centralized MAC address authentication
DHCP	DHCP Client, DHCP Snooping, DHCP Server, DHCP Relay
Management	Link Layer Discovery Protocol (LLDP) one click recovery, Cable length status detection ONV NMS platform cluster management (LLDP+SNMP) NTP clock, Ping detection, Web network management (https) FTP, TFTP, Xmodem, SFTP file upload and download management Console/ AUX Modem/ Telnet/ SSH2.0, CLI command line configuration

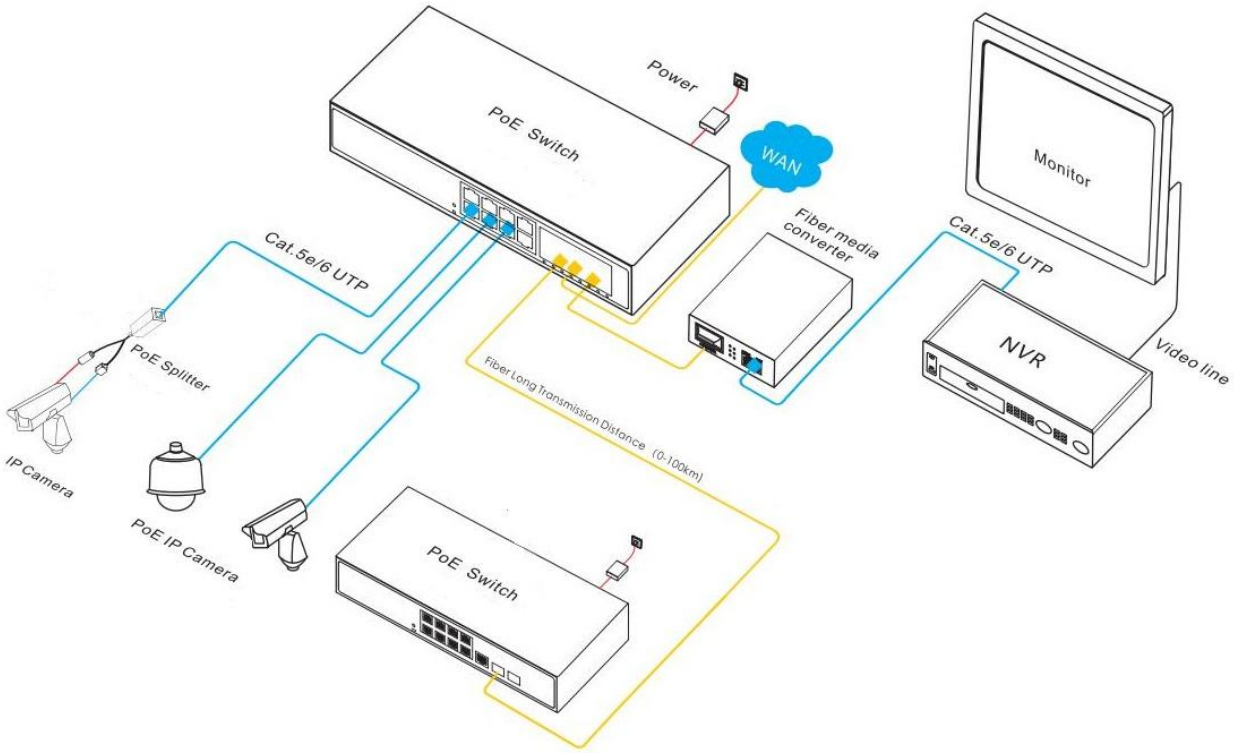
	System work log, SNMP V1/V2/V3, View CPU real-time utilization status
System	Category 5 Ethernet network cable **Web browser:** Mozilla Firefox 2.5 or higher, Google browser chrome V42 or higher, Microsoft Internet Explorer10 or later TCP/IP, network adapter, and network operating system (such as Microsoft 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. 8*100/1000M SFP ports
D. Power input port AC100- 240V,50/60Hz

APPLICATION



ORDERING INFORMATION

Model	Description	Built-in Power Supply
ONV-POE33168PFM	L2+ managed PoE fiber switch with 8*10/100/1000M RJ45 ports and 8*100/1000M uplink SFP fiber ports.	130W
ONV-POE33168PFM-at	Port 1-8 support IEEE 802.3 af/at PoE standard. Compatible with 1U/19-inch cabinet mounts.	250W
Note: The optical module is not included by default and needs to be purchased separately.		

PACKING LIST

	Content	Qty	Unit
Packing List	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

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/	PC

		RX1310nm, transmission distance: 20km, SC interface. supports DDM function and hot plugging.	
Power Module	2633	1.25G SFP optical module transfers to 10/100/1000M RJ45 port.	PC

RELATED PRODUCT

Model	Description
ONV-POE33006PFM	L2+ managed PoE fiber switch with 4*10/100/1000M RJ45 ports and 2*10/1000M SFP slot ports. Port 1-4 can support IEEE 802.3 af/at PoE standard. Built-in 65W power supply.
ONV-POE33010PFM	L2+ managed PoE fiber switch with 8*10/100/1000M RJ45 ports and and 2*10/1000M SFP slot ports. Port 1-8 can support IEEE 802.3 af/at PoE standard. Built-in 130W 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 IEEE 802.3 af/at PoE standard. 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 IEEE 802.3 af/at PoE standard. Built-in 400W power supply.

CONTACT US

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