Product Datasheet

18-port Full Gigabit L2+ Managed Fiber PoE Switch

(ONV-POE33018PFM)

OVERVIEW

The ONV-POE33018PFM is a Gigabit L2+ managed PoE fiber switch independently developed by ONV. It has 16*10/100/1000Base-T adaptive RJ45 ports and 2*100/1000Base-X uplink SFP fiber ports. Port 1-16 can support IEEE 802.3 af/at PoE standard and single-port PoE power reaches 30W. As a PoE power supply device, it can automatically detect and identify power-receiving devices that meet the standard and power them through the network cable. It can power wireless APs, network cameras, network phones, building visual access control intercoms, and other PoE terminal devices through network cables, meeting the network environment that requires a high-density PoE power supply and is suitable for hotels, campuses, parks, supermarkets, scenic spots, factory dormitories, and small and medium-sized enterprises to build economical and efficient networks.

The ONV-POE33018PFM has L2+ network management functions, supports IPV4/ IPV6 management, static routing forwarding, complete security protection mechanism, perfect ACL/ QoS strategy, and rich VLAN functions for easy management and maintenance. Supports multiple network redundancy protocols STP/RSTP/MSTP (<50ms) and (ITU-T G.8032) ERPS (<20ms) to improve link backup and network reliability. When a unidirectional 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 functions can be configured through Web, CLI, SNMP, Telnet, and other network management methods.

FEATURE

Gigabit access, uplink SFP fiber port

◇ Support non-blocking wire-speed forwarding.

◇ Support full-duplex based on IEEE 802.3x 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

◇ PoE network management, realize PoE port power allocation, priority setting, port power status viewing, time scheduling, etc.

◇ Comply with IEEE 802.3 af/at PoE standard, automatically identify PoE devices for power supply, and not damage non-PoE devices.

◇ 16*10/100/1000Base-T RJ45 ports support PoE power supply to meet security monitoring, conference call systems, wireless coverage, and other scenarios.

◇ The PoE port supports the priority mechanism. When the remaining power is insufficient, the power of the high-priority port is given priority to avoid overloading of the device.

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.

Strong business processing capability

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

- ◇ Support IEEE802.1Q VLAN, Users can flexibly divide VLAN, Voice VLAN, and QinQ configuration according to their needs.
- ◇ Support static and dynamic aggregation to effectively 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, and SP+WRR.
- ◇ Support ACL to filter data packets by configuring matching rule processing operations and time permissions, and provide flexible security access control policies.
- ◇ Support IGMP V1/V2/V3 multicast protocol, IGMP Snooping meets multi-terminal high-definition video surveillance and video conference access requirements.

■ Stable and reliable

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

■ Easy O&M management

- ◇ Support CPU monitoring, memory monitoring, Ping detection, and cable length detection.
- ◇ HTTPS, SSLV3, SSHV1/V2, and other encryption methods are more secure in management.
- ◇ RMON, system log, and port traffic statistics are convenient for network optimization and transformation.
- ◇ LLDP is convenient for the network management system to query and judge 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-POE33018PFM	ONV-POE33018PFM-at
Interface Characteristics		
Fixed Port	1*Console RS232 port (115200,N,8,1) 16*10/100/1000Base-T PoE ports (Data/Power) 2*100/1000Base-X uplink SFP fiber ports (Data)	
Ethernet Port	Port 1-16 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 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/ 0-500m, Single-mode: 1310nm/ 0-40km, 1550nm/ 0-120km	
Chip Parameter		
Network Management Type	L2+	
Network Protocol	IEEE 802.3 10BASE-T, IEEE 802.3i 10Base-T, IEEE 802.3u 100Base-TX, IEEE 802.3ab 1000Base-T, IEEE 802.3z 1000Base-X, IEEE 802.3x	
Forwarding Mode	Store and Forward (Full Wire Speed)	
Switching Capacity	52Gbps (non-blocking)	
Forwarding Rate@64byte	26.78Mpps	
MAC	8K	
Buffer Memory	6M	
Jumbo Frame	9.6K	
LED Indicator	Power: PWR (Green), System: SYS (Yellow), Network: Link (Yellow), Fiber	

	port: L/A (Green), PoE: PoE (Green), Rate: Speed (Green)	
Reset Switch	Yes, One-button factory reset	
PoE & Power Supply		
PoE Port	Port 1-16	
PoE Management	PoE power supply total power limit configuration Power delay start, PoE work and time scheduling Port PoE working status display, Port PoE output priority configuration Port PoE output power distribution, PoE on/off, af/at power distribution	
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<16W, 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~+55°C, 5%~90% RH Non condensing	
Storage TEMP/ Humidity	-40~+75°C, 5%~95% RH Non condensing	
Dimension (L*W*H)	440*290*44.5mm	
Net /Gross Weight	3.6kg/ 4.6kg	3.9kg / 4.8kg
Installation	Desktop, 1U/19'' 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 Feature		
Interface	Port temperature protection setting	

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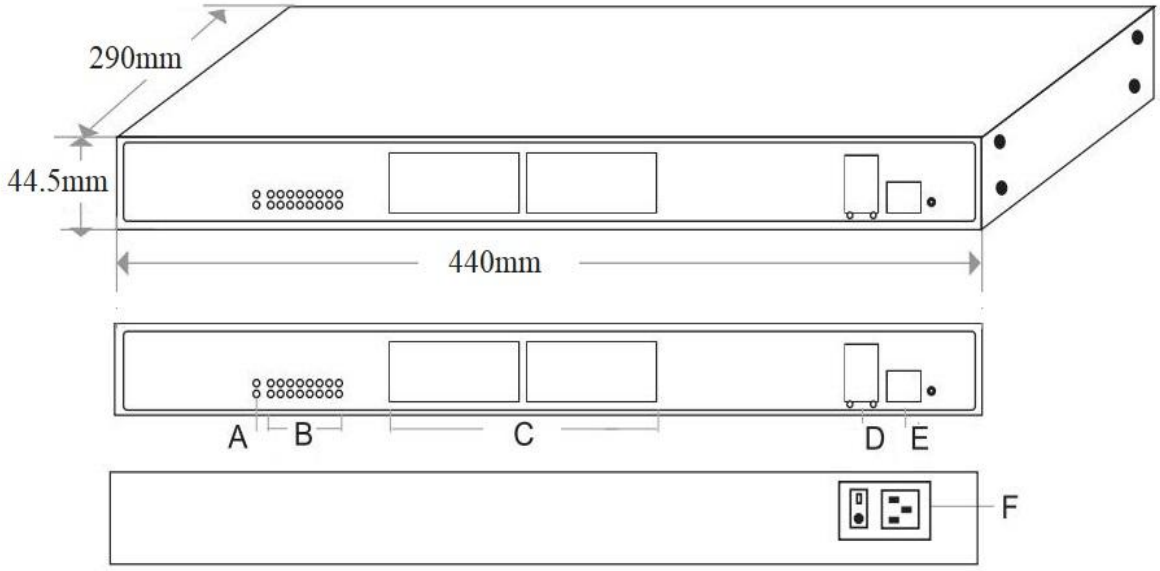
	IEEE 802.3x flow control (Full duplex) Port green Ethernet Energy-saving setting Broadcast storm control based on port speed Limit the speed of the message traffic at the inbound and outbound ports mini granularity is 64Kbps
L3 Feature	ARP protocol, max 1024 entries Static route /default route max 128 entries L2+ network management function, IPV4/IPV6 management L3 routing and forwarding, support communication between different network segments and different VLAN
VLAN	4K VLAN based on port, IEEE802.1q Port configuration of Access, Trunk, Hybrid VLAN based on MAC address, QinQ configuration, Voice VLAN
Port Aggregation	LACP, Static aggregation Max 13 aggregation groups and 8 ports per group.
Spanning Tree	STP (IEEE802.1d), RSTP (IEEE802.1w), MSTP (IEEE802.1s)
ERPS Ring Network Protocol	G.8032 (ERPS), recovery time less than 20ms 255 Ring at most, Max 1024 devices per ring.
Multicast	IGMP Snooping v1/v2/v3, Max 1024 multicast groups MLD Snooping, Multicast VLAN, User quick exit mechanism
Port Mirroring	Bidirectional data mirroring based on port
QoS	Flow-based packet filtering, Priority Mark/ Remark Flow-based redirection, Flow-based rate limiting 8*Output queues of each port, 802.1p/ DSCP priority mapping Diff-Serv QoS, Queue Scheduling Algorithm (SP, WRR, SP+WRR)
ACL	ACL distribution based on port and VLAN L2-L4 packet filtering function, matching the first 80 bytes message, and provides ACL definitions based on source MAC address, destination MAC address, source IP address, destination IP address, IP protocol type,

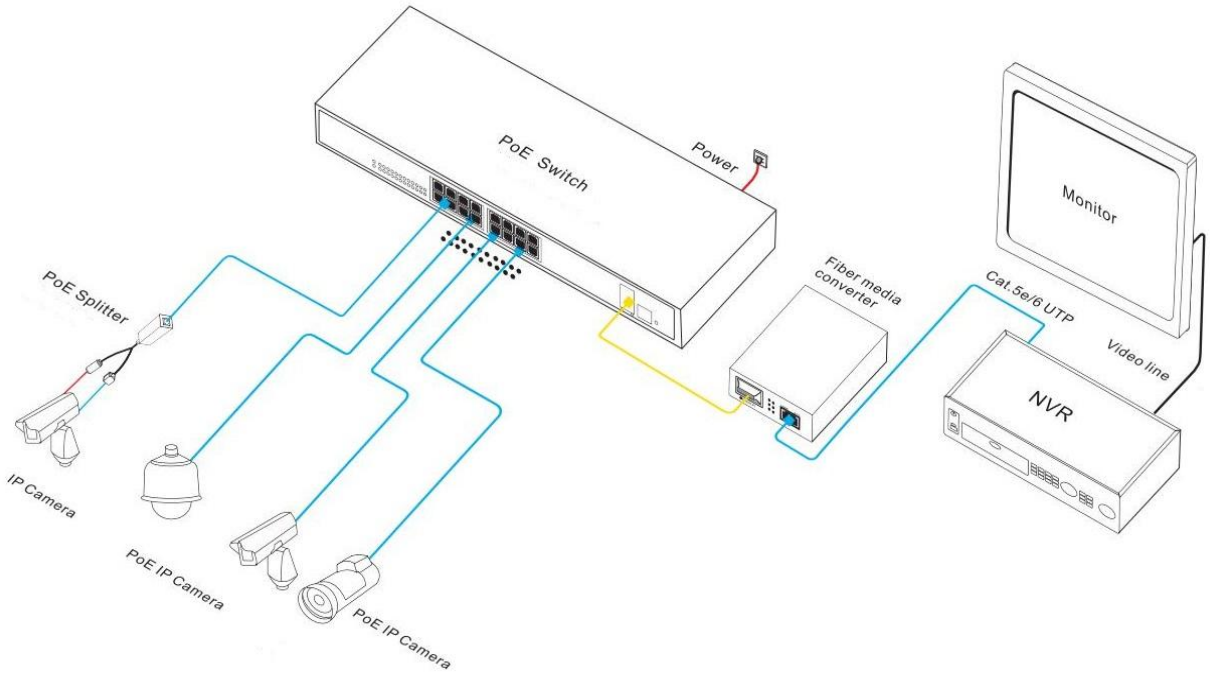
	TCP/UDP port, TCP/UDP port range, VLAN, etc.
Security	IEEE802.1X & MAC address authentication IP-MAC-VLAN-Port binding, MAC learning limit Broadcast storm control, Backup for host datum Mac black holes, IP source protection, Anti-DoS attack SSH 2.0, SSL, Port isolation, ARP message speed limit User hierarchical management and password protection AAA & RADIUS & TACACS+ certification, ARP inspection
DHCP	DHCP Client, DHCP Snooping, DHCP Server, DHCP Relay
Management	System work log, Link Layer Discovery Protocol NTP clock, Cable length detection, SNMP V1/V2/V3 Ping detection, Web network management (HTTPS) ONV-NMS platform cluster management (LLDP+SNMP) One click recovery, View CPU real-time utilization status FTP, TFTP, Xmodem, SFTP file upload and download management Console/ AUX Modem/ Telnet/ SSH2.0 CLI command line configuration
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. PoE indicator
C. 16*10/100/1000M PoE ports
D. 2*100/1000M SFP fiber ports
E. Console port
F. Power input port ACi00-240V, 50/60Hz

APPLICATION



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ORDERING INFORMATION

Model	Description	Built-in Power Supply
ONV-POE33018PFM	L2+ managed PoE fiber switch with 16*10/100/1000M RJ45 ports and 2*100/1000M uplink SFP fiber 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-POE33018PFM-at		400W
Note: The optical module is not included and needs to be purchased.		

PACKING LIST

	Content	Qty	Unit
Packing List	18-port full gigabit L2+ managed PoE fiber switch	1	SET
	RJ45-DB9 Line	1	PC
	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	PC

		and hot plugging.	
	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

RELATED PRODUCT

Model	Description
ONV-POE33108PFM	L2+ managed PoE fiber switch with 8*10/100/1000M RJ45 ports and 2*10/1000M uplink SFP fiber ports. Port 1-8 can support IEEE 802.3 af/at PoE standard. It built-in 130W power supply.
ONV-POE36028PFM	L2+ managed PoE fiber switch with 24*10/100/1000M RJ45 ports and 4*1/10G uplink SFP+ fiber ports. Port 1-24 can support IEEE 802.3 af/at PoE standard. It built-in 400W power supply.
ONV-POE36036PFM	L2+ managed PoE fiber switch with 24*10/100/1000M RJ45 ports and 8*100/1000M SFP fiber ports and 4*1/10G uplink SFP+ fiber ports. Port 1-24 can support IEEE 802.3 af/at PoE standard. It built-in 400W power supply.
ONV-POE36048PFM	L2+ managed PoE fiber switch with 48*10/100/1000M RJ45 ports and

	4*1/10G uplink SFP+ fiber ports. Port 1-48 can support IEEE 802.3 af/at PoE standard. It built-in 600W power supply.

CONTACT US

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