

Product Datasheet

52-port Gigabit Managed PoE Switch

(ONV-POE33052PFM)



OVERVIEW

The ONV-POE33052PFM is a Gigabit managed PoE switch independently developed by ONV. It has 48*10/100/1000Base-T adaptive RJ45 ports and 4*100/1000Base-X uplink SFP fiber ports. Port 1-48 can support IEEE802.3af/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 AP, IP camera, Internet telephone, 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-POE33052PFM has L3 network management functions. It can support IPv4/IPv6 management and dynamic routing forwarding, complete security protection

mechanisms, complete ACL/ QoS policies, and rich VLAN functions, making it easy to manage and maintain. Support multiple network redundancy protocols: STP/RSTP/MSTP (<50ms) and (ITU-T G.8032) ERPS(<20ms), improving link backup and network reliability. It can quickly restore communication in the event of a one-way network failure, ensuring uninterrupted communication for critical applications. It provides multiple network management methods such as Web, CLI, SNMP, and Telnet, enabling flexible configuration of applications such as PoE management, port management, routing address management, port flow control, VLAN segmentation, IGMP, and security policies.

FEATURE

■ Gigabit line speed 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 uplink SFP port combination, which enables users to flexibly build networking to meet the needs of various scenarios.

■ Smart PoE power supply

- ◇ Comply with IEEE802.3af/at PoE power supply standard, automatically identify PoE equipment for power supply.
- ◇ Support PoE network management functions, allowing for PoE on/off, port power status monitoring, and time scheduling through network management configuration.
- ◇ 48*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 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.

■ Security

- ◇ Support IP+MAC+Port+VLAN four-way binding function.
- ◇ Support port isolation and port broadcast storm suppression.
- ◇ Support 802.1X authentication, provide authentication function 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 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, 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.
- ◇ 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.
- ◇ Various management and maintenance methods such as Web network management, CLI command line (Console, Telnet), SNMP (V1/V2/V3), Telnet, etc.

TECHNICAL SPECIFICATION

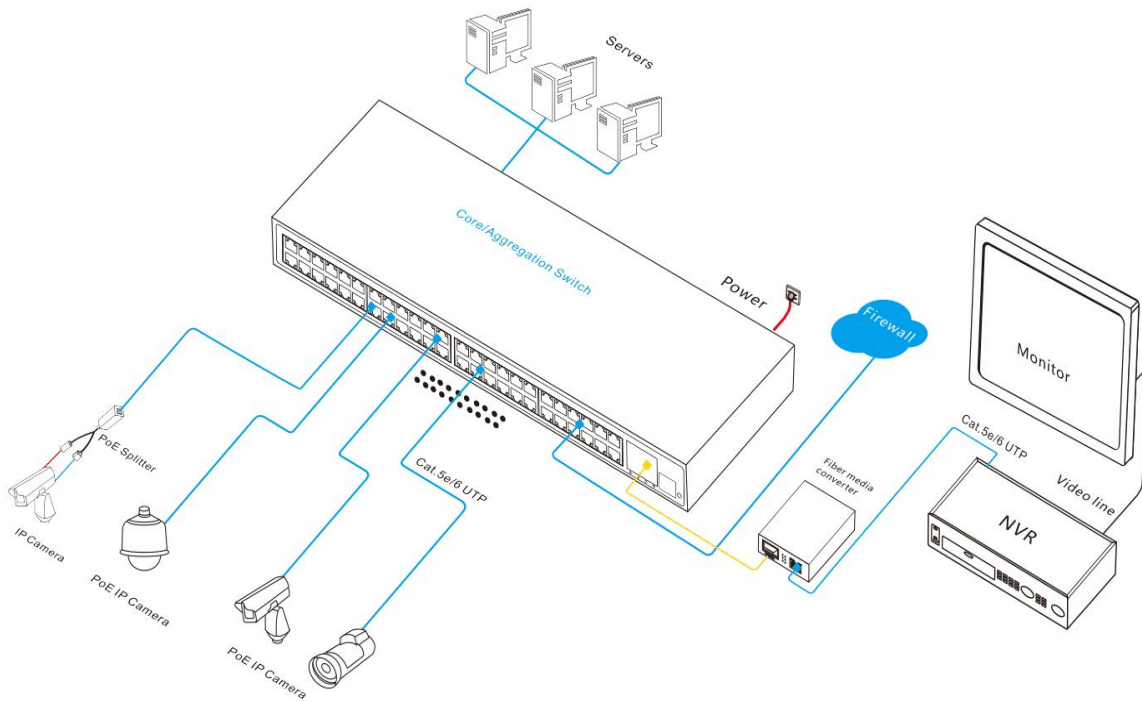
Model	ONV-POE33052PFM
Interface Characteristics	
Fixed Port	1*Console RS232 port (115200,N,8,1) 4*100/1000Base-X uplink SFP fiber ports (Data) 48*10/100/1000Base-T PoE ports (Data /Power)
Ethernet Port	Port 1-48 can support 10/100/1000Base-T(X) auto-sensing, full/ half duplex MDI/ MDI-X self-adaption
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 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, IEEE802.3x
Forwarding Mode	Store and forward (Full wire speed)
Switching Capacity	104Gbps (non-blocking)
Forwarding Rate@64byte	77.38Mpps

CPU	750M
DRAM	1G
FLASH	256M
MAC	16K
Buffer Memory	12M
LED Indicator	Power: PWR (Yellow), System: SYS (Yellow), Network: Link/Act (Yellow), PoE: PoE (Green), Fiber port: L/A(Green)
PoE& Power Supply	
PoE Port	Port 1-48
PoE Management	Port PoE working status display, Port PoE output on/off
Power Supply Pin	1/2(+) 3/6 (-)
Max Power Per Port	30W, IEEE802.3 af/at
Total PWR / Input Voltage	600W/ (AC100-240V)
Power Consumption	Standby<22W, full load<600W
Power Supply	Built-in power supply, AC100~240V 50-60Hz, 6.6A
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	4.8kg/ 5.7kg
Installation	Desktop, 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	Port real-time flow management (Flow Interval) Broadcast storm suppression based on port rate SFP optical module DDMI real-time digital diagnosis

	<p>Port EEE Green Ethernet Energy-Saving configuration and status view</p> <p>IEEE802.3x flow control (Full duplex), Port exception protection mechanism</p> <p>Limit the rate of packet traffic on incoming and outgoing ports, the minimum granularity is 16Kbps and max 1Gbps</p>
L3 Feature	<p>IPv4 equal-cost routing</p> <p>NG protocol, with max 1000 entries</p> <p>ARP protocol, with max 1000 entries</p> <p>IPv4/IPv6 VRRP, with max 255 groups for each</p> <p>Pingv6, Telnetv6, TFTPv6, DNSv6, and ICMPv6</p> <p>IPv4/IPv6 VLANIF interfaces, with max 64 for each</p> <p>IPv4/IPv6 static routes/default routes, with max 64 entries for each</p> <p>IPv4 dynamic routing, RIPv1/v2, and OSPFv2, with 2000 route entries</p> <p>L3 network management functions and IPv4/IPv6 dual-stack management</p> <p>L3 routing, forwarding, and communication between different network segments and VLAN</p>
VLAN	<p>Access, Trunk, and Hybrid port configurations</p> <p>Voice VLAN, QinQ configuration, Port-based VLAN (4K), IEEE 802.1q</p> <p>Protocol-based VLAN, MAC address-based VLAN, GVRP VLAN protocol</p>
Port Aggregation	<p>LACP dynamic aggregation, Static aggregation, Max 26 aggregation groups and max 8 ports per group.</p>
Spanning Tree	<p>STP BPDU Guard, BPDU filtering and BPDU forwarding</p> <p>STP (IEEE802.1d), RSTP (IEEE802.1w), MSTP (IEEE802.1s)</p>
ERPS Ring Network	<p>ERPS ring network, Recovery time less than 20ms, ITU-T G.8032</p>
Multicast	<p>MVR (Multicast VLAN Registration), User quick log out, MLD Snooping</p> <p>Multicast VLAN, IGMP Snooping v1/v2/v3 and 256 multicast groups at most</p>
Mirroring	<p>Bidirectional traffic mirroring for basic ports</p>

	one-to-multiple mirroring, supports up to 4 port sessions
QoS	Queue Scheduling Algorithm (SP, WRR, SP+WRR) 8*Output queues of each port, 802.1p/DSCP priority mapping Flow-based Rate Limiting, Flow-based redirection, Flow-based Packet Filtering, Diff-Serv QoS, Priority Mark/Remark
ACL	ACL deployment based on port and VLAN. L2-L4 packet filtering, can match the first 80 bytes of a packet, 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	DoS attack protection, Host data backup mechanism IP source address protection, ARP intrusion detection SSH 2.0, providing a secure, encrypted channel for user login IEEE 802.1X authentication based on ports and MAC addresses MAC address black hole, IP Source Guard function, Port isolation SSL, ensuring secure data transmission, MAC address learning limit User hierarchical management and password protection, ARP packet rate limiting Port broadcast packet suppression IP+MAC+VLAN+port four-element binding function AAA, RADIUS, and TACACS+ authentication (authentication only, authorization and accounting not supported)
DHCP	DHCP Client, DHCP Snooping, DHCP Server
Management	NMS platform cluster management (LLDP+SNMP) Ping detection, Web network management (HTTPS) Console/ SSH/ Telnet/ CLI command line configuration NTP clock, System work log, One click recovery, Cable length detection HTTP, TFTP file upload and download management, SNMP V1/V2C/V3 View CPU real-time utilization status, Link Layer Discovery Protocol LLDP

APPLICATION



ORDERING INFORMATION

Model	Description	Built-in Power Supply
ONV-POE33052PFM	L3 managed PoE switch with 48*10/100/1000M RJ45 ports and 4*100/1000M uplink SFP fiber ports. Port 1-48 can support IEEE802.3af/at PoE standard. It built-in power supply and 1U/19" cabinet installation.	600W

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

PACKING LIST

Packing List	Content	Qty	Unit
	52-port Gigabit managed PoE switch	1	Set
	AC Power Cable	1	PC
	RJ45-DB9 Adapter Cable	1	PC
	Mounting Kit (Hanging Ear)	1	Set
	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. 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

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