

Product Datasheet

30-port 2.5G Managed PoE Switch

(ONV-POE57030PFM)



OVERVIEW

The ONV-POE57030PFM is a 2.5G managed PoE fiber switch independently developed by ONV. It has 24*10/100/1000/2500Base-T adaptive RJ45 ports and 2*1/10G RJ45 ports and 4*1/10G SFP+ fiber ports. Port 1-24 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 recognize the power-receiving equipment that meets the standard and supply 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, factory dormitories, and small and medium-sized enterprises.

The ONV-POE57030PFM has L3 network management function, supports IPV4/ IPV6 management, dynamic route full-speed forwarding, complete security protection mechanism, complete ACL/ QoS policy, and rich VLAN functions, 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

■ 2.5G access, uplink 1/10G RJ45/SFP+ fiber port

- ◇ Support non-blocking wire-speed forwarding.
- ◇ Support full-duplex based on IEEE 802.3x and half-duplex based on Backpressure.
- ◇ Support 2.5G RJ45 port and 1/10G RJ45/SFP+ fiber 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.
- ◇ 24*10/100/1000/2500Base-T RJ45 port support PoE power, meeting the needs of security monitoring, teleconferencing system, wireless coverage, and other scenarios.
- ◇ Support PoE network management function, which can be configured through network management to enable PoE port opening/closing, port power status viewing, time scheduling, etc.

■ 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

- ◇ Port isolation and storm control.
- ◇ 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, Link and PoE.
- ◇ Low power consumption, with fan, Galvanized steel housing, and excellent heat dissipation to ensure stable operation of the switch.

■ Easy O&M management

- ◇ 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-POE57030PFM
Interface Characteristics	
Fixed Port	1*RS232 Console port (115200, N, 8, 1) 2*1/10G uplink RJ45 ports (Data) 4*1/10G uplink SFP+ fiber ports (Data) 24*10/100/1000/2500Base-T PoE ports (Data/Power)
Ethernet Port	Port 1-24 support 10/100/1000/2500Base-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) 2500BASE-T: Cat6a or later UTP (≤100 meters)
Optical Fiber Port	1/10G SFP+ optical fiber port, default no include optical module (optional single-mode/ multi-mode, single fiber/ dual fiber optical module. LC)
Optical Fiber Port Expansion	Turbo overclocking 2.5G optical module expansion and ring network
Optical Cable/ Distance	Multi-mode: 850nm/ 0-550m, 0-300m(10G), Single-mode: 1310nm/ 0-40km, 1550nm/ 0-120km
Chip Parameter	
Network Management Type	L3
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 802.3bz 2.5GBase-T, IEEE 802.3ae 10GBase-SR/LR, IEEE 802.3x
Forwarding Mode	Store and Forward (Full wire speed)
Switching Capacity	240Gbps (non-blocking)
Forwarding Rate@64byte	148.8Mpps

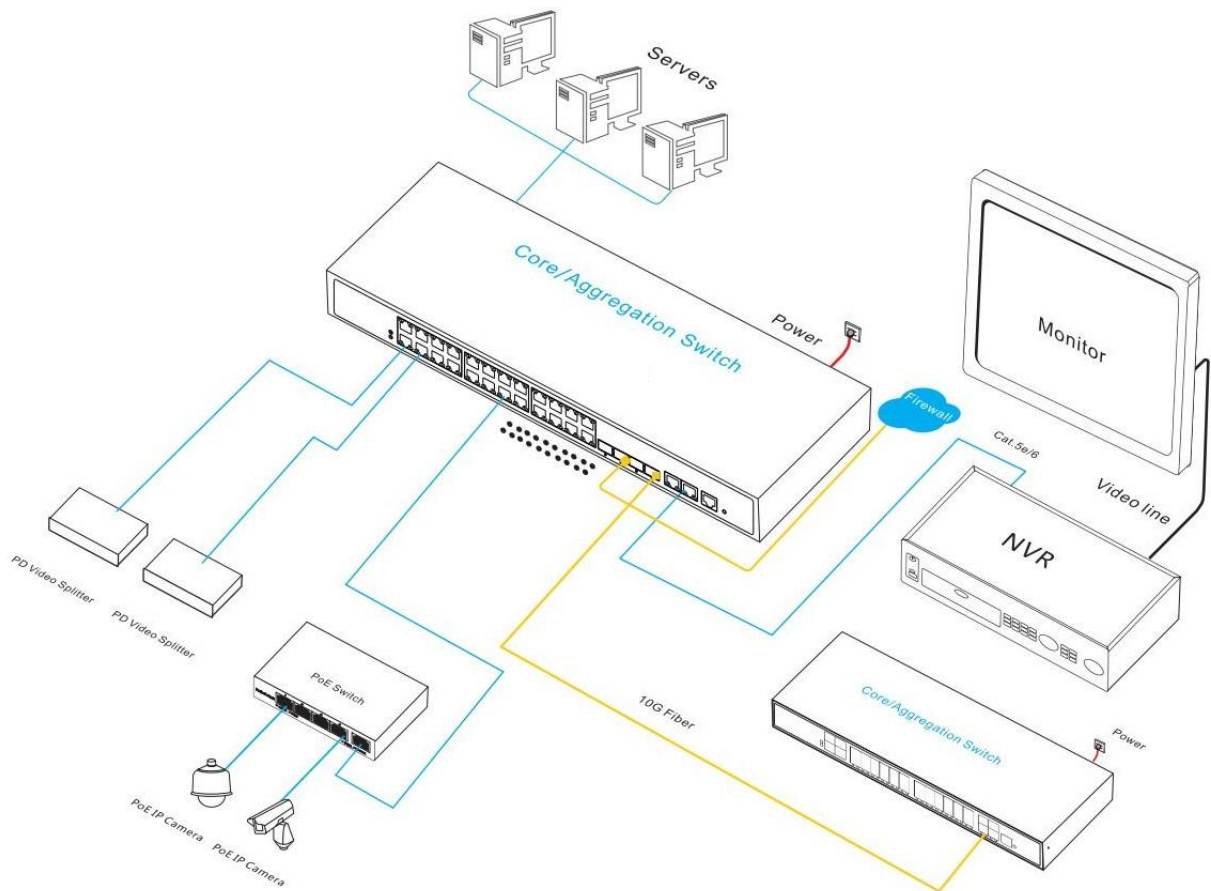
CPU(Hz)	Dual Core 1G
DRAM	2G
FLASH	256M
MAC	32K
Buffer Memory	16M
Jumbo Frame	12K
LED Indicator	Network: Link/ Act (Yellow), Fiber port: L/A (Green), Power: PWR (Yellow), System: SYS (Yellow), PoE: PoE (Green)
Reset Switch	Yes, press and hold the switch for 10 seconds and release it to restore the factory settings
PoE& Power Supply	
PoE Port	Port 1-24
PoE Management	Port PoE working status display, Port PoE on/off, af/at power allocation
Power Supply Pin	1/2(+) 3/6 (-)
Max Power Per Port	30W, IEEE 802.3 af/at
Total PWR/ Input Voltage	400W/ (AC100-240V)
Power Consumption	Standby<20W, Full load<380W
Power Supply	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*270*44mm
Net /Gross Weight	4.0kg/ 4.8kg
Installation	Desktop, 1U/19" cabinet
Certification& Warranty	
Lightning Protection	Protection level: IP30, Lightning protection: 4KV 8/20us
Certification	CCC, CE mark, commercial, CE/LVD EN62368-1, FCC Part 15, RoHS
Warranty	3 years, lifelong maintenance.
Network Management Feature	

Interface	<p>IEEE802.3x flow control (Full duplex)</p> <p>Port exception protection mechanism</p> <p>Port real-time flow management (Flow Interval)</p> <p>Broadcast storm suppression based on port rate</p> <p>SFP optical module DDMI real-time digital diagnosis</p> <p>Port EEE Green Ethernet Energy-Saving configuration and status view</p> <p>Limit the rate of packet traffic on incoming and outgoing ports, the mini granularity is 16Kbps and max 1Gbps</p>
L3 Feature	<p>IPV4 Equal Cost Routing</p> <p>NG protocol, max 1000 entries</p> <p>ARP protocol, max 1000 entries</p> <p>IPV4/IPV6 VRRP, max group is 255</p> <p>Pingv6, Telnetv6, TFTPv6, DNSv6, ICMPv6</p> <p>IPV4/IPV6 VLANIF interface supports up to 128</p> <p>IPV4/IPV6 static route/ default route, support up to 128 entries</p> <p>IPV4 dynamic routing, RIPv1/v2, OSPFv2, routing 4000 entries</p> <p>L3 network management function, IPV4/IPV6 dual-stack management</p> <p>L3 routing and forwarding, support communication between different network segments and different VLAN</p>
VLAN	<p>VLAN based on MAC, VLAN based on the protocol</p> <p>Port configuration of Access, Trunk, Hybrid. GVRP VLAN protocol</p> <p>(4K) VLAN based on port, IEEE802.1q, Voice VLAN, QinQ configuration</p>
Port Aggregation	<p>LACP dynamic aggregation, Static aggregation, Max 15 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>Multicast VLAN, User quick log out, MLD Snooping, MVR (Multicast VLAN Registration), IGMP Snooping v1/v2/v3 and 1024 multicast groups at most</p>

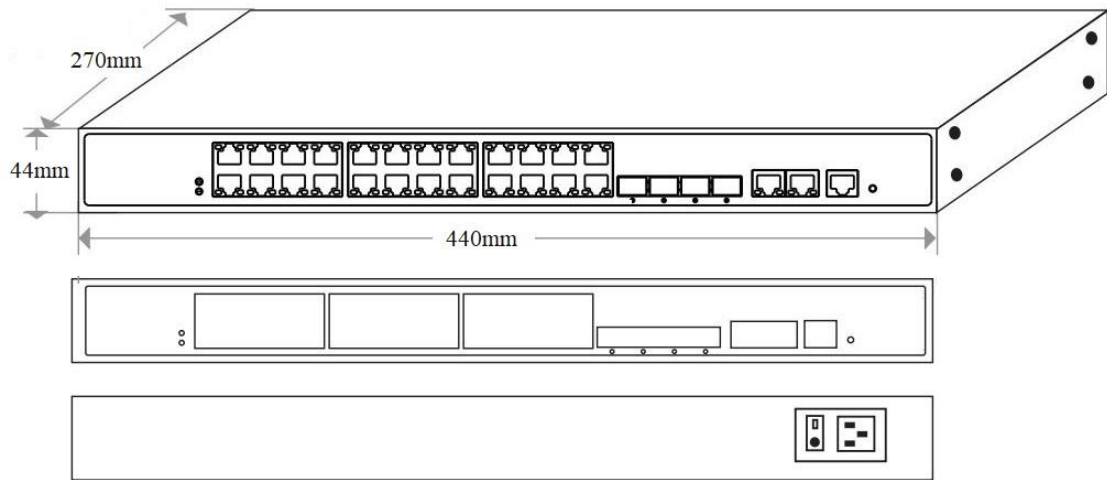
Mirroring	<p>Bidirectional traffic mirroring for basic ports</p> <p>one-to-multiple mirroring, supports up to 4 port sessions</p>
QoS	<p>Flow-based Rate Limiting, Flow-based redirection</p> <p>Queue Scheduling Algorithm (SP, WRR, SP+WRR)</p> <p>Flow-based Packet Filtering, 8*Output queues of each port</p> <p>802.1p/DSCP priority mapping, Diff-Serv QoS, Priority Mark/Remark</p>
ACL	<p>ACL is issued based on port and VLAN</p> <p>L2-L4 packet filtering function can match the first 80 bytes of the message and provide ACL definition based on source MAC address, destination MAC address, source IP address, destination IP address, IP protocol type, TCP/UDP port range, VLAN, etc.</p>
Security	<p>Port broadcast message suppression</p> <p>SSL ensures data transmission security</p> <p>Limit the number of MAC addresses learned</p> <p>Port isolation, Host data backup mechanism</p> <p>Anti-DoS attack, ARP intrusion detection function</p> <p>Quadruple binding function of IP+MAC+VLAN+port</p> <p>IP source address protection, MAC address black hole</p> <p>User hierarchical management and password protection</p> <p>SSH 2.0 provides a secure encrypted channel for user login</p> <p>AAA& RADIUS certification, ARP message rate limiting function</p> <p>IEEE802.1X authentication/ centralized MAC address authentication</p>
DHCP	<p>DHCP Client, DHCP Snooping, DHCP Server</p>
Management	<p>System work log, Link Layer Discovery Protocol</p> <p>HTTP, TFTP file upload and download management</p> <p>NTP clock, Cable length detection, SNMP V1/V2/V3</p> <p>Ping detection, Web network management (HTTPS)</p> <p>ONV-NMS platform cluster management (LLDP+SNMP)</p> <p>One click recovery, View CPU real-time utilization status</p>

	Console/ AUX Modem/ Telnet/ CLI command line configuration
System	<p>Web browser: Mozilla Firefox 2.5 or higher, Google Chrome V42 or higher, Cat5 and above Ethernet cable</p> <p>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</p>

APPLICATION



DIMENSION



ORDERING INFORMATION

Model	Description	Built-in Power Supply
ONV-POE57030PFM	L3 managed PoE switch with 24*10/100/1000/2500M RJ45 ports and 2*1/10G uplink RJ45 ports and 4*1/10G uplink SFP+ fiber ports. Port 1-24 can support IEEE 802.3 af/at PoE standard. Built-in power supply.	400W

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

PACKING LIST

	Content	Qty	Unit
Packing List	30-port 2.5G managed PoE switch	1	Set
	RJ45-DB9 Adapter Cable	1	PC
	AC Power Cable	1	PC
	Mounting Kit	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. 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
10G Optical Module	6630	SFP+ optical module, 10G multi-mode dual fiber 850nm, transmission distance: 300m, LC interface. supports DDM function and hot plugging.	PC
	7832	SFP+ optical module, 10G single-mode dual fiber 1310nm, transmission distance: 20km, LC interface. supports DDM function and hot plugging.	PC

7832-33	SFP+ optical module, 10G single-mode single fiber TX1330nm/ RX1270nm, transmission distance: 20km, LC interface. supports DDM function and hot plugging.	PC
7832-27	SFP+ optical module, 10G single-mode single fiber TX1270nm/ RX13300nm, transmission distance: 20km, LC interface. supports DDM function and hot plugging.	PC

CONTACT US



Optical Network Video Technologies (Shenzhen) Co., Ltd.

Tel: 0086-755-33376606

Fax: 0086-755-33376608

WeChat: ONV-PoE-IoT

Email: onv@onv.com.cn

Skype: onv@onv.com.cn

Website: www.onvcom.com

Headquarter Address: Room 1003, Block D, Terra Building, Futian District, Shenzhen

Factory Address: Building B3, Galaxy Artificial Intelligence Industrial Park, No. 333,

Zhongkai 6th Road, Chenjiang Street, Zhongkai High-tech Zone, Huizhou

