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 the IEEE 802.3af/at PoE standard, and the single-port max PoE power is 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 APs, IP cameras, VoIP phones, and building visual access control intercoms, through a network cable, meeting the network environment's high-density PoE power supply needs. 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 routing forwarding, complete security protection mechanism, complete ACL/ QoS policy, rich VLAN functions, and is easy to manage and maintain.

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

■ 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.

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◇ 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

◇ 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

◇ 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.

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

TECHNICAL SPECIFICATION

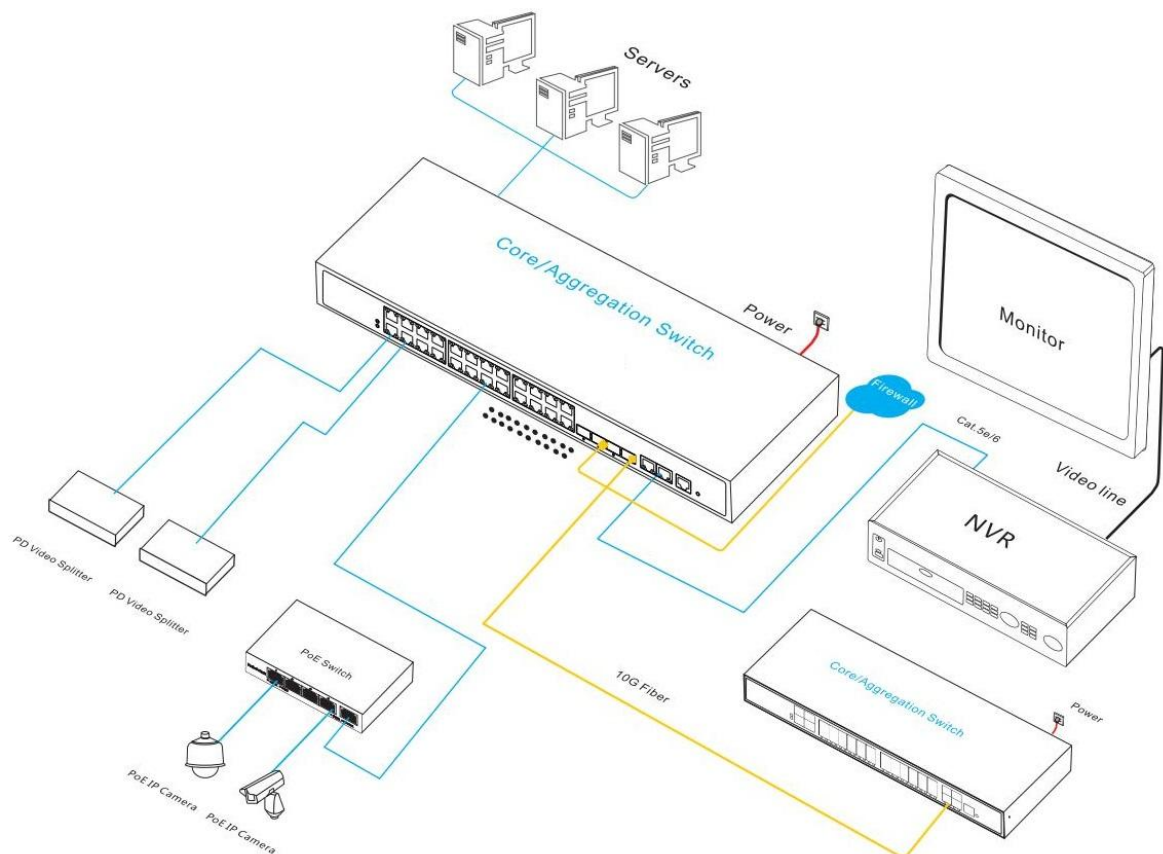| Model	ONV-POE57030PFM
Interface Characteristics	
Fixed Port	1*Console RS232 port (115200, N, 8,1) 2*1/10G uplink RJ45 ports (Data) 4*1/10G uplink SFP+ fiber ports (Data) 24*10/100/1000/2500Base-T PoE ports (Data/ Power)
Ethernet Port	Port 1-24 can support 10/100/1000/2500Base-T(X) auto-sensing, full/ 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) 2500BASE-T: Cat6a or later UTP (≤100 meters)
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)

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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, IEEE802.3af/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

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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 Port EEE Green Ethernet Energy-Saving configuration and status view IEEE802.3x flow control (Full duplex), Port exception protection mechanism Limit the rate of packet traffic on incoming and outgoing ports, the mini granularity is 16Kbps and max 1Gbps
L3 Feature	IPV4 equal cost routing NG protocol max 1000 entries ARP protocol max 1000 entries VRRP for IPV4/IPV6, up to 255 entries Pingv6, Telnetv6, TFTPv6, DNSv6, ICMPv6 VLANIF interfaces for IPV4/IPV6, up to 64 entries IPV4/IPV6 static routing/default routing, up to 64 entries IPV4 dynamic routing, RIPv1/v2, OSPFv2, routing 2000 entries L3 network management function, IPV4/ IPV6 dual-stack management L3 routing and forwarding, support communication between different network segments and different VLAN
VLAN	VLAN based on MAC, VLAN based on the protocol Port configuration of Access, Trunk, Hybrid. GVRP VLAN protocol (4K) VLAN based on port, IEEE802.1q, Voice VLAN, QinQ configuration
Port Aggregation	LACP dynamic aggregation, Static aggregation, Max 15 aggregation groups and max 8 ports per group.
Spanning Tree	STP BPDU Guard, BPDU filtering and BPDU forwarding STP (IEEE802.1d), RSTP (IEEE802.1w), MSTP (IEEE802.1s)
ERPS Ring Network	ERPS ring network, Recovery time less than 20ms, ITU-T G.8032
Multicast	Multicast VLAN, User quick log out, MLD Snooping, MVR (Multicast VLAN

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| 7	Registration), IGMP Snooping v1/v2/v3 and 1024 multicast groups at most
Mirroring	Bidirectional traffic mirroring for basic ports one-to-multiple mirroring, supports up to 4 port sessions
QoS	Flow-based Rate Limiting, Flow-based redirection Queue Scheduling Algorithm (SP, WRR, SP+WRR) Flow-based Packet Filtering, 8*Output queues of each port 802.1p/DSCP priority mapping, Diff-Serv QoS, Priority Mark/Remark
ACL	ACL is issued based on port and VLAN 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.
Security	Port based IEEE802.1X authentication Port isolation, IP Source Guard function SSL guarantees data transmission security Quad binding function of IP+MAC+VLAN+ports MAC address learning limit, MAC address black hole Anti DoS attack, Port broadcast message suppression Hierarchical user management and password protection SSH 2.0 provides a secure encrypted channel for user login Host data backup mechanism, ARP intrusion detection function IP source address protection, ARP message speed limit function Support AAA, RADIUS, TACACS+ authentication (only supports authentication, not authorization and accounting)
DHCP	DHCP Client, DHCP Snooping, DHCP Server
Management	System work log, Link Layer Discovery Protocol HTTP, TFTP file upload and download management NTP clock, Cable length detection, SNMP V1/V2/V3 Ping detection, Web network management (HTTPS)

8	ONV-NMS platform cluster management (LLDP+SNMP)
	One click recovery, View CPU real-time utilization status
	Console/ SSH/ Telnet/ 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

APPLICATION

DIMENSION
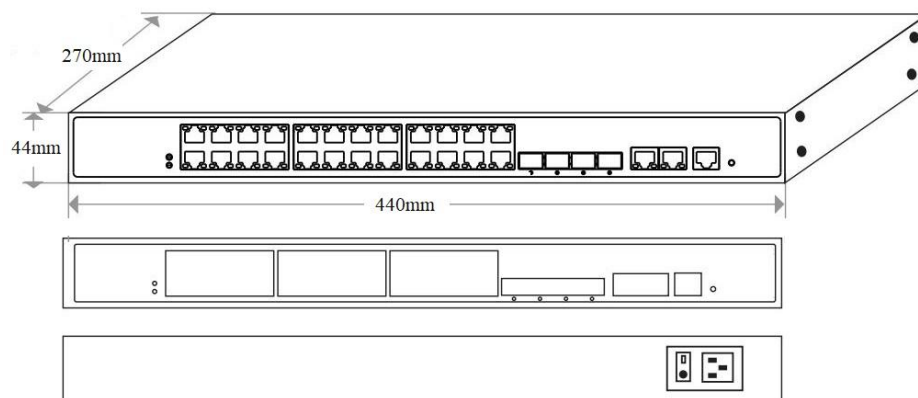
ORDERING INFORMATION

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 802.3af/at PoE standard. It built-in power supply and 1U/19" cabinet installation.	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

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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/ RX1330nm, transmission distance: 20km, LC interface. supports DDM function and hot plugging.	PC

CONTACT US

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