

12-Port Full Gigabit Industrial Managed PoE Switch

(ONV-IPS33128PFM)



OVERVIEW

ONV-IPS330128PFM series is ONV self-developed full Gigabit industrial Managed PoE switch, with 10 Gigabit RJ45 ports + 2*Gigabit SFP slot, port 1-8 support IEEE 802.3af/at standard POE power supply, single port POE power up to 30W, and the maximum POE output power of the whole machine is 120W (at-240W). As a POE power supply device, it can automatically detect and identify the electrical equipment that meets the standard and supply power through the cable. It can supply the POE terminal equipment, such as wireless AP, network camera, network telephone, industrial sensor and so on, to meet the demand for high density PoE power supply network environment. It is suitable for intelligent transportation, rail transportation, electric power industry, mining mining, metallurgy and green energy construction and so on. A reliable communication network.

Network management model supports a variety of network redundancy protocol STP/RSTP/MSTP (<50ms). When one way network fails, communication can be recovered quickly to ensure uninterrupted communication of important applications. ONV-IPS33128PFM industrial series products fully follow industrial product design and material. The shell adopts aluminum alloy to enhance heat dissipation efficiency, IP40 protection grade, and ensures the stable operation of the equipment in bad environment. According to the actual application needs, through Web, CLI, SNMP network management, POE power supply management, port flow control, VLAN division, STP, RSTP and other functions of the application service configuration.

FEATURE

■ Full Gigabit Port

- ◇ All series supports "Ethernet port + SFP port" combination, which enables users to flexibly build networking to meet the needs of various scenarios.
- ◇ Support non-blocking wire speed forwarding .
- ◇ Support full duplex based on IEEE802.3x and half duplex based on backpressure .

■ Intelligent POE Power Supply Function

- ◇ 8*10/100/1000 Base-T RJ45 ports support POE power supply to meet the needs of POE in various industrial fields.
- ◇ Conforms to the IEEE 802.3af POE power supply standard, automatically recognizes POE devices for power supply, without damaging non-POE devices. The maximum POE output power of the entire device reaches 120W, and the maximum POE output power of a single port is 30 W.
- ◇ Support POE network management function, through the network management configuration, POE port power allocation, priority setting, port power status view, time scheduling, etc.

■ Strong Business Processing Capability

- ◇ Support IEEE 802.1Q VLAN, users can flexibly divide VLAN according to needs, and support QinQ configuration.
- ◇ Support QoS, support port based, 802.1P based and DSCP based three priority modes and Equ, SP, WRR, SP+WRR four queue scheduling algorithms.
- ◇ ACL supports the filtering of data packets by configuring matching rules, processing operations and time permissions, and provides a flexible access control strategy.

- ◇ Support IGMP V1/V2 multicast protocol and support IGMP Snooping to meet the multi terminal HD video surveillance and video conference access requirements.
- ◇ Support STP/RSTP/MSTP production tree protocol, eliminates two layers of loops, and realizes link backup.
- ◇ Support static convergence and dynamic convergence, effectively increases link bandwidth, achieves load balancing, link backup, and improves link reliability.

■ Complete Safety Protection Mechanism

- ◇ Support 802.1X authentication, provide authentication function for LAN computer, and control the authorized status of controlled port according to the result of authentication.
- ◇ Support port isolation , port mirroring
- ◇ Support port broadcast storm suppression
- ◇ Support port +MAC binding, IP+MAC+ port binding function

■ The Equipment Is Stable And Reliable

- ◇ The host has low power consumption, no fan mute design, aluminum alloy metal shell, excellent heat dissipation, and ensure stable operation of products.
- ◇ The equipment fully meets the requirements of 3C, CE, FCC and RoHS safety regulations, and is safe and reliable.
- ◇ The user can easily understand the working status of the device through the power indicator (PWR), port status indicator (Link/Act), and POE operation indicator.

TECHNICAL SPECIFICATION

Model	ONV-IPS33128PFM
Interface	8*10/100/1000 Base-TX POE Ports (Data/Power) 2*10/100/1000Base-TX uplink RJ45 port(Data) 2*100/1000 SFP slots (Data) 1*Console RS232 control port 2 sets of V+, V- redundant DC power interface (Phoenix terminal)
PoE Port	Port 1-10 support POE @ IEEE802.3af/at
Network Protocol	IEEE802.3 10BASE-T; IEEE802.3i 10Base-T;

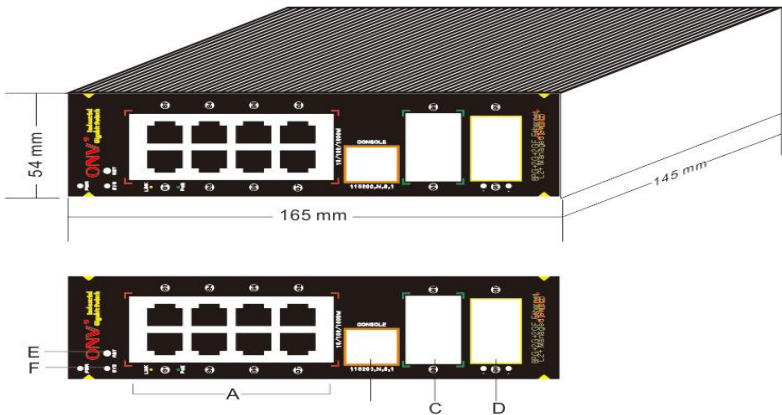
	IEEE802.3u 100Base-TX/FX; IEEE802.3ab 1000Base-TX IEEE802.3z 1000Base-FX IEEE802.3x	
PoE Standard	IEEE802.3af/at	
Ethernet Port Feature	10/100/1000BaseT (X) automatic detection, full / half duplex MDI/MDI-X adaptive	
SFP Port Characteristic	Gigabit SFP optical fiber interface, default matching optical modules, need to buy separately, (optional order mode / multi-mode, single fiber / double fiber optical module).	
Forwarding Mode	Store and Forward(Full Wire Speed)	
Switching Capacity	192Gbps	
Forwarding Rate@64byte	17.86Mpps	
MAC	8K	
Buffer Memory	4M	
Twisted Pair Transmission	10BASE-T: Cat3,4,5 UTP(≤100 meter) 100BASE-TX: Cat5 or later UTP(≤100 meter) 1000BASE-TX: Cat5 or later UTP(≤100 meter)	
Optical Cable	Multi mode: 850nm 0 ~ 550M, Single mode: 1310nm 0 ~ 40KM, 1550nm 0 ~ 120KM.	
Power Supply Pin	Only support 1/2 (+), 3/6 (-)	
MAX / AVERAGE Power Per Port	30W/15.4W	30W/30W
Total PWR / Input Voltage	120W (48-57VDC)	240W (50-57VDC)
Power Consumption	Standby:<5W; Full load:<120W	Standby:<6W; Full load:<240W
LED	Power Indicator Light: PWR (Green); Network Indicator: Link/Act (Yellow); Light Mouth Indicator: L/F (Green); POE Work Indicator: POE (Green)	
Power Supply	No, see accessories information table to buy and use	
Operation TEMP / Humidity	-40~+80°C;5%~90% RH Non condensing	
Storage TEMP / Humidity	-40~+85°C;5%~95% RH Non condensing	
Dimension	165*145*54mm	
Net /Gross Weight	<0.8kg / <1.2kg	
Anti-surge / Protection Level	Anti-surge:4KV 8/20us; Protection Level:IP40 IEC61000-4-2 (ESD) ±8kV Contact Discharge,±15kV Air Discharge	

	<p>IEC61000-4-3 (RS) 10V/m (80~1000MHz)</p> <p>IEC61000-4-4 (EFT) Power Line: ±4kV; Data Line: ±2kV</p> <p>IEC61000-4-5 (Surge) Power Line,CM±4kV/DM±2kV; Data Line,±4kV</p> <p>IEC61000-4-6 (Radio Frequency Conduction) 10V (150kHz~80MHz)</p> <p>IEC61000-4-8 (Power Frequency Magnetic Field)</p> <p>100A/m Continued; 1000A/m,1s to 3s</p> <p>IEC61000-4-9 (Pulsed Magnetic Field) 1000A/m</p> <p>IEC61000-4-10 (Damping Oscillation) 30A/m ,1MHz</p> <p>IEC61000-4-12/18 (SHOCKWAVE) CM 2.5kV, DM 1kV</p> <p>IEC61000-4-16 (Common Mode Conduction) 30V Continued; 300V,1s</p> <p>FCC Part 15/CISPR22 (EN55022) Class A</p> <p>IEC61000-6-2(General Industry standard)</p>
Mechanical Properties	<p>IEC60068-2-6 (anti vibration)</p> <p>IEC60068-2-27 (anti shock)</p> <p>IEC60068-2-32 (free fall)</p>
Certification	<p>3C</p> <p>CE mark, commercial;</p> <p>CE/LVD EN60950;</p> <p>FCC Part 15 Class B; ROHS;</p>
Warranty	5 years, lifelong maintenance.
Business features (only restricted management function models)	
Port	<p>Support IEEE802.3x flow control (full duplex)</p> <p>Support for broadcast storm suppression based on port rate</p> <p>support speed limit for incoming and offline message traffic, with a minimum particle size of 64Kbps.</p> <p>Support port temperature protection settings</p> <p>Support port EEE green Ethernet energy saving configuration</p>
PoE Management	<p>Support total power limit configuration for POE power supply</p> <p>Support PoE output power allocation per port, close / start af/at</p> <p>Support PoE output priority configuration per port</p> <p>Support PoE work status per port display</p> <p>Support power delay start</p> <p>Support PoE work and time scheduling</p>
Layer3 Function	<p>Support L2+ layer3 soft routing (weak three tier) forwarding, non line speed.</p> <p>Support static routing / default routing 128, 1024 ARP software forwarding</p>
VLAN	<p>Support port based VLAN (4K), IEEE802.1q</p> <p>Support protocol based VLAN</p> <p>Support Access, Trunk, Hybrid three types of port configuration</p> <p>Support QinQ configuration</p>
Port Aggregation	<p>Support LACP</p> <p>Support static polymerization</p> <p>Support the largest 8 aggregation groups, each aggregation group supports</p>

	8 ports.
Spanning Tree	Support STP (IEEE802.1d) Support STPRSTP (IEEE802.1w) Support STP MSTP (IEEE802.1s)
Industrial Ring Network Protocol	Support G.8032 (ERPS), support 255 loops at most, and supports 1024 devices per ring. The self healing time of the ring network is less than 20ms
Multicast	Support IGMP Snooping V1/V2 and support 1024 multicast groups at most. Support the user's quick departure mechanism Support MLD Snooping V1/V2 Support multicast VLAN
Image	Bi-directional traffic mirroring supporting the basic port
QoS	Support Diff-Serv QoS Each port supports 8 output queues Support 802.1p/DSCP priority mapping Support queue scheduling mechanism (SP, WRR, SP+WRR) Support priority tag Mark/Remark Support stream based packet filtering Support for stream based redirection Support flow based speed limit
ACL	Support L2 to L4 packet filtering function, can match the first 80 bytes of the message, provide based on the source MAC address, destination MAC address, source IP address, destination IP address, IP protocol type, TCP/UDP port, TCP/UDP port range, VLAN and other definition ACL. Support ACL based on port and VLAN
Safety Characteristics	Support user grading management and password protection Support IEEE802.1X authentication / centralized MAC address authentication Support AAA&RADIUS authentication Support the number of MAC address learning restrictions Support MAC address black hole Support SSH 2 to provide secure passwords for user login. Support SSL to ensure data transmission security Support port isolation Support the speed limit function of ARP message Support IP source address protection Support ARP intrusion detection function Support against DoS attacks Support port broadcast message suppression Support host data backup mechanism Binding capabilities of IP+MAC+VLAN+ ports

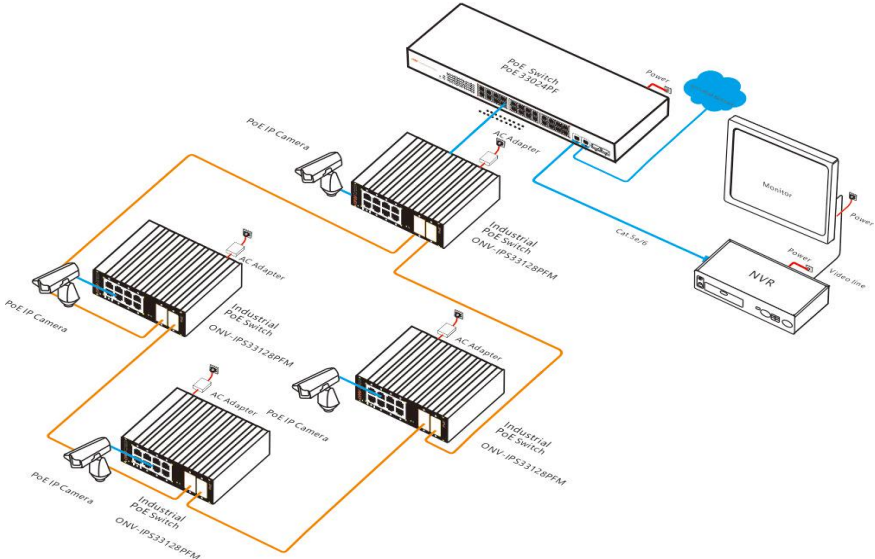
DHCP	Support DHCP Client Support DHCP Snooping
Management And Maintenance	Support Console/AUX Modem/Telnet/SSH2.0 CLI command line configuration Support WEB network management (support for HTTPS) Support FTP, TFTP, Xmodem, SFTP file download management Support SNMP V1/V2C/V3 Support one bond reduction Support NTP clock Support system work log Support the English command line to help information Support Ping detection Support cable state detection Support CPU instant utilization status view Support link layer discovery protocol LLDP ONV NMS cluster management supporting ONV service (LLDP+SNMP)
System Requirements	Web browser: Mozilla Firefox 2.5 or higher, Google browser chrome V42 or higher, Microsoft Internet Explorer10 or later; 5 types and above Ethernet cable; TCP/ IP, network adapter and network operating system (such as Microsoft Windows, Linux or Mac OS X) are installed on computers in the network.

DIMENSION



- A.PoE Port B.Control Port
- C.Uplink Gigabit port D.reset key
- E.System work indicator light

APPLICATION



PACKING LIST

PACKING LIST	CONTENT		QTY	UNIT
	12 Port Full Gigabit Industrial Managed PoE Switch (ONV-IPS33128PFM)		1	SET
	User Guide		1	PC
	Warranty Card And Certificate Of Qualification		1	PC

Description: the product does not match the power supply and optical module by default. If you need to purchase it, please refer to the accessory product information.

ORDERING INFORMATION

Model	Description
ONV-IPS33128PF M	10*10/100/100M RJ45 port +2*100/1000M SFP slot industrial Managed PoE switch, port 1-8 support IEEE 802.3af/at POE standard, total power 120W@af/240W@at, external power supply (Phoenix terminal connection).

SELECTION OF INFORMATION

Optical Module Selection Table

Product	Model	Description	Unit
1.25G Optical Module	ONV-2630-LC	SFP optical module, 1.25G, multimode dual fiber 850nm, transmission distance: 550m, LC interface, support DDM function, support hot plug.	PC
	ONV-2632-LC	SFP optical module, 1.25G, single mode dual fiber 1310nm, transmission distance: 20km, LC interface, support DDM function, support hot plug.	PC
	ONV-2612-T-L C	SFP optical module, 1.25G, single-mode single fiber TX1310nm/RX1550nm, transmission distance: 20km, LC interface, support DDM function, support hot plug.	PC
	ONV-2613-R-L C	SFP optical module, 1.25G, single-mode single fiber TX1550nm/RX1310nm, transmission distance: 20km, LC interface, support DDM function, support hot plug.	PC
	ONV-2612-T-S C	SFP optical module, 1.25G, single-mode single fiber TX1310nm/RX1550nm, transmission distance: 20km, SC interface, support DDM function, support hot plug.	PC
	ONV-2613-R-S C	SFP optical module, 1.25G, single-mode single fiber TX1550nm/RX1310nm, transmission distance: 20km, SC interface, support DDM function, support hot plug.	PC
Electric	ONV-SFP/TP	1.25G SFP optical module transfers to 10/100/1000M	PC

Module		RJ45 net port.	
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Power Supply Selection Table

Product	Model	Description	Unit
65W Desktop Power Adaptor	GWS-AP65-52	desktop tape 65W single set of output power adapter; Input Voltage: AC 100V~240V 50-60H, 1.1A Output Voltage: DC 52V 1.25A Operation Temperature: -20°C—+65°C	PC
110W Desktop Power Adaptor	GWS-AP110-52	desktop tape 110W single set of output power adapter; Input Voltage: AC 100V~240V 50-60H, 2.0A Output Voltage: DC 52V 2.15A Operation Temperature: -20°C—+65°C	PC
130W Desktop Power Adaptor	GWS-AP130-52	desktop tape 130W single set of output power adapter; Input Voltage: AC 100V~240V 50-60H, 2.3A Output Voltage: DC 52V 2.5A Operation Temperature: -20°C—+65°C	PC
60W DIN Rail Industrial Power Supply	GWS-DP60-48	Din Rail type 60W single set of output power adapter; Input Voltage: AC 100V~240V 50-60H, 1.1A Output Voltage: DC 48V 1.25A Operation Temperature: -40°C—+70°C	PC
120W DIN Rail Industrial Power Supply	GWS-DP120-48	Din Rail type 120W single set of output power adapter; Input Voltage: AC 100V~240V 50-60H, 2.0A Output Voltage: DC 48V 2.5A Operation Temperature: -40°C—+70°C	PC

<p>240W DIN Rail Industrial Power Supply</p>	<p>GWS-DP240-48</p>	<p>Din Rail type 240W single set of output power adapter; Input Voltage: AC 100V~240V 50-60H, 4.3A Output Voltage: DC 48V 5A Operation Temperature: -40℃—+70℃</p>	<p>PC</p>
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