

Product Datasheet

10-port Full Gigabit Managed Industrial PoE Switch

(ONV-IPS33108PFM)



OVERVIEW

ONV-IPS33108PFM is a full Gigabit managed industrial PoE switch independently developed by ONV. It has 8*10/100/1000Base-T RJ45 ports and 2*100/1000Base-X SFP fiber slot ports. Port 1-8 can support IEEE802.3af/at PoE standard. Single-port POE power up to 30W. As a PoE power supply device, it can automatically detect and recognize power-compliant devices that meet the standard and supply power through the network cable. It can supply power to POE terminal equipment such as wireless AP, webcam, VoIP, and industrial sensors through the network cable, and meet the network environment that needs a high-density PoE power supply. It is suitable for intelligent transportation, rail transit, power industry, mining, petroleum, and industrial scenes such as shipping, metallurgy, and green energy construction form a cost-effective, stable, and

reliable communication network.

The ONV-IPS33108PFM can support a variety of network redundancy protocols STP/RSTP/MSTP(<50ms). When a one-way network fails, it can quickly restore communication to ensure uninterrupted communication of important applications. The shell is made of aluminum alloy. IP40 protection level, which ensures the stable operation of the equipment in harsh environments. According to actual application needs, PoE power supply management, port flow control, VLAN division, STP, RSTP, and other application service configurations can be performed through Web, CLI, and SNMP network management methods.

FEATURE

■ Gigabit access, SFP fiber port uplink

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

■ Intelligent PoE power supply

- ◇ IEEE802.3af/at PoE standard, without damaging non-PoE devices.
- ◇ PoE network management, realize PoE port power allocation, priority setting, port power status viewing, time scheduling, etc.
- ◇ 8*10/100/1000Base-T RJ45 ports, meeting the needs of security monitoring, teleconferencing system, wireless coverage, and other scenarios.

■ PoE network management and fast Ring function

- ◇ STP/RSTP/MSTP.
- ◇ Static and dynamic aggregation.
- ◇ IGMP V1/V2 and IGMP Snooping.

- ◇ IEEE802.1Q VLAN, flexible VLAN division and QinQ configuration.
- ◇ QoS, Priority mode based on 802.1P, Port & DSCP, queue scheduling algorithm including EQU, SP, WRR & SP+WRR.
- ◇ ALC, filter data packet through configuring matching rules, processing operation & time permission, and provide flexible and safe access control.

■ Security

- ◇ 802.1X authentication.
- ◇ Port isolation, Storm control.
- ◇ IP-MAC-VLAN-Port binding.

■ Stable and reliable

- ◇ CCC, CE, FCC, and RoHS.
- ◇ Low power consumption, No fan, aluminum shell.
- ◇ The user-friendly panel can show the device status through the LED indicator of PWR, Link/Act, PoE.

■ One-stop remote control and management

- ◇ HTTPS, SSLV3, and SSHV1/V2.
- ◇ RMON, system log, LLDP, and port traffic statistics.
- ◇ CPU monitoring, memory monitoring, Ping test, and cable diagnose.
- ◇ Web management, CLI command line (Console, Telnet), SNMP (V1/V2/V3).

TECHNICAL SPECIFICATION

Model	ONV-IPS33108PFM
Interface Characteristics	
Fixed Port	1* RS232 Console port 8*10/100/1000Base-T PoE ports (Data/Power)

	2*100/1000Base-X uplink SFP slot ports (Data) 2 set of V+, V- redundant DC power interface (5 Pin Phoenix terminal)
Ethernet Port	Port 1-8 support 10/100/1000Base-T auto-sensing, Full/half duplex MDI/MDI-X self-adaption
Twisted Pair Transmission	10BASE-T: Cat3,4,5 UTP(≤100 meter) 100BASE-TX: Cat5 or later UTP(≤100 meter) 1000BASE-T: Cat5e or later UTP(≤100 meter)
SFP Slot Port	Gigabit SFP optical fiber interface, default no include optical modules (optional order 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	IEEE802.3 10BASE-T, IEEE802.3i 10Base-T, IEEE802.3u 100Base-TX IEEE802.3ab 1000Base-TX, IEEE802.3z 1000Base-X, IEEE802.3x
Forwarding Mode	Store and Forward(Full Wire Speed)
Switching Capacity	192Gbps
Forwarding Rate@64byte	14.88Mpps
CPU	416MHz
DRAM	1G
FLASH	128M
MAC	8K
Buffer Memory	4M
Jumbo Frame	9.6K
LED Indicator	Power/System:SYS (Green), Network: Link (Yellow), Fiber port: L/A

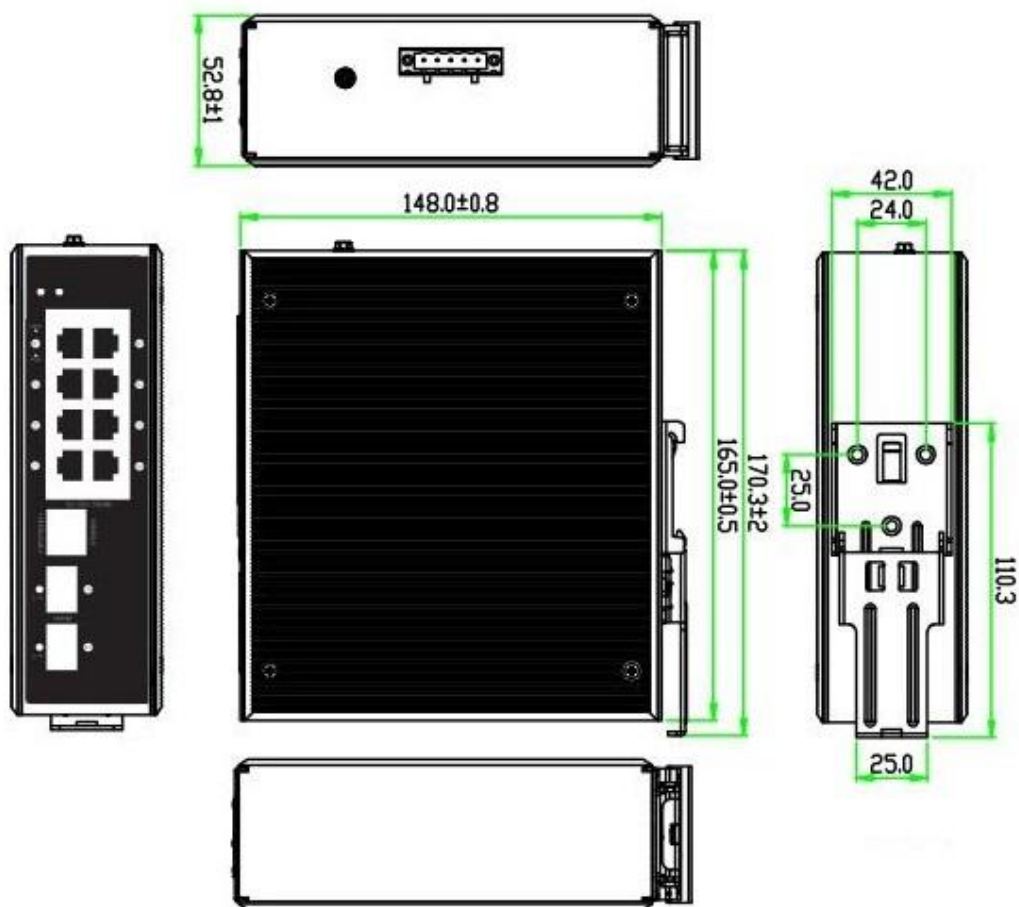
	(Green), PoE: PoE (Green)
Reset Switch	Yes, Press and hold the reset switch for 10s and release it to restore the factory settings
PoE & Power Supply	
PoE Port	Port 1 to 8, IEEE802.3af/at
PoE Management	Total power limit of PoE power supply PoE output power allocation, PoE on&off/ af&at PoE working status, Delay start of power supply PoE output priority configuration, Scheduling of PoE operation and time
Power Supply Pin	Default: 1/2 (+) 3/6 (-)
Max Power Per Port	30W, IEEE802.3af/at
Power Consumption	Standby<10W, Full load af<120W, at<240W
Working Voltage	48-57VDC, 5 Pin industrial Phoenix terminal, support anti-reverse protection.
Power Supply	No, optional 48V/120W or 48V/240W industrial power supply
Physical Parameter	
Operation TEMP / Humidity	-40~+80°C, 5%~90% RH Non condensing
Storage TEMP / Humidity	-40~+85°C, 5%~95% RH Non condensing
Dimension (L*W*H)	165*148*54mm
Net /Gross Weight	<0.8kg / <1.2kg
Installation	Desktop, 35mmDIN rail
Certification & Warranty	
Lightning	Lightning protection: 6KV 8/20us; Protection level: IP40

protection	<p>IEC61000-4-2(ESD):±8kV contact discharge,±15kV air discharge</p> <p>IEC61000-4-3(RS):10V/m(80~1000MHz)</p> <p>IEC61000-4-4(EFT): power cable:±4kV; data cable:±2kV</p> <p>IEC61000-4-5(Surge):power cable:CM±4kV/DM±2kV; data cable:±4kV</p> <p>IEC61000-4-6(radio frequency transmission):10V(150kHz~80MHz)</p> <p>IEC61000-4-8(power frequency magnetic field):100A/m;1000A/m ,1s to 3s</p> <p>IEC61000-4-9(pulsed magnet field):1000A/m</p> <p>IEC61000-4-10(damped oscillation):30A/m 1MHz</p> <p>IEC61000-4-12/18(shockwave):CM 2.5kV,DM 1kV</p> <p>IEC61000-4-16(common-mode transmission):30V; 300V,1s</p> <p>FCC Part 15/CISPR22(EN55022):Class B</p> <p>IEC61000-6-2(Common Industrial 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>CCC, CE mark, commercial, CE/LVD EN62368-1, FCC Part 15 Class B, RoHS</p>
Warranty	<p>5 years, lifelong maintenance.</p>
Network Management Features	
Interface	<p>IEEE802.3X (Full-duplex)</p> <p>Port temperature protection setting</p> <p>Port green Ethernet Energy-saving setting</p> <p>Broadcast storm control based on port speed</p> <p>The speed limit of the message flow in the access port.</p> <p>The minimum particle size is 64Kbps.</p>
Layer 3 Features	<p>Static route/default route @ 128 pcs, APR @ 1024 pcs</p> <p>Support communication between different network segments and different VLANs</p> <p>Support L2+ network management, IPV4/IPV6 dual-stack management,</p>

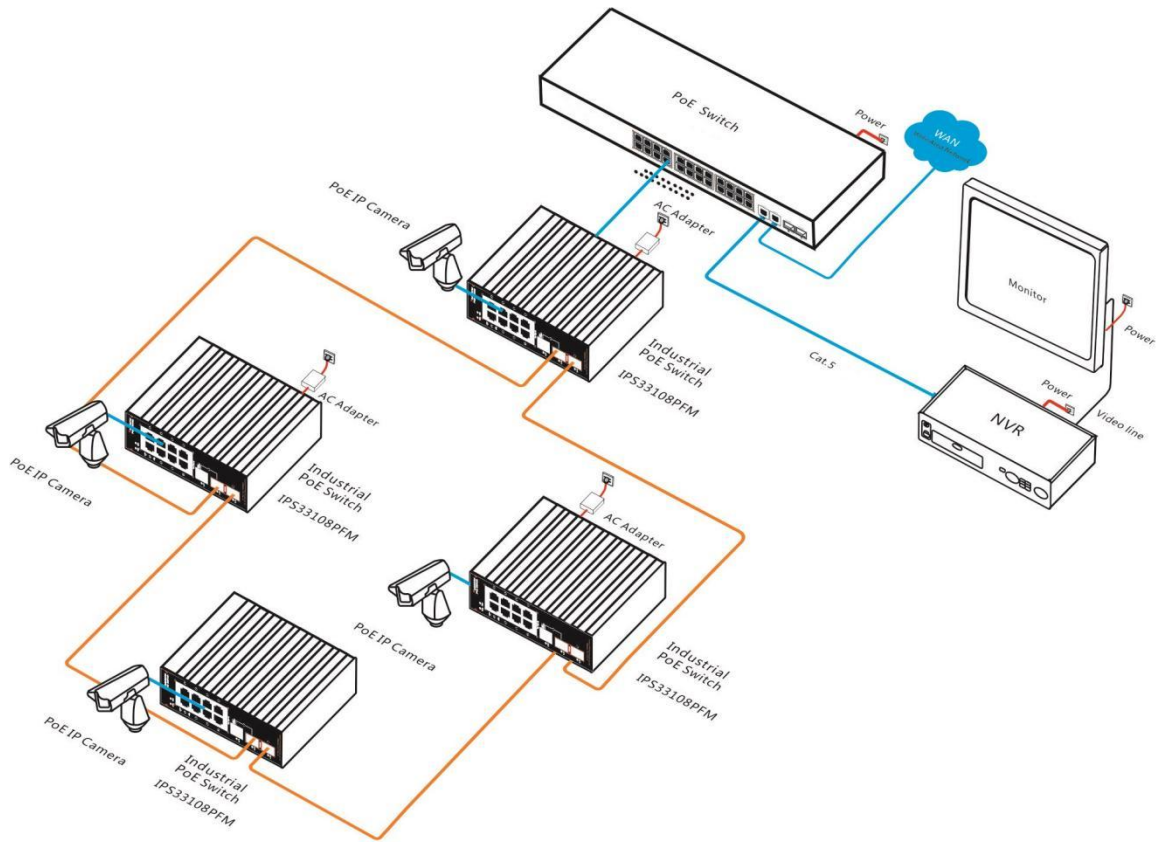
	and L3 routing and forwarding
VLAN	Port configuration of Access, Trunk, Hybrid VLAN based on MAC, Voice VLAN, QinQ configuration VLAN based on the protocol, 4K VLAN based on port, IEEE802.1q
Port Aggregation	LACP, Static aggregation Max 5 aggregation groups and 8 ports per group.
Spanning Tree	STP (IEEE802.1d), RSTP (IEEE802.1w), MSTP (IEEE802.1s)
Industrial Ring	250 Ring at most, Max 250 devices per ring.
Network Protocol	G.8032 (ERPS), Recovery time less than 20ms
Multicast	MLD Snooping v1/v2, Multicast VLAN IGMP Snooping v1/v2, Max 1024 multicast groups, Fast log out
Port Mirroring	Bidirectional data mirroring based on port
QoS	Diff-Serv QoS, Priority Mark/Remark Queue Scheduling Algorithm (SP, WRR, SP+WRR) Flow-based Rate Limiting, Flow-based Packet Filtering 8*Output queues of each port, 802.1p/DSCP priority mapping
ACL	Port-based Issuing ACL, ACL based on port and VLAN L2 to L4 packet filtering, matching first 80 bytes message. Provide ACL based on MAC, Destination MAC address, IP Source, Destination IP, IP Protocol Type, TCP/UDP Port, TCP/UDP Port Range, and VLAN, etc.
Security	IEEE802.1X & MAC address authentication Broadcast storm control, Backup for host datum SSH 2.0, SSL, Port isolation, ARP message speed limit User hierarchical management and password protection IP-MAC-VLAN-Port binding, ARP inspection, Anti-DoS attack AAA & RADIUS, MAC learning limit, Mac black holes, IP source protection
DHCP	DHCP Client, DHCP Snooping, DHCP Server, DHCP Relay
Management	Console/AUX Modem/Telnet/SSH2.0 CLI ONV NMS- Network Management System Platform(LLDP+SNMP)

	<p>NTP, System work log, Ping Test, CPU instant utilization status view</p> <p>One-key recovery, Cable Diagnose, LLDP, Web Management (HTTPS)</p> <p>Download & Management on FTP, TFTP, Xmodem, SFTP, SNMP</p> <p>V1/V2C/V3</p>
System	<p>Category 5 Ethernet network cable</p> <p>Web browser: Mozilla Firefox 2.5 or higher, Google browser chrome V42 or higher, Microsoft Internet Explorer10 or later;</p> <p>TCP/IP, network adapter, and network operating system (such as Microsoft Windows, Linux, or Mac OS X) installed on each computer in a network</p>

DIMENSION



APPLICATION



ORDERING INFORMATION

Model	Description	Recommended Power Supply
ONV-IPS33108PFM	L2+ managed industrial PoE fiber switch with 8*10/100/1000M RJ45 ports and 2*100/1000M SFP ports. Port 1-8 can support IEEE802.3af/at PoE standard. Support DC dual power supply input and DIN rail mounting.	120W/240W

Note: The SFP optical module and power supply are not included. need to be purchased separately.

PACKING LIST

PACKING LIST	CONTENT	QTY	UNIT
	10-port full gigabit managed industrial PoE switch	1	SET
	RJ45-DB9 Line	1	PC
	User Guide	1	PC
	Warranty Card	1	PC

OPTICAL MODULE INFORMATION

Product	Model	Description	Unit
1.25G Optical Module	2630-G	Industrial SFP optical module, 1.25G, multi-mode dual fiber 850nm, transmission distance: 550m, LC interface, support DDM function, support hot plug and pull.	PC
	2632-G	Industrial SFP optical module, 1.25G, single-mode dual fiber 1310nm, transmission distance: 20km, LC interface, support DDM function, support hot plug and pull.	PC
	2612-T-G	Industrial SFP optical module, 1.25G, single-mode single fiber TX1310nm/RX1550nm, transmission distance: 20km, LC interface, support DDM function, support hot plug and pull.	PC
	2613-R-G	Industrial SFP optical module, 1.25G, single-mode single fiber TX1550nm/RX1310nm, transmission distance: 20km, LC interface, support DDM function, support hot plug and pull.	PC
	2612-T-G-SC	Industrial SFP optical module, 1.25G, single-mode single fiber TX1310nm/RX1550nm, transmission distance: 20km, SC interface, support DDM function, support hot plug and pull.	PC

	2613-R-G-SC	Industrial SFP optical module, 1.25G, single-mode single fiber TX1550nm/RX1310nm, transmission distance: 20km, SC interface, support DDM function, support hot plug and pull.	PC
Power Module	2633	1.25G SFP optical module transfers to 10/100/1000M RJ45 port.	PC

POWER SUPPLY

Product	Model	Description	Unit
130W Desktop Power Adaptor	GWS-AP130-52	Desktop 130W single set of output power adaptor Input Voltage:AC 100V~240V 50-60Hz,2.3A Output Voltage:DC 52V 2.5A Operation Temperature:-20℃—+65℃	PC
250W Desktop Power Adaptor	GWS-AP250-52	Desktop 250W single set of output power adaptor Input Voltage:AC 100V~240V 50-60Hz,4.1A Output Voltage:DC 52V 4.8A Operation Temperature:-20℃—+65℃	PC
120W DIN Rail Industrial Power Supply	GWS-DP120-48	Din Rail 120W single set of output power supply Input Voltage:AC 100V~240V 50-60Hz,1.5A Output Voltage:DC 48V 2.5A Operation Temperature:-40℃—+70℃	PC
240W DIN Rail Industrial Power	GWS-DP240-48	Din Rail 240W single set of output power supply Input Voltage:AC 100V~240V 50-60Hz,3A	PC

Supply	Output Voltage:DC 48V 5A
	Operation Temperature:-40℃—+70℃

RELATED PRODUCT

Model	Description
ONV-IPS33064PFM	L2+ managed industrial PoE fiber switch with 4*10/100/1000M RJ45 ports and 2*100/1000M SFP slot ports. Port 1-4 can support IEEE802.3af/at PoE standard. Support DC dual power supply input and DIN rail mounting.
ONV-IPS33084PFM	L2+ managed industrial PoE fiber switch with 4*10/100/1000M RJ45 ports and 4*100/1000M SFP slot ports. Port 1-4 can support IEEE802.3af/at PoE standard. Support DC dual power supply input and DIN rail mounting.
ONV-IPS33148PFM	L2+ managed industrial PoE fiber switch with 10*10/100/1000M RJ45 ports and 4*100/1000M SFP slot ports. Port 1-8 can support IEEE802.3af/at PoE standard. Support DC dual power supply input and DIN rail mounting.
ONV-IPS33168PFM-4 GF	L2+ managed industrial PoE fiber switch with 12*10/100/1000M RJ45 ports and 4*100/1000M SFP slot ports. Port 1-8 can support IEEE802.3af/at PoE standard. Support DC dual power supply input and DIN rail mounting.
ONV-IPS36168PFM	L2+ managed industrial PoE fiber switch with 12*10/100/1000M RJ45 ports and 4*1/10G SFP+ slot ports. Port 1-8 can support IEEE802.3af/at PoE standard. Support DC dual power supply input and DIN rail mounting.

CONTACT US

ONV OPTICAL NETWORK VIDEO TECHNOLOGIES (SHENZHEN) CO., LTD.

Tel: 0086-755-33376606

Fax: 0086-755-33376608

Website: www.onvcom.com

Email/Skype/WeChat ID: onv@onv.com.cn

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

Factory Address: The 4-6th Floor, No. 59, Huaning Road, Xinwei Community, Dalang
Street, Longhua District, Shenzhen, China

