

Product Datasheet

6-port Gigabit Managed Industrial PoE Switch

(ONV-IPS33006PFM)



OVERVIEW

The ONV-IPS33006PFM is a Gigabit managed industrial PoE fiber switch independently developed by ONV. It has 4*10/100/1000M adaptive RJ45 ports and 2*100/1000M uplink SFP fiber ports. Ports 1-4 can support the IEEE 802.3 af/at PoE standard and single-port PoE power up to 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 industrial sensors through a network cable, and meet the network environment that needs a high-density PoE power supply. It is suitable for intelligent transportation, rail transit, electric power, mining, metallurgy, and green energy, and industrial scenes such as construction, setting up a cost-effective and stable communication network.

The ONV-IPS33006PFM has L2+ network management functions. It can support IPV4 management and static routing forwarding, complete security protection mechanisms, complete ACL/ QoS policies, and rich VLAN functions, making it easy to manage and

maintain. Supports multiple network redundancy protocols, such as RSTP (<50ms), to improve link backup and network reliability. When a one-way network fails, communication can be quickly restored to ensure uninterrupted communication of important transmissions. According to application needs, PoE power supply management, port flow control, VLAN division, QoS, and other application service configurations can be performed through network management methods such as Web, CLI, SNMP, and Telnet.

FEATURE

■ Gigabit access

- ◇ Support non-blocking wire-speed forwarding.
- ◇ Support full-duplex based on IEEE802.3x and half-duplex based on Backpressure.
- ◇ Support Gigabit RJ45 port and SFP port combination, which enables users to flexibly build networking to meet the needs of various scenarios.

■ Smart PoE power supply

- ◇ Users can configure PoE on/off settings and view port power status via the network management system.
- ◇ Comply with IEEE802.3 af/at PoE power supply standard, automatically identify PoE equipment for power supply.
- ◇ 4*10/100/1000Base-T RJ45 ports support PoE power, meeting the PoE power requirements of security monitoring, industrial automation systems, wireless coverage, and other scenarios.

■ Strong business processing capability

- ◇ Support the RSTP for ring networks, eliminating Layer 2 loops and providing link redundancy.
- ◇ Support IEEE 802.1Q VLANs, allowing users to flexibly partition VLANs according to their requirements.
- ◇ Support QoS, with three priority modes-port-based, 802.1P-based, and DSCP-based-and four queue scheduling algorithms: SP, WRR, and WFQ.

- ◇ Support ACLs, enabling packet filtering through the configuration of matching rules and processing actions, and providing flexible security access control policies.
- ◇ Support both static and dynamic aggregation, effectively increasing link bandwidth, achieving load balancing and link redundancy, and enhancing link reliability.
- ◇ Support IGMP V1/V2 multicast protocols and IGMP Snooping, meeting the access requirements for high-definition video surveillance and video conferencing across multiple terminals.

■ Security

- ◇ Support port isolation and port broadcast storm suppression.
- ◇ 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

- ◇ CE, FCC, RoHS.
- ◇ The user-friendly pane can show the device status through the LED indicators of PWR, SYS, Link, L/A, and PoE.
- ◇ Low power consumption, aluminum alloy 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.
- ◇ Port traffic statistics to facilitate network optimisation and upgrades.
- ◇ Support LLDP, enabling network management systems to query and assess link status.
- ◇ Support a variety of management and maintenance methods, including web-based management, CLI (Console, Telnet), SNMP (V1/V2/V3), and Telnet.

TECHNICAL SPECIFICATION

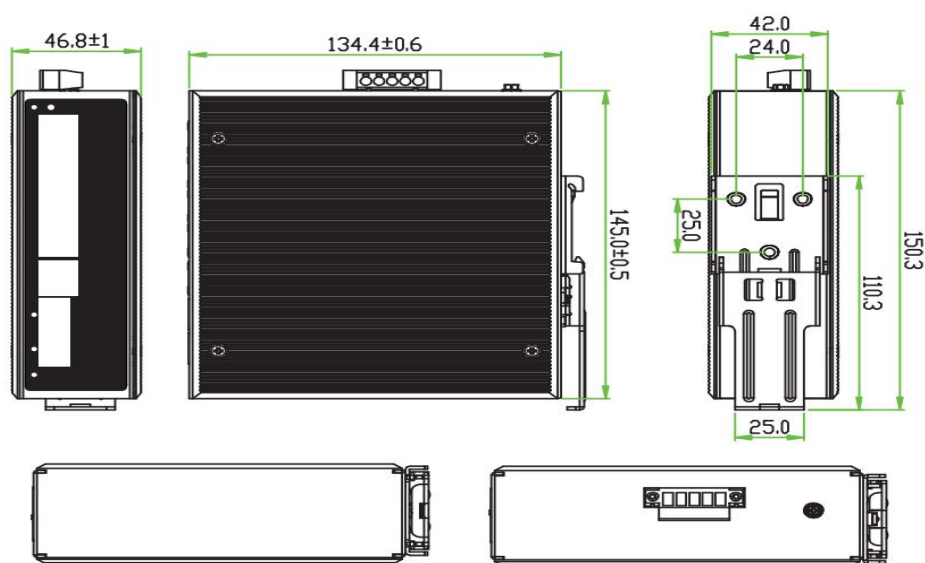
Model	ONV-IPS33006PFM
Interface Characteristics	
Fixed Port	1*RS232 Console port (115200, N, 8,1) 4*10/100/1000Base-T PoE ports (Data/ Power) 2*100/1000Base-X uplink SFP fiber ports (Data) 2 sets V+, V- redundant DC power port (5P industrial Phoenix terminal)
Ethernet Port	Ports 1-4 can support 10/100/1000Base-T auto-sensing, full/ half duplex MDI/ MDI-X self-adaption
Twisted Pair Transmission	10BASE-T: Cat3,4,5 UTP (≤100 meters) 100BASE-TX: Cat5 or later UTP (≤100 meters) 1000BASE-T: Cat5e or later UTP (≤100 meters)
Optical Fiber Port	Default does not 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	L2+
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 802.3x
Forwarding Mode	Store and Forward (Full Wire Speed)
Switching Capacity	36Gbps (non-blocking)
Forwarding Rate@64byte	8.93Mpps
CPU(Hz)	500M
DRAM	1G
Flash	128M
MAC	8K

Buffer Memory	4M
LED Indicator	Power: PWR (Yellow), System: SYS (Yellow), Network: Link (Yellow), Fiber port: L/A (Green), PoE: PoE (Green)
PoE& Power Supply	
PoE Port	Port 1-4
PoE Management	PoE working status display, Port PoE out on/off
Power Supply Pin	1/2(+) 3/6(-)
Max Power Per Port	30W, IEEE 802.3 af/at
Power Consumption	Standby<6W, full load<60W
Input Voltage/ Interface	DC44-57V, 5P industrial Phoenix terminal, supports anti-reverse protection.
Power Supply	No, optional 48V/60W or 48V/120W industrial power supply
Physical Parameter	
Operation Temp/ Humidity	-40°C~+80°C, 5%~90% RH non-condensing
Storage Temp/ Humidity	-40°C~+85°C, 5%~95% RH non-condensing
Dimension (L*W*H)	145*134.5*47mm
Net /Gross Weight	0.7kg/ 0.9kg
Installation	Desktop, 35mm DIN Rail
Certification& Warranty	
Lightning Protection	IEC61000-4-3 (RS):10V/m (80~1000MHz) FCC Part 15/CISPR22 (EN55022): Class A IEC61000-6-2 (Common Industrial Standard) IEC61000-4-9 (Pulsed magnet field): 1000A/m IEC61000-4-10 (Damped oscillation): 30A/m, 1MHz IEC61000-4-12/18 (Shockwave): CM2.5kV, DM 1kV Protection level: IP40, Lightning protection: 6KV 8/20us IEC61000-4-4(EFT): Power cable: ±4kV, data cable: ±2kV IEC61000-4-16 (Common-mode transmission): 30V, 300V, 1s IEC61000-4-2 (ESD): ±8kV contact discharge, ±15kV air discharge IEC61000-4-6 (Radio frequency transmission): 10V(150kHz~80MHz)

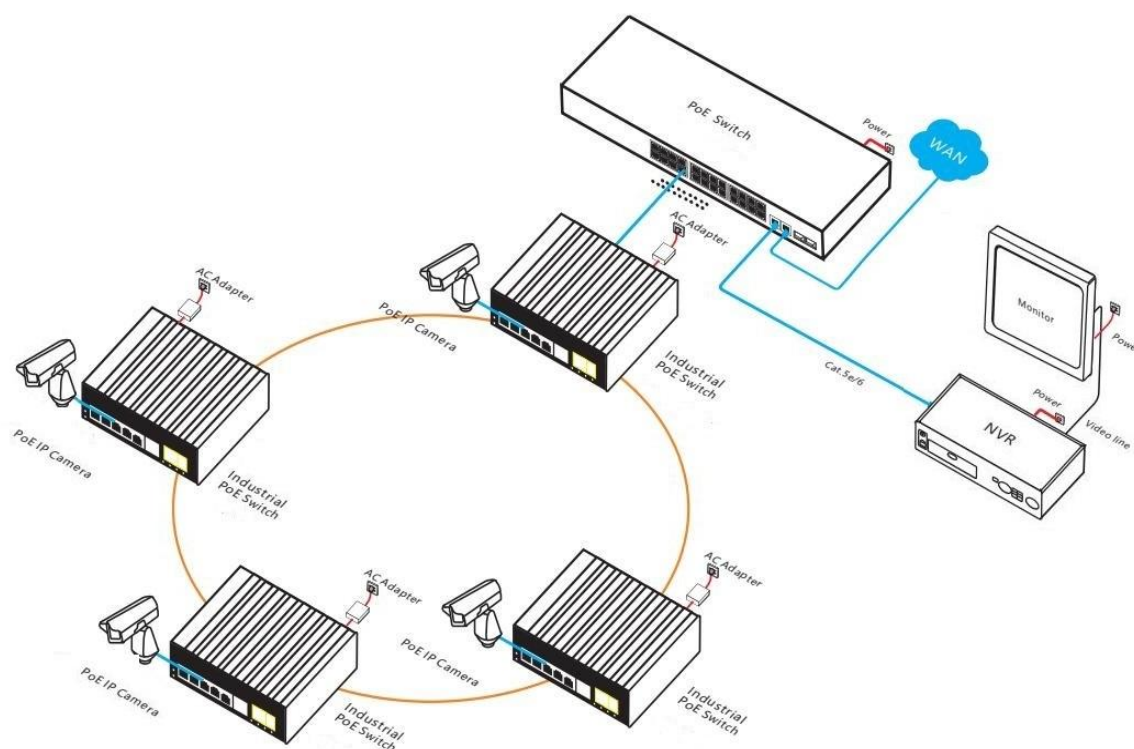
	IEC61000-4-5(Surge): Power cable: CM±4kV/ DM±2kV, data cable: ±4kV IEC61000-4-8 (Power frequency magnetic field): 100A/m, 1000A/m, 1s-3s
Mechanical Properties	IEC60068-2-6 (Anti Vibration), IEC60068-2-27 (Anti Shock), IEC60068-2-32 (Free Fall)
Certification	CE mark, commercial, CE/LVD EN62368-1, FCC Part 15 Class A, RoHS
Warranty	5 years, lifelong maintenance
Network Management Feature	
Interface	IEEE802.3x flow control (Full duplex) Port real-time traffic management (Flow Interval) Broadcast storm suppression based on port rate Limit the speed of the message traffic at the inbound and outbound ports, mini granularity is 16Kbps and max 1Gbps
L3 Feature	IPV4 static routing/ default routing, L2+ network management
VLAN	4K VLAN based on port, IEEE802.1q, Port configuration of Access, Trunk, Hybrid
Port Aggregation	LACP dynamic aggregation, Static aggregation Max 3 aggregation groups and 8 ports per group
Spanning Tree	RSTP (IEEE802.1w)
Ring Network Protocol	Support ERPS fast ring network function, recovery time less than 20ms
Multicast	Multicast VLAN, IGMP Snooping v1/v2, Fast log out
Port Mirroring	Bidirectional data mirroring based on port
QoS	8*output queues of each port, 802.1p/DSCP priority mapping Diff-Serv QoS, Queue scheduling mechanism (SP, WRR, SP+WRR)
ACL	Support for port-based ACL deployment Support L2 to L4 packet filtering, enabling the definition of ACLs 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, and other criteria.
Security	User-level access control and password protection

	Port- and MAC-based IEEE 802.1X authentication Port broadcast suppression, Host data backup mechanism Port isolation, Limit on the number of MAC addresses that can be learned AAA & RADIUS authentication (supports authentication only; does not support authorisation or billing)
DHCP	DHCP Client, DHCP Snooping
Management	SNMP V1/V2C/V3, Web network management NTP clock, CPU real-time utilization status check Console/ Telnet/ CLI command line configuration ONV-NMS platform cluster management (LLDP+SNMP) System work log, Cable status check, Ping Test (CLI) One-click restore, Link Layer Discovery Protocol (LLDP)
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

DIMENSION



APPLICATION



ORDERING INFORMATION

Model	Description	Recommended Power Supply
ONV-IPS33006PFM	L2+ managed industrial PoE fiber switch with 4*10/100/1000M RJ45 ports and 2*100/1000M uplink SFP fiber ports. Ports 1-4 can support the IEEE 802.3 af/at PoE standard. It can support dual DC redundant power input and DIN rail mounting.	60W/120W

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

PACKING LIST

Packing List	Content	Qty	Unit
	6-port Gigabit managed industrial PoE switch	1	PC
	RJ45-DB9 Adapter Cable	1	PC
	User Guide	1	PC
	Warranty Card and Certificate of Conformity	1	PC

OPTICAL MODULE

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, supports DDM function and hot plugging.	PC
	2632-G	Industrial SFP optical module, 1.25G single-mode dual fiber 1310nm, transmission distance: 20km, LC interface, supports DDM function and hot plugging.	PC
	2612-T-G	Industrial 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-G	Industrial 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-G	Industrial 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-G	Industrial 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
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POWER SUPPLY

Product	Model	Description	Unit
60W DIN Rail Industrial Power Supply	GWS-DP60-48	DIN Rai 60W single set of output power supply Input voltage: AC100V~240V 50-60Hz, 1.6A Output voltage: DC48V, 1.25A Operation temperature:-40℃ to +70℃	PC
120W DIN Rail Industrial Power Supply	GWS-DP120-48	DIN Rail 120W single set of output power supply Input voltage: AC100V~240V 50-60Hz, 2.3A Output voltage: DC48V, 2.5A Operation temperature: -40℃ to +70℃	PC

CONTACT US



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