

Product Datasheet

6-port Full Gigabit Managed Industrial PoE Switch

(ONV-IPS33064PFM)



OVERVIEW

ONV-IPS33064PFM is a Gigabit managed industrial PoE switch independently developed by ONV. It has 4*10/100/1000M PoE ports and 2*100/1000M SFP ports. Port 1-4 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-IPS33064PFM has the L2+ full network management function, supports IPV4/IPV6 management, static route full line-rate forwarding, security protection

mechanism, ACL/QoS policy, and VLAN, and is easy to manage and maintain. Support multiple network redundancy protocols STP/RSTP/MSTP (<50ms) and (ITU-T G.8032) ERPS(<20ms) 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

■ 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

- ◇ IEEE 802.3af/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.
- ◇ Priority system for PoE port, it will supply power to the high priority level port first when the power budget is insufficient and avoid overwork of the device.
- ◇ 4*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

- ◇ ERPS/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, RoHS.
- ◇ Low power consumption, No fan, aluminum shell.
- ◇ The user-friendly panel can show the device status through the LED indicator of PWR, SYS, Link, L/A, 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-IPS33064PFM
Interface Characteristics	
Fixed Port	1*RS232 console port(115200,N,8,1) 2*100/1000Base-X uplink SFP ports (Data) 4*10/100/1000Base-T PoE ports (Data/Power) 2 set of V+, V- redundant DC power interface (5 Pin Phoenix terminal)
Ethernet Port	Port 1-4 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/ 0-550M, 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	128Gbps
Forwarding Rate@64byte	8.93Mpps
CPU	416MHz

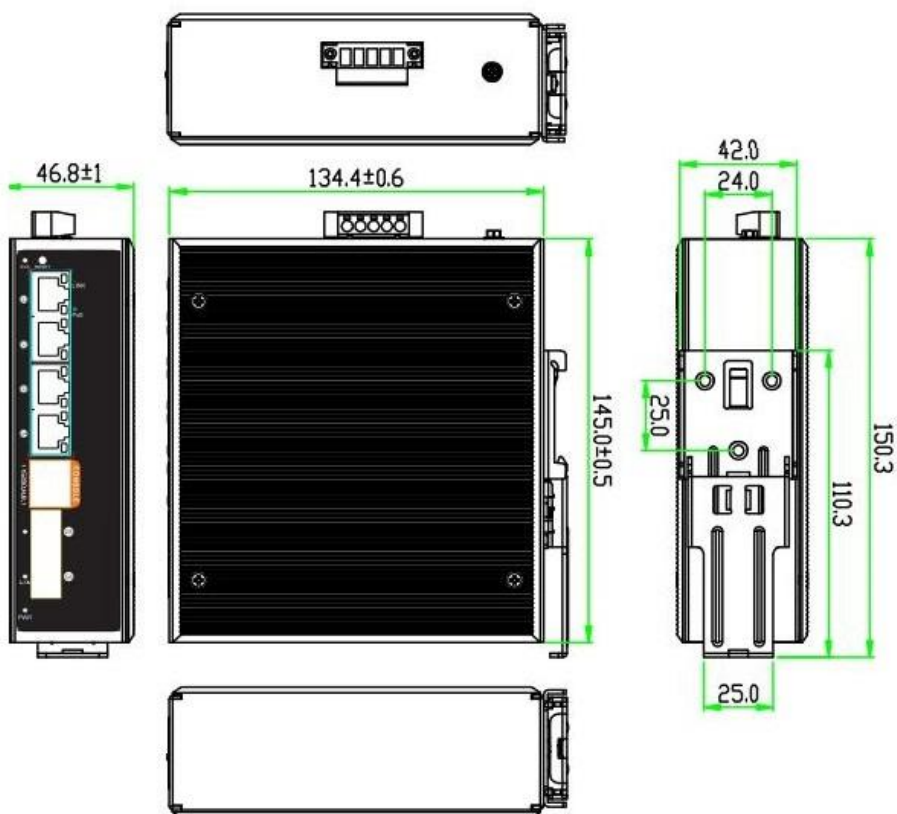
DRAM	1G
FLASH	128M
MAC	8K
Buffer Memory	4M
Jumbo Frame	9.6K
LED Indicator	Power/System: SYS (Green), Network: Link (Yellow), Fiber port: L/A (Green), PoE: PoE (Green)
Reset Switch	Yes, One-button factory reset
PoE & Power Supply	
PoE Port	Port 1 to 4, IEEE802.3af/at
PoE Management	Total power limit of 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<8W, Full load af<60W, at<120W
Working Voltage	DC48-57V, 5 Pin industrial Phoenix terminal, support anti-reverse protection.
Power Supply	No, optional 48V/60W or 48V/120W 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)	145*134.5*47.5mm
Net /Gross Weight	<0.6kg / <0.8kg
Installation	Desktop, 35mm DIN rail

Certification & Warranty	
Lightning Protection	<p>Lightning protection: 6KV 8/20us; Protection level: IP40</p> <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	CCC, CE mark, commercial, CE/LVD EN62368-1, FCC Part 15 Class B, RoHS
Warranty	5 years, lifelong maintenance.
Network Management Features	
Interface	<p>Port green Ethernet Energy-saving setting</p> <p>Broadcast storm control based on port speed</p> <p>IEEE802.3X (Full-duplex), Port temperature protection setting</p> <p>The speed limit of the message flow in the access port. 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</p>

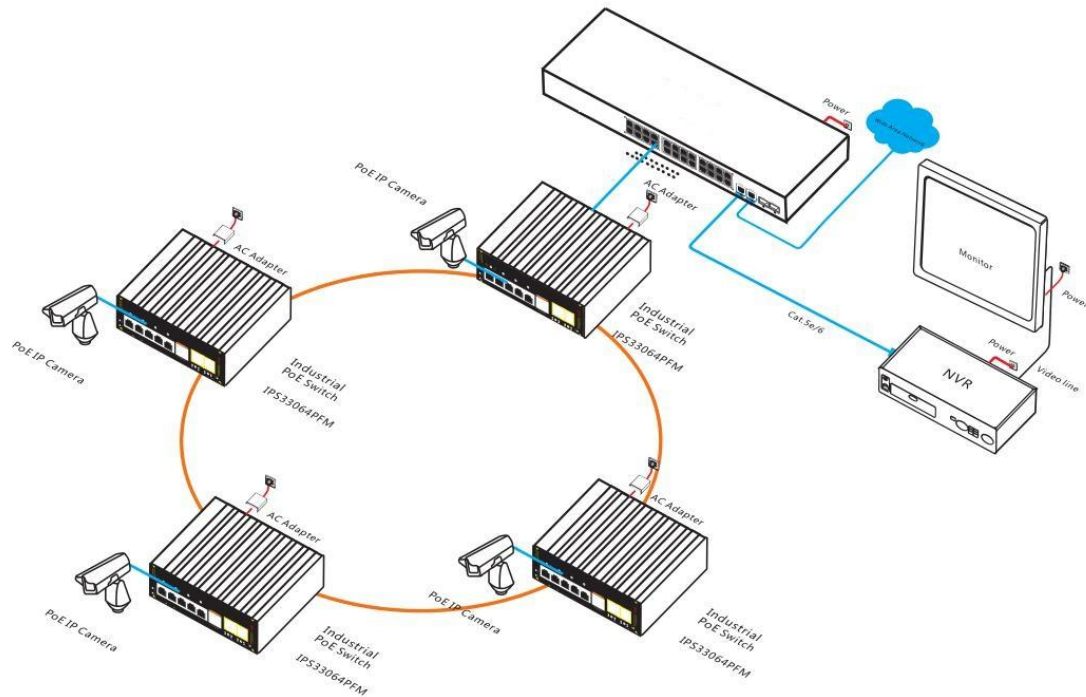
	<p>different VLANs</p> <p>Support L2+ network management, IPV4/IPV6 dual-stack management, and L3 routing and forwarding</p>
VLAN	<p>Port configuration of Access, Trunk, Hybrid</p> <p>VLAN based on MAC, Voice VLAN, QinQ configuration</p> <p>VLAN based on the protocol, 4K VLAN based on port, IEEE802.1q</p>
Port Aggregation	<p>LACP, Static aggregation</p> <p>Max 3 aggregation groups and 8 ports per group.</p>
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	<p>MLD Snooping v1/v2, Multicast VLAN</p> <p>IGMP Snooping v1/v2, Max 1024 multicast groups, Fast log out</p>
Port Mirroring	Bidirectional data mirroring based on port
QoS	<p>Diff-Serv QoS, Priority Mark/Remark</p> <p>Queue Scheduling Algorithm (SP, WRR, SP+WRR)</p> <p>Flow-based Rate Limiting, Flow-based Packet Filtering</p> <p>8*Output queues of each port, 802.1p/DSCP priority mapping</p>
ACL	<p>Port-based Issuing ACL, ACL based on port and VLAN</p> <p>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.</p>
Security	<p>IEEE802.1X & MAC address authentication</p> <p>Broadcast storm control, Backup for host datum</p> <p>SSH 2.0, SSL, Port isolation, ARP message speed limit</p> <p>User hierarchical management and password protection</p> <p>IP-MAC-VLAN-Port binding, ARP inspection, Anti-DoS attack</p> <p>AAA & RADIUS, MAC learning limit, Mac black holes, IP source protection</p>

DHCP	DHCP Client, DHCP Snooping, DHCP Server, DHCP Relay
Management	<p>Console/AUX Modem/Telnet/SSH2.0 CLI</p> <p>ONV NMS- Network Management System Platform(LLDP+SNMP)</p> <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-IPS33064PFM	L2+ managed industrial PoE fiber switch with 4*10/100/1000M RJ45 ports and 2*100/1000M SFP ports. Port 1-4 can support IEEE802.3af/at PoE standard. Support DC dual power supply input and DIN rail mounting.	60W/120W

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

PACKING LIST

	CONTENT	QTY	UNIT
PACKING LIST	6-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	PC

		fiber TX1310nm/RX1550nm, transmission distance: 20km, SC interface, support DDM function, support hot plug and pull.	
	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
65W Desktop Power Adaptor	GWS-AP65-52	Desktop 65W single set of output power adapter Input Voltage:AC 100V~240V 50-60Hz,1.1A Output Voltage:DC 52V 1.25A Operation Temperature:-20℃—+65℃	PC
110W Desktop Power Adaptor	GWS-AP110-52	Desktop 110W single set of output power adapter Input Voltage:AC 100V~240V 50-60Hz,2.0A Output Voltage:DC 52V 2.0A Operation Temperature:-20℃—+65℃	PC
60W DIN Rail Industrial Power Supply	GWS-DP60-48	Din Rail 60W single set of output power supply Input Voltage:AC 100V~240V 50-60Hz,1A	PC

		Output Voltage:DC 48V 1.25A Operation Temperature:-40℃—+70℃	
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

RELATED PRODUCT

Model	Description
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-IPS33108PFM	L2+ managed industrial PoE fiber switch with 8*10/100/1000M RJ45 ports and 2*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	L2+ managed industrial PoE fiber switch with 8*10/100/1000M RJ45 ports and 8*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-4GF	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

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