

54OPTICAL NETWORK VIDEO TECHNOLOGIES (SHENZHEN) CO., LTD.

Product Datasheet

## 6-Port Gigabit Managed Industrial UPoE Switch

(ONV-IPS34064PFM)



### OVERVIEW

ONV-IPS34064PFM is a full Gigabit 60W super high power managed industrial UPOE switch independently developed by ONV. It has 4\*10/100/1000M UPOE ports and 2\*100/1000M uplink SFP fiber slot ports. Port 1-4 can support IEEE 802.3af/at standard POE, single port POE power is 60W, and the maximum POE output power less than 250W. 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 AP, IP camera, industrial sensor through network cable, and meet the network environment that needs high-density PoE power supply. It is suitable for intelligent transportation, rail transit, electric power, mining, metallurgy and green energy. Industrial scenes such as construction set up a cost-effective and stable communication network.

The ONV-IPS34064PFM has the leading ring network technology, supporting a variety of industrial redundant redundant ring network protocol, any port can be a ring, support chain type, star type, double star type, ring type, tangent ring, intersecting ring, coupling ring, ring network 50ms self healing. This series of models have high reliability, high security and high manageability, ensure reliable transmission of key data, support remote management, and can manage cluster management with optical network ONV-NMS network management platform to achieve the whole process without blind point network management. ONV-IPS34064PFM industrial series products fully follow industrial product design and material. The shell uses aluminum alloy to enhance heat dissipation. It has excellent industrial field environment adaptability (including mechanical stability, climate and environment adaptability, electromagnetic environment adaptability, etc.), protection level to IP40, support dual redundancy power supply, low Power consumption without fan heat dissipation technology, MTBF average fault free working time can reach 35 years, ultra long 5 years warranty.

## 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

- ◇ 4\*10/100/1000Base-T RJ45 ports support UPoE power supply to meet the needs of PoE power supply in various scenarios in the industrial field.
- ◇ Single-port POE has a maximum output power of 60W and is backward compatible with the IEEE 802.3af/at PoE power supply standard. It automatically recognizes PoE devices for power supply without damaging non-PoE devices.
- ◇ The PoE port supports the priority mechanism. When the remaining power is insufficient, the power supply of the high-priority port is preferentially guaranteed to prevent the device from being overloaded.
- ◇ 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 CCC, 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.

### ■ Easy Operation and Maintenance Management

- ◇ Supports various management and maintenance methods such as Web management,

CLI command line (Console, Telnet), SNMP (V1/V2/V3).

- ◇ Supports encryption methods such as HTTPS, SSLV3, and SSHV1/V2 for more secure management.
- ◇ Support RMON, system log, port traffic statistics, easy network optimization and transformation.
- ◇ Support LLDP, which is convenient for the network management system to query and judge the communication status of the link.
- ◇ Support CPU monitoring, memory monitoring, ping detection, cable length detection.

## TECHNICAL SPECIFICATION

Model	ONV-IPS34064PFM
Interface	4*10/100/1000Base-T UPOE Ports (Data/Power) 2*100/1000M uplink SFP fiber slot ports (Data) 1 * RS232 console port (115200,N,8,1) 2 sets of V+, V- redundant DC power interface (5 Pin Phoenix terminal)
PoE Port	Port 1-4 can support 60W UPOE and backward compatible with POE standard @ IEEE802.3af/at
Network Protocol	IEEE802.3 10BASE-T; IEEE802.3i 10Base-T; IEEE802.3u 100Base-TX;IEEE802.3u 1000Base-T; IEEE802.3z 1000Base-X;IEEE802.3x
PoE Standard	IEEE802.3af/at/bt international standard
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	128Gbps (Non-blocking)
Forwarding Rate@64byte	8.93Mpps
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-T: Cat5 or later UTP(≤100 meter)
Optical Cable	Multi mode: 850nm 0 ~ 550M,single mode: 1310nm 0 ~ 40KM, 1550nm 0 ~ 120KM.

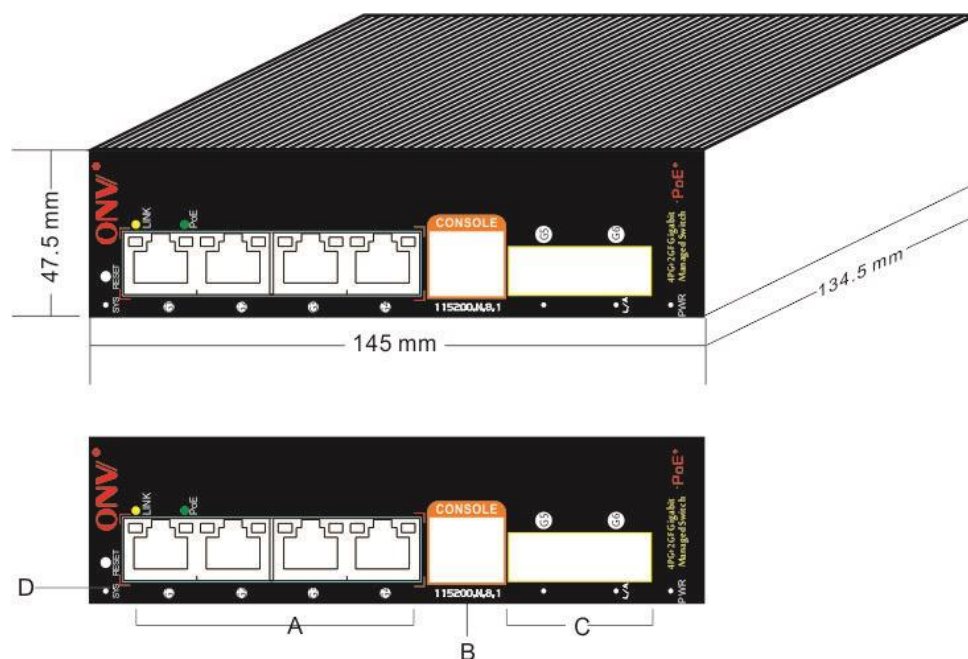
Power Supply Pin	1/2 (+), 3/6 (-) ; 4/5 (+), 7/8 (-) 8-core power supply
Operating Voltage	DC power supply, DC48-57V ultra-wide supply voltage, 5P Phoenix terminal connection, support anti-reverse protection
Total PWR / Input Voltage	250W/(48-57VDC)
Power Consumption	Standby:<8W;Full load:<240W
LED	Power Indicator : PWR (green) ;system indicator:SYS(green); Network Indicator: Link/Act (yellow);SFP Indicator: L/A (green); PoE 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	145*134.5*47.5mm
Net /Gross Weight	<0.7kg /<1.2kg
Lightning protection / protection level	Lightning protection: 8KV 8/20us; Protection level: IP40 IEC61000-4-2(ESD):±8kV contact discharge,±15kV air discharge IEC61000-4-3(RS):10V/m(80~1000MHz) IEC61000-4-4(EFT): power cable:±4kV; data cable:±2kV IEC61000-4-5(Surge):power cable:CM±4kV/DM±2kV; data cable:±4kV IEC61000-4-6(radio frequency transmission):10V(150kHz~80MHz) IEC61000-4-8(power frequency magnetic field):100A/m;1000A/m ,1s to 3s IEC61000-4-9(pulsed magnet field):1000A/m IEC61000-4-10(damped oscillation):30A/m 1MHz IEC61000-4-12/18(shockwave):CM 2.5kV,DM 1kV IEC61000-4-16(common-mode transmission):30V; 300V,1s FCC Part 15/CISPR22(EN55022):Class A IEC61000-6-2(Common Industrial Standard)
Mechanical Properties	IEC60068-2-6 (anti vibration) IEC60068-2-27 (anti shock) IEC60068-2-32 (free fall)
Certification	CCC;CE mark, commercial; CE/LVD EN60950;FCC Part 15 Class B; RoHS;
Warranty	5 years , lifelong maintenance.
<b>Business features (only restricted management function models)</b>	
Port	Support IEEE802.3x flow control (full duplex) Support for broadcast storm suppression based on port rate support speed limit for incoming and offline message traffic, with a minimum particle size of 64Kbps. Support port temperature protection settings Support port EEE green Ethernet energy saving configuration

PoE Management	Support total power limit configuration for POE power supply Support PoE output power allocation per port, close / start af/at Support PoE output priority configuration per port Support PoE work status per port display Support power delay start Support PoE work and time scheduling
Layer 3 Function	L2+ network management function Support IPV4/IPV6 management Support layer3 soft routing (weak three tier) forwarding, Support different network segments, communication between different VLAN Support static routing / default routing 128, 1024 ARP software forwarding
VLAN	Support port based VLAN (4K), IEEE802.1q Support protocol based VLAN Support Voice VLAN Support for MAC address-based VLANs Support Access, Trunk, Hybrid three types of port configuration Support QinQ configuration
Port Aggregation	Support LACP Support static polymerization Support the largest 8 aggregation groups, each aggregation group supports 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
Mirror	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

	<p>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.</p> <p>Support ACL based on port and VLAN</p>
Safety Characteristics	<p>Support user grading management and password protection</p> <p>Support IEEE802.1X authentication / centralized MAC address authentication</p> <p>Support AAA&amp;RADIUS authentication</p> <p>Support the number of MAC address learning restrictions</p> <p>Support MAC address black hole</p> <p>Support SSH 2.0 to provide secure passwords for user login.</p> <p>Support SSL to ensure data transmission security</p> <p>Support port isolation</p> <p>Support the speed limit function of ARP message</p> <p>Support IP source address protection</p> <p>Support ARP intrusion detection function</p> <p>Support against DoS attacks</p> <p>Support port broadcast message suppression</p> <p>Support host data backup mechanism</p> <p>Binding capabilities of IP+MAC+VLAN+ ports</p>
DHCP	<p>Support DHCP Client</p> <p>Support DHCP Snooping</p> <p>Support DHCP Serve</p> <p>Support DHCP Relay</p>
Management And Maintenance	<p>Support Console/AUX Modem/Telnet/SSH2.0 CLI command line configuration</p> <p>Support WEB network management (HTTPS)</p> <p>Support FTP, TFTP, Xmodem, SFTP file download management</p> <p>Support SNMP V1/V2C/V3</p> <p>Support one bond reduction</p> <p>Support NTP clock</p> <p>Support system work log</p> <p>Support Ping detection</p> <p>Support cable state detection</p> <p>Support CPU instant utilization status view</p> <p>Support link layer discovery protocol LLDP</p> <p>Support ONV NMS intelligent management center</p>
System Requirements	<p>Web browser: Mozilla Firefox 2.5 or higher, Google browser chrome V42 or higher, Microsoft Internet Explorer10 or later;</p> <p>Cat5e or later Ethernet cable;</p> <p>TCP/ IP, network adapter and network operating system (Microsoft Windows, Linux or Mac OS X) installed on every computer in the network.</p>

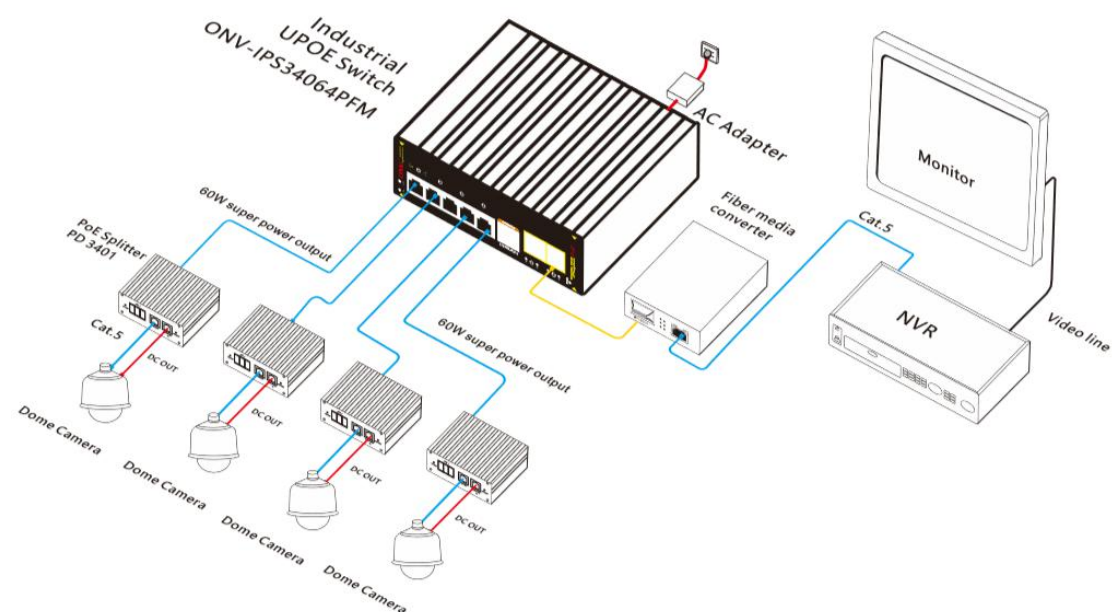


## DIMENSION



- A. 4\*10/100/1000M UPOE ports      B. Console port  
C. 2\*100/1000M uplink SFP ports      D. System indicator

## APPLICATION





## PACKING LIST

PACKING LIST	CONTENT	QTY	UNIT
	6-port gigabit managed industrial UPOE switch (ONV-IPS34064PFM)	1	SET
	RJ45-DB9 Line	1	PC
	User Guide	1	PC
	Warranty Card	1	PC

**Note:** industrial UPOE switch does not match the power supply and SFP module by default. If you need to purchase it, please refer to the accessory product information.

## ORDERING INFORMATION

Model	Description
ONV-IPS340 64PFM	Managed industrial UPoE switch with 4*10/100/1000M UPOE ports and 2*100/1000M uplink SFP fiber slot ports , Port 1-4 can support 60W high power UPOE output , IEEE802.3af/at international standard. Total power is 250W . Support DC dual power supply , Support DIN rail mounting.

## SELECTION OF INFORMATION

### Fiber Module Selection Table

Product	Model	Description	Unit
1.25G Fiber Module	ONV-2630	SFP optical module, 1.25G, multi mode dual fiber 850nm, transmission distance: 550m, LC interface, support DDM function, support hot plug and pull.	PC

	ONV-2632	SFP optical module, 1.25G, single-mode dual fiber 1310nm, transmission distance: 20km, LC interface, support DDM function, support hot plug and pull.	PC
	ONV-2612-T	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
	ONV-2613-R	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
	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 and pull.	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 and pull.	PC
Electric Module	ONV-2633	1.25G SFP optical module transfers to 10/100/1000M RJ45 net port.	PC

## POWER SUPPLY SELECTION TABLE

240W DIN Rail Industrial Power Supply	GWS-DP240-48	Din Rail type 240W single set of output power supply; Input Voltage:AC 100V~240V 50-60Hz,3A Output Voltage:DC 48V 5A Operation Temperature:-40℃—+70℃	PC
480W DIN Rail Industrial Power Supply	GWS-DP480-48	Din Rail type 480W single set of output power supply; Input Voltage:AC 100V~240V 50-60Hz,5A Output Voltage:DC 48V 10A Operation Temperature:-40℃—+70℃	PC

## CONTACT US



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