

Product Datasheet

8-port Full Gigabit Managed Industrial PoE Switch

(ONV-IPS33084PFM)



OVERVIEW

ONV-IPS33084PFM is a Gigabit managed industrial PoE switch independently developed by ONV. It has 4*10/100/1000Base-T adaptive RJ45 ports and 4*100/1000Base-X SFP fiber slot 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 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, et., to meet the demand for a high-density PoE power supply network environment. It is suitable for industrial scenarios such as intelligent transportation, rail transit, power industry, mining, petroleum, shipping, metallurgy, and green energy construction to form a cost-effective, stable, and reliable network.

The ONV-IPS33084PFM has L2+ full network management function, support 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 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.

■ Powerful port lightning protection

- ◇ DC INPUT: DC48V-57V.
- ◇ Industrial dual power input.
- ◇ Contact discharge 8KV, air discharge 15KV, port lightning protection common-mode 4KV, differential mode 2KV.

■ 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.
- ◇ 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

- ◇ Low power consumption, fan-less design, aluminum shell.
- ◇ CCC, CE, FCC, RoHS.
- ◇ 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-IPS33084PFM
Interface Characteristics	
Fixed Port	1*Console port(115200,N,8,1) 4*10/100/1000Base-T PoE ports (Data/Power) 4*100/1000Base-X uplink SFP slot ports (Data) 2 set of V+, V- redundant DC power interface (5 Pin Phoenix terminal)
Ethernet Port	Port 1-4 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	192Gbps
Forwarding Rate@64byte	11.9Mpps
CPU	416MHz

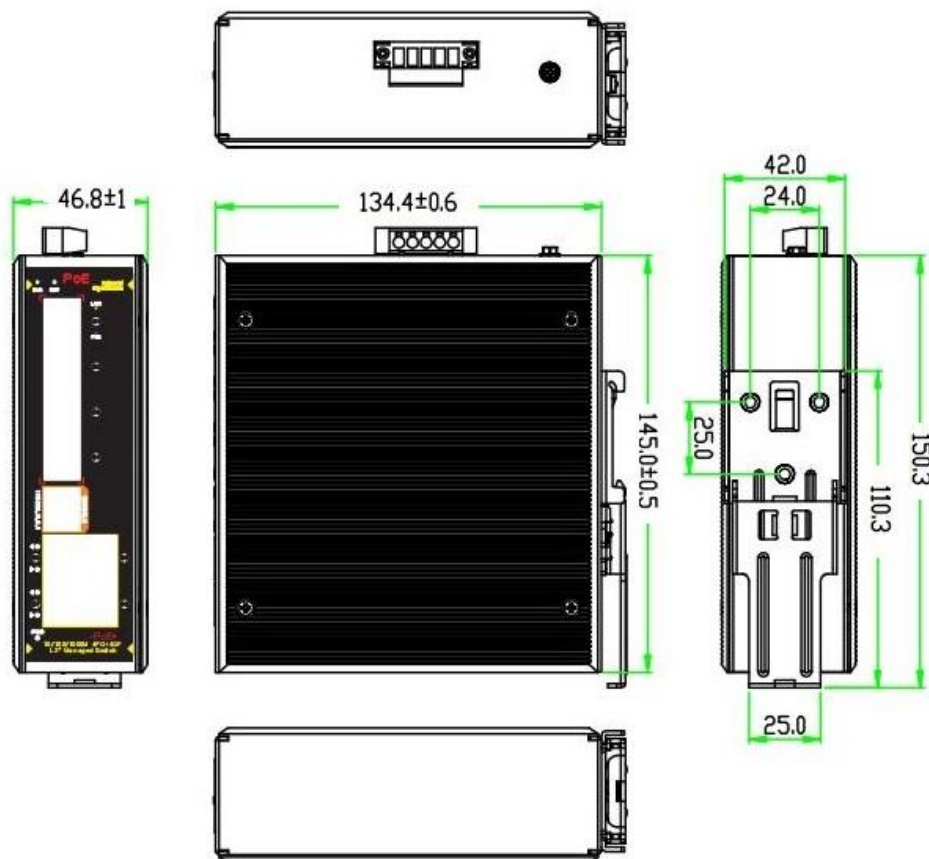
DRAM	1G
FLASH	128M
MAC	8K
Buffer Memory	4M
Jumbo Frame	9.6K
LED Indicator	Power/ System: SYS (Green), Network: Link (Yellow), Fiber port: L/A (Green), PoE: PoE (Green)
Reset Switch	Yes (Press and release for 10 seconds, the PoE switch will restore to factory settings)
PoE & Power	
PoE Port	Port 1 to 4 @ IEEE802.3af/at
PoE Management	Total power limit of PoE power supply PoE output power allocation, 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	1/2 (+) 3/6 (-)
Max Power Per Port	30W, IEEE802.3af/at
Power Consumption	Standby<7W, 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	<0.7kg / <0.9kg

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 A</p> <p>IEC61000-6-2(Common Industrial Standard)</p>
Mechanical Properties	<p>IEC60068-2-6 (anti vibration), 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>The minimum particle size is 64Kbps.</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>IEEE802.3X (Full-duplex), Port temperature protection setting</p>
Layer 3 Features	<p>Static route, Default route @128 pcs, APR @ 1024 pcs</p> <p>L3 soft routing forwarding, L2+ network management, IPV4/IPV6</p>

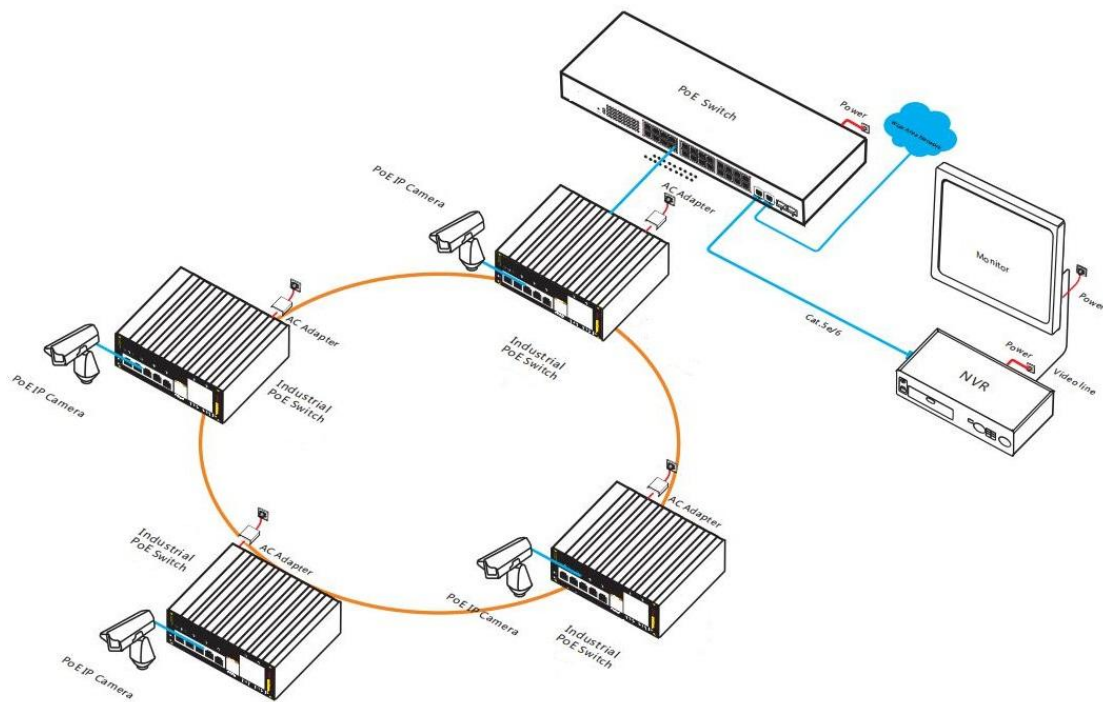
	management
VLAN	Port configuration of Access, Trunk, Hybrid VLAN based on MAC, Voice VLAN, QinQ configuration 4K VLAN based on port, IEEE802.1q, VLAN based on the protocol
Port Aggregation	LACP, Static aggregation Max 4 aggregation groups and 8 ports per group.
Spanning Tree	STP (IEEE802.1d), RSTP (IEEE802.1w), MSTP (IEEE802.1s)
Industrial Ring	G.8032 (ERPS), Recovery time less than 20ms
Network Protocol	250 Ring at most, Max 250 devices per ring.
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	One-key recovery, Cable Diagnose, LLDP

	<p>Web Management (HTTPS), NTP, System work log, Ping Test</p> <p>ONV NMS - smart network management system platform(LLDP+SNMP)</p> <p>Console/AUX Modem/Telnet/SSH2.0 CLI, CPU instant utilization status view</p> <p>Download & Management on FTP, TFTP, Xmodem, SFTP,SNMP</p> <p>V1/V2C/V3</p>
<p>System</p>	<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-IPS33084PFM	L2+ managed industrial PoE fiber switch with 4*10/100/1000M RJ45 ports and 4*100/1000M SFP ports. Port 1-4 can support IEEE802.3af/at PoE standard. It support DC dual power supply input and DIN rail mounting.	60W/120W

Note: Industrial PoE switch does not include the SFP optical module and power supply.

PACKING LIST

	Content	Qty	Unit
Packing List	8-port full gigabit managed industrial PoE switch	1	SET
	User Guide	1	PC
	Warranty Card	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, 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	PC

		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 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°C—+65°C	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°C—+65°C	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, 1.0A Output Voltage: DC 48V 1.25A Operation Temperature: -40°C—+70°C	PC
120W DIN Rail Industrial Power	GWS-DP120-48	Din Rail 120W single set of output power supply	PC

Supply	Input Voltage: AC 100V~240V 50-60Hz, 1.5A Output Voltage: DC 48V 2.5A Operation Temperature: -40°C—+70°C
--------	---

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. It 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. 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. It 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. It 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. It support DC dual power supply input and DIN rail mounting.

CONTACT US



Optical Network Video Technologies (Shenzhen) Co., Ltd.

Tel: 0086-755-33376606

Fax: 0086-755-33376608

WeChat ID: ONV-PoE-IoT

Email: onv@onv.com.cn

Skype: [onv@onv.com.cn](https://www.skype.com/people/onv@onv.com.cn)

Website: www.onvcom.com

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

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