

Product Datasheet

10-port Gigabit Cloud Managed Industrial PoE Switch (ONV-IPS53108PFM)



OVERVIEW

The ONV-IPS53108PFM is a Gigabit cloud managed industrial PoE fiber switch independently developed by ONV. It has 8*10/100/1000Base-T adaptive RJ45 ports and 2*100/1000Base-X SFP fiber ports. Port 1-8 can support 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 AP, IP camera, 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 forming a cost-effective, stable, and reliable communication network.

The ONV-IPS53108PFM can support the ONV-NMS management platform and cloud management APP management, which can realize security network topology management, link aggregation, port management, PoE management, remote operation,

maintenance, etc. It has high reliability and is easy to install and maintain. It has a fast switching function and multiple access ports, which is suitable for access to LAN devices of various sizes.

FEATURE

■ Gigabit access, uplink SFP fiber port

- ◇ 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

- ◇ PoE network management, realize PoE port power allocation, priority setting, port power status viewing, time scheduling, etc.
- ◇ Comply with IEEE 802.3 af/at PoE standard, automatically identify PoE devices for power supply, and not damage non-PoE devices.
- ◇ 8*10/100/1000Base-T RJ45 ports can support PoE power to meet the needs of security monitoring, teleconferencing system, wireless coverage, and other scenarios.

■ Extreme Optimization, minimalist application

- ◇ Real-time fault alarm and fault location.
- ◇ Remote upgrade, remote restart, and factory reset.
- ◇ Local platform, cloud platform, and mobile APP operation and maintenance management.
- ◇ Visualized network topology management, VLAN division, QoS, link aggregation, ring network management, port mirroring, port control, and bandwidth management.
- ◇ According to the application requirements of the industry, we have abandoned the complicated network management configuration while retaining the practical network management functions. Through the operation and maintenance platform, network deployment and centralized operation and maintenance can be quickly realized.

■ Stable and reliable

- ◇ CCC, CE, FCC, RoHS.
- ◇ The user-friendly panel can show the device status through the LED indicator of PWR, SYS, Link, and L/A.
- ◇ Low power consumption, no fan, aluminum shell, and excellent heat dissipation to ensure the stable operation of the switch.

TECHNICAL SPECIFICATION

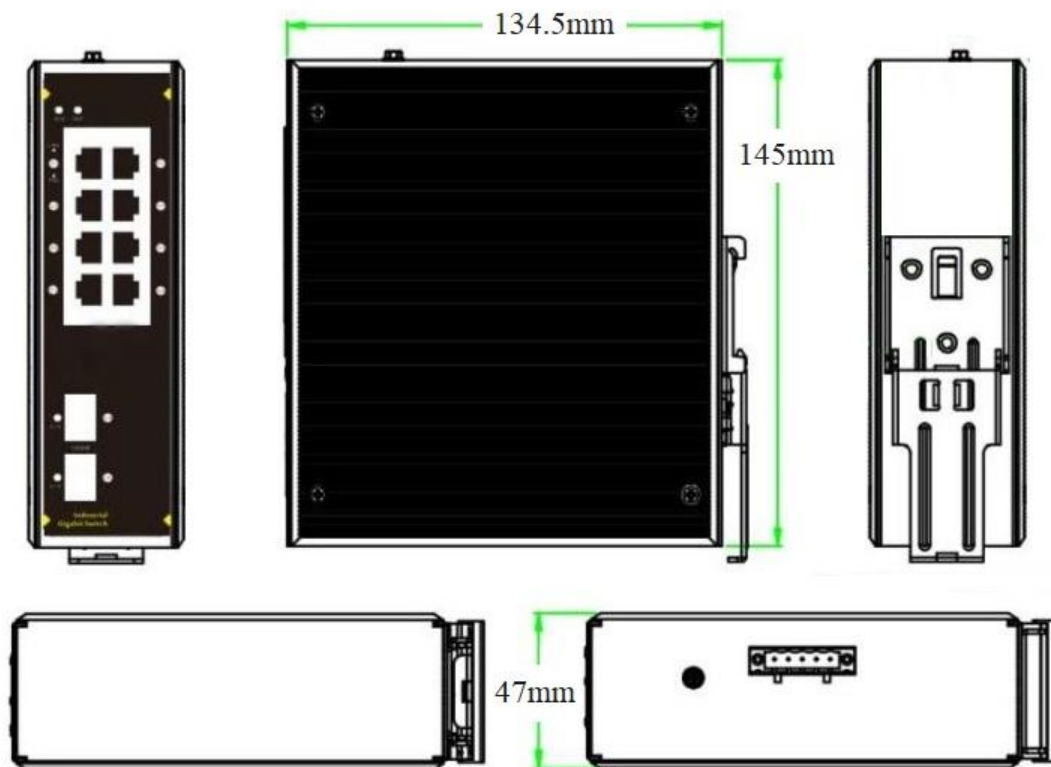
Model	ONV-IPS53108PFM
Interface Characteristics	
Fixed Port	8*10/100/1000Base-T PoE ports (Data/ Power) 2*100/1000Base-X uplink SFP fiber ports (Data) 2 sets V+, V- redundant DC power port (5P phoenix terminal)
Ethernet Port	Port 1-8 support 10/100/1000Base-T auto-sensing, full/ half duplex MDI/ MDI-X self-adaption
Twisted Pair Transmission	10BASE-T: Cat3,4,5 UTP (≤100 meters) 100BASE-TX: Cat5 or later UTP (≤100 meters) 1000BASE-T: Cat5e/6 or later UTP (≤100 meters)
Optical Fiber Port	Gigabit optical interface, default no included optical module (optional 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	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	20Gbps (non-blocking)
Forwarding Rate @64byte	14.88Mpps
MAC	8K
Buffer Memory	2M
Jumbo Frame	9.2K
LED Indicator	Power/ System: SYS (Green), Network: Link (Yellow), PoE: PoE(Green), Fiber port: L/A (Green)
Reset Switch	Press and hold for 6 seconds and release to restore the factory default settings. Short press 2 times (1 second interval) to switch to the unmanaged state
PoE & Power Supply	
PoE Port	Port 1-8
PoE Management	Port PoE output on/off, Port PoE real-time power view
Power Supply Pin	1/2 (+) 3/6 (-)
Max Power Per Port	30W, IEEE 802.3 af/at
Power Consumption	Standby<8W, Full load af<120W, at<240W
Power Input Port	DC48-57V, 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°C~+75°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	0.75kg / 1.0kg
Installation	Desktop, 35mm DIN Rail
Certification & Warranty	

Lightning Protection	<p>Protection level: IP40</p> <p>Lightning protection: 6KV 8/20us</p> <p>IEC61000-4-3 (RS):10V/m (80~1000MHz)</p> <p>FCC Part 15/CISPR22 (EN55022): Class B</p> <p>IEC61000-6-2 (Common Industrial Standard)</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>IEC61000-4-4(EFT): Power cable:±4kV, Data cable: ±2kV</p> <p>IEC61000-4-16 (Common-mode transmission): 30V, 300V, 1s</p> <p>IEC61000-4-2 (ESD): ±8kV contact discharge, ±15kV air discharge</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-3s</p> <p>IEC61000-4-5 (Surge): Power cable: CM±4kV/ DM±2kV, Data cable: ±4kV</p>
Mechanical Properties	IEC60068-2-6 (Anti Vibration), IEC60068-2-32 (Free Fall), IEC60068-2-27 (Anti Shock)
Certification	CCC, CE mark, commercial, CE/LVD EN62368-1, FCC Part 15 Class B, RoHS
Warranty	5 years, lifelong maintenance.
Network Management Feature	
Interface	<p>IEEE802.3x flow control (Full-duplex)</p> <p>Port status display, Port traffic statistics</p> <p>Port duplex/ negotiation rate configuration</p> <p>EEE Energy-saving and green Ethernet function</p>
VLAN	Port-based IEEE802.1Q VLAN configuration (4K)
Port Aggregation	Static aggregation
Loop Protection	Loop protection function
Multicast	IGMP Snooping v1/v2, Max 256 multicast groups
Port Mirroring	Bidirectional data mirroring based on port

QoS	Diff-Serv QoS, Priority Mark/ Remark 8*Output queues of each port, 802.1p/ DSCP priority mapping
Security	Broadcast storm control, Port isolation, Port speed limit
DHCP	DHCP Snooping
Management	Mobile APP operation and maintenance management One-key recovery, Cable Diagnose, Web Management (https) ONV-NMS platform management (Local platform /Cloud platform)
System	Web browser: Mozilla Firefox 2.5 or higher, Google browser chrome V42 or higher, Category 5 and above Ethernet cables TCP/IP, network adapter, and network operating systems (such as Microsoft Windows, Linux or Mac OS X) are installed on each computer in the network with Category 5 and above Ethernet cables

DIMENSION



ORDERING INFORMATION

Model	Description	Recommended Power Supply
ONV-IPS53108PFM	L2 managed industrial PoE fiber switch with 8*10/100/1000M RJ45 ports and 2*100/1000M SFP fiber ports. Port 1-8 can support IEEE 802.3 af/at PoE standard. It can support dual DC power supply input and DIN rail mounting.	120W/240W

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

PACKING LIST

Packing List	Content	Qty	Unit
	10-port gigabit cloud 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, 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-G-SC	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-G-SC	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 SUPPLY

Product	Model	Description	Unit
110W Desktop Power Adapter	GWS-AP110-52	Desktop 110W single set of output power adapter Input Voltage: AC100V~240V 50-60Hz, 2.0A Output Voltage: DC52V, 2.15A Operation Temperature: -20℃ to +65℃	PC
250W Desktop Power Adapter	GWS-AP250-52	Desktop 250W single set of output power adapter Input Voltage: AC100V~240V 50-60Hz, 5.0A Output Voltage: DC52V, 5.0A Operation Temperature: -20℃ to +65℃	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
240W DIN Rail Industrial Power Supply	GWS-DP240-48	DIN Rail 240W single set of output power supply Input Voltage: AC100V~240V 50-60Hz, 3.0A Output Voltage: DC48V, 5.0A Operation Temperature: -40℃ to +70℃	PC

RELATED PRODUCT

Model	Description
ONV-IPS53064PFM	L2 managed industrial PoE fiber switch with 4*10/100/1000M RJ45 ports and 2*100/1000M SFP fiber ports. Port 1-4 can support IEEE 802.3 af/at PoE standard. It can support dual DC power input and DIN rail mounting.
ONV-IPS53064PFGM	L2 managed industrial PoE fiber switch with 5*10/100/1000M RJ45 ports and 1*100/1000M SFP fiber port. Port 1-4 can support IEEE 802.3 af/at PoE standard. It can support dual DC power input and DIN rail mounting.

CONTACT US



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