

## Product Datasheet

# 10-port Gigabit Easy Managed Industrial PoE Switch (ONV-IPS53108PFMA)



## OVERVIEW

The ONV-IPS53108PFMA is a Gigabit Easy managed industrial PoE switch independently developed by ONV. It has 8\*10/100/1000Base-T adaptive RJ45 ports and 2\*1000Base-X SFP fiber ports. Port 1-8 can support the IEEE802.3af/at PoE standard, and the single-port PoE power output reaches 30W. As a PoE power supply device, it can automatically detect and identify standard powered devices and power them through network cables. It can power wireless APs, IP cameras, network phones, industrial sensors, and other PoE terminal devices through network cables to meet the network environment that requires a high-density PoE power supply. It is suitable for industrial scenarios such as intelligent transportation, rail transportation, power industry, mining, petroleum, shipping, metallurgy, and green energy construction to form an economical, efficient, stable, and reliable communication network.

The ONV-IPS53108PFMA supports the ONV cloud platform and APP cloud management to realize security network topology management, port management, PoE management,

remote operation and maintenance, and other functions. It has high reliability, is easy to install and maintain, has fast switching capabilities, and multiple access ports, making it 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 IEEE 802.3x and half-duplex based on Backpressure.
- ◇ Support Gigabit RJ45 port and uplink Gigabit SFP fiber port combination, which enables users to flexibly build networking to meet the needs of various scenarios.

### ■ Smart PoE power supply

- ◇ Comply with IEEE 802.3 af/at PoE standard, automatically identify PoE devices for power supply, and not damage non-PoE devices.
- ◇ Support remote PoE management function, realize remote on/off of PoE port, port power status check, PoE port fault query function, etc.
- ◇ 8\*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.

### ■ Minimalist application

- ◇ Support real-time fault alarm and fault location.
- ◇ Support remote upgrade, remote restart, and restore to factory settings.
- ◇ Support cloud platform and APP cloud management, visualized PoE power supply control, network topology management, and VLAN division.
- ◇ Web network management function, QoS, link aggregation, ring network management, port mirroring, port control, and bandwidth management.

### ■ 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 PoE.
- ◇ Low power consumption, aluminum alloy housing, and excellent heat dissipation to ensure the stable operation of the switch.

## TECHNICAL SPECIFICATION

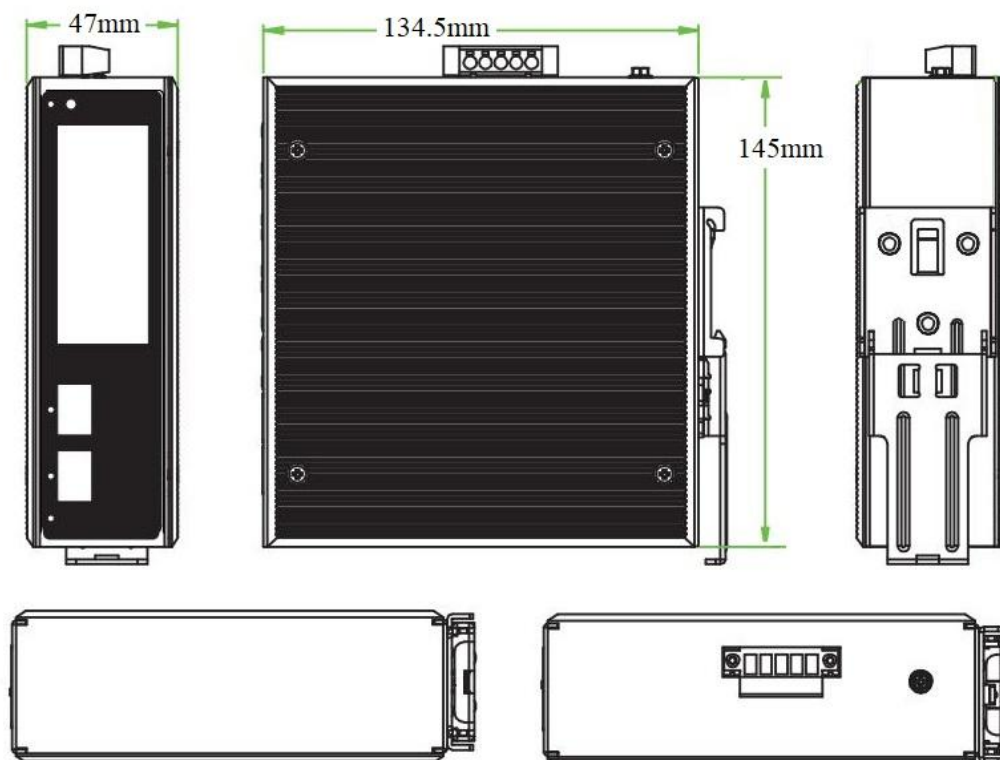
Model	ONV-IPS53108PFMA
<b>Interface Characteristics</b>	
Fixed Port	2*1000Base-X uplink SFP fiber ports (Data) 8*10/100/1000Base-T PoE ports (Data/ Power) 2 set V+, V- redundant DC power port (5Pin Phoenix terminal)
Ethernet Port	Port 1-8 can support 10/100/1000Base-T auto-sensing, full/ half duplex 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/6 or later UTP (≤100 meters)
Optical Fiber Port	Default no include optical modules (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
<b>Chip Parameter</b>	
Network Management Type	L2
Network Protocol	IEEE802.3 10BASE-T, IEEE802.3i 10Base-T, IEEE802.3u 100Base-TX, IEEE802.3ab 1000Base-T, IEEE802.3z 1000Base-X, IEEE802.3x
Forwarding Mode	Store and forward (Full wire speed)
Switching Capacity	20Gbps (non-blocking)
Forwarding Rate@64byte	14.88Mpps

MAC	4K
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 for 6 seconds and then release to restore to factory settings Short press twice (1 second interval) to switch to unmanaged state
<b>PoE&amp; Power Supply</b>	
PoE Port	Port 1-8
PoE Management	Port PoE output on/off, Check the real-time power status of the port PoE
Power Supply Pin	1/2(+) 3/6 (-)
Max Power Per Port	30W, IEEE802.3 af/at
Power Consumption	Standby<8W, full load af<120W, at<240W
Input Voltage/ Interface	DC48-57V, 5Pin industrial Phoenix terminal, support anti-reverse protection
Power Supply	No, optional 48V/120W or 48V/240W industrial power supply
<b>Physical Parameter</b>	
Operation Temp/ Humidity	-40~+75°C, 5%~90% RH non condensing
Storage Temp/ Humidity	-40~+80°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
<b>Certification&amp; Warranty</b>	
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, DM1kV

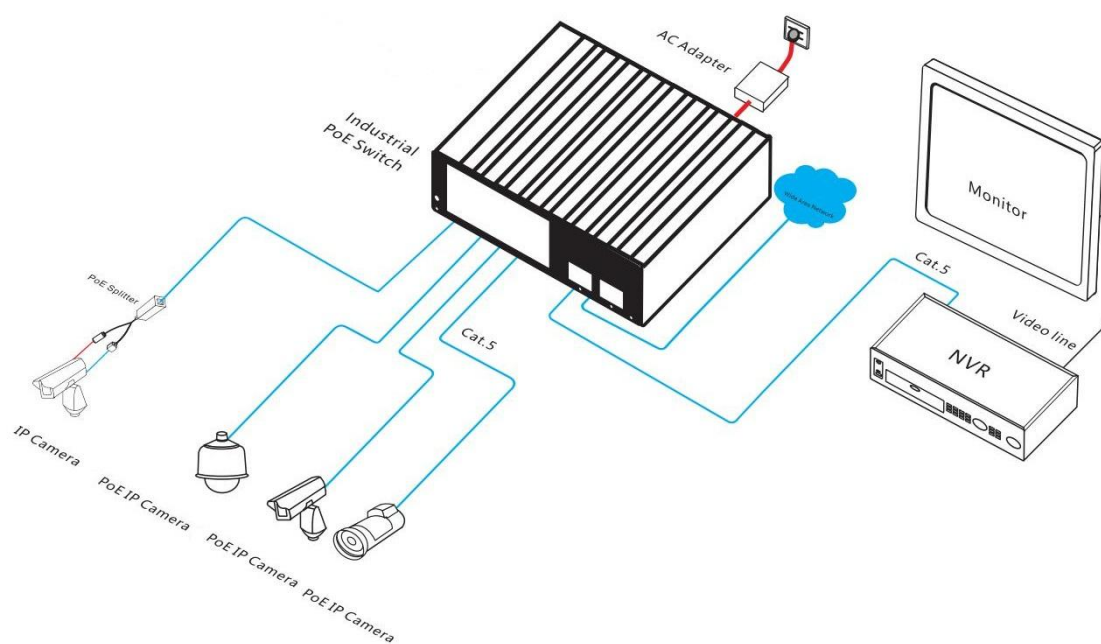
	Protection level: IP40, Lightning protection: 6KV 8/20us IEC61000-4-4(EFT): Power cable: $\pm 4\text{kV}$ , data cable: $\pm 2\text{kV}$ IEC61000-4-16 (Common-mode transmission): 30V, 300V, 1s IEC61000-4-2 (ESD): $\pm 8\text{kV}$ contact discharge, $\pm 15\text{kV}$ air discharge IEC61000-4-6 (Radio frequency transmission): 10V(150kHz~80MHz) IEC61000-4-8 (Power frequency magnetic field): 100A/m, 1000A/m, 1s-3s IEC61000-4-5 (Surge): Power cable: CM $\pm 4\text{kV}$ / DM $\pm 2\text{kV}$ , data cable: $\pm 4\text{kV}$
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.
<b>Software</b>	
Interface	IEEE Energy-saving and green Ethernet function Port traffic statistics, IEEE802.3x flow control (Full-duplex) Port status display, Port duplex/ negotiation rate configuration
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
Management	Mobile APP operation and maintenance management ONV cloud platform management, One-key recovery, Web Management
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-IPS53108PFMA	Easy managed industrial PoE switch with 8*10/100/1000M RJ45 ports and 2*1000M uplink SFP fiber ports. Port 1-8 can support the IEEE802.3 af/at PoE standard. It can support dual DC redundant power input (Phoenix terminal connection) 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 Easy managed industrial PoE switch	1	Set
	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	PC

		interface, supports DDM function and hot plugging.	
	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
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

## CONTACT US



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