Product Datasheet

12-port Gigabit Uplink Industrial PoE Fiber Switch
(ONV-IPS31128PFB)

OVERVIEW

The ONV-IPS31128PFB is a Gigabit uplink industrial PoE fiber switch independently developed by ONV. It has 8*10/100M adaptive RJ45 ports and 2*10/100/1000M adaptive RJ45 ports and 2*1000M uplink SFP fiber ports. Port 1-8 can support IEEE 802.3 af/at PoE standard and single-port PoE power reaches 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, 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. Unmanaged mode, plug and play, no configuration, easy to use.

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FEATURE

■   **10/100M access, gigabit uplink TP and SFP port**

◇   Support non-blocking wire-speed forwarding.

◇   Support full-duplex based on IEEE802.3x and half-duplex based on Backpressure.

◇   Support 10/100M RJ45 port and gigabit TP and SFP 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.

◇   8*10/100Base-TX RJ45 port support PoE power supply to meet the needs of PoE power supply in various scenarios in the industrial field.

◇   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.

■   **Stable and reliable**

◇   CCC, CE, FCC, RoHS.

◇   Low power consumption, no fan, aluminum shell, and excellent heat dissipation to ensure the stable operation of the switch.

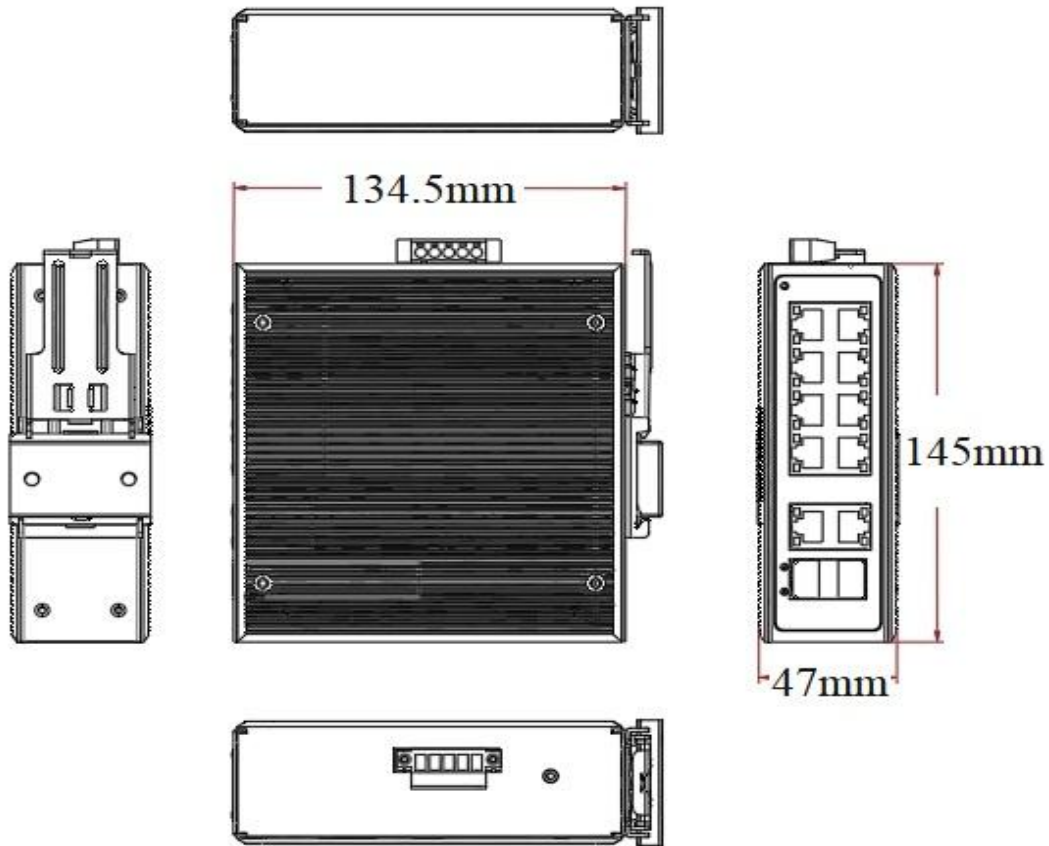◇   The user-friendly panel can show the device status through the LED indicator of PWR, Link, and PoE.

TECHNICAL SPECIFICATION

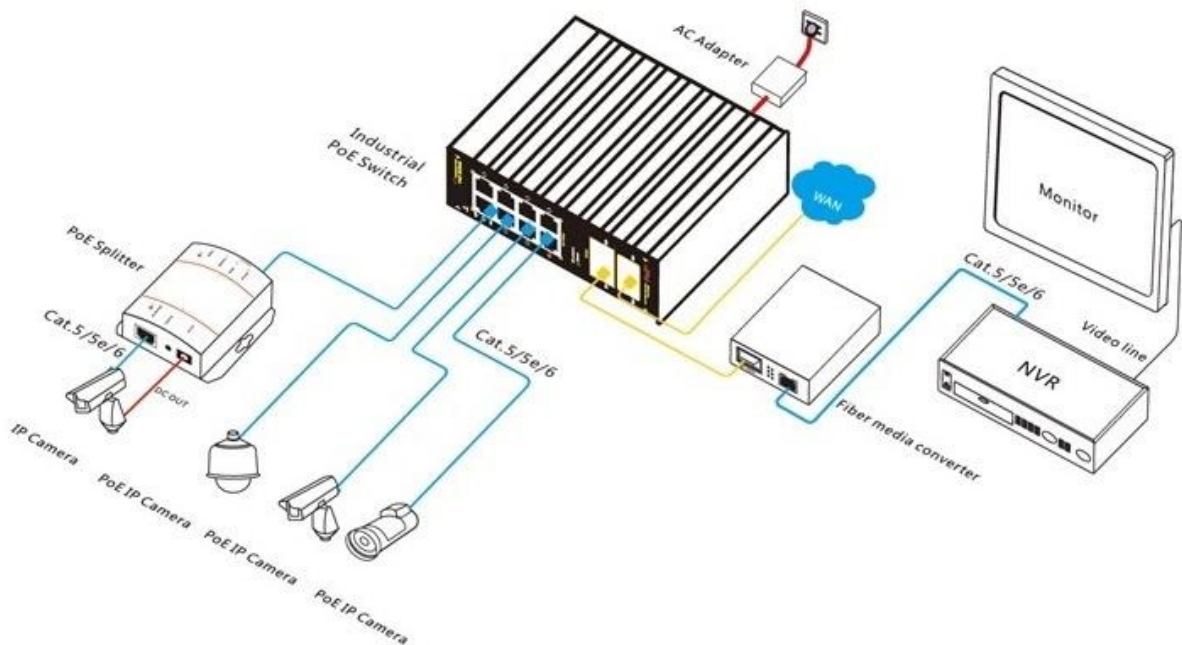| Model	ONV-IPS31128PFB
Interface Characteristics	
Fixed Port	8*10/100Base-TX PoE ports (Data/Power) 2*10/100/1000Base-T RJ45 ports (Data) 2*1000Base-X uplink SFP fiber ports(Data)

	2 set of V+, V- redundant DC power interface (5 Pin Phoenix terminal)
Twisted Pair Transmission	10BASE-T: Cat3,4,5 UTP (≤100 meters) 100BASE-TX: Cat5 or later UTP (≤100 meters) 1000BASE-T: Cat5e or later UTP (≤100 meters)
Ethernet Port	Port 1-8 can support 10/100Base-TX and port 9-10 can support 10/100/1000Base-T(X) auto-sensing, full/ half duplex MDI/ MDI-X self-adaption
SFP Slot Port	Gigabit optical fiber interface, default no include 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 Protocol	IEEE802.3 10BASE-T, IEEE802.3i 10Base-T, IEEE802.3u100Base-TX IEEE802.3ab 1000Base-T, IEEE802.3z 1000Base-X, IEEE802.3x
Forwarding Mode	Store and Forward(Full Wire Speed)
Switching Capacity	12Gbps
Forwarding Rate@64byte	7.14Mpps
MAC	2K
Buffer Memory	2M
Jumbo Frame	9.2K
LED Indicator	Power: PWR (Green), Network: Link, link/Act (Yellow), PoE: PoE (Green)
PoE & Power Supply	
PoE Port	Port 1-8
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, af<240W
Working Voltage	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~+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*47mm
Net /Gross Weight	0.7kg / 0.9kg
Installation	Desktop, 35mm DIN Rail
Certification & Warranty	
Lightning Protection	Protection level: IP40 Lightning protection: 6KV 8/20us IEC61000-4-3 (RS):10V/m (80~1000MHz) FCC Part 15/CISPR22 (EN55022): Class B 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): CM 2.5kV, DM 1kV IEC61000-4-4(EFT): Power cable: ±4kV; data cable: ±2kV IEC61000-4-16 (Common-mode transmission): 30V, 300V,1s IEC61000-4-2 (ESD): ±8kV contact discharge, ±15kV 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±4kV/ DM±2kV, data cable: ±4kV
Mechanical Properties	IEC60068-2-6 (Anti Vibration), IEC60068-2-27 (Anti Shock), IEC60068-2-32 (Free Fall)
Certification	CCC, CE mark, commercial, CE/LVD EN62368-1, FCC Part 15 Class B, RoHS
Warranty	5 years, lifelong maintenance.

DIMENSION

134.5mm

145mm

47mm

APPLICATION

ORDERING INFORMATION

Model	Description	Recommended Power Supply
ONV-IPS31128PFB	Unmanaged industrial PoE fiber switch with 8*10/100M RJ45 ports and 2*10/100/1000M RJ45 ports and 2*1000M uplink SFP fiber ports. Port 1-8 can support IEEE 802.3 af/at PoE standard. It can support DC dual redundant power 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
	12-port gigabit uplink industrial PoE fiber 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-SC-G	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-SC-G	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 Module	2633	1.25G SFP optical module transfers to 10/100/1000M RJ45 port.	PC

POWER SUPPLY

Product	Model	Description	Unit
130W Desktop Power Adapter	GWS-AP130-52	Desktop 130W single set of output power adapter Input Voltage: AC100V~240V 50-60Hz, 2.3A Output Voltage: DC52V, 2.5A 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, 4.1A Output Voltage: DC52V, 4.8A 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, 1.5A Output Voltage: DC48V, 2.5A Operation Temperature: -40℃ to +70℃	PC
240W DIN Rail Industrial Power	GWS-DP240-48	DIN Rail 240W single set of output power supply Input Voltage: AC100V~240V 50-60Hz, 3.0A	PC

Supply		Output Voltage: DC48V, 5.0A
		Operation Temperature: -40℃ to +70℃

RELATED PRODUCT

Model	Description
ONV-IPS31032PF	Unmanaged industrial PoE fiber switch with 2*10/100M PoE ports and 1*155M uplink SC fiber port. Port 1-2 can support IEEE 802.3 af/at PoE standard. It can support DC dual redundant power input and DIN rail mounting.
ONV-IPS31004PF	Unmanaged industrial PoE fiber switch with 4*10/100M RJ45 ports and 1*155M uplink SC fiber port. Port 1-4 can support IEEE 802.3 af/at PoE standard. It can support DC dual redundant power input and DIN rail mounting.
ONV-IPS31084PF	Unmanaged industrial PoE fiber switch with 6*10/100M RJ45 ports and 2*155M uplink SC fiber ports. Port 1-4 can support IEEE 802.3 af/at PoE standard. It can support DC dual redundant power input and DIN rail mounting.

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