Product Datasheet

2-port Gigabit Industrial PoE Switch

(ONV-IPS33021PFS)



OVERVIEW

The ONV-IPS33021PFS is a Gigabit industrial PoE fiber switch independently developed by ONV. It has 1*10/100/1000Base-T RJ45 port and 1*1000Base-X uplink SC fiber port. Port 1 can support IEEE 802.3 af/at PoE standard and the single-port PoE power is 30W. As a PoE power supply device, it can automatically detect and recognize power-receiving 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. It also meets 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.

FEATURE

- **Gigabit access**

◇ 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 SC fiber port to meet the networking requirements of various scenarios.

■ Smart PoE power supply

◇ Comply with IEEE802.3 af/at PoE standard, automatically identify PoE devices for power supply, and not damage non-PoE devices.

◇ 1*10/100/1000Base-T RJ45 port supports PoE power to meet the PoE power supply needs of various scenarios in the industrial field.

■ Stable and reliable

◇ CE, FCC, RoHS.

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

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

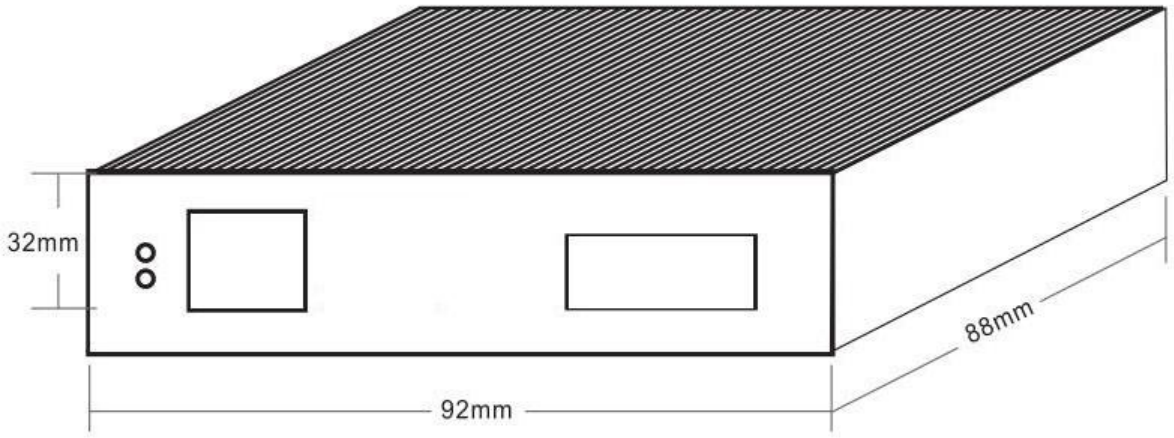
TECHNICAL SPECIFICATION

Model	ONV-IPS33021PFS	ONV-IPS33021PFS-M	ONV-IPS33021PFS-A/B
Interface Characteristics			
Fixed Port	1*DC5521 power socket 1*1.25G uplink SC fiber port (Data) 1*10/100/1000Base-T PoE port (Data/ Power) 1 V+, V- redundant DC power ports (3P industrial Phoenix terminal)		
Ethernet Port	Port 1 support 10/100/1000Base-T(X) auto-sensing, full/ half duplex MDI/ MDI-X self-adaptation		
Twisted Pair Transmission	10BASE-T: Cat3,4,5 UTP (≤100 meters) 100BASE-TX: Cat5 or later UTP (≤100 meters)		

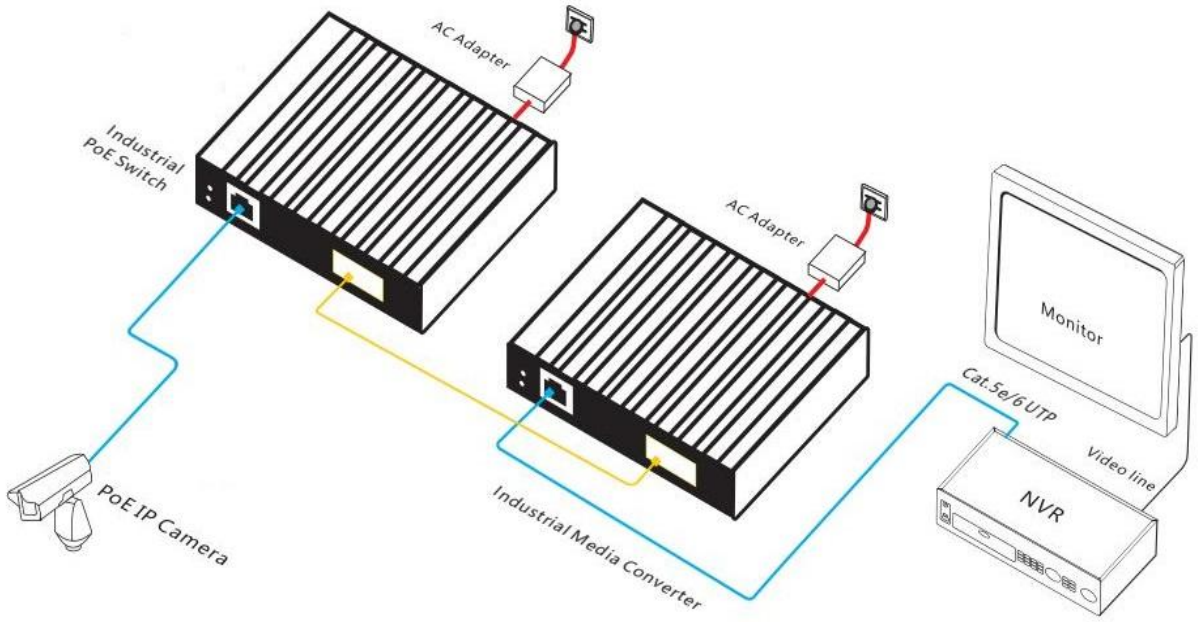
	1000BASE-T: Cat5e or later UTP (≤100 meters)		
Optical Fiber Port	Single-mode dual-fiber, 20km, SC port	multi-mode dual fiber, 20km, SC port	Single-mode single-fiber, 20km, SC port
Optical Cable/ Distance	20km, 1310nm	0.5km, 850nm	**ONV-IPS33021PFS-A:** 20km,1310nm/1550nm **ONV-IPS33021PFS-B:** 20km,1550nm/1330nm
Chip Parameter			
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	12Gbps (non-blocking)		
Forwarding Rate@64byte	2.98Mpps		
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		
Power Supply Pin	1/2 (+) 3/6 (-)		
Power Consumption	Standby<4W, Full load<32W		
Input Voltage/ Interface	DC44-57V, 3P Phoenix terminal, support anti-reverse protection.		
Power Supply	No, optional 48V/24W or 48V/36W industrial power supply		
Physical Parameter			
Operation Temp/ Humidity	-40~+75°C, 5%~90% RH non-condensing		
Storage Temp/ Humidity	-40~+85°C, 5%~95% RH non-condensing		
Dimension	92*88*32mm		
Net /Gross Weight	0.3kg/ 0.4kg		
Installation	Desktop, 35mm DIN Rail		

Certification& Warranty	
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): CM 2.5kV, DM 1kV Protection level: IP40, Lightning protection: 6KV 8/20us 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), IEC60068-2-32 (Free Fall), IEC60068-2-27 (Anti Shock)
Certification	CE mark, commercial, CE/LVD EN62368-1, FCC Part 15 Class A, RoHS
Warranty	5 years, lifelong maintenance.

DIMENSION



APPLICATION



ORDERING INFORMATION

Model	Description	Recommended Power Supply
ONV-IPS33021PFS	Industrial PoE switch with 1*10/100/1000M RJ45 port and 1*1.25G uplink single-mode dual fiber SC optical module (1310nm/20km). Port 1 supports the IEEE 802.3 af/at PoE standard. It supports dual DC redundant power inputs (Phoenix terminal connectors) and DIN rail mounting.	24W/36W
ONV-IPS33021PFS-M	Industrial PoE switch with 1*10/100/1000M RJ45 port and 1*1.25G uplink multi-mode dual fiber SC optical module (850nm/0.5km). Port 1 supports the IEEE 802.3 af/at PoE standard. It supports dual DC redundant power inputs (Phoenix terminal connectors) and DIN rail mounting.	24W/36W
ONV-IPS33021PFS-A	Industrial PoE switch with 1*10/100/1000M RJ45 port and 1*1.25G uplink single-mode single-fiber SC optical module	24W/36W

	(1310nm/20km or 1550nm/20km). Port 1 supports the IEEE 802.3 af/at PoE standard. It supports dual DC redundant power inputs (Phoenix terminal connectors) and DIN rail mounting.	
ONV-IPS33021PFS-B	Industrial PoE switch with 1*10/100/1000M RJ45 port and 1*1.25G uplink single-mode single-fiber SC optical module (1550nm/20km or 1310nm/20km). Port 1 supports the IEEE 802.3 af/at PoE standard. It supports dual DC redundant power inputs (Phoenix terminal connectors) and DIN rail mounting.	24W/36W
Note: The power supply is not included and needs to be purchased.		

PACKING LIST

	Content	Qty	Unit
Packing List	2-port Gigabit industrial PoE switch	1	Set
	User Guide	1	PC
	Warranty Card and Certificate of Conformity	1	PC

POWER SUPPLY

Product	Model	Description	Unit
36W DIN Rail industrial power supply	GWS-DP36-48	DIN Rail 36W single-set output power supply Input voltage: AC100V~240V 50-60Hz, 0.56A Output voltage: DC48V, 0.75A Operation temperature: -40℃ to +70℃	PC

RELATED PRODUCT

Model	Description
ONV-IPS33042PF	Industrial PoE fiber switch with 2*10/100/1000M RJ45 ports and 2*1000M uplink SFP fiber ports. Ports 1-2 support the IEEE 802.3 af/at PoE standard. It supports dual DC redundant power inputs (Phoenix terminal connectors) and DIN rail mounting.
ONV-IPS33064PF	Industrial PoE fiber switch with 4*10/100/1000M RJ45 ports and 2*1000M uplink SFP fiber ports. Ports 1-4 support the IEEE 802.3 af/at PoE standard. It supports dual DC redundant power inputs (Phoenix terminal connectors) and DIN rail mounting.
ONV-IPS33064PFG	Industrial PoE fiber switch with 5*10/100/1000M RJ45 ports and 1*1000M uplink SFP fiber port. Ports 1-4 support the IEEE 802.3 af/at PoE standard. It supports dual DC redundant power inputs (Phoenix terminal connectors) and DIN rail mounting.
ONV-IPS33108PF	Unmanaged industrial PoE fiber switch with 8*10/100/1000M RJ45 ports and 2*1000M uplink SFP fiber ports. Ports 1-8 support the IEEE 802.3 af/at PoE standard. It supports dual DC redundant power inputs (Phoenix terminal connectors) and DIN rail mounting.

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