

Product Datasheet

3-port 10/100M Industrial PoE Switch

(ONV-IPS31032PF)



OVERVIEW

The ONV-IPS31032PF is a 10/100M industrial PoE fiber switch independently developed by ONV. It has 2*10/100M RJ45 ports and 1*155M uplink SC fiber port. Ports 1-2 support the IEEE 802.3af/at PoE standard, with 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. The network cable can supply power to PoE terminal devices such as wireless APs, IP cameras, and industrial sensors. It also meets the needs of network environments that require a high-density PoE power supply. It is suitable for intelligent transportation, rail transit, the power industry, mining, petroleum, and sea transportation. Industrial scenes such as metallurgy, green energy, and construction form a cost-effective, stable, and reliable communication network. Plug-and-play and easy to use.

FEATURE

■ 10/100M access

- ◇ Supports non-blocking wire-speed forwarding.
- ◇ Supports full-duplex based on IEEE 802.3x and half-duplex based on Backpressure.

- ◇ Supports a combination of 100M RJ45 port and 155M SC fiber port, which allows users to flexibly build networks and meet the networking needs of various scenarios.

■ Smart PoE power supply

- ◇ 2*10/100Base-TX RJ45 ports support PoE power supply to meet the needs of PoE power supply in various scenarios in the industrial field.
- ◇ Complies with the IEEE 802.3 af/at PoE standard, automatically identifies PoE devices for power supply, and does not damage non-PoE devices.

■ Stable and reliable

- ◇ CE, FCC, RoHS.
- ◇ The user-friendly panel can show the device status through the LED indicators for PWR, Link, and PoE.
- ◇ Low power consumption, no fan, aluminum alloy housing, and excellent heat dissipation to ensure the stable operation of the switch.

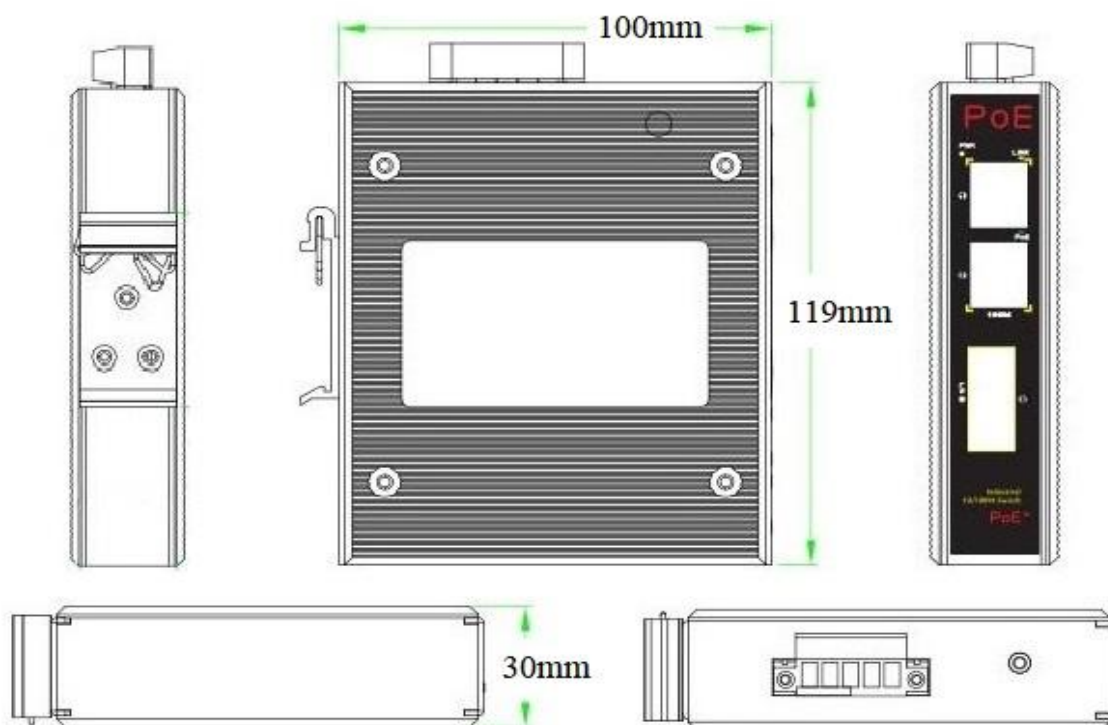
TECHNICAL SPECIFICATION

Model	ONV-IPS31032PF
Interface Characteristics	
Fixed Port	1*155M uplink SC fiber port (Data) 2*10/100Base-TX PoE ports (Data/ Power) 2 set V+, V- redundant DC power port (5P industrial Phoenix terminal)
Ethernet Port	Ports 1-2 support 10/100Base-TX 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)
Optical Fiber Port	Optical module is single-mode dual fiber 20km, SC port (optional single-mode single fiber and multi-mode dual fiber optical module)
Optical Cable/ Distance	Multi-mode: 850nm/ 0-550m, 1310nm/ 0-2km, Single-mode: 1310nm/

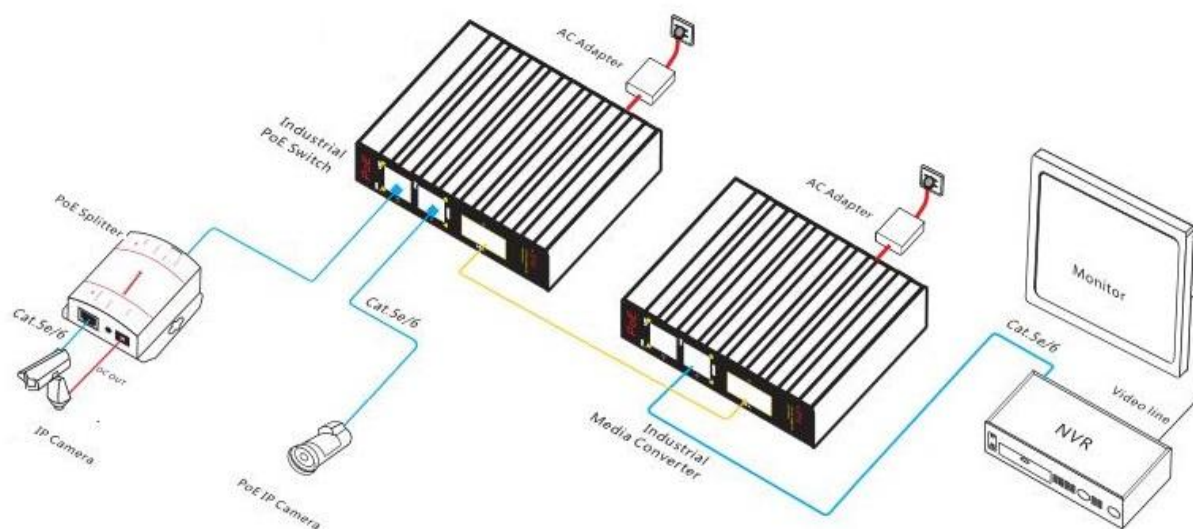
	0-40km, 1550nm/ 0-120km.
Chip Parameter	
Network Protocol	IEEE 802.3 10BASE-T, IEEE 802.3i 10Base-T, IEEE 802.3u 100Base-TX, IEEE 802.3u 100Base-FX, IEEE 802.3x
Forwarding Mode	Store and forward (Full wire speed)
Switching Capacity	1.0Gbps (non-blocking)
Forwarding Rate@64byte	0.45Mpps
MAC	1K
Buffer Memory	512K
Jumbo Frame	1536bytes
LED Indicator	Power: PWR (Green), Network: Link (Yellow), PoE: PoE (Green)
PoE& Power Supply	
PoE Port	Port 1-2
Power Supply Pin	1/2 (+) 3/6 (-)
Max Power Per Port	30W, IEEE 802.3 af/at
Power Consumption	Standby<3W, full load af<36W, at<60W
Operation Voltage	DC44-57V, 5P industrial Phoenix terminal supports anti-reverse protection.
Power Supply	No, optional 48V/36W or 48V/60W industrial power supply
Physical Parameter	
Operation Temp/ Humidity	-40°C~+80°C, 5%~90% RH non-condensing
Storage Temp/ Humidity	-40°C~+85°C, 5%~95% RH non-condensing
Dimension (L*W*H)	119*100*30mm
Net /Gross Weight	0.4kg/ 0.5kg
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 magnetic 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(150 kHz- 80 MHz) 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	IEC 60068-2-6 (anti vibration), IEC 60068-2-32 (free fall), IEC 60068-2-27 (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-IPS31032PF	Industrial PoE switch with 2*10/100M RJ45 ports and 1*155M uplink SC fiber port (1310nm/20km single-mode dual-fiber optical module). Ports 1-2 support the IEEE 802.3af/at PoE standard. It supports dual DC redundant power input (Phoenix terminal connection) and DIN rail mounting.	36W/60W
ONV-IPS31032PF-M	Industrial PoE switch with 2*10/100M RJ45 ports and 1*155M uplink SC fiber port (850nm/0.5km or 1310nm/2km multimode dual-fiber optical module). Ports 1-2 support the IEEE 802.3af/at PoE standard. It supports dual DC redundant power input (Phoenix terminal connection) and DIN rail mounting.	36W/60W

ONV-IPS31032PF-A	Industrial PoE switch with 2*10/100M RJ45 ports and 1*155M uplink SC fiber port (1310nm/20km single-mode, single-fiber optical module). Ports 1-2 support the IEEE 802.3af/at PoE standard. It supports dual DC redundant power input (Phoenix terminal connection) and DIN rail mounting.	36W/60W
ONV-IPS31032PF-B	Industrial PoE switch with 2*10/100M RJ45 ports and 1*155M uplink SC fiber port (1550nm/20km single-mode, single-fiber optical module). Ports 1-2 support the IEEE 802.3af/at PoE standard. It supports dual DC redundant power input (Phoenix terminal connection) and DIN rail mounting.	36W/60W

Note: The power supply is not included and needs to be purchased.

PACKING LIST

Packing List	Content	Qty	Unit
	3-port 10/100M industrial PoE switch	1	PC
	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°C to +70°C	PC

60W DIN Rail industrial power supply	GWS-DP60-48	DIN Rail 60W single-set output power supply Input voltage: AC100V~240V 50-60Hz, 1.6A Output voltage: DC48V, 1.25A Operation temperature: -40°C to +70°C	PC
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RELATED PRODUCT

Model	Description
ONV-IPS31021PFS	Industrial PoE switch with 1*10/100M RJ45 port and 1*155M uplink SC fiber port (1310nm/20km single-mode dual-fiber optical module). Port 1 supports the IEEE 802.3af/at PoE standard. It supports dual DC redundant power input (Phoenix terminal connection) and DIN rail mounting.
ONV-IPS31004PF	Industrial PoE switch with 4*10/100M RJ45 ports and 1*155M uplink SC fiber port (1310nm/20km single-mode dual-fiber optical module). Ports 1-4 support the IEEE 802.3af/at PoE standard. It supports dual DC redundant power input (Phoenix terminal connection) and DIN rail mounting.
ONV-IPS31084PF	Industrial PoE switch with 6*10/100M RJ45 ports and 2*155M uplink SC fiber ports (1310nm/20km single-mode dual-fiber optical module). Ports 1-4 support the IEEE 802.3af/at PoE standard. It supports dual DC redundant power input (Phoenix terminal connection) and DIN rail mounting.
ONV-IPS31128PFB	Industrial PoE fiber switch with 8*10/100M RJ45 ports and 2*10/100/1000M RJ45 ports and 2*1000M uplink SFP fiber ports. Ports 1-8 support the IEEE 802.3af/at PoE standard. It supports dual DC redundant power input (Phoenix terminal connection) and DIN rail mounting.

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