

Product Datasheet

5-port 10/100M Industrial bt PoE Switch

(ONV-IPS31004PF-bt)



OVERVIEW

The ONV-IPS31004PF-bt is a 100M industrial BT PoE switch independently developed by ONV. It features 4*10/100M adaptive RJ45 ports and 1*155M SC fiber port. Ports 1-4 support BT PoE output and are backward compatible with the IEEE 802.3af/at PoE standard, with a single-port PoE power output of up to 90W. As a PoE power supply device, it can automatically detect and identify compliant powered devices and supply power to them via an Ethernet cable. It can power high-power wireless APs, network PTZ cameras, high-power PoE lighting, industrial sensors, high-power network control equipment, and other PoE terminal devices via an Ethernet cable, meeting the network environment requirements for high-density, high-power PoE power supply. It is suitable for building economical, efficient, stable, and reliable communication networks in industrial scenarios such as intelligent transportation, rail transit, power, mining, metallurgy, and green energy construction. Plug-and-play and easy to use.

FEATURE

■ 10/100M access

- ◇ Supports non-blocking wire-speed forwarding.

- ◇ Supports full-duplex based on IEEE802.3x and half-duplex based on Backpressure.
- ◇ Supports 100M RJ45 port and 155M SC fiber port combination, allowing users to flexibly network to meet networking needs in various scenarios.

■ Smart PoE power supply

- ◇ 4*10/100Base-TX RJ45 ports support bt PoE power supply, meeting the needs of high-power PoE power supply in the industrial field.
- ◇ The max output power of a single-port PoE is 90W, and the backward-compatible IEEE 802.3 af/at PoE standard automatically identifies PoE devices for power supply without damaging 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, aluminum alloy housing, and excellent heat dissipation ensure the stable operation of the switch.

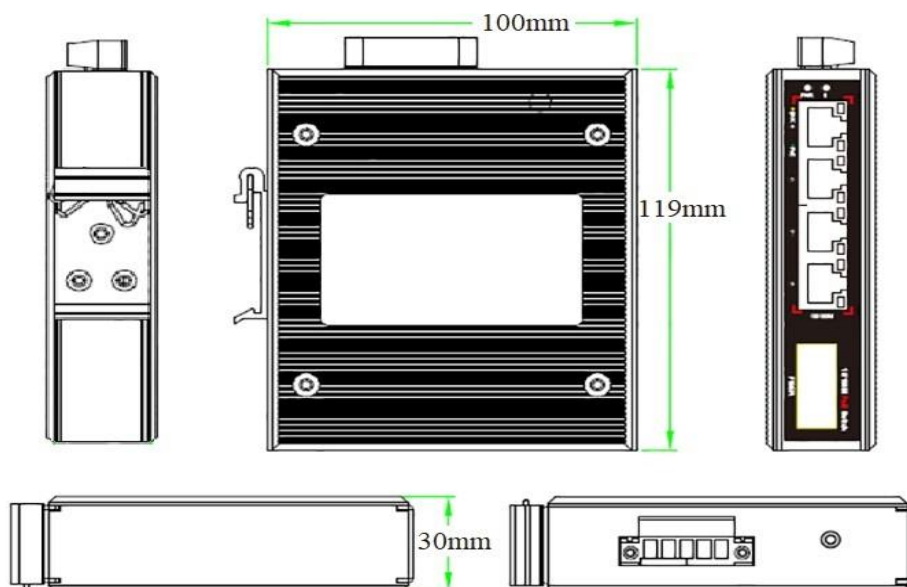
TECHNICAL SPECIFICATION

Model	ONV-IPS31004PF-bt
Interface Characteristics	
Fixed Port	1*155M uplink SC fiber port (Data) 4*10/100Base-TX BT PoE ports (Data /Power) 2 set V+, V- redundant DC power ports (5P Phoenix terminal)
Ethernet Port	Ports 1-4 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: Cat5e or later UTP (≤100 meters)
Optical Fiber Port	The optical module is a single-mode, dual-fiber, 20 km, SC port. (Optional

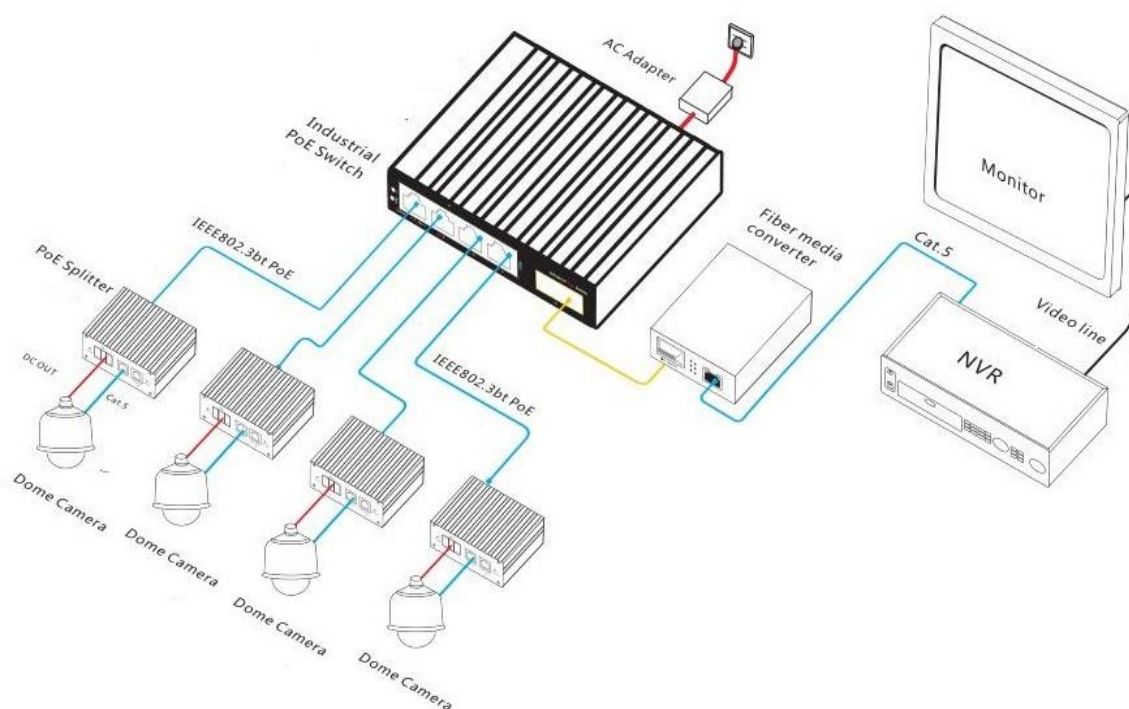
	single-mode, single-fiber, and multi-mode, dual-fiber optical module)
Optical Cable/ Distance	Multi-mode: 850nm/ 0-550m, 1310nm/ 0-2km, Single-mode: 1310nm/ 0-40km, 1550nm/ 0-120km.
Chip Parameter	
Network Protocol	IEEE 802.3 10BASE-T, IEEE 802.3i 10Base-T, IEEE 802.3u 100Base-TX, IEEE 802.3u 100Base-FX, IEEE 802.3x
Forwarding Mode	Store and forward (Full wire speed)
Switching Capacity	1.0Gbps (non-blocking)
Forwarding Rate@64byte	0.74Mpps
MAC	1K
Buffer Memory	512K
Jumbo Frames	1536bytes
LED Indicator	Power: PWR (Green), Network: Link (Yellow), PoE: PoE (Green), Fiber port: 5 (Green)
PoE& Power Supply	
PoE Port	Port 1-4
Power Supply Pin	1/2(+)3/6 (-), 4/5(+)7/8 (-)
Max Power Per Port	90W, IEEE 802.3 af/at/bt
Power Consumption	Standby<4W, full load<240W
Operation Voltage	DC44-57V, 5P industrial Phoenix terminal supports anti-reverse protection
Power Supply	No, optional 48V/240W 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-IPS31004PF-bt	Industrial BT 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 BT PoE output and are backward compatible with the IEEE 802.3af/at PoE standard. It supports dual DC redundant power input (Phoenix terminal connection) and DIN rail mounting.	240W
ONV-IPS31004PF-M-bt	Industrial BT PoE switch with 4*10/100M RJ45 ports and 1*155M uplink SC fiber port (850nm/0.5km or 1310nm/2km multi-mode dual fiber optical module).	240W

	Ports 1-4 support BT PoE output and are backward compatible with the IEEE 802.3af/at PoE standard. It supports dual DC redundant power input (Phoenix terminal connection) and DIN rail mounting.	
ONV-IPS31004PF-A-bt	Industrial BT PoE switch with 4*10/100M RJ45 ports and 1*155M uplink SC fiber port (1310nm/20km single-mode single fiber optical module). Ports 1-4 support BT PoE output and are backward compatible with the IEEE 802.3af/at PoE standard. It supports dual DC redundant power input (Phoenix terminal connection) and DIN rail mounting.	240W
ONV-IPS31004PF-B-bt	Industrial BT PoE switch with 4*10/100M RJ45 ports and 1*155M uplink SC fiber port (1550nm/20km single-mode single fiber optical module). Ports 1-4 support BT PoE output and are backward compatible with the IEEE 802.3af/at PoE standard. It supports dual DC redundant power input (Phoenix terminal connection) and DIN rail mounting.	240W

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

PACKING LIST

	Content	Qty	Unit
Packing List	5-port 10/100M industrial BT PoE switch	1	PC
	User Guide	1	PC
	Warranty Card and Certificate of Conformity	1	PC

POWER SUPPLY

Product	Model	Description	Unit
120W DIN Rail industrial power supply	GWS-DP120-48	DIN Rail 120W single-set 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 output power supply Input voltage: AC 100V~240V 50-60Hz, 3.0A Output voltage: DC48V, 5.0A Operation temperature: -40℃ to +70℃	PC
480W DIN Rail industrial power supply	GWS-DP480-48	DIN Rail 480W single-set output power supply Input voltage: AC100V~240V 50-60Hz, 5.0A Output voltage: DC48V, 10A Operation temperature: -40℃ to +70℃	PC

RELATED PRODUCT

Model	Description
ONV-IPS31064P-bt	Industrial BT PoE switch with 6*10/100M RJ45 ports. Ports 1-4 support BT PoE output and are backward compatible with the IEEE 802.3af/at PoE standard. It supports dual DC redundant power input (Phoenix terminal connection) and DIN rail mounting.
ONV-IPS33064P-bt	Industrial BT PoE switch with 6*10/100/1000M RJ45 ports. Ports 1-4 support BT PoE output and are backward compatible with the IEEE 802.3af/at PoE standard. It supports dual DC redundant power input (Phoenix terminal connection) and DIN rail mounting.
ONV-IPS33064PF-bt	Industrial BT PoE switch with 4*10/100/1000M RJ45 ports and 2*1000M uplink SFP fiber ports. Ports 1-4 support BT PoE output and are

	backward compatible with the IEEE 802.3af/at PoE standard. It supports dual DC redundant power input (Phoenix terminal connection) and DIN rail mounting.
ONV-IPS33064PFG-bt	Industrial BT PoE switch with 5*10/100/1000M RJ45 ports and 1*1000M uplink SFP fiber port. Ports 1-4 support BT PoE output and are backward compatible with the IEEE 802.3af/at PoE standard. It supports dual DC redundant power input (Phoenix terminal connection) and DIN rail mounting.
ONV-IPS33064PFM-bt	L2+ managed industrial BT PoE switch with 4*10/100/1000M RJ45 ports and 2*100/1000M uplink SFP fiber ports. Ports 1-4 support BT PoE output and are backward compatible with the IEEE 802.3af/at PoE standard. It supports dual DC redundant power input (Phoenix terminal connection) and DIN rail mounting.
ONV-IPS57128PFM-bt	L2+ managed industrial BT PoE switch with 8*10/100/1000/2500M RJ45 ports and 4*1/10G uplink SFP+ fiber ports. Ports 1-8 support BT PoE output and are backward compatible with 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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