

Product Datasheet

12-port Gigabit Uplink Industrial Ethernet Switch

(ONV-IPS31128FB)



OVERVIEW

The ONV-IPS31128FB is a gigabit uplink industrial Ethernet 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 SFP fiber ports. Each port can support full line-rate forwarding.

The ONV-IPS31128FB has excellent industrial field environment adaptability (mechanical stability, climate adaptability, electromagnetic environment adaptability, etc.). It is suitable for industrial scenes such as intelligent transportation, rail transit, power industry, mining, petroleum, shipping, metallurgy, and green energy construction to form a cost-effective, stable, and reliable communication network. Unmanaged mode, plug and play, no configuration, easy to use.

FEATURE

■ 10/100M access, uplink gigabit port

- ◇ Support non-blocking wire-speed forwarding.
- ◇ Support full-duplex based on IEEE 802.3x and half-duplex based on Backpressure.
- ◇ Support 10/100M RJ45 port and gigabit RJ45/SFP port combination, which enables users to flexibly build networking to meet the needs of various scenarios.

■ **Stable and reliable**

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

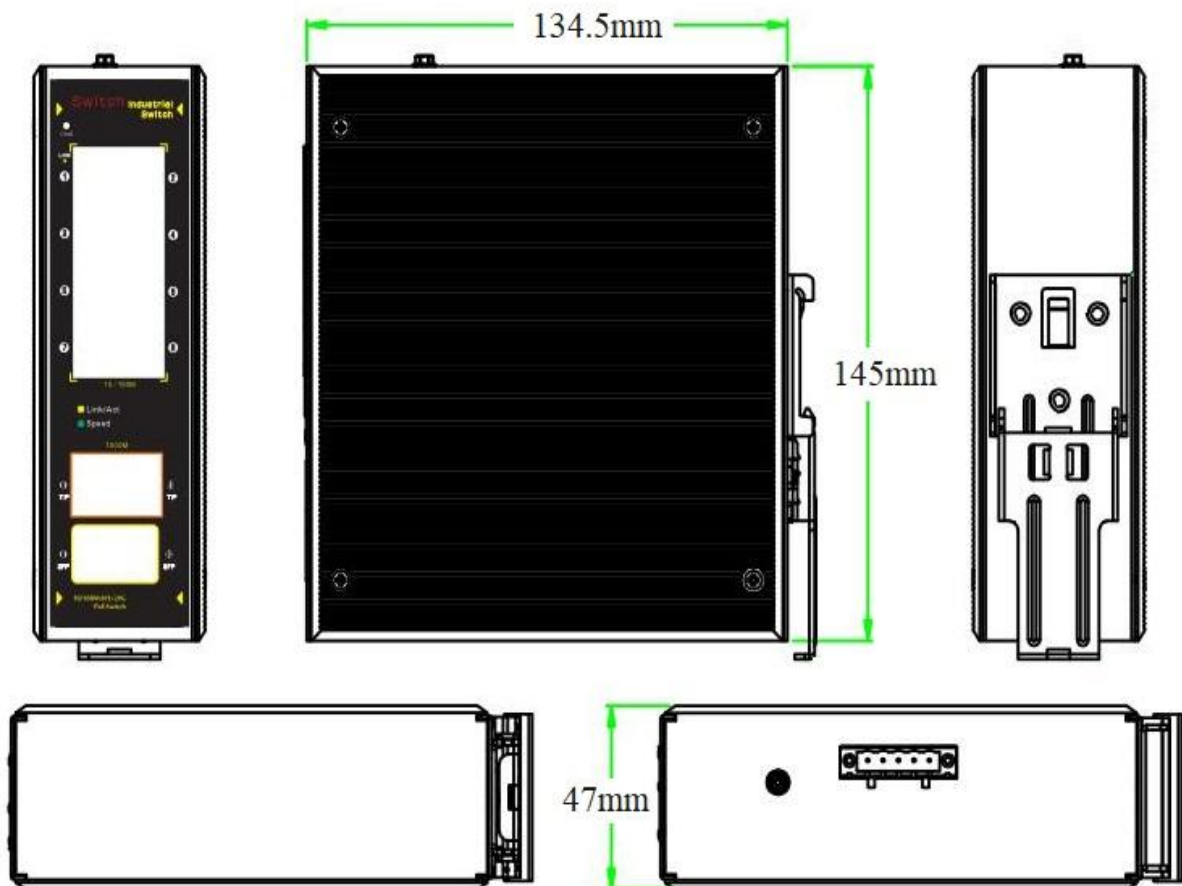
TECHNICAL SPECIFICATION

Model	ONV-IPS31128FB
Interface Characteristics	
Fixed Port	8*10/100Base-TX RJ45 ports (Data) 2*1000Base-X uplink SFP fiber ports (Data) 2*10/100/1000Base-T uplink RJ45 ports (Data) 2 sets V+, V- redundant DC power ports (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 support 10/100Base-TX and port 9-10 support 10/100/1000Base-T auto-sensing, full/ half duplex MDI/ MDI-X self-adaption
Optical Fiber 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	IEEE 802.3 10BASE-T, IEEE 802.3i 10Base-T, IEEE 802.3u100Base-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)

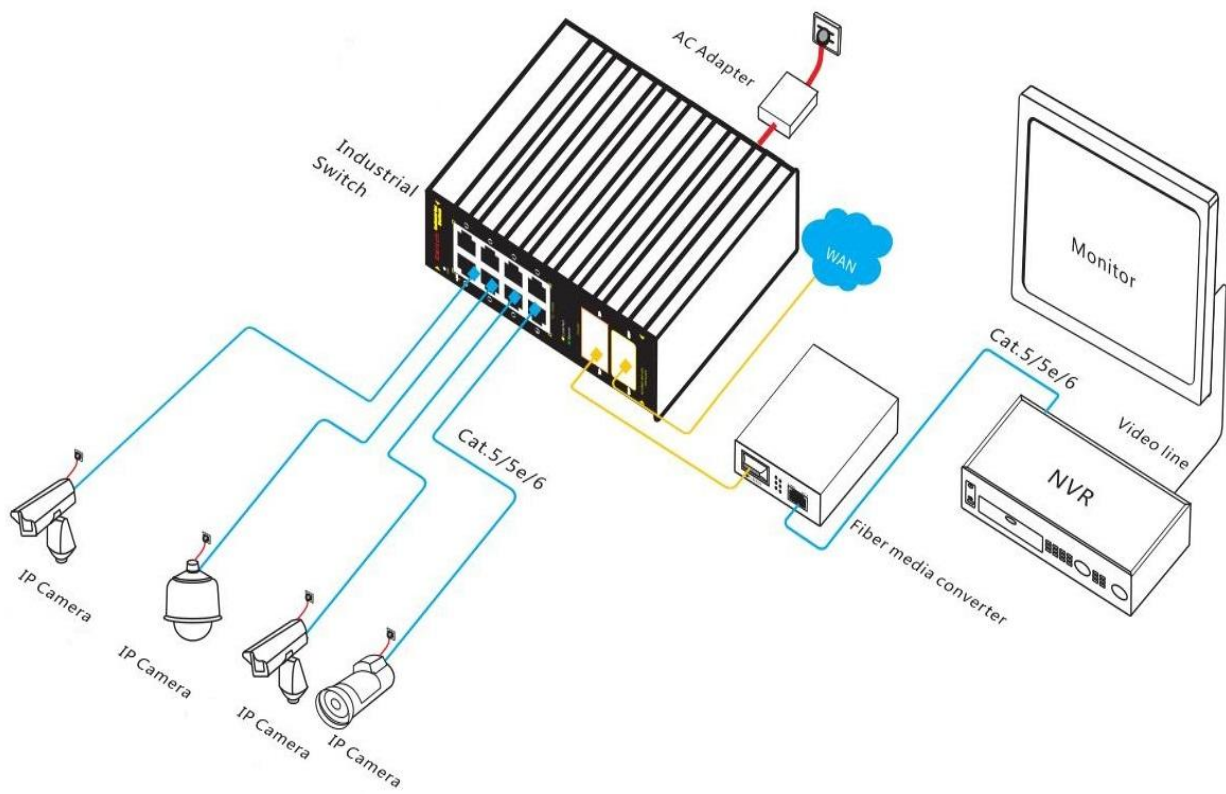
Forwarding Rate @64byte	7.14Mpps
MAC	2K
Buffer Memory	2M
Jumbo Frame	9.2K
LED Indicator	Power: PWR (Green), Network: Link, Link/Act (Yellow)
Power Supply	
Power Consumption	Standby<8W,Full load<20W
Working Voltage	DC12-48V, 5P industrial Phoenix terminal, support anti-reverse protection.
Power Supply	No, optional 24V/24W 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 / 0.9 kg
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): CM2.5kV, DM1kV 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



APPLICATION



ORDERING INFORMATION

Model	Description	Recommended Power Supply
ONV-IPS31128FB	Unmanaged industrial Ethernet switch with 8*10/100M RJ45 ports and 2*10/100/1000M uplink RJ45 ports and 2*1000M uplink SFP fiber ports. It can support dual DC power input and DIN rail mounting.	24V/24W

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 Ethernet 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-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	2633	1.25G SFP optical module transfers to 10/100/1000M RJ45 port.	PC

Module			
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POWER SUPPLY

Product	Model	Description	Unit
24W DIN Rail Industrial Power Supply	GWS-DP24-24	DIN Rail 24W single set of output power supply Input Voltage: AC100V~240V 50-60Hz, 0.35A Output Voltage: DC24V, 1.0A Operation Temperature: -40°C to +70°C	PC

RELATED PRODUCT

Model	Description
ONV-IPS33032FS	Unmanaged industrial Ethernet fiber switch with 2*10/100/1000M RJ45 ports and 1*1000M uplink SC fiber port. It can support dual DC power input and DIN rail mounting.
ONV-IPS33042F	Unmanaged industrial Ethernet fiber switch with 2*10/100/1000M RJ45 ports and 2*1000M uplink SFP fiber ports. It can support dual DC power input and DIN rail mounting.
ONV-IPS33064F	Unmanaged industrial Ethernet fiber switch with 4*10/100/1000M RJ45 ports and 2*1000M uplink SFP fiber ports. It can support dual DC power input and DIN rail mounting.
ONV-IPS33108F	Unmanaged industrial Ethernet fiber switch with 8*10/100/1000M RJ45 ports and 2*1000M uplink SFP fiber ports. It can support dual DC power input and DIN rail mounting.
ONV-IPS33128F	Unmanaged industrial Ethernet fiber switch with 10*10/100/1000M RJ45 ports and 2*1000M uplink SFP fiber ports. It can support dual DC power input and DIN rail mounting.

CONTACT US

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