

## Product Datasheet

# 10-port Gigabit Uplink industrial Ethernet Fiber Switch

## ONV-IPS31108FB



## OVERVIEW

The ONV-IPS31108FB is a gigabit uplink industrial Ethernet fiber switch independently developed by ONV. It has 8\*10/100M RJ45 ports and 2\*1000M (TP/SFP) combo ports, and each port can support full line-rate forwarding.

The ONV-IPS31108FB industrial Ethernet switch has excellent industrial field environment adaptability (mechanical stability, climate adaptability, electromagnetic environment adaptability, etc.), protection level is IP40, it support for dual power supply, low power consumption, no fan cooling technology, MTBF is 35 years, 5 years warranty, unmanaged models, plug and play, no configuration, easy to use. 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.

## FEATURE

### ■ 10/100M access, gigabit (TP/SFP) combo port

- ◇ All series support "10/100M RJ45 port and gigabit uplink combo port" combination, which enables users to flexibly build networking to meet the needs of various scenarios.
- ◇ Support non-blocking wire-speed forwarding.
- ◇ Support full-duplex based on IEEE802.3x and half-duplex based on backpressure.

### ■ Stable and reliable

- ◇ Low power consumption, no fan, aluminum casing.
- ◇ CCC, CE, FCC, RoHS.
- ◇ The user-friendly panel, it can show the device status through the LED indicator of PWR, Link .

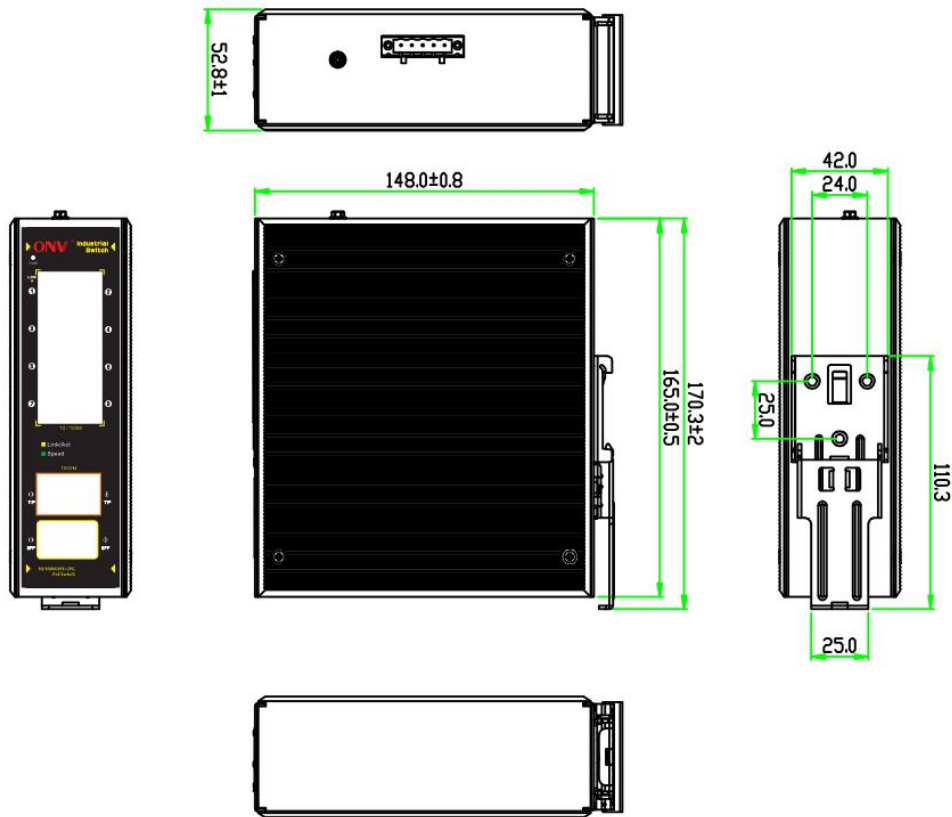
## TECHNICAL SPECIFICATION

Model	ONV-IPS31108FB	ONV-IPS31108F-8EF
<b>Interface Characteristics</b>		
Fixed Port	8*10/100Base-TX RJ45 ports(Data) 2*10/100/1000Base-T RJ45 ports(Data) 2*1000Base-X uplink SFP slot ports (combo port) (Data) 2 set of V+, V- redundant DC power interface (5P Phoenix terminal)	8*10/100Base-FX SFP slot ports(Data) 2*10/100/1000Base-T RJ45 ports(Data) 2*1000Base-X uplink SFP slot ports(Data) 2 set of V+, V- redundant DC power interface (5P Phoenix terminal)
Ethernet Port	Port 1-8 can support 10/100Base-TX, Port 9-10 can support 10/100/1000BaseT automatic detection, full / half duplex MDI/MDI-X adaptive	
Twisted Pair	10BASE-T: Cat3,4,5 UTP(≤100 meter)	

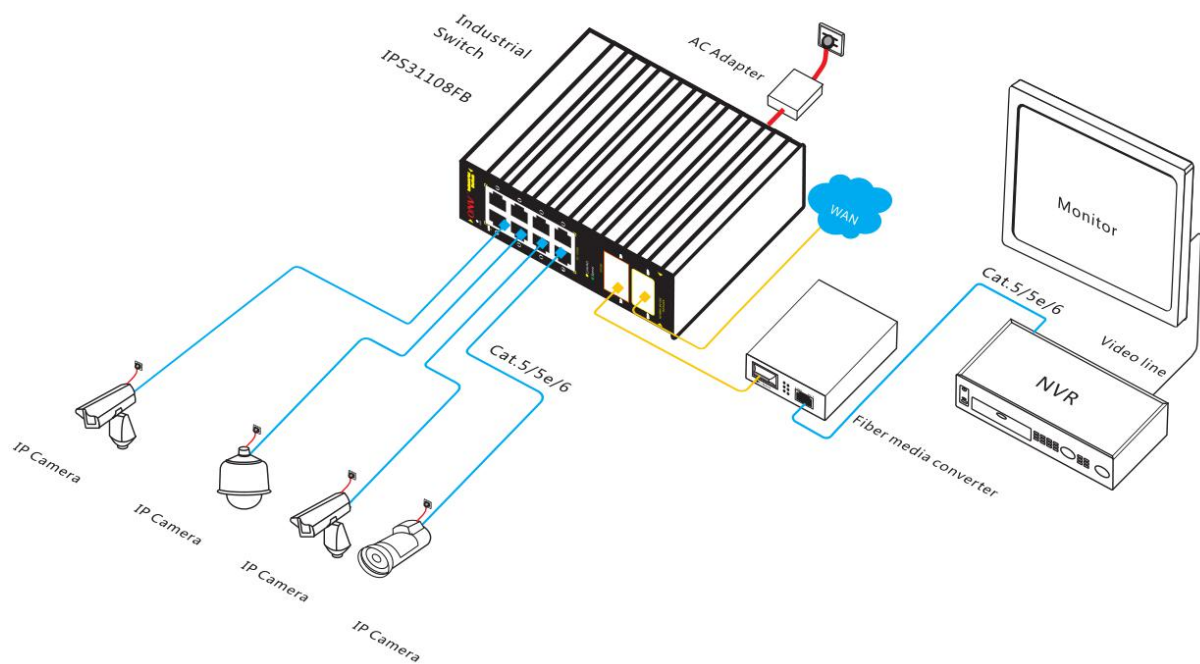
Transmission	100BASE-TX: Cat5 or later UTP(≤100 meter) 1000BASE-T: Cat5e or later UTP(≤100 meter)	
SC Slot Port	155M SFP/ Gigabit SFP optical fiber interface, default not matching optical modules (optional order single-mode / multi-mode, single fiber / dual fiber optical module. LC)	
Optical Cable/ Distance	Multi mode: 850nm / 0 ~ 550M, 1310nm / 0 ~ 20KM, single mode: 1310nm / 0 ~ 40KM, 1550nm / 0 ~ 120KM.	
<b>Chip Parameter</b>		
Network Protocol	IEEE802.3 10BASE-T, IEEE802.3i 10Base-T, IEEE802.3u 100Base-TX, IEEE802.3u 100Base-FX IEEE802.3x	
Forwarding Mode	Store and Forward(Full Wire Speed)	
Switching Capacity	5.6Gbps	14.8Gbps
Forwarding Rate@64byte	4.17Mpps	
MAC	16K	
Buffer Memory	4M	
Jumbo Frame	10K	
LED Indicator	Power: PWR (green), network: Link, link/Act(yellow), speed: Speed (green)	
<b>Power</b>		
Power Consumption	Standby<8W, Full load<12W	Standby<8W, Full load<18W
Power Supply	No, optional 24V24W industrial power supply	
Working Voltage	12-48VDC; 5P industrial Phoenix terminal, support anti-reverse protection.	
<b>Physical Parameter</b>		
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)	165*148*54mm
Net /Gross Weight	<1.3kg / <1.8kg
Installation	Desktop, DIN rail
<b>Certification &amp; Warranty</b>	
Lightning protection / protection level	<p>Lightning protection: 6KV 8/20us; Protection level: IP40</p> <p>IEC61000-4-2(ESD):±8kV contact discharge,±15kV air discharge</p> <p>IEC61000-4-3(RS):10V/m(80~1000MHz)</p> <p>IEC61000-4-4(EFT): power cable:±4kV; data cable:±2kV</p> <p>IEC61000-4-5(Surge):power cable:CM±4kV/DM±2kV; data cable:±4kV</p> <p>IEC61000-4-6(radio frequency transmission):10V(150kHz~80MHz)</p> <p>IEC61000-4-8(power frequency magnetic field):100A/m;1000A/m ,1s to 3s</p> <p>IEC61000-4-9(pulsed magnet field):1000A/m</p> <p>IEC61000-4-10(damped oscillation):30A/m 1MHz</p> <p>IEC61000-4-12/18(shockwave):CM 2.5kV,DM 1kV</p> <p>IEC61000-4-16(common-mode transmission):30V; 300V,1s</p> <p>FCC Part 15/CISPR22(EN55022):Class A</p> <p>IEC61000-6-2(Common Industrial Standard)</p>
Mechanical Properties	<p>IEC60068-2-6 (anti vibration)</p> <p>IEC60068-2-27 (anti shock)</p> <p>IEC60068-2-32 (free fall)</p>
Certification	CCC;CE mark, commercial; CE/LVD EN60950;FCC Part 15 Class B; RoHS;
Warranty	5 years, lifelong maintenance.

## DIMENSION



## APPLICATION



## ORDERING INFORMATION

Model	Description	Recommended Power Supply
ONV-IPS31108FB	Unmanaged industrial Ethernet fiber switch with 8*10/100M RJ45 ports and 2*10/100/1000M uplink RJ45 ports and 2*1000M uplink SFP slot ports (combo port). It can support dual DC redundant power input and DIN rail mounting.	12W/24W
ONV-IPS31108F-8EF	Unmanaged industrial Ethernet fiber switch with 8*155M SFP slot ports and 2*10/100/1000M uplink RJ45 ports and 2*1000M uplink SFP slot ports (combo port). It can support dual DC redundant power input and DIN rail mounting.	12W/24W

**Note:** Industrial Ethernet switch does not match the power supply and SFP optical module.

## PACKING LIST

	CONTENT	QTY	UNIT
PACKING LIST	10-port gigabit uplink industrial Ethernet fiber switch	1	SET
	User Guide	1	PC
	Warranty Card	1	PC

## POWER SUPPLY SELECTION TABLE

Product	Model	Description	Unit
12W DIN Rail Industrial Power Supply	GWS-DP24-24	Din Rail type 12W single set of output power supply; Input Voltage:AC 100V~240V 50-60H,0.35A Output Voltage:DC 24V 1A Operation Temperature:-40℃—+70℃	PC

## OPTICAL MODULE INFORMATION

Product	Model	Description	Unit
155M Optical module	ONV-5315-114	SFP optical module, 155M, single-mode dual fiber 1310nm, transmission distance: 20km, LC interface, support DDM function, support hot plug and pull.	PC
	ONV-1313-20	SFP optical module, 155M, single-mode single fiber 1310nm, transmission distance: 20km, LC interface, support DDM function, support hot plug and pull.	PC
	ONV-1315-20	SFP optical module, 155M, single-mode single fiber, transmission distance: 20km, LC interface, support DDM function, support hot plug and pull.	PC
1.25G Optical module	ONV-2630	SFP optical module, 1.25G, multi mode dual fiber 850nm, transmission distance: 550m, LC interface, support DDM function, support hot plug and pull.	PC
	ONV-2632	SFP optical module, 1.25G, single-mode dual fiber	PC

		1310nm, transmission distance: 20km, LC interface, support DDM function, support hot plug and pull.	
	ONV-2612-T	SFP optical module, 1.25G, single-mode single fiber TX1310nm/RX1550nm, transmission distance: 20km, LC interface, support DDM function, support hot plug and pull.	PC
	ONV-2613-R	SFP optical module, 1.25G, single-mode single fiber TX1550nm/RX1310nm, transmission distance: 20km, LC interface, support DDM function, support hot plug and pull.	PC
	2612-T-G	Industrial SFP optical module, 1.25G, single-mode single fiber TX1310nm/RX1550nm, transmission distance: 20km, LC interface, support DDM function, support hot plug and pull.	PC
	2613-R-G	Industrial SFP optical module, 1.25G, single-mode single fiber TX1550nm/RX1310nm, transmission distance: 20km, LC interface, support DDM function, support hot plug and pull.	PC
	ONV-2612-T-S C	SFP optical module, 1.25G, single-mode single fiber TX1310nm/RX1550nm, transmission distance: 20km, SC interface, support DDM function, support hot plug and pull.	PC
	ONV-2613-R-S C	SFP optical module, 1.25G, single-mode single fiber TX1550nm/RX1310nm, transmission distance: 20km, SC interface, support DDM function, support hot plug and pull.	PC
Power Module	ONV-2633	1.25G SFP optical module transfers to 10/100/1000M RJ45 port.	PC



## RELATED PRODUCT

Model	Description
ONV-IPS31021F	Unmanaged industrial Ethernet fiber switch with 1*10/100M RJ45 port and 1*155M SC port. By default, the SC port 1310mm/20km single-mode dual-fiber module. It can support dual DC redundant power input and DIN rail mounting.
ONV-IPS31032F	Unmanaged industrial Ethernet fiber switch with 2*10/100M RJ45 ports and 1*155M SC port. By default, the SC port 1310mm/20km single-mode dual-fiber module. It can support dual DC redundant power input and DIN rail mounting.
ONV-IPS31004F	Unmanaged industrial Ethernet fiber switch with 4*10/100M RJ45 ports and 1*155M SC port. By default, the SC port 1310mm/20km single-mode dual-fiber module. It can support dual DC redundant power input and DIN rail mounting.
ONV-IPS31064F	Unmanaged industrial Ethernet fiber switch with 4*10/100M RJ45 ports and 2*155M SC ports. It can support DC dual redundant power input and DIN rail mounting.
ONV-IPS31084F	Unmanaged industrial Ethernet fiber switch with 6*10/100M RJ45 ports and 2*155M SC ports. By default, the SC port 1310mm/20km single-mode dual-fiber module. It can support dual DC redundant power input and DIN rail mounting.

## CONTACT US



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