

Product Datasheet

2-port 10/100M Industrial Ethernet Switch (ONV-IPS31021FS)



OVERVIEW

The ONV-IPS31021FS is a 10/100M industrial Ethernet fiber switch independently developed by ONV. It has 1*10/100M adaptive RJ45 port and 1*155M uplink SC fiber port. Each port can support full line-speed forwarding.

The ONV-IPS31021FS boasts excellent adaptability to industrial environments (including mechanical stability, climatic adaptability, and electromagnetic environment adaptability). It is suitable for industrial scenarios such as intelligent transportation, rail transportation, power industry, mining, petroleum, shipping, metallurgy, and green energy construction, enabling the establishment of cost-effective, stable, and reliable communication networks. Plug-and-play and easy to use.

FEATURE

■ 100M RJ45 and uplink SC port

- ◇ 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.

■ Stable and reliable

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

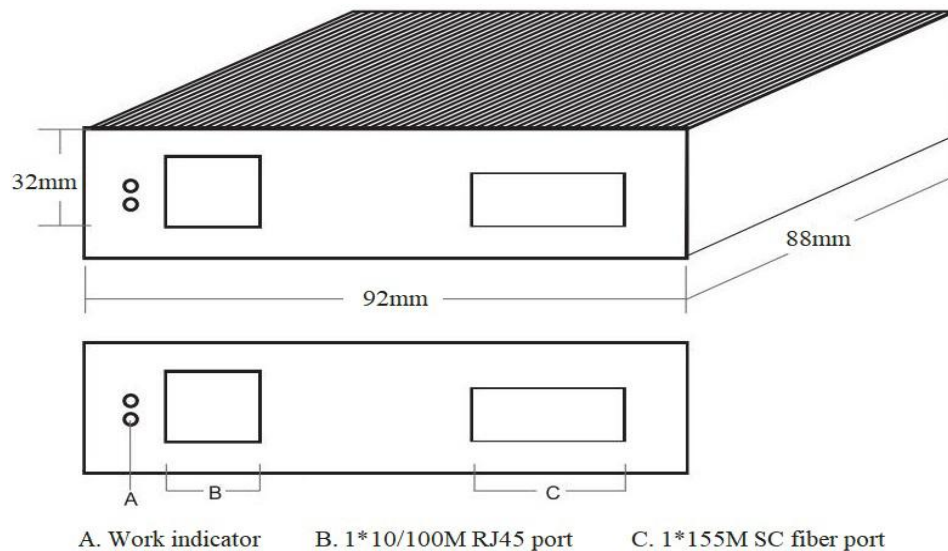
TECHNICAL SPECIFICATION

Model	ONV-IPS31021FS
Interface Characteristics	
Fixed Port	1*155M uplink SC fiber port (Data) 1*10/100Base-TX RJ45 port (Data) 2 sets V+, V- redundant DC power ports (5P Phoenix terminal)
Ethernet Port	Port 1 supports 10/100Base-TX auto-sensing, full/ half duplex MDI/ MDI-X self-adaption
Twisted Pair Transmission	10BASE-T: Cat3,4,5 UTP (≤100 meters) 100BASE-TX: Cat5e or later UTP (≤100 meters)
Optical Fiber Port	Single-mode dual-fiber optical module, 20 km, SC interface. Multimode dual-fiber and single-mode single-fiber options are available.
Optical Cable/ Distance	Multimode: 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	1.0 Gbps (non-blocking)

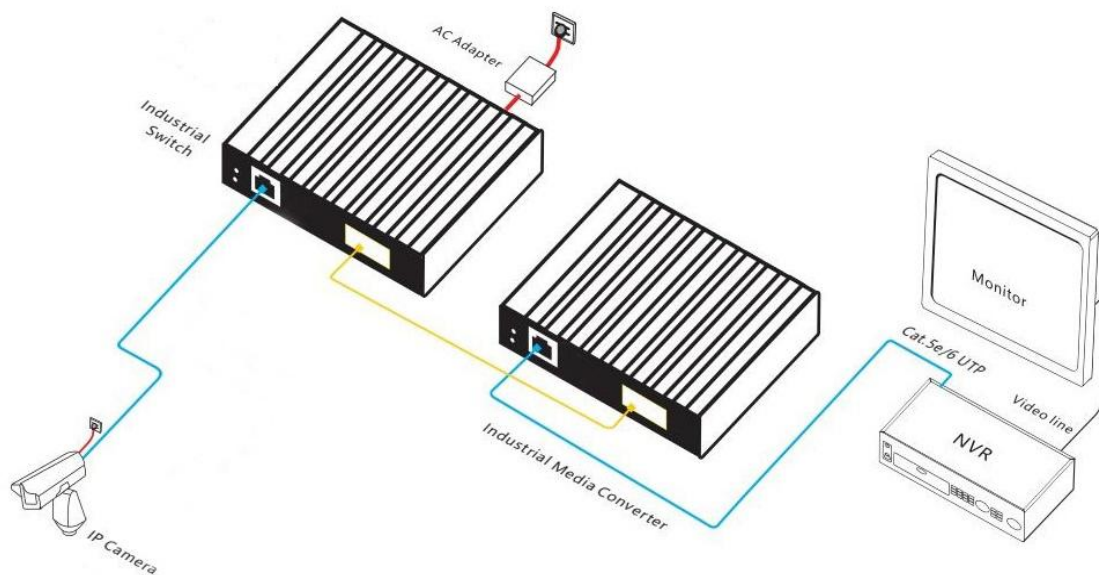
Forwarding Rate@64byte	0.3Mpps
MAC	1K
Buffer Memory	768K
LED Indicator	Power: PWR (Green), Network: Link (Yellow), Fiber port: L/A (Green)
Power Supply	
Power Consumption	Standby<3W, full load<5W
Operation Voltage	DC12-57V, 5 Pin industrial Phoenix terminal supports anti-reverse protection
Power Supply	No, optional 12V/24W or 24V/24W 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 (L*W*H)	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 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: ±4 kV, data cable: ±2 kV 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(150 kHz- 80 MHz) 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	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-IPS31021FS	Industrial Ethernet switch with 1*10/100M RJ45 port and 1*155M uplink SC fiber port (1310nm/20km single-mode dual-fiber optical module). It supports dual DC redundant power input (Phoenix terminal connection) and DIN rail mounting.	24W
ONV-IPS31021FS-M	Industrial Ethernet switch with 1*10/100M RJ45 port and 1*155M uplink SC fiber port (850nm/0.5km or 1310nm/2km multimode dual-fiber optical module). It supports dual DC redundant power input (Phoenix terminal connection) and DIN rail mounting.	24W
ONV-IPS31021FS-A	Industrial Ethernet switch with 1*10/100M RJ45 port and 1*155M uplink SC fiber port (1310nm/20km single-mode single-fiber optical module). It supports dual DC redundant power input (Phoenix terminal connection) and DIN rail mounting.	24W
ONV-IPS31021FS-B	Industrial Ethernet switch with 1*10/100M RJ45 port and 1*155M uplink SC fiber port (1550nm/20km single-mode single-fiber optical module). It supports dual DC redundant power input (Phoenix terminal connection) and DIN rail mounting.	24W

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

PACKING LIST

Packing List	Content	Qty	Unit
	2-port 10/100M industrial Ethernet fiber switch	1	PC
	User Guide	1	PC
	Warranty Card	1	PC

POWER SUPPLY

Product	Model	Description	Unit
24W DIN Rail industrial power supply	GWS-DP24-12	DIN Rail 24W single-set output power supply Input voltage: AC100V~240V 50-60Hz, 0.5A Output voltage: DC12V, 2.0A Operation temperature: -40℃ to +70℃	PC
24W DIN Rail industrial power supply	GWS-DP24-24	DIN Rail 24W single-set output power supply Input voltage: AC100V~240V 50-60Hz, 0.5A Output voltage: DC24V, 1.0A Operation temperature: -40℃ to +70℃	PC

CONTACT US



Optical Network Video Technologies (Shenzhen) Co., Ltd.

Tel: 0086-755-33376606

Fax: 0086-755-33376608

Email: onv@onv.com.cn

WeChat ID: ONV-PoE-IoT

Website: www.onvcom.com, www.onvswitch.com

Headquarter Address: Room 1003, Block D, Terra Building, Futian District, Shenzhen

Factory Address: Building B3, Galaxy Artificial Intelligence Industrial Park, No. 333,

Zhongkai 6th Road, Chenjiang Street, Zhongkai High-tech Zone, Huizhou