

Product Datasheet

10-port Gigabit Easy Managed Industrial Ethernet Switch (ONV-IPS53108FM)



OVERVIEW

The ONV-IPS53108FM is a Gigabit Easy managed industrial Ethernet fiber switch independently developed by ONV. It has 8*10/100/1000Base-T adaptive RJ45 ports and 2*100/1000Base-X uplink SFP fiber ports. Each port can support wire-speed forwarding. The ONV-IPS53108FM can support Web management, ONV-NMS management platform, and mobile APP cloud platform management, which can realize functions such as security network topology management, link aggregation, port management, port mirroring, and remote operation and maintenance. The switch has high reliability, easy installation and maintenance, a fast switching function, and multiple access ports, which are suitable for access to LAN devices of various scales. It is suitable for intelligent transportation, rail transportation, electric power industry, mining, petroleum, shipping, metallurgy green energy construction, and other industrial scenarios to build an economical, efficient, stable, and reliable communication network.

FEATURE

■ Gigabit access, uplink SFP fiber port

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

■ Extreme Optimization, minimalist application

- ◇ Real-time fault alarm and fault location.
- ◇ Remote upgrade, remote restart, and factory reset.
- ◇ Local platform, cloud platform, and mobile APP operation and maintenance management.
- ◇ Visual network topology management, VLAN division, port control, and switching capacity management.
- ◇ Practical network management functions are retained according to industry application requirements, and network deployment and centralized operation and maintenance can be quickly realized through the operation and maintenance platform.

■ Stable and reliable

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

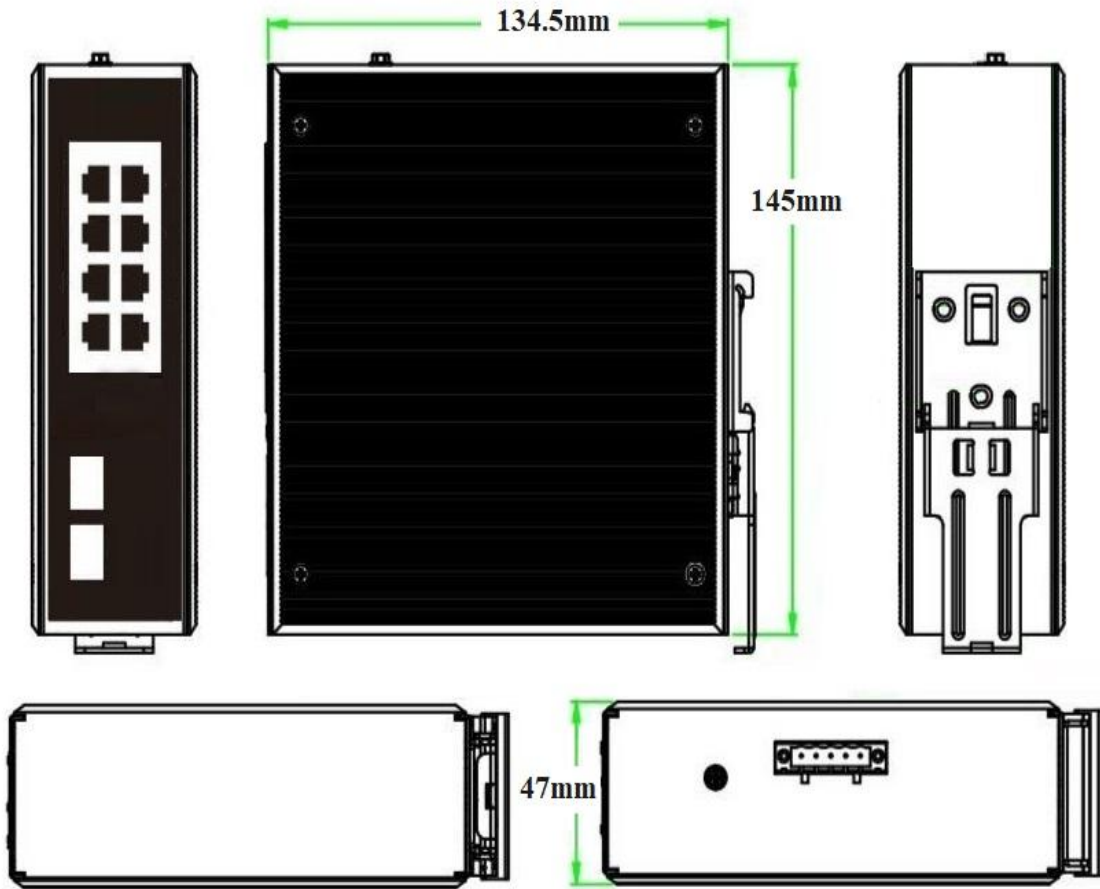
TECHNICAL SPECIFICATION

Model	ONV-IPS53108FM
Interface Characteristics	
Fixed Port	8*10/100/1000Base-T RJ45 ports (Data) 2*100/1000Base-X uplink SFP fiber ports (Data) 2 sets V+, V- redundant DC power port (5P phoenix terminal)
Ethernet Port	Port 1-8 can support 10/100/1000Base-T auto-sensing, full/ half duplex MDI/ MDI-X self-adaption
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)
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/ 0-550m, Single-mode: 1310nm/ 0-40km, 1550nm/ 0-120km.
Chip Parameter	
Network Management Type	L2
Network Protocol	IEEE 802.3 10BASE-T, IEEE 802.3i 10Base-T, IEEE 802.3u 100Base-TX, IEEE 802.3ab 1000Base-T, IEEE 802.3z 1000Base-X, IEEE 802.3x
Forwarding Mode	Store and Forward (Full wire-speed)
Switching Capacity	20Gbps (non-blocking)
Forwarding Rate @64byte	14.88Mpps
MAC	8K
Buffer Memory	2M
Jumbo Frame	9.2K
LED Indicator	Power/ System: SYS (Green), Fiber port: L/A (Green), Network: Link

	(Yellow)
Reset Switch	Press for 6 seconds and then release to restore to factory settings Short press twice (1 second interval) to switch to unmanaged state
Power Supply	
Power Consumption	Standby<5W, Full load<8W
Working Voltage	DC12-48V, 5P industrial phoenix terminal, 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)	145*134.5*47mm
Net /Gross Weight	0.75kg/ 1.0kg
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): CM 2.5kV, DM 1kV 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), IEC60068-2-32 (Free Fall), IEC60068-2-27 (Anti Shock)
Certification	CCC, CE mark, commercial, CE/LVD EN62368-1, FCC Part 15 Class B, RoHS
Warranty	5 years, lifelong maintenance.
Network Management Feature	
Interface	Port status display, Port traffic statistics Port duplex/negotiation rate configuration EEE Energy-saving and green Ethernet function IEEE802.3x flow control configuration (Full-duplex)
VLAN	Port-based IEEE802.1Q VLAN configuration (4K)
Port Aggregation	Static aggregation
Loop Protection	Loop protection function
Multicast	IGMP Snooping v1/v2, Max 256 multicast groups
Port Mirroring	Bidirectional data mirroring based on port
QoS	Diff-Serv QoS, 8*Output queues of each port, 802.1p/DSCP priority mapping, Priority Mark/Remark
Security	Broadcast storm control, Port isolation, Port speed limit
DHCP	DHCP Snooping
Management	Mobile APP operation and maintenance management One-key recovery, Cable Diagnose, Web Management (https) ONV-NMS platform management (Local platform/Cloud platform)
System	Web browser: Mozilla Firefox 2.5 or higher, Google browser chrome V42 or higher, Category 5 and above Ethernet cables TCP/IP, network adapter, and network operating systems (Such as Microsoft Windows, Linux or Mac OS X) are installed on each computer in the network with Category 5 and above Ethernet cables

DIMENSION



ORDERING INFORMATION

Model	Description	Recommended Power Supply
ONV-IPS53108FM	L2 Easy managed industrial Ethernet fiber switch with 8*10/100/1000M RJ45 ports and 2*100/1000M uplink SFP fiber ports. It can support dual DC power supply input and DIN Rail mounting.	24W

Note: The optical module and power supply are not included and need to be purchased.

PACKING LIST

	Content	Qty	Unit
Packing List	10-port gigabit Easy managed industrial Ethernet switch	1	SET
	User Guide	1	PC
	Warranty Card and Certificate of Conformity	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-SC-G	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-SC-G	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 SUPPLY

Product	Model	Description	Unit
24W DIN Rail Industrial Power Supply	GWS-DP24-12	DIN Rail 24W single set of output power supply Input Voltage: AC100V~240V 50-60H, 0.35A Output Voltage: DC12V, 2.0A Operation Temperature: -40°C to +70°C	PC
24W DIN Rail Industrial Power Supply	GWS-DP24-24	DIN Rail 24W single set of output power supply Input Voltage: AC100V~240V 50-60H, 0.35A Output Voltage: DC24V, 1.0A Operation Temperature: -40°C to +70°C	PC

RELATED PRODUCT

Model	Description
ONV-IPS53064FGM	L2 Easy managed industrial Ethernet fiber switch with 5*10/100/1000M RJ45 ports and 1*100/1000M uplink SFP fiber port. It can support dual DC power supply input and DIN Rail mounting.
ONV-IPS53064FM	L2 Easy managed industrial Ethernet fiber switch with 4*10/100/1000M RJ45 ports and 2*100/1000M uplink SFP fiber ports. It can support dual DC power supply input and DIN Rail mounting.
ONV-IPS53008M	L2 Easy managed industrial Ethernet switch with 8*10/100/1000M RJ45 ports. It can support dual DC power supply input and DIN Rail mounting.

CONTACT US



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

Tel: 0086-755-33376606

Fax: 0086-755-33376608



WeChat: ONV-PoE-IoT

Email: onv@onv.com.cn

Skype: [onv@onv.com.cn](https://www.skype.com/people/onv@onv.com.cn)

Website: www.onvcom.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

