Product Datasheet

6-port Gigabit Easy Managed Industrial PoE Switch

(ONV-IPS53064PFM)



OVERVIEW

The ONV-IPS53064PFM is a Gigabit Easy managed industrial PoE switch independently developed by ONV. It has 4*10/100/1000Base-T auto-sensing RJ45 ports and 2*1000Base-X uplink SFP fiber ports. Ports 1-4 support the IEEE 802.3af/at PoE standard, with a single-port PoE power of up to 30W. As a PoE power supply device, it can automatically detect and identify compliant powered devices and supply power to them via network cable. It can power PoE terminal devices such as wireless APs, IP cameras, VoIP phones, and industrial sensors via network cable, meeting the needs of network environments requiring high-density PoE power. It is suitable for building economical, efficient, stable, and reliable communication networks in industrial scenarios such as intelligent transportation, rail transit, power industry, mining, oil, shipping, metallurgy, and green energy construction.

The ONV-IPS53064PFM supports ONV-NMS cloud platform management and cloud management APP management, enabling functions such as security network topology

management, link aggregation, port management, PoE management, and remote operation and maintenance. High reliability, easy installation and maintenance. Features fast switching and multiple access ports, suitable for LAN devices of various sizes.

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 uplink Gigabit SFP fiber port combination, which enables users to flexibly build networking to meet the needs of various scenarios.

■ Smart PoE power supply

◇ Comply with IEEE 802.3 af/at PoE standard, automatically identify PoE devices for power supply, and not damage non-PoE devices.

◇ Support remote PoE management function, realize remote on/off of PoE port, port power status check, PoE port fault query function, etc.

◇ 4*10/100/1000Base-T RJ45 ports support PoE power, meeting the PoE power requirements of security monitoring, industrial automation systems, wireless coverage and other scenarios.

■ Minimalist application

◇ Support remote upgrades, remote reboots, and factory resets.

◇ Support real-time fault alarms, fault location, and automatic work order dispatch.

◇ Web network management functions: QoS, link aggregation, ring network management, port mirroring, port control, and bandwidth management.

◇ Cloud platform + mobile APP operation and maintenance management, providing visualized PoE power supply control, network topology management, and VLAN segmentation.

◇ It abandons complex network management configurations, retaining only practical network management functions, enabling rapid network deployment and centralized

operation and maintenance through the operation and maintenance platform.

■ Stable and reliable

◇ CE, FCC, RoHS.

◇ The user-friendly panel can show the device status through the LED indicators of PWR, SYS, Link, and PoE.

◇ Low power consumption, aluminum alloy housing, and excellent heat dissipation to ensure the stable operation of the switch.

TECHNICAL SPECIFICATION

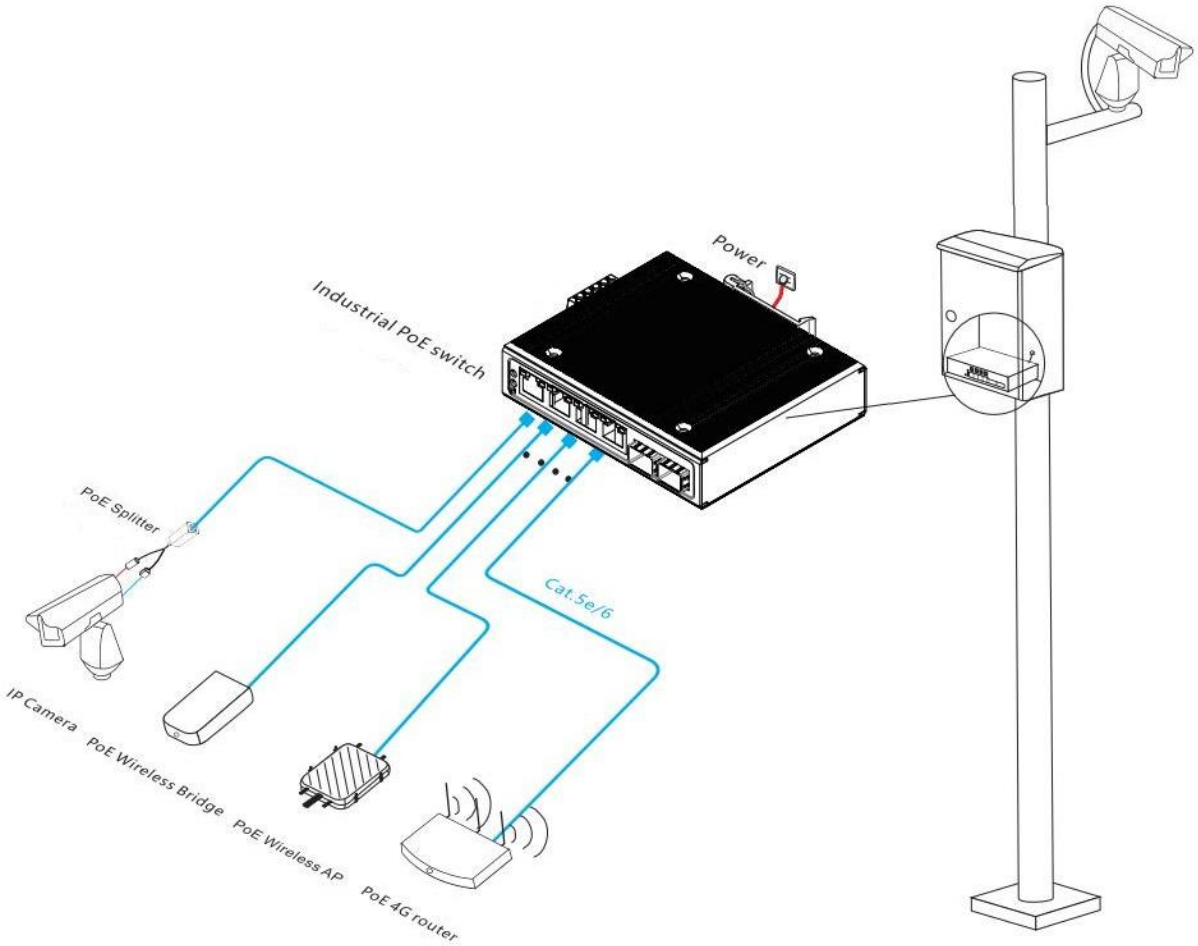
Model	ONV-IPS53064PFM
Interface Characteristics	
Fixed Port	1*DC5521 power jack 2*1000Base-X uplink SFP fiber ports (Data) 4*10/100/1000Base-T PoE ports (Data/ Power) 2 set V+, V- redundant DC power port (5P Phoenix terminal)
Ethernet Port	Ports 1-4 can support 10/100/1000Base-T auto-sensing, full/ half 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/6 or later UTP (≤100 meters)
Optical Fiber Port	Default does not include optical modules (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	IEEE802.3 10BASE-T, IEEE802.3i 10Base-T, IEEE802.3u 100Base-TX,

	IEEE802.3ab 1000Base-T, IEEE802.3z 1000Base-X, IEEE802.3x
Forwarding Mode	Store and forward (Full wire-speed)
Switching Capacity	12Gbps (non-blocking)
Forwarding Rate@64byte	8.93Mpps
MAC	2K
Buffer Memory	2M
Jumbo Frame	9.2K
LED Indicator	Power/ System: SYS (Green), Network: Link (Yellow), PoE: PoE (Green), Fiber port: L/A (Green)
Reset Switch	Press and hold for 6 seconds, then release to restore factory default settings; press twice (1 second apart) to switch to unmanaged mode.
PoE& Power Supply	
PoE Port	Port 1-4
PoE Management	Port PoE output on/off, Port PoE real-time power status viewing
Power Supply Pin	1/2 (+) 3/6 (-)
Max Power Per Port	30W, IEEE802.3af/at
Power Consumption	Standby<6W, full load<60W
Input Voltage/ Interface	DC48-57V; 5P industrial Phoenix terminal block and DC5521 power connector combination (terminal V2 and DC5521 are multiplexed power input ports) supports reverse connection protection.
Power Supply	No, optional 48V/60W or 48V/120W industrial power supply
Physical Parameter	
Operation Temp/ Humidity	-40°C~+75°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)

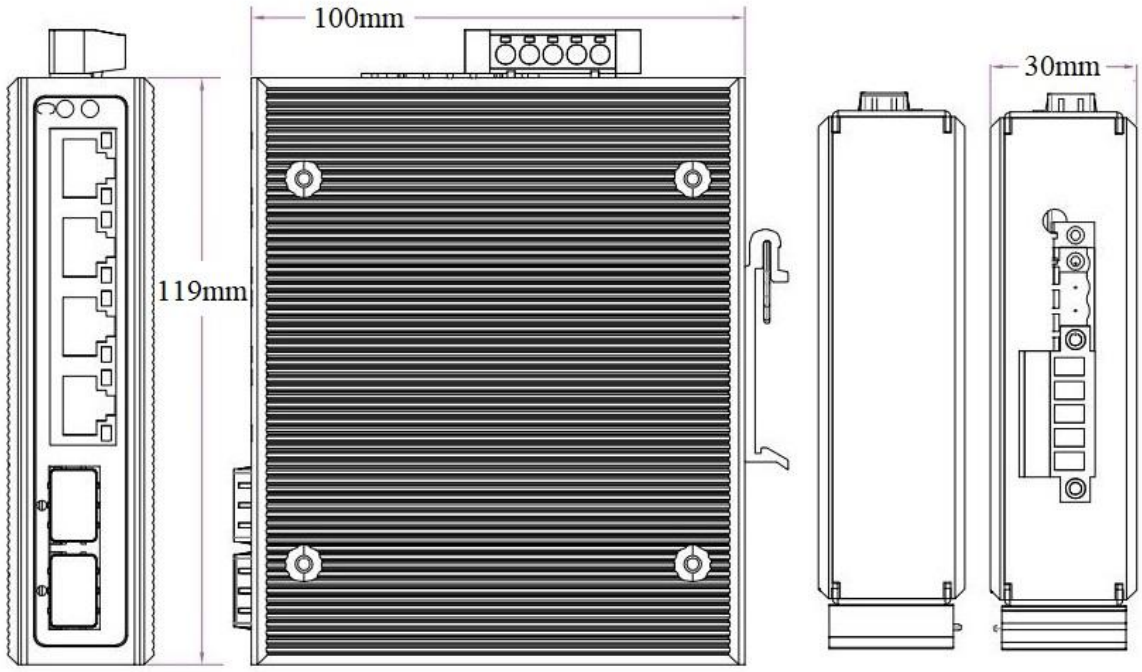
	FCC Part 15/CISPR22 (EN55022): Class A IEC61000-6-2 (Common Industrial Standard) IEC61000-4-9 (Pulsed magnet field): 1000A/m IEC61000-4-10 (Damped oscillation): 30A/m 1MHz IEC61000-4-12/18 (Shockwave): CM2.5kV, DM1kV Protection level: IP40, Lightning protection: 6KV 8/20us IEC61000-4-4(EFT): Power cable: ±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	CE mark, commercial, CE/LVD EN62368-1, FCC Part 15 Class A, RoHS
Warranty	5 years, lifelong maintenance
Software Function	
Interface	EEE Energy-saving and green Ethernet function Port traffic statistics, IEEE802.3x flow control (Full-duplex) Port status display, Port duplex/ negotiation rate configuration
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, Priority Mark/ Remark 8*Output queues of each port, 802.1p/DSCP priority mapping
Security	Broadcast storm control, Port isolation, Port speed limit
DHCP	DHCP Snooping

Management	Cable status check, Web-based network management One-click restore, Mobile APP maintenance management ONV-NMS platform management (local platform/cloud platform)
System	Web browser: Mozilla Firefox 2.5 or later, Google Chrome 42 or later TCP/IP, network adapter, and network operating system (such as Microsoft Windows, Linux, or Mac OS X) are installed on each computer in the network using Category 5 or higher Ethernet cables.

APPLICATION



DIMENSION



ORDERING INFORMATION

Model	Description	Recommended Power Supply
ONV-IPS53064PFM	Easy managed industrial PoE switch with 2*1000M uplink SFP fiber ports and 4*10/100/1000M RJ45 ports. Ports 1-4 support the IEEE 802.3af/at PoE standard. It can support dual DC redundant power input (Phoenix terminal connection) and DIN rail mounting.	60W/120W
Note: The optical module and power supply are not included and need to be purchased.		

PACKING LIST

	Content	Qty	Unit
Packing List	6-port Gigabit Easy managed industrial PoE 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
60W DIN Rail Industrial Power Supply	GWS-DP60-48	DIN Rail 60W single set of output power supply Input voltage: AC100V~240V 50-60Hz, 1.6A Output voltage: DC48V, 1.25A Operation temperature: -40℃ to +70℃	PC
120W DIN Rail Industrial Power Supply	GWS-DP120-48	DIN Rail 120W single set of output power supply Input voltage: AC100V~240V 50-60Hz, 2.3A Output voltage: DC48V, 2.5A Operation temperature: -40℃ to +70℃	PC

RELATED PRODUCT

Model	Description
ONV-IPS53064PFGM	Easy managed industrial PoE switch with 1*1000M uplink SFP fiber port and 5*10/100/1000M RJ45 ports. Ports 1-4 support the IEEE 802.3af/at PoE standard. It can support dual DC redundant power input (Phoenix terminal connection) and DIN rail mounting.
ONV-IPS53108PFM	Easy managed industrial PoE switch with 2*1000M uplink SFP fiber ports and 8*10/100/1000M RJ45 ports. Ports 1-8 support the IEEE 802.3af/at PoE standard. It can support dual DC redundant power input (Phoenix terminal connection) and DIN rail mounting.

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