Product Datasheet

26-port Full Gigabit Managed Industrial PoE Fiber Switch

(ONV-IPS33026PFM)

OVERVIEW

The ONV-IPS33026PFM is a full gigabit L2+ managed industrial PoE fiber switch independently developed by ONV. It has 24*10/100/1000Base-T RJ45 ports and 2*100/1000Base-X uplink SFP fiber slot ports. Port 1-24 can support IEEE802.3af/at PoE standard. Single-port PoE power up to 30W. As a PoE power supply device, it can automatically detect and recognize the power receiving equipment that meets the standard and supply power through the network cable. It can supply power to POE terminal equipment such as wireless AP, web camera, VoIP phone, industrial sensor, visual intelligent building intercom through the network cable, and meet the network environment that needs high-density PoE power supply. It is suitable for hotels, campuses, parks, shopping malls, scenic spots, hospitals, banks, and small and medium-sized enterprises.

The ONV-IPS33026PFM has the L2+ full network management function, supports IPV4/IPV6 management, supports static route full line-rate forwarding, complete security protection

mechanism, perfect ACL/QoS policy, and rich VLAN functions, easy to manage and maintain. With industry-leading ring network technology. It supports a variety of industrial-grade redundant ring network protocols, and each port can form a ring network, supporting chain ring network, starring network, double starring network, ring network, tangent network ring network, intersecting ring network, coupled ring network, self-healing within 20ms of the ring network. The switches series has high reliability, high security, and high manageability, ensures reliable transmission of key data, supports remote management, and cooperates with the ONV-NMS network management platform for cluster management to achieve no blind spot network management throughout the process. The Industrial grade series products completely follow the industrial product design and materials. The shell is made of metal material to enhance heat dissipation. It has excellent adaptability to the industrial site environment (including mechanical stability, climate environment adaptability, electromagnetic environment adaptability, etc.). Protection level reaches IP30 and support 2AC+DC dual redundant power supply, and the mean time between failures of MTBF can up to 35 years, 5 years warranty.

FEATURE

■ **Gigabit access, Gigabit SFP uplink**

◇ Support non-blocking wire-speed forwarding.

◇ Support full-duplex based on IEEE802.3x and half-duplex based on Backpressure.

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

■ **Intelligent PoE power supply**

◇ IEEE802.3af/at PoE standard, without damaging non-PoE devices.

◇ PoE network management, realize PoE port power allocation, priority setting, port power status viewing, time scheduling, etc.

◇ Priority system for PoE port, it will supply power to the high priority level port first when the

power budget is insufficient and avoid overwork of the device.

◇ 24*10/100/1000Base-T RJ45 ports, meeting the needs of security monitoring,

teleconferencing system, wireless coverage, and other scenarios.

■ **Security**

◇ 802.1X authentication.

◇ Port isolation,Storm control.

◇ IP-MAC-VLAN-Port binding.

■ **Strong business processing capability**

◇ ERPS/STP/RSTP/MSTP.

◇ Static and dynamic aggregation.

◇ IGMP V1/V2 and IGMP Snooping.

◇ IEEE802.1Q VLAN, flexible VLAN division,Voice VLAN and QinQ configuration.

◇ QoS, Priority mode based on 802.1P, Port & DSCP, queue scheduling algorithm including Equ,

SP, WRR & SP+WRR.

◇ ALC, filter data packet through configuring matching rules, processing operation & time

permission, and provide flexible and safe access control.

■ **Stable and reliable**

◇ CCC,CE, FCC, RoHS.

◇ Low power consumption, galvanized steel casing. The fan active cooling.

◇ The user-friendly panel can show the device status through the LED indicator of PWR, Link,

L/A, PoE.

◇ Self-developed power supply, high redundancy design, providing a long term and stable PoE

power output.

■ **Easy operation and maintenance management**

◇ HTTPS, SSLV3, and SSHV1/V2.

◇ RMON, system log, LLDP, and port traffic statistics.

◇ CPU monitoring, memory monitoring, Ping test, and cable diagnose.

◇ Web management, CLI command line (Console, Telnet), SNMP (V1/V2/V3).

TECHNICAL SPECIFICATION

Model	ONV-IPS33026PFM	ONV-IPS33026PFM-at
Interface Characteristics		
Fixed Port	2*AC100-240V input ports Alarm switch port (FAULT) 1*Console port (115200, N, 8,1) 2*100/1000M uplink SFP ports (Data) 24*10/100/1000Base-T PoE ports (Data/Power) 1 group of DC48-57V input ports (Support reverse polarity protection function)	
Ethernet Port	Port 1-24 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 meter) 100BASE-TX: Cat5 or later UTP(≤100 meter) 1000BASE-T: Cat5e or later UTP(≤100 meter)	
Optical Fiber Port	Gigabit optical fiber interface, default no include optical modules (optional order 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	L2+	

Management Type	
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	256Gbps (Non-blocking)
Forwarding Rate@64byte	38.69Mpps
CPU	500MHz
DRAM	1G
FLASH	128M
MAC	8K
Buffer Memory	8M
Jumbo Frame	9.6K
LED Indicator	Power: PWR(Yellow), System: SYS(Yellow), Network: Link(Yellow), POE: PoE (Green), Fiber port: L/A(Green)
Reset Switch	Yes, press and hold the switch for 10 seconds and release it to restore the factory settings
PoE & Power Supply	
PoE Port	Port 1 to 24, IEEE802.3af/at
PoE Management	PoE working status Delay start of power supply PoE output priority configuration Scheduling of PoE operation and time Total power limit of PoE power supply PoE output power allocation, off/on&af/at
Power Supply Pin	Default: 1/2 (+), 3/6 (-)
Max Power Per Port	30W, IEEE802.3af/at
Total PWR / Input	400W (AC100-240V)	600W (AC100-240V)

Voltage		
Power Consumption	Standby:<18W, Full load:<380W	Standby:<22W, Full load:<600W
Power Supply	Built-in power supply, AC 100~240V 50-60Hz 5.0A	Built-in power supply, AC 100~240V 50-60Hz 6.6A
Power Input Port	1 group of DC48-57V input port, Alarm switch port, 2 group of AC power input ports Dual input power port design: AC power supply priority, support anti-reverse protection, power-off automatic switching DC connection.	

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)	440*378*44.5mm	
Net /Gross Weight	<5.4kg / <5.8kg	<5.6kg / <6.3kg
Installation	Desktop,19 inch 1U cabinet installation	

Certification & Warranty

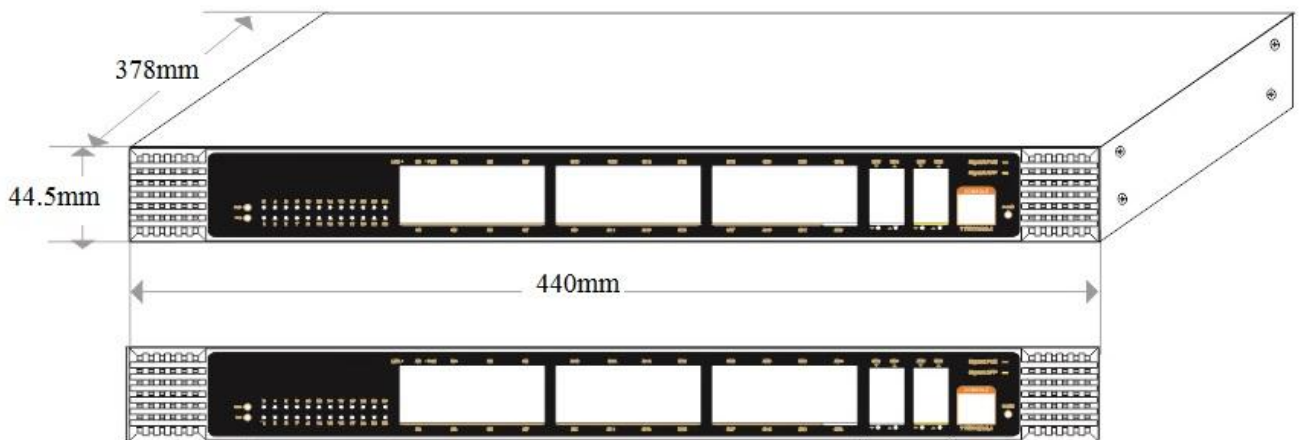| Lightning Protection	Lightning protection: 6KV 8/20us, Protection level: IP30 IEC61000-4-2(ESD):±8kV contact discharge,±15kV air discharge IEC61000-4-3(RS):10V/m(80~1000MHz) IEC61000-4-4(EFT): power cable:±4kV; data cable:±2kV IEC61000-4-5(Surge):power cable:CM±4kV/DM±2kV; data cable:±4kV IEC61000-4-6(radio frequency transmission):10V(150kHz~80MHz) IEC61000-4-8(power frequency magnetic field):100A/m;1000A/m ,1s to 3s 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

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	IEC61000-4-16(common-mode transmission):30V; 300V,1s
	FCC Part 15/CISPR22(EN55022):Class B
	IEC61000-6-2(Common Industrial Standard)
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.
Network Management Features	
Interface	IEEE802.3X (Full-duplex)
	Port temperature protection setting
	Port green Ethernet Energy-saving setting
	Broadcast storm control based on port speed
	The speed limit of the message flow in the access port.
	The minimum particle size is 64Kbps.
Layer 3 Features	IPV4/IPV6 static route/default route supports up to 128 entries
	L2+ network management, ARP protocol, maximum 1024 entries
	Layer 3 routing and forwarding, support communication between
	different network segments and different VLANs
VLAN	Voice VLAN, QinQ configuration, IEEE802.1q
	VLAN based on MAC, VLAN based on the protocol
	4K VLAN based on port, Port configuration of Access, Trunk, Hybrid.
Port Aggregation	LACP, Static aggregation
	Max 13 aggregation groups and 8 ports per group.
Spanning Tree	STP (IEEE802.1d), RSTP (IEEE802.1w), MSTP (IEEE802.1s)
Industrial Ring Network Protocol	G.8032 (ERPS), Recovery time less than 20ms
	250 Ring at most, Max 250 devices per ring.
Multicast	MLD Snooping v1/v2,Multicast VLAN

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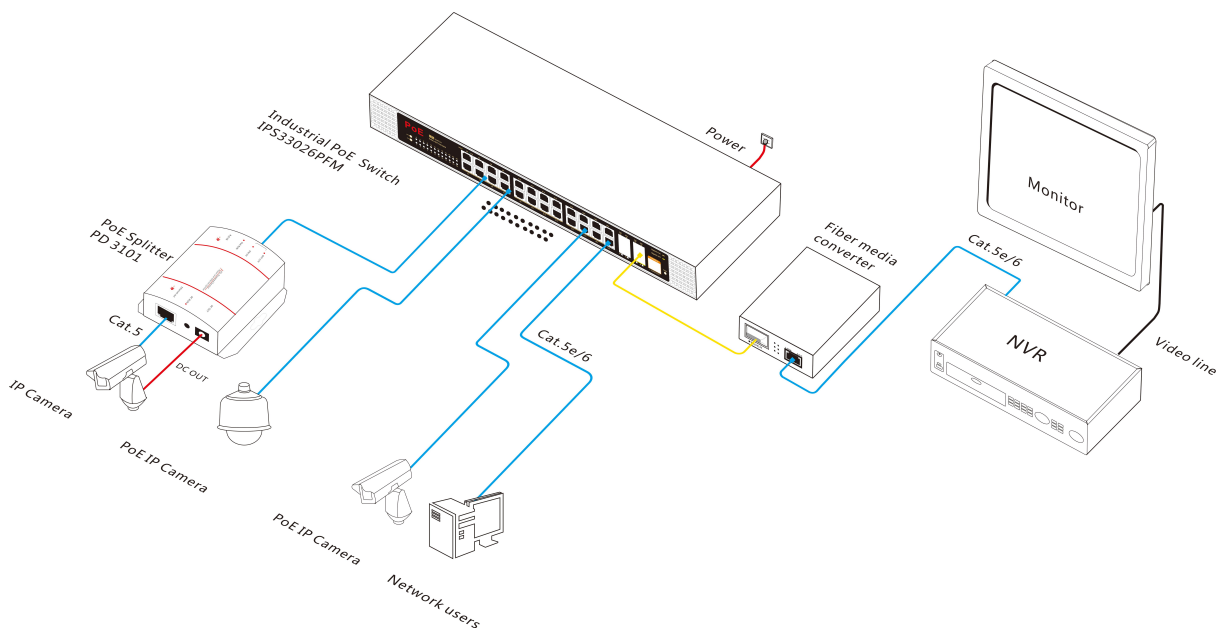|	IGMP Snooping v1/v2, Max 1024 multicast groups, Fast log out
Port Mirroring	Bidirectional data mirroring based on port
QoS	Flow-based Rate Limiting Flow-based Packet Filtering 8*Output queues of each port 802.1p/DSCP priority mapping Diff-Serv QoS,Priority Mark/Remark Queue Scheduling Algorithm (SP, WRR, SP+WRR)
ACL	Port-based Issuing ACL,ACL based on port and VLAN L2 to L4 packet filtering, matching first 80 bytes message. Provide ACL based on MAC, Destination MAC address, IP Source, Destination IP, IP Protocol Type, TCP/UDP Port, TCP/UDP Port Range, and VLAN, etc.
Security	IEEE802.1X & MAC address authentication Broadcast storm control, Backup for host datum SSH 2.0, SSL, Port isolation, ARP message speed limit User hierarchical management and password protection IP-MAC-VLAN-Port binding, ARP inspection, Anti-DoS attack AAA & RADIUS, MAC learning limit, Mac black holes, IP source protection
DHCP	DHCP Client,DHCP Snooping, DHCP Server,DHCP Relay
Management	CPU instant utilization status view One-key recovery, Cable Diagnose, LLDP Console /AUX Modem /Telnet /SSH2.0 CLI Web Management (HTTPS), NTP, System work log, Ping Test Download & Management on FTP, TFTP, Xmodem, SFTP, SNMP V1/V2C/V3 ONV NMS-Smart Network Management System Platform (LLDP+SNMP)
System	Category 5 Ethernet network cable

	Web browser: Mozilla Firefox 2.5 or higher, Google browser chrome V42 or higher, Microsoft Internet Explorer10 or later. TCP/IP, network adapter, and network operating system (such as Microsoft Windows, Linux, or Mac OS X) installed on each computer in a network

DIMENSION

APPLICATION

ORDERING INFORMATION

Model	Description	Configure Power Supply
ONV-IPS33026PFM	L2+ managed industrial PoE fiber switch with 24*10/100/1000M PoE ports and 2*100/1000M SFP ports. Port 1-24 can support IEEE802.3af/at PoE standard. Built-in redundant dual power supply. support 1U/19-inch cabinet installation and 2AC+DC power terminal input (Phoenix terminal connection).	2*400W
ONV-IPS33026PFM-at		2*600W
Note: The SFP optical module is not included by default and needs to be purchased separately.		

PACKING LIST

	CONTENT	QTY	UNIT
PACKING LIST	26-port full gigabit managed industrial PoE switch	1	SET
	RJ45-DB9 Line	1	PC
	AC Power Cable	1	PC
	Mounting Kits(Hanging Ear)	1	SET
	User Guide	1	PC
	Warranty Card	1	PC

OPTICAL MODULE INFORMATION

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, support DDM function, support hot plug and pull.	PC
	2632-G	Industrial SFP optical module, 1.25G, single-mode dual fiber 1310nm, 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
	2612-T-G-SC	Industrial 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
	2613-R-G-SC	Industrial 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

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RELATED PRODUCT

Model	Description
ONV-IPS33018PFM	L2+ managed industrial PoE fiber switch with 16*10/100/1000M RJ45 ports and 2*100/1000M SFP ports. Port 1-16 support IEEE802.3af/at PoE standard. Built-in redundant dual power supply. support 1U/19-inch cabinet installation and 2AC+DC power terminal input (Phoenix terminal connection).
ONV-IPS36036FM	L2+ managed industrial PoE fiber switch with 24*10/100/1000M RJ45 ports and 8*100/1000M SFP ports and 4*1/10G SFP+ ports. Port 1-24 support IEEE802.3af/at PoE standard. Built-in redundant dual power supply. support 1U/19-inch cabinet installation and 2AC+DC power terminal input (Phoenix terminal connection).
ONV-IPS36048FM	L2+ managed industrial PoE fiber switch with 48*10/100/1000M RJ45 ports and 4*1/10G SFP+ ports. Port 1-48 support IEEE802.3af/at PoE standard. Built-in redundant dual power supply. support 1U/19-inch cabinet installation and 2AC+DC power terminal input (Phoenix terminal connection).
ONV-IPS38036FM	L3 managed industrial PoE fiber switch with 24*10/100/1000M RJ45 ports and 8*100/1000M SFP ports and 4*1/10G SFP+ ports. Port 1-24 support IEEE802.3af/at PoE standard. Built-in redundant dual power supply. support 1U/19-inch cabinet installation and 2AC+DC power terminal input (Phoenix terminal connection).
ONV-IPS38048FM	L3 managed industrial PoE fiber switch with 48*10/100/1000M RJ45 ports and 4*1/10G SFP+ ports. Port 1-48 support IEEE802.3af/at PoE standard. Built-in redundant dual power supply. support 1U/19-inch cabinet installation and 2AC+DC power terminal input (Phoenix terminal connection).

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