Product Datasheet

26-port Full Gigabit Managed Industrial Ethernet Fiber Switch

ONV-IPS33026FM

OVERVIEW

The ONV-IPS33026FM is a full gigabit managed industrial Ethernet fiber switch independently developed by ONV. It has 24*10/100/1000Base-T RJ45 ports and 4*100/1000Base-X SFP fiber slot ports (including 2 set combo ports). Each port can support wire-speed forwarding.

The ONV-IPS33026FM has L2+ full network management function, supports IPV4/IPV6 management, static route full line rate forwarding, complete security protection mechanism, complete ACL/QoS policy and rich VLAN functions, and is easy to manage and maintain. Supports multiple network redundancy protocols STP/RSTP/MSTP (<50ms) and (ITU-T G.8032) ERPS (<20ms) to improve link backup and network reliability. When one-way network fails, communication can be quickly restored to ensure important Uninterrupted communication for applications. According to the actual application requirements, you can configure multiple application services such as port traffic control, VLAN division, and SNMP through the Web

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network management mode. It meets the needs of various industrial Ethernet application environments and is suitable for industrial, intelligent transportation, rail transit, power industry, mining, petroleum, marine, metallurgical and green energy construction to form a cost-effective, stable and reliable communication network.

FEATURE

■ **Gigabit access, Gigabit combo port uplink**

◇ A combination of Gigabit Ethernet port and Gigabit SFP port to meet the networking requirements of various scenarios.

◇ Support non-blocking wire-speed forwarding.

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

■ **Strong business processing capability**

◇ 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.

◇ IGMP V1/V2 and IGMP Snooping.

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◇ ERPS/STP/RSTP/MSTP.

◇ Static and dynamic aggregation.
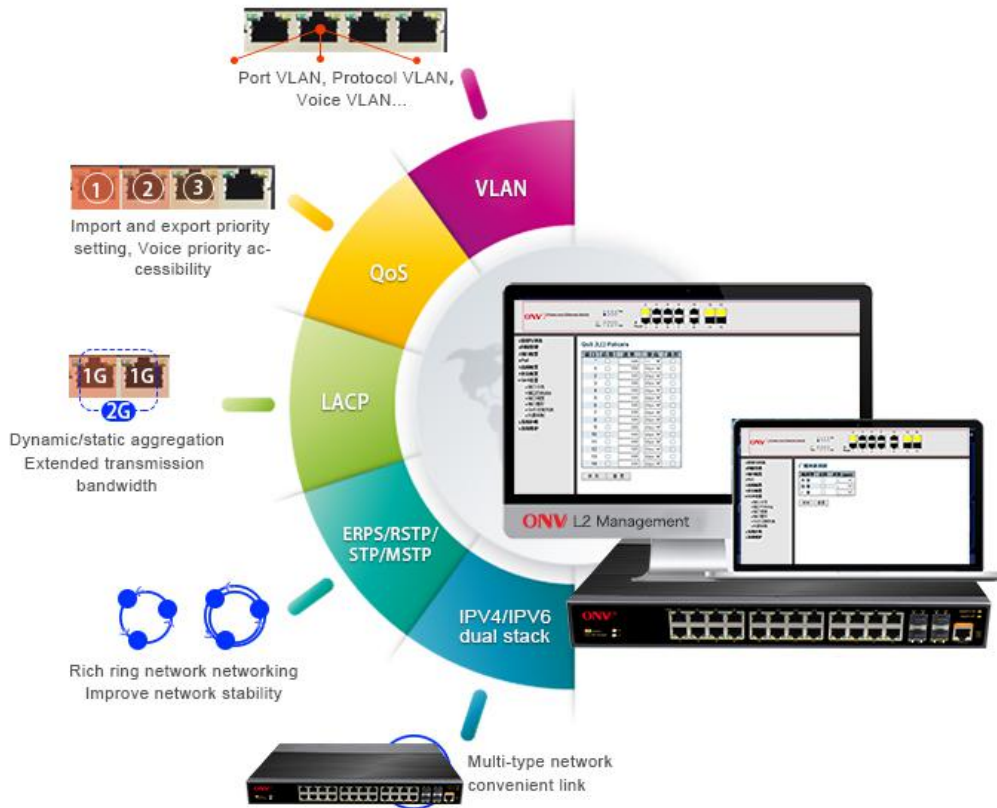
■ **Security**

◇ 802.1X authentication.

◇ Port isolation,Storm control.

◇ IP-MAC-VLAN-Port binding.

■ **Stable and reliable**

◇ Low power consumption, No fan, aluminum shell.

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

◇ CCC,CE, FCC, RoHS.

◇ The user-friendly panel, it can show the device status through the LED indicator of PWR, Link , L/A, SPEED.
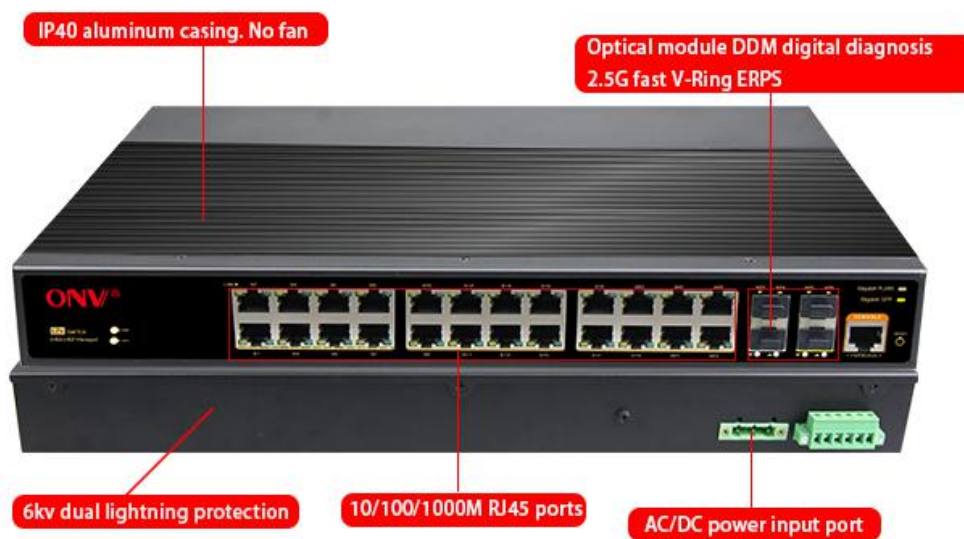
TECHNICAL SPECIFICATION

Model	ONV-IPS33026FM
Interface Characteristics	
Fixed Port	24*10/100/1000Base-T RJ45 ports (Data)
	4*100/1000Base-X uplink SFP slot ports(Data)
	1 * RS232 console port(115200,N,8,1)
	1*AC100-240V power input port

|	
	2*DC12-48V power input ports (support anti-reverse) Alarm switch (FAULT)
Ethernet Port	Port 1-24 support 10/100/1000Base-T(X),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)
SFP Slot Port	Gigabit SFP optical fiber interface, default matching optical modules (optional order single-mode / multi-mode, single fiber / dual fiber optical module. LC)
SFP Port Expansion	Turbo overclocking 2.5G optical module and ring
Optical Cable/ Distance	Multi mode: 850nm 0 ~ 500M, 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	256Gbps
Forwarding Rate@64byte	38.69Mpps
MAC	8K
Buffer Memory	8M
Jumbo Frame	9.6K
LED Indicator	Power:PWR (yellow), system :SYS (yellow), network: Link (yellow), rate: SPEED: (green), fiber port: L/A (green)

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Reset Switch	Yes, One-button factory reset
Power	
Total PWR / Input Voltage	60W (AC100-240V)
Power Consumption	Standby<18W, Full load<35W
Power Supply	Built-in power supply, AC100~240V 50-60Hz 0.56A
Power Input Interface	Dual power input ports, AC power supply priority, support anti-reverse protection, power-off automatic switching DC connection; 2*DC12-48V input ports; Alarm switch ; 1 * AC power input port
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*298*44mm
Net /Gross Weight	<4.7kg / <5.4kg
Installation	Desktop, 19 inch 1U cabinet
Certification & Warranty	
Port lightning protection / protection level	Lightning protection: 6KV 8/20us;Protection level: IP40 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

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	IEC61000-4-10(damped oscillation):30A/m 1MHz
	IEC61000-4-12/18(shockwave):CM 2.5kV,DM 1kV
	IEC61000-4-16(common-mode transmission):30V; 300V,1s
	FCC Part 15/CISPR22(EN55022):Class A
	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 EN60950;FCC Part 15 Class B; RoHS;
Warranty	5 years, lifelong maintenance.
Network Management Features	
Interface	IEEE802.3X (Full-duplex) Broadcast storm control based on port speed The speed limit of the message flow in the access port. The minimum particle size is 64Kbps. Port temperature protection setting Port green Ethernet Energy-saving setting
Layer 3 Features	L2+ Network management IPV4/IPV6 management L3 soft routing forwarding, Static route, Default route @ 128 pcs, APR @ 1024 pcs
VLAN	VLAN based on MAC VLAN based on the protocol Voice VLAN, QinQ configuration 4K VLAN based on port, IEEE802.1q Port configuration of Access, Trunk, Hybrid
Port Aggregation	LACP, Static aggregation Max 13 aggregation groups and 8 ports per group.

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| Spanning Tree	STP (IEEE802.1d),RSTP (IEEE802.1w),MSTP (IEEE802.1s)
Industrial Ring Network Protocol	G.8032 (ERPS),Recovery time less than 20ms 255 Ring at most, Max 254 devices per ring.
Multicast	MLD Snooping v1/v2,Multicast VLAN IGMP Snooping v1/v2, Max 1024 multicast groups, Fast log out
Port Mirroring	Bidirectional data mirroring based on port
QoS	Flow-based Redirection 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	ARP inspection,Anti-DoS attack AAA & RADIUS,MAC learning limit Mac black holes,IP source protection IEEE802.1X & MAC address authentication Broadcast storm control,Backup for host datum User hierarchical management and password protection IP-MAC-VLAN-Port binding SSH 2.0,SSL, Port isolation, ARP message speed limit
DHCP	DHCP Client,DHCP Snooping,DHCP Server,DHCP Relay
Management	One-key recovery Cable Diagnose,LLDP

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	Web Management (HTTPS)
	NTP,System work log,Ping Test
	CPU instant utilization status view
	Console/AUX Modem/Telnet/SSH2.0 CLI
	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

298mm

44mm

440mm
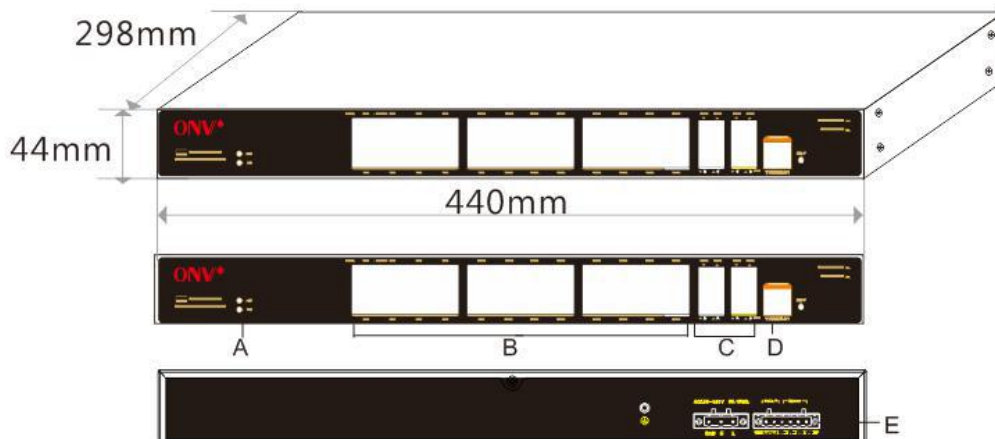
A. Working indicator   B. 24* RJ45 Ports
C. 4*Gigabit SFP Ports   D. Console Port
E. AC/DC dual input port

APPLICATION
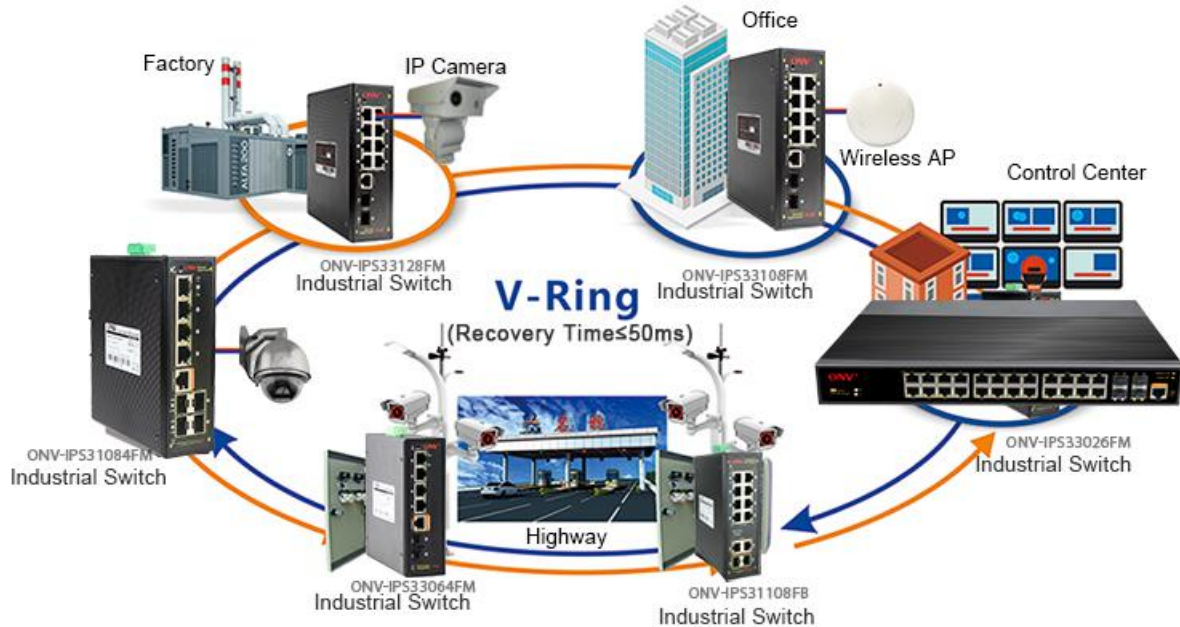
ORDERING INFORMATION

Model	Description
ONV-IPS33026FM	L2+ managed industrial Ethernet fiber switch with 24*10/100/1000M RJ45 ports and 4*100/1000M SFP slot ports (including 2 set combo ports), built-in 60W power supply. Support dual AC or DC power supply input and 1U/19 inch rack installation.
Note: The industrial Ethernet switch does not match the SFP module.	

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PACKING LIST

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

OPTICAL MODULE INFORMATION

Product	Model	Description	Unit
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 1310nm, transmission distance: 20km, LC interface, support DDM function, support hot plug and pull.	PC
	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:	PC

		20km, LC interface, support DDM function, support hot plug and pull.	
	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-SC	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-SC	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-IPS33018FM	L2+ managed industrial Ethernet switch with 16* 10/100/1000M RJ45 ports and 2*100/1000M uplink SFP fiber slot ports . built-in 60W power supply. Support dual AC or DC power supply input and 1U/19 inch rack installation.
ONV-IPS336028FM	L2+ managed industrial Ethernet switch with 24* 10/100/1000M RJ45 ports and 4*1/10G uplink SFP+ fiber slot ports, built-in 60W power supply. Support dual AC or DC power supply input and 1U/19 inch rack installation.

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ONV-IPS36036FM	L2+ managed industrial Ethernet switch with 24* 10/100/1000M RJ45 ports and 8*100/1000M uplink SFP fiber slot ports and 4*1/10G uplink SFP+ fiber slot ports, built-in 60W power supply. Support dual AC or DC power supply input and 1U/19 inch rack installation.
ONV-IPS36368FM	L2+ managed industrial Ethernet switch with 8* 10/100/1000M RJ45 ports and 24*100/1000M uplink SFP fiber slot ports and 4*1/10G uplink SFP+ fiber slot ports, built-in 60W power supply. Support dual AC or DC power supply input and 1U/19 inch rack installation.
ONV-IPS36448FM	L2+ managed industrial Ethernet switch with 12* 10/100/1000M RJ45 ports and 28*100/1000M uplink SFP fiber slot ports and 4*1/10G uplink SFP+ fiber slot ports, built-in 60W power supply. Support dual AC or DC power supply input and 1U/19 inch rack installation.

CONTACT US

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