Product Datasheet

24-port Full Gigabit Managed Industrial PoE Switch

(ONV-IPS33024PM)

OVERVIEW

The ONV-IPS33024PM is a full gigabit L2+ managed industrial PoE switch independently developed by ONV. It has 24*10/100/1000Base-T RJ45 ports. Port 1-16 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 cameras, VoIP phones, industrial sensors, and visual intelligent building intercom through the network cable, and meet the network environment that needs a high-density PoE power supply. It is suitable for industrial scenarios such as intelligent transportation, rail transit, power industry, mining, petroleum, shipping, metallurgy, and green energy construction to form a cost-effective, stable, and reliable network.

The ONV-IPS33024PM has L2+ network management function, that supports IPV4/IPV6 management, static route full line-rate forwarding, security protection mechanism, ACL/QoS policy, and rich VLAN functions, and is easy to manage and maintain. Support multiple network

redundancy protocols STP/RSTP/MSTP (<50ms) and (ITU-T G.8032) ERPS(<20ms) to improve link backup and network reliability. When the 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 network management mode.

FEATURE

■ **Full Gigabit access, wire-speed transmission**

◇ Support non-blocking wire-speed forwarding.

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

◇ Support line-speed full Gigabit Ethernet port, which facilitates flexible networking of users and meets networking requirements in 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.

◇ 16*10/100/1000Base-T RJ45 ports can support POE power supply to meet 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**

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◇ 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, no fan, aluminum shell.

◇ The user-friendly panel can show the device status through the LED indicator of PWR, SYS, Link, L/A, PoE.

◇ The DIN rail industrial switch series products do not have a power supply by default and need to be purchased. Users can purchase a power supply independently developed by ONV.

■ **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-IPS33024PM
Interface Characteristics	
Fixed Port	Power-off alarm switch (FAULT) 1*RS232 Console port (115200,N,8,1) 8*10/100/1000Base-T RJ45 ports(Data) 16*10/100/1000Base-T PoE ports (Data /Power) 2 set of V+, V- redundant DC power interface (6 Pin Phoenix terminal)
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)
Chip Parameter	
Network Management Type	L2+
Network Protocol	IEEE802.3 10BASE-T, IEEE802.3i 10Base-T IEEE802.3u 100Base-TX, IEEE802.3ab 1000Base-T, IEEE802.3x
Forwarding Mode	Store and Forward(Full Wire Speed)
Switching Capacity	256Gbps (Non-blocking)
Forwarding Rate@64byte	35.71Mpps
MAC	8K
Buffer Memory	8M
Jumbo Frame	9.6K
LED Indicator	Power: PWR(Green), System: SYS(Green), Network: Link (Yellow), POE:

	PoE (Green)
Reset Switch	Yes, support one key to restore factory settings

PoE & Power Supply

PoE Port	Port 1 to 16
PoE Management	Total power limit of PoE power supply PoE output power allocation, PoE off/on & af/at PoE working status, Delay start of power supply PoE output priority configuration, Scheduling of PoE operation and time
Power Supply Pin	Default1/2 (+) 3/6 (-)
Max Power Per Port	30W, IEEE802.3af/at
Power Consumption	Standby<10W, Full Load:af<240W, at<480W
Power Input Interface	DC48-57V, 6 Pin industrial Phoenix terminal, support anti-reverse protection.
Power Supply	No, optional 48V/240W or 48V/480W industrial power supply

Physical Parameter

Operation TEMP / Humidity	-40~+80°C, 5%~95% RH Non condensing
Storage TEMP / Humidity	-40~+85°C, 5%~95% RH Non condensing
Dimension (L*W*H)	166*150*90mm
Net /Gross Weight	<2.2kg /<2.8kg
Installation	Desktop, DIN rail

Certification & Warranty

Lightning Protection	Port 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
	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 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	No connection port automatic sleep Port green Ethernet Energy-saving setting Broadcast storm control based on port speed IEEE802.3X (Full-duplex), Port temperature protection setting The speed limit of the message flow in the access port, 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 12 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 250 Ring at most, Max 250 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	Diff-Serv QoS, Priority Mark/Remark Queue Scheduling Algorithm (SP, WRR, SP+WRR) Flow-based Rate Limiting, Flow-based Packet Filtering 8*Output queues of each port, 802.1p/DSCP priority mapping
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	Broadcast storm control, Backup for host datum AAA & RADIUS, MAC learning limit, Mac black holes 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 IP source protection, IEEE802.1X & MAC address authentication
DHCP	DHCP Client, DHCP Snooping, DHCP Server, DHCP Relay
Management	LLDP, Console/AUX Modem/Telnet/SSH2.0 CLI Web Management (HTTPS), NTP, System work log, Ping Test CPU instant utilization status view, One-key recovery, Cable Diagnose 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

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	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
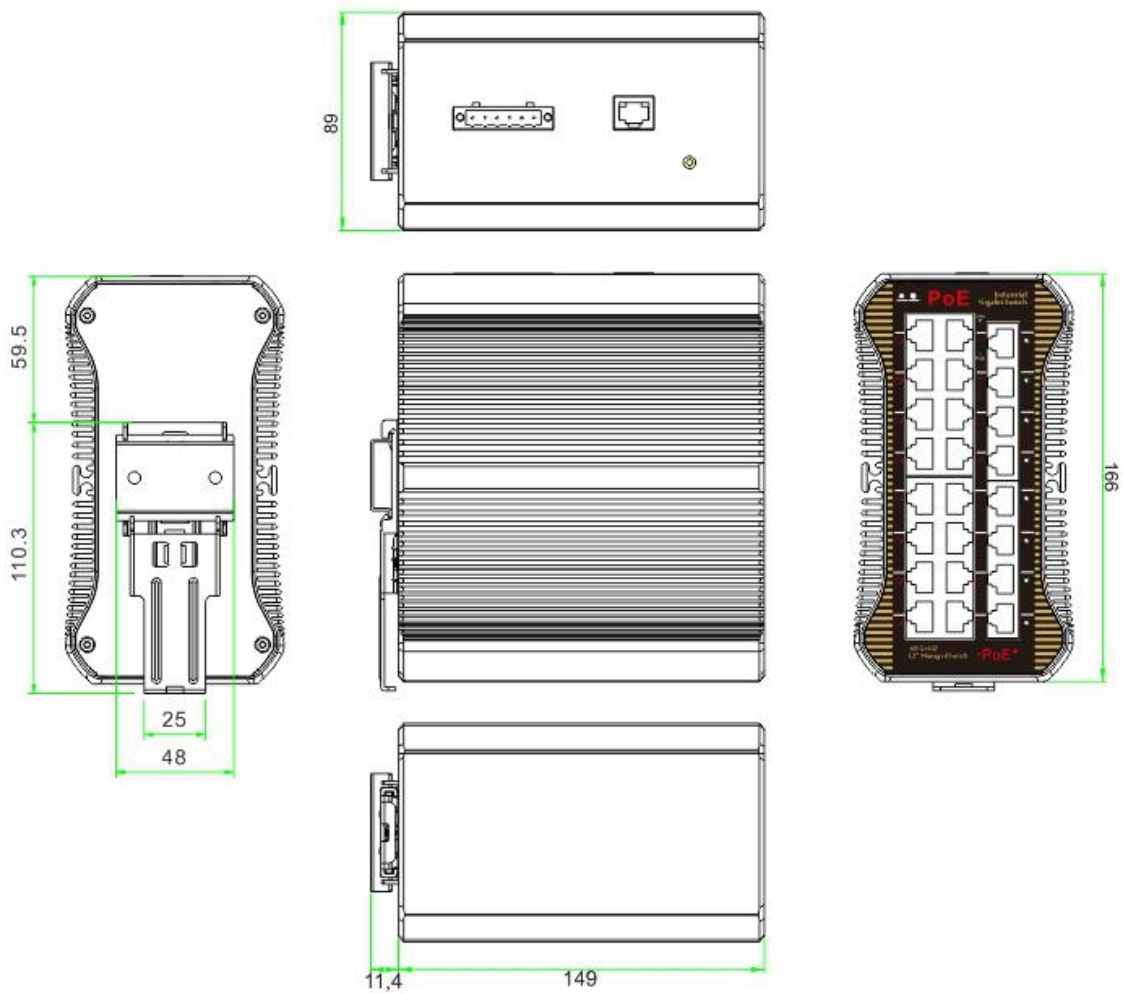
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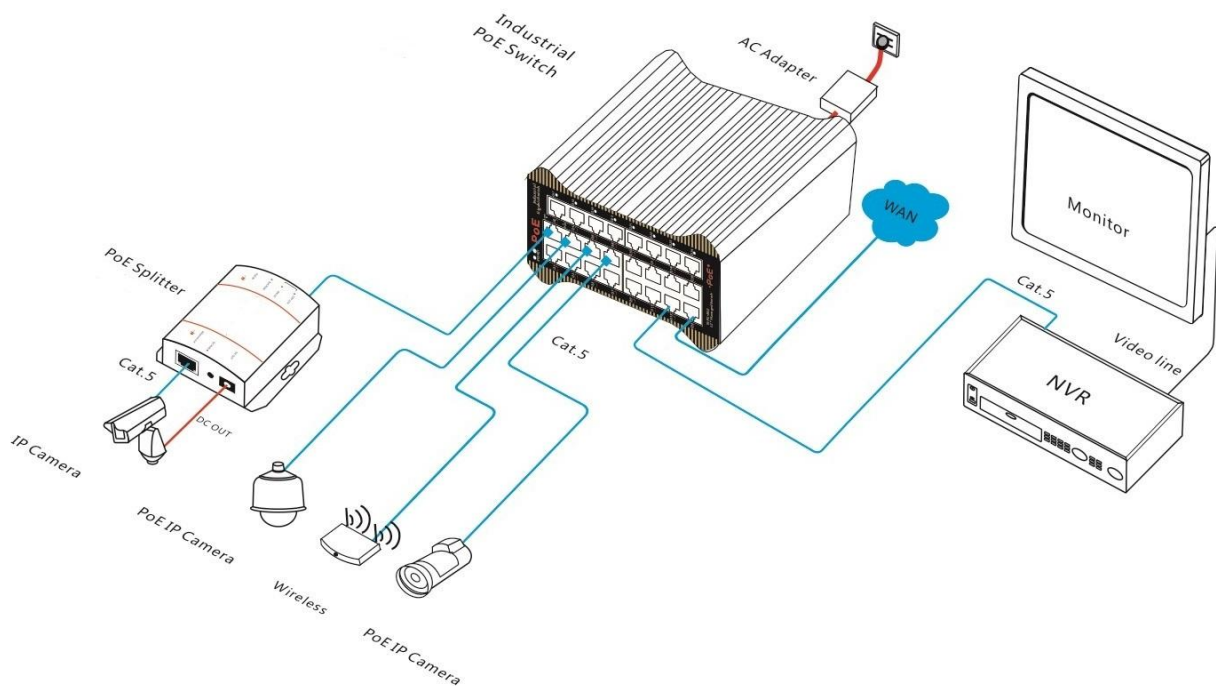
ORDERING INFORMATION

Model	Description	Recommended Power Supply
ONV-IPS33024PM	L2+ managed industrial PoE switch with 24*10/100/1000M RJ45 ports. Port 1-16 can support IEEE802.3af/at PoE standard. It can support DC dual power supply input and DIN rail mounting.	240W/480W
Note: Industrial PoE switch does not include the power supply and needs to be purchased.		

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PACKING LIST

PACKING LIST	CONTENT	QTY	UNIT
	24-port full gigabit managed industrial PoE switch	1	SET
	RJ45-DB9 Line	1	PC
	User Guide	1	PC
	Warranty Card	1	PC

POWER SUPPLY

Product	Model	Description	Unit
250W Desktop Power Adaptor	GWS-AP250-52	Desktop 250W single set of output power adapter Input Voltage:AC 100V~240V 50-60Hz, 4.1A Output Voltage:DC 52V 4.8A Operation Temperature:-20℃—+65℃	PC
240W DIN Rail Industrial Power Supply	GWS-DP240-48	Din Rail 240W single set of output power supply Input Voltage:AC 100V~240V 50-60Hz, 3.0A Output Voltage:DC 48V 5A Operation Temperature:-40℃—+70℃	PC
480W DIN Rail Industrial Power Supply	GWS-DP480-48	Din Rail 480W single set of output power supply Input Voltage:AC 100V~240V 50-60Hz, 5.0A Output Voltage:DC 48V 10A Operation Temperature:-40℃—+70℃	PC

RELATED PRODUCT

Model	Description
ONV-IPS33064PFM	L2+ managed industrial PoE fiber switch with 4*10/100/1000M RJ45 ports and 2*100/1000M SFP slot ports. Port 1-4 can support IEEE802.3af/at PoE standard. It can support DC dual power supply input and DIN rail mounting.
ONV-IPS33108PFM	L2+ managed industrial PoE fiber switch with 8*10/100/1000M RJ45 ports and 2*100/1000M SFP slot ports. Port 1-8 can support IEEE802.3af/at PoE standard. It can support DC dual power supply input and DIN rail mounting.
ONV-IPS33148PFM	L2+ managed industrial PoE fiber switch with 10*10/100/1000M RJ45 ports and 4*100/1000M uplink SFP slot ports, Port 1-8 can support IEEE802.3af/at PoE standard. It can support DC dual power supply input and DIN rail mounting.
ONV-IPS33168PFM	L2+ managed industrial PoE fiber switch with 8*10/100/1000M RJ45 ports and 8*100/1000M SFP slot ports. Port 1-8 can support IEEE802.3af/at PoE standard. It can support DC dual power supply input and DIN rail mounting.
ONV-IPS33168PFM-4GF	L2+ managed industrial PoE fiber switch with 12*10/100/1000M RJ45 ports and 4*100/1000M SFP slot ports. Port 1-8 can support IEEE802.3af/at PoE standard. It can support DC dual power supply input and DIN rail mounting.
ONV-IPS33016PM	L2+ managed industrial PoE switch with 16*10/100/1000M RJ45 ports. Port 1-16 can support IEEE802.3af/at PoE standard. It can support DC dual power supply input and DIN rail mounting.

CONTACT US

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