

Product Datasheet

6-port Full Gigabit Managed bt Industrial PoE Switch

(ONV-IPS33064PFM-bt)



OVERVIEW

The ONV-IPS33064PFM-bt is a full Gigabit L2+ managed bt industrial PoE fiber switch independently developed by ONV. It has 4*10/100/1000M adaptive RJ45 ports and 2*100/1000M SFP fiber ports. Port 1-4 can support bt PoE output and backward compatible with IEEE 802.3 af/at PoE standard. Single-port PoE power is 90W. 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 provides stable and safe terminals for PTZ network domes, high-power wireless AP, high-power multimedia speakers, and high-power POE lighting, etc. through a network cable to meet the network environment that needs high-density PoE power supply. It is suitable for intelligent transportation, rail transit, electric power, mining, metallurgy and green energy, industrial scenes such as construction set up a cost-effective and stable communication network.

The ONV-IPS33064PFM-bt has L2+ full network management function, support IPV4/IPV6 management, static route forwarding, security protection mechanism, ACL/QoS policy and VLAN, 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 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 PoE power management, port traffic control, VLAN division, and SNMP through the Web network management mode.

FEATURE

■ Gigabit access, SFP fiber port uplink

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

■ Intelligent PoE power supply

- ◇ Set on the Web network management interface to control the PoE port power supply based on the user-defined time period.
- ◇ 4*10/100/1000Base-T RJ45 ports can support bt PoE power, meeting the demand for super high power PoE power supply in various scenarios.
- ◇ 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.
- ◇ Customize the output power of the PoE port, the output power range covers the 5-90W PoE terminal load, providing a more practical configuration for the flexible use and control of PoE.
- ◇ The maximum output power of single-port POE is 90W, and the backwards compatibility IEEE 802.3 af/at PoE standard, automatically identify PoE devices for

power supply, and not damage non-PoE devices.

■ Strong business processing ability

- ◇ Support ERPS ring network and STP/RSTP/MSTP to eliminate layer 2 loops and realize link backup.
- ◇ Support IEEE 802.1Q VLAN, users can flexibly divide VLAN according to needs, support Voice VLAN and QinQ configuration.
- ◇ Support static and dynamic aggregation to effectively increase link bandwidth, realize load balancing, link backup, and improve link reliability.
- ◇ Support QoS, port-based, 802.1P-based and DSCP-based three priority modes and four queue scheduling algorithms: Equ, SP, WRR, and SP+WRR.
- ◇ Support ACL to filter data packets by configuring matching rule processing operations and time permissions, and provide flexible security access control policies.
- ◇ Support IGMP V1/V2/V3 multicast protocol and IGMP Snooping to meet multi-terminal high-definition video surveillance and video conference access requirements.

■ Security

- ◇ Support port isolation.
- ◇ Support port broadcast storm suppression.
- ◇ Support IP+MAC+port+VLAN quadruple flexible combination binding function.
- ◇ Support 802.1X authentication to provide authentication functions for LAN computers, and control the authorization status of controlled ports according to the authentication results.

■ Stable and reliable

- ◇ CCC, CE, FCC, RoHS.
- ◇ Low power consumption, metal shell, excellent heat dissipation to ensure stable operation of the switch.
- ◇ The user-friendly panel can show the device status through the LED indicator of PWR,

SYS, Link, L/A, PoE.

■ Easy O&M management

- ◇ Support CPU monitoring, memory monitoring, Ping detection, cable length detection.
- ◇ Support RMON, system log, and port traffic statistics to facilitate network optimization and transformation.
- ◇ Support HTTPS, SSLV3, SSHV1/V2 and other encryption methods, making management more secure.
- ◇ Support LLDP to facilitate the network management system to query and judge the communication status of the link.
- ◇ Support Web network management, CLI (Console, Telnet), SNMP (V1/V2/V3), Telnet and other diversified management and maintenance methods.

TECHNICAL SPECIFICATION

Model	ONV-IPS33064PFM-bt
Interface Characteristics	
Fixed Port	2*100/1000M uplink SFP ports (Data) 1*RS232 console port (115200,N,8,1) 4*10/100/1000M bt PoE ports (Data/Power) 2 set of V+, V- redundant DC power interface (5 Pin Phoenix terminal)
Ethernet Port	Port 1-4 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)
SFP Slot Port	Gigabit SFP optical fiber port, default no include optical modules (optional 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 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	16Gbps
Forwarding Rate@64byte	8.93Mpps
CPU	416MHz
DRAM	1G
FLASH	128M
MAC	8K
Buffer Memory	4M
Jumbo Frame	9.6K
LED Indicator	Fiber port: L/A (Green), PoE: PoE (Green) Power/ System: SYS (Green), Network: Link (Yellow)
Reset Switch	Yes, (Press and hold for 10 seconds and release, the switch will restore the factory settings)
PoE & Power Supply	
PoE Port	Port 1 to 4 bt PoE and backward compatible with IEEE 802.3 af/at
PoE Management	Port PoE working status display Port PoE output priority configuration PoE power supply total power limit configuration Power delay start, PoE work and time scheduling Port PoE output power distribution, PoE on/off, af/at/bt power distribution
Power Supply Pin	1/2(+)/3/6(-) 4/5(+)/7/8(-)

Max Power Per Port	90W, IEEE 802.3 af/at/bt
Power Consumption	Standby<8W, Full load af<60W, at<120W, bt<240W
Working Voltage	DC48-57V, 5 Pin industrial Phoenix terminal, support anti-reverse protection.
Power Supply	No, optional 48V/60W or 48V/120W or 48V/240W industrial power supply

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	145*134.5*47mm
Net /Gross Weight	<0.6kg /<0.8kg
Installation	Desktop, 35mm DIN rail

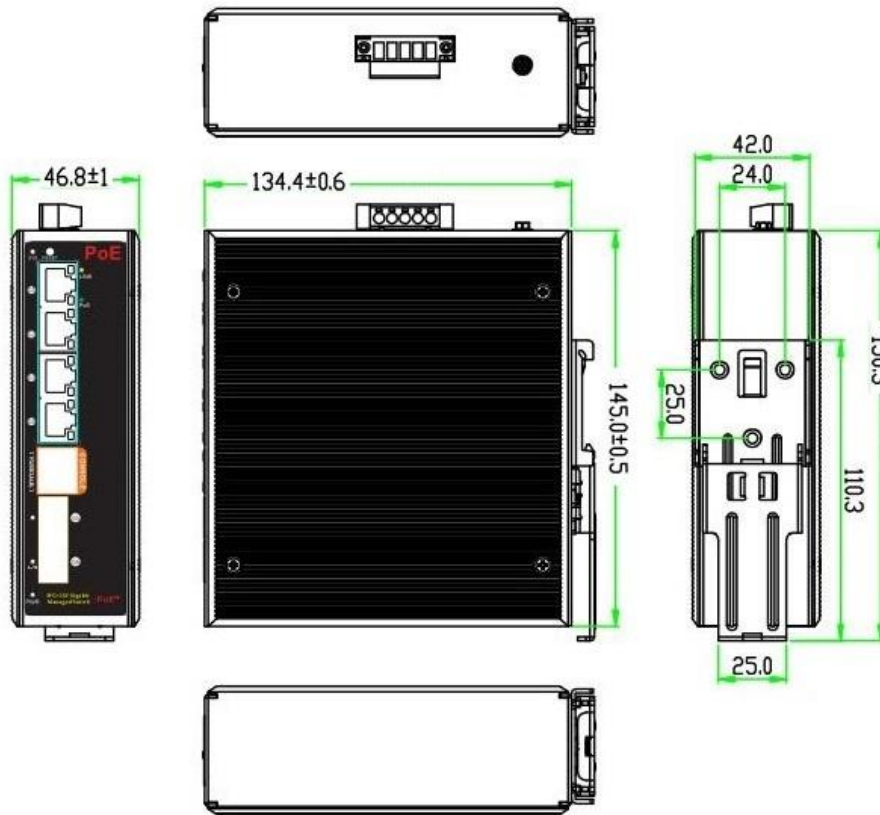
Certification & Warranty

Lightning Protection	<p>Lightning protection: 6KV 8/20us, Protection level: IP30</p> <p>IEC61000-4-3(RS):10V/m(80~1000MHz)</p> <p>FCC Part 15/CISPR22 (EN55022): Class B</p> <p>IEC61000-6-2 (Common Industrial Standard)</p> <p>IEC61000-4-9 (Pulsed magnet field): 1000A/m</p> <p>IEC61000-4-10(Damped oscillation): 30A/m 1MHz</p> <p>IEC61000-4-12/18 (Shockwave): CM 2.5KV, DM 1kV</p> <p>IEC61000-4-4(EFT): Power cable: ±4kV, data cable: ±2kV</p> <p>IEC61000-4-16 (Common-mode transmission): 30V, 300V, 1s</p> <p>IEC61000-4-2(ESD): ±8kV contact discharge, ±15kV air discharge</p> <p>IEC61000-4-6 (Radio frequency transmission):10V(150kHz~80MHz)</p>
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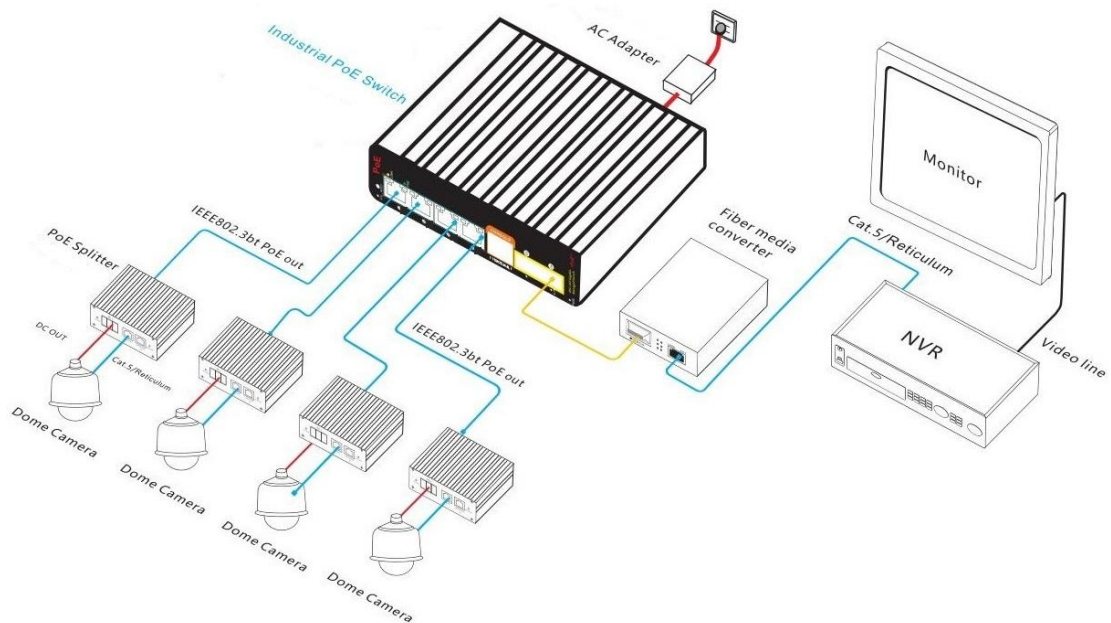
	IEC61000-4-5(Surge): Power cable:CM±4kV/DM±2kV, data cable: ±4kV IEC61000-4-8 (Power frequency magnetic field):100A/m, 1000A/m, 1s to 3s
Mechanical Properties	IEC60068-2-6 (anti vibration) IEC60068-2-32 (free fall), IEC60068-2-27 (anti shock)
Certification	CCC, CE mark, commercial, CE/LVD EN62368-1, FCC Part 15 Class B, RoHS
Warranty	5 years, lifelong maintenance.
Network Management Features	
Interface	Port green Ethernet Energy-saving setting Broadcast storm control based on port speed IEEE802.3X (Full-duplex), Port temperature protection setting Speed limit of the message flow in the access port, min particle size is 64Kbps.
Layer 3 Features	ARP protocol maxentries 1024 Static routing/ Default routing with max 128 entries L2+ network management, IPV4/IPV6 dual stack management L3 routing and forwarding, and communication between different network segments and different VLAN
VLAN	Port configuration of Access, Trunk, Hybrid. VLAN based on MAC, VLAN based on the protocol Voice VLAN, 4K VLAN based on port, IEEE802.1q, QinQ configuration
Port Aggregation	LACP, Static aggregation Max 3 aggregation groups and 8 ports per group.
Spanning Tree	STP (IEEE802.1d), RSTP (IEEE802.1w), MSTP (IEEE802.1s)
Industrial Ring	250 Ring at most, Max 250 devices per ring.
Network Protocol	G.8032 (ERPS), Recovery time less than 20ms
Multicast	IGMP Snooping v1/v2, Max 1024 multicast groups MLD Snooping v1/v2, Multicast VLAN, 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	Mac black holes, IP source protection 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 Anti-DoS attack, AAA& RADIUS &TACACS+ certification IP-MAC-VLAN-Port binding, ARP inspection, MAC learning limit
DHCP	DHCP Client, DHCP Snooping, DHCP Server, DHCP Relay
Management	NMS platform cluster management (LLDP+SNMP) CPU real-time utilization status view, SNMP V1/V2/V3 Console/ AUX Modem/ Telnet/ SSH2.0, CLI configuration Cable length status detection, NTP clock, One-key recovery, LLDP FTP, TFTP, Xmodem, SFTP file upload and download management Ping detection, System work log, Web network management (HTTPS)
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	Recommended Power Supply
ONV-IPS33064PFM-bt	L2+ managed bt industrial PoE switch with 4*10/100/1000M RJ45 ports and 2*100/1000M uplink SFP ports. Port 1-4 support bt PoE output and backward compatible with IEEE 802.3 af/at PoE standard. It can support dual DC power input and DIN rail mounting.	60W/120W/240W

Note: Industrial switches do not include optical module and power supplies by default.

PACKING LIST

	Content	Qty	Unit
Packing List	6-port full gigabit managed bt industrial PoE switch	1	SET
	RJ45-DB9 Line	1	PC
	User Guide	1	PC
	Warranty Card	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, 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

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, 1.0A Output Voltage: DC48V, 1.25A Operation Temperature: -40°C to +70°C	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°C to +70°C	PC

240W DIN Rail Industrial Power Supply	GWS-DP240-48	Din Rail 240W single set of output power supply Input Voltage: AC100V-240V 50-60Hz, 3.0A Output Voltage: DC48V, 5.0A Operation Temperature: -40°C to +70°C	PC
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RELATED PRODUCT

Model	Description
ONV-IPS31004PF-bt	Unmanaged bt industrial PoE fiber switch with 4*10/100M RJ45 ports and 1*155M uplink SC port. Port 1-4 support bt PoE output and backward compatible with IEEE 802.3 af/at PoE standard. It can support dual DC power input and DIN rail mounting.
ONV-IPS31064P-bt	Unmanaged bt industrial PoE switch with 6*10/100M RJ45 ports. Port 1-4 support bt PoE output and backward compatible with IEEE 802.3 af/at PoE standard. It can support dual DC power input and DIN rail mounting.
ONV-IPS33064P-bt	Unmanaged bt industrial PoE switch with 6*10/100/1000M RJ45 ports. Port 1-4 support bt PoE output and backward compatible with IEEE 802.3 af/at PoE standard. It can support dual DC power input and DIN rail mounting.
ONV-IPS33064PF-bt	Unmanaged bt industrial PoE fiber switch with 4*10/100/1000M RJ45 ports and 2*1000M uplink SFP ports. Port 1-4 support bt PoE output and backward compatible with IEEE 802.3 af/at PoE standard. It can support dual DC power input and DIN rail mounting.
ONV-IPS33064PFG-bt	Unmanaged bt industrial PoE fiber switch with 4*10/100/1000M RJ45 ports and 1*10/100/1000M RJ45 port and 1*1000M SFP port. Port 1-4 support bt PoE output and backward compatible with IEEE

	802.3 af/at PoE standard. It can support dual DC power input and DIN rail mounting.
ONV-IPS33064PFM-bt	L2+ managed bt industrial PoE fiber switch with 4*10/100/1000M RJ45 ports and 2*1000M uplink SFP ports. Port 1-4 support bt PoE output and backward compatible with IEEE 802.3 af/at PoE standard. It can support dual DC power input and DIN rail mounting.
ONV-IPS57128PFM-bt	L2+ managed bt industrial PoE fiber switch with 8*10/100/1000/2500M RJ45 ports and 4*1/10G uplink SFP+ ports. Port 1-8 support bt PoE output and backward compatible with IEEE 802.3 af/at PoE standard. It can support dual DC power input and DIN rail mounting.

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