Product Datasheet

6-port Gigabit L2+ Managed Industrial bt PoE Switch

(ONV-IPS33064PFM-bt)

OVERVIEW

The ONV-IPS33064PFM-bt is a 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 uplink SFP fiber ports. Port 1-4 can support bt PoE output and are backward compatible with IEEE 802.3 af/at PoE standard and the single-port PoE power reaches 90W. As a PoE power supply device, it can automatically detect and identify standard-powered devices and supply power to them through network cables. It can supply power for high-power wireless AP, network dome cameras, high-power PoE lighting, industrial sensors, high-power network industrial control equipment, and other PoE terminal equipment through network cables to meet the network environment that requires high-density and high-power PoE power. It is suitable for intelligent transportation and industrial scenarios such as rail transit, electric power, mining, metallurgy, and green energy construction to establish cost-effective, stable, and reliable communication networks.

The ONV-IPS33064PFM-bt has L2+ network management function, supports 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 a 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, 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 SFP 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/bt PoE standard, automatically identify PoE devices for power supply, and not damage non-PoE devices.

◇ 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.

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

◇ Port isolation and storm control.

◇ IP+MAC+port+VLAN quadruple flexible combination binding function.

◇ 802.1X authentication provides authentication functions for LAN computers, and controls the authorization status of controlled ports according to the authentication results.

Stable and reliable

◇ CCC, CE, FCC, RoHS.

◇ Low power consumption, metal shell, and 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, and PoE.

Easy O&M management

◇ Support CPU monitoring, memory monitoring, Ping detection, and 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	1*Console port (115200,N,8,1) 4*10/100/1000M bt PoE ports (Data/Power) 2*100/1000M uplink SFP fiber ports (Data) 2 set of V+, V- redundant DC power interface (5 Pin Phoenix terminal)
Ethernet Port	Port 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 or later UTP(≤100 meters)
Optical Fiber Port	Gigabit optical fiber port, default no include optical module (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	IEEE 802.3 10BASE-T, IEEE 802.3i 10Base-T, IEEE 802.3u 100Base-TX, IEEE 802.3ab 1000Base-T, IEEE 802.3z 1000Base-X, IEEE 802.3x

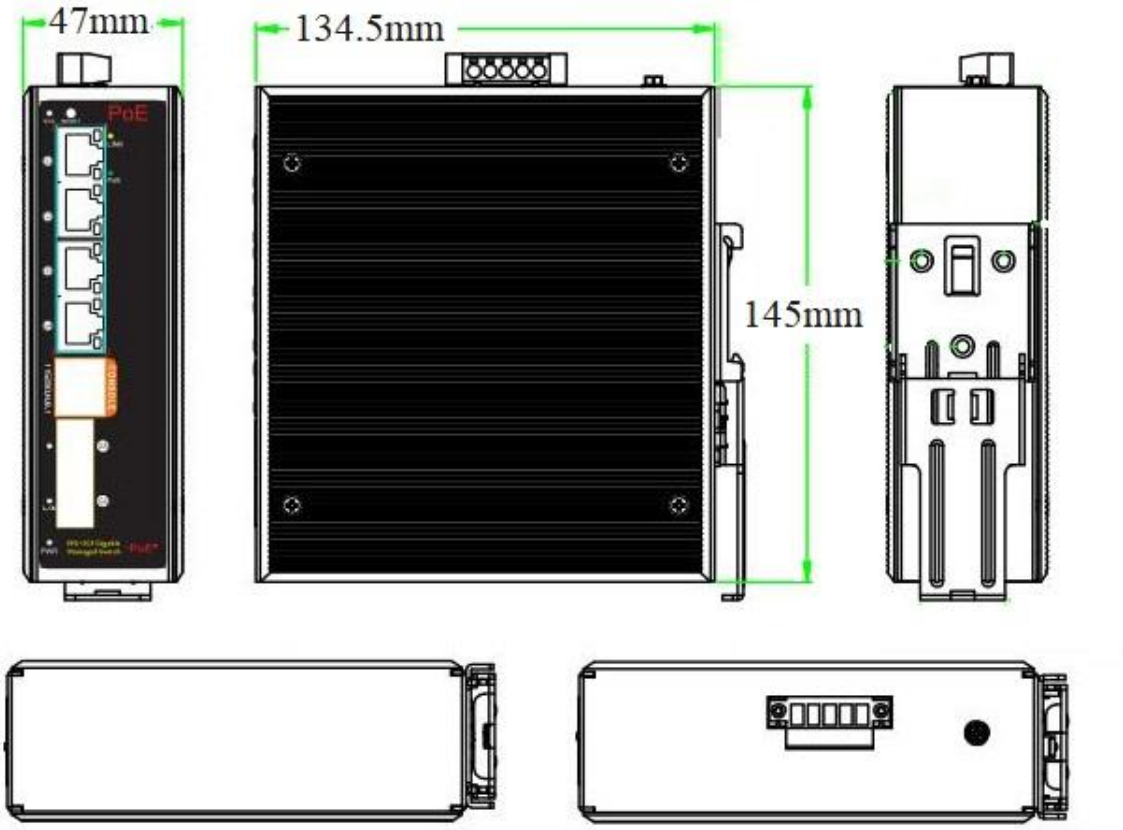
Forwarding Mode	Store and Forward (Full Wire Speed)
Switching Capacity	16Gbps (non-blocking)
Forwarding Rate @64byte	8.93Mpps
CPU	416MHz
DRAM	1G
FLASH	128M
MAC	8K
Buffer Memory	4M
Jumbo Frame	9.6K
LED Indicator	Power/ System: SYS (Green), Network: Link (Yellow), Fiber port: L/A (Green), PoE: PoE (Green)
Reset Switch	Yes, (Press and hold for 10 seconds and release, the switch will restore the factory settings)
PoE & Power Supply	
PoE Port	Port 1-4
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 <240W
Working Voltage	DC48-57V, 5 Pin industrial Phoenix terminal, support anti-reverse protection.
Power Supply	No, optional 48V/240W industrial power supply
Physical Parameter	
Operation TEMP /	-40~+80°C, 5%~90% RH Non condensing

Humidity	
Storage TEMP / Humidity	-40~+85°C, 5%~95% RH Non condensing
Dimension	145*134.5*47mm
Net /Gross Weight	0.7kg /0.9kg
Installation	Desktop, 35mm DIN Rail
Certification & Warranty	
Lightning Protection	Protection level: IP40 Lightning protection: 6KV 8/20us IEC61000-4-3 (RS):10V/m (80~1000MHz) FCC Part 15/CISPR22 (EN55022): Class B 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): CM 2.5kV, DM 1kV 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), IEC60068-2-27 (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 Feature	
Interface	Port temperature protection setting IEEE802.3x flow control (Full duplex)

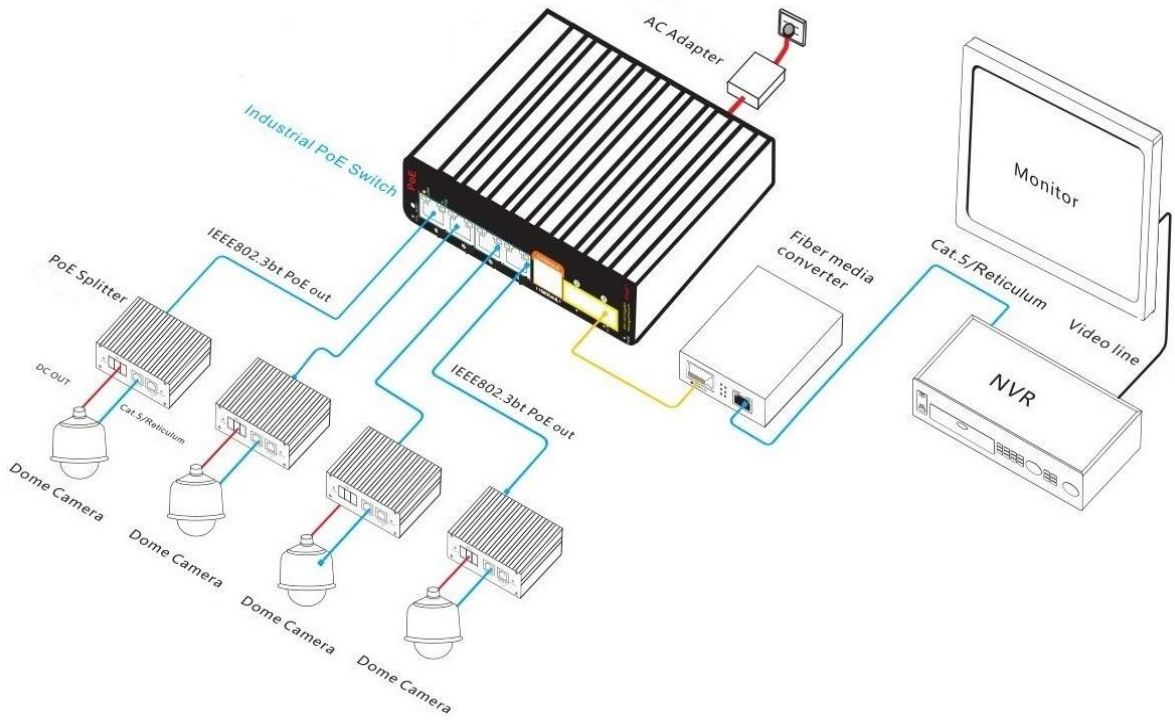
	Port green Ethernet Energy-saving setting Broadcast storm control based on port speed The speed limit of the message flow in the access port, mini particle is 64Kbps.
L3 Feature	ARP protocol max 1024 entries Static routing/ default routing max 128 entries L2+ network management, IPV4/IPV6 dual stack management L3 routing and forwarding, and communication between different network segments and different VLAN
VLAN	Access, Trunk, and Hybrid port configurations Port-based VLAN (4K), IEEE802.1q, QinQ configuration Voice VLAN, Protocol-based VLAN, MAC address-based VLAN
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)
Ring Network Protocol	G.8032 (ERPS), Recovery time less than 20ms 250 Ring at most, Max 250 devices per ring.
Multicast	MLD Snooping, Multicast VLAN IGMP Snooping v1/v2/v3, Max 1024 multicast groups, Fast log out
Port Mirroring	Bidirectional data mirroring based on port
QoS	Flow-based Rate Limiting, Flow-based redirection Queue Scheduling Algorithm (SP, WRR, SP+WRR) Flow-based Packet Filtering, 8*Output queues of each port 802.1p/ DSCP priority mapping, Diff-Serv QoS, Priority Mark/ Remark
ACL	ACL distribution based on port and VLAN L2-L4 packet filtering function, matching the first 80 bytes message, and provides ACL definitions based on source MAC address, destination MAC address, source IP address, destination IP address, IP protocol type, TCP/UDP port, TCP/UDP port range, 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	Web network management (https) Link Layer Discovery Protocol(LLDP) Viewing CPU Instant Utilization Status NTP clock, One click restore, SNMP V1/V2/V3 Cable status check, Ping detection, System work log ONV NMS platform cluster management (LLDP+SNMP) Console/ AUX Modem/ Telnet/ CLI command line configuration FTP, TFTP, Xmodem, SFTP file upload and download management
System	Web browser: Mozilla Firefox 2.5 or higher, Google Chrome V42 or higher, Cat5 and above Ethernet cable TCP/IP, network adapter, and network operating system (such as Microsoft Windows, Linux, Mac OS X) installed on each computer in the network Cat5 and above Ethernet cable

DIMENSION



APPLICATION



ORDERING INFORMATION

Model	Description	Recommended Power Supply
ONV-IPS33064PFM-bt	L2+ managed industrial bt PoE switch with 4*10/100/1000M RJ45 ports and 2*100/1000M uplink SFP fiber ports. Port 1-4 can support bt PoE output and are backward compatible with IEEE 802.3 af/at PoE standard. It supports dual DC power supply input and DIN rail mounting.	240W
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 managed industrial bt 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. 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	PC

		TX1310nm/ RX1550nm, transmission distance: 20km, LC interface. supports DDM function and hot plugging.	
	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-G-SC	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-G-SC	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
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℃ to +70℃	PC

RELATED PRODUCT

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

	DIN rail mounting.
ONV-IPS33064P-bt	Unmanaged industrial bt PoE switch with 6*10/100/1000M RJ45 ports. Port 1-4 can support bt PoE output and are backward compatible with IEEE 802.3 af/at PoE standard. It supports dual DC power supply input and DIN rail mounting.
ONV-IPS33064PF-bt	Unmanaged industrial bt PoE switch with 4*10/100/1000M RJ45 ports and 2*1000M uplink SFP fiber ports. Port 1-4 can support bt PoE output and are backward compatible with IEEE 802.3 af/at PoE standard. It supports dual DC power supply input and DIN rail mounting.
ONV-IPS33064PFG-bt	Unmanaged industrial bt PoE fiber switch with 4*10/100/1000M RJ45 ports and 1*10/100/1000M RJ45 port and 1*1000M uplink SFP fiber port. Port 1-4 can support bt PoE output and are backward compatible with IEEE 802.3 af/at PoE standard. It supports dual DC power supply input and DIN rail mounting.
ONV-IPS33108PFM-bt	L2+ managed industrial bt PoE fiber switch with 8*10/100/1000M RJ45 ports and 2*1000M uplink SFP fiber ports. Port 1-8 can support bt PoE output and are backward compatible with IEEE 802.3 af/at PoE standard. It supports dual DC power supply input and DIN rail mounting.
ONV-IPS57128PFM-bt	L2+ managed industrial bt PoE fiber switch with 8*10/100/1000/2500M RJ45 ports and 4*1/10G uplink SFP+ fiber ports. Port 1-8 can support bt PoE output and are backward compatible with IEEE 802.3 af/at PoE standard. It supports dual DC power supply input and DIN rail mounting.

CONTACT US

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