Product Datasheet

6-port Full Gigabit Managed bt Industrial PoE Switch

(ONV-IPS33064PFM-bt)

OVERVIEW

ONV-IPS33064PFM-bt is a full Gigabit managed bt industrial PoE switch independently developed by ONV. It has 4*10/100/1000M bt PoE ports and 2*100/1000M SFP fiber slot ports. Port 1-4 can support IEEE802.3af/at/bt PoE standard. Single-port PoE power output 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 network 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 full line rate 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 Gigabit Ethernet port and Gigabit SFP port combination, which enables users to flexibly build networking to meet the needs of various scenarios.

◇ Support non-blocking wire-speed forwarding.

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

■ Intelligent PoE power supply

◇ 4*10/100/1000Base-T RJ45 ports can support bt PoE power supply, meeting the demand for super high power PoE power supply in various scenarios.

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

◇ 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.

◇ Set on the Web network management interface to control the PoE port power supply based on the user-defined time period.

◇ 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.

PoE network management and fast Ring function

- 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.
- 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, fan-less design, aluminum shell.
- CCC, CE, FCC, RoHS.
- The user-friendly panel can show the device status through the LED indicator of PWR, SYS, Link, L/A, PoE.

One-stop remote control and management

- Web management, CLI command line (Console, Telnet), SNMP (V1/V2/V3).
- HTTPS, SSLV3, and SSHV1/V2.
- RMON, system log, LLDP, and port traffic statistics.
- CPU monitoring, memory monitoring, Ping test, and cable diagnose.

TECHNICAL SPECIFICATION

Model	ONV-IPS33064PFM-bt
Interface Characteristics	
Fixed Port	4*10/100/1000M bt PoE ports (Data/Power) 2*100/1000M uplink SFP slot ports (Data) 1 * RS232 console port(115200,N,8,1) 2 group 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 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 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 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	128Gbps
Forwarding Rate@64byte	8.93Mpps

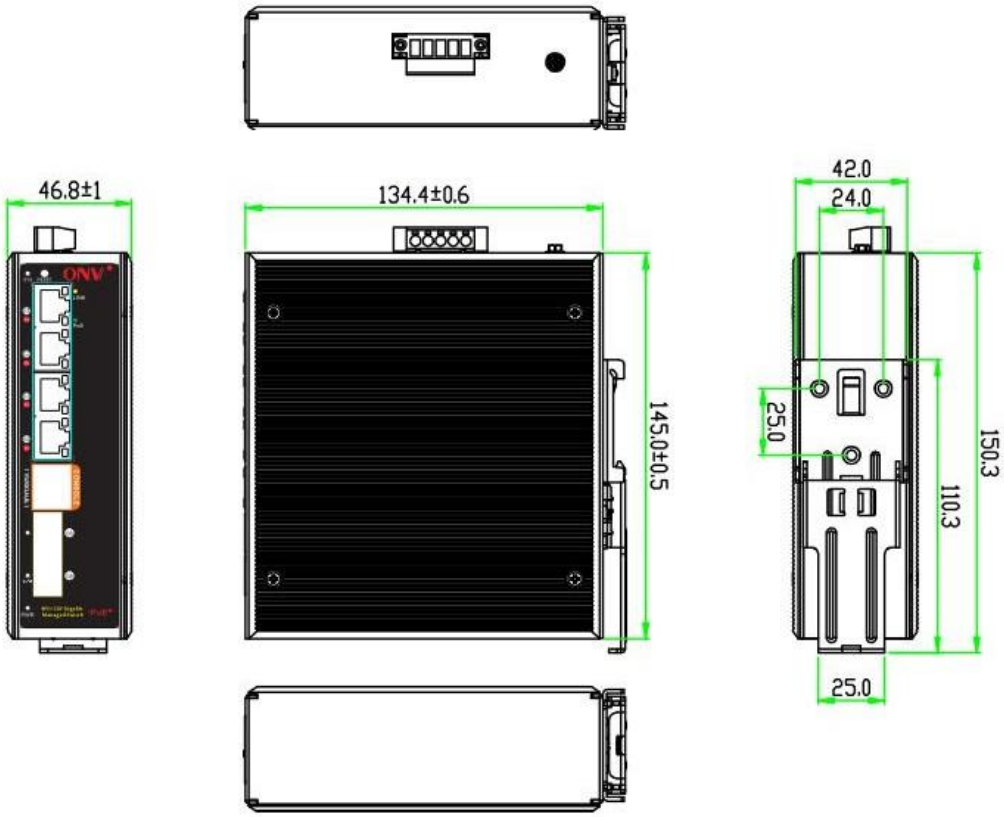
CPU	416MHz
DRAM	1G
FLASH	128M
MAC	8K
Buffer Memory	4M
Jumbo Frame	9.6K
LED Indicator	Power/ System: SYS (Green) , Network: Link (Yellow), fiber port: L/A (Green), PoE: PoE (Green)
Reset Switch	Yes, (Press and hold for 10 seconds and release, the switch will restore the factory settings)
PoE & Power Supply	
PoE Port	Port 1- 4 @bt POE and backward compatible with 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, on/off& af /at/bt
Power Supply Pin	Default 1/2 (+), 3/6 (-), 4/5 (+), 7/8 (-)
Max Power Per Port	90W, IEEE802.3af/at/bt
Power Consumption	Standby<8W, Full load<240W
Working Voltage	48-57VDC, 5 Pin industrial Phoenix terminal, support anti-reverse protection.
Power Supply	No, optional 48V/240W or 48V/480W 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 (L*W*H)	145*134.5*47.5mm
Net /Gross Weight	<0.6kg / <0.8kg
Installation	Desktop, 35mm DIN rail
Certification & Warranty	
Lightning Protection	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(Shock-wave):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 EN60950, FCC Part 15 Class B, RoHS
Warranty	5 years, lifelong maintenance.
Network Management Features	
Interface	IEEE802.3X (Full-duplex)

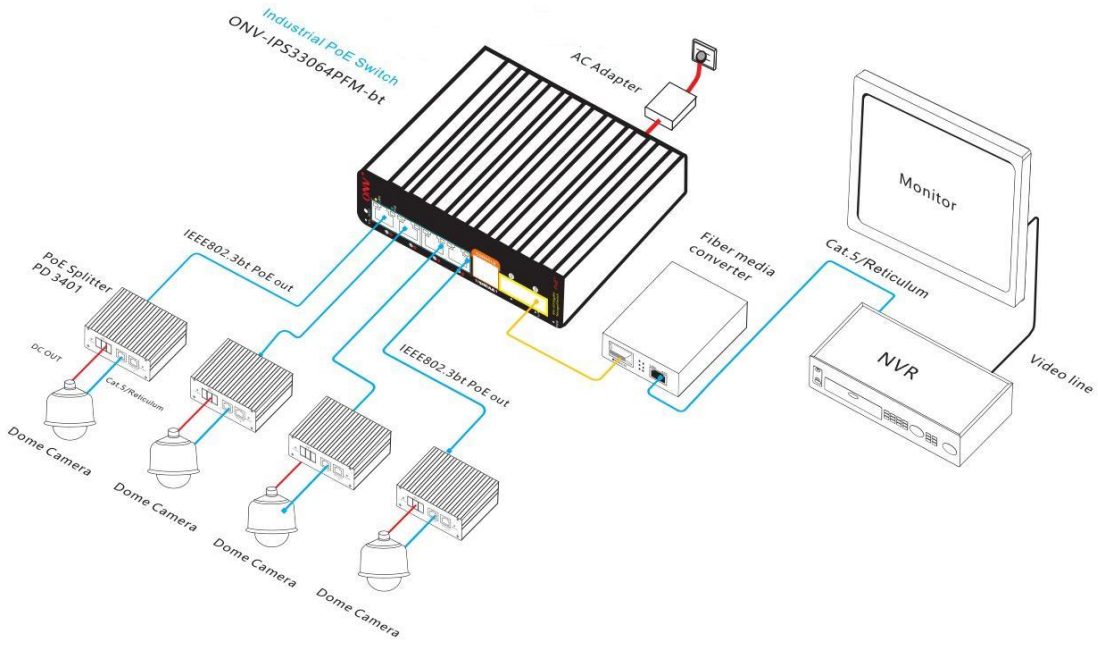
	Port temperature protection setting Port green Ethernet Energy-saving setting Broadcast storm control based on port speed The speed limit of the message flow in the access port. The minimum particle size is 64Kbps.
Layer 3 Features	L2+ network management ,IPV4/IPV6 management L3 soft routing forwarding, Static route, Default route @ 128 pcs, APR @ 1024 pcs
VLAN	Voice VLAN, QinQ configuration 4K VLAN based on port, IEEE802.1q Port configuration of Access, Trunk, Hybrid VLAN based on MAC, VLAN based on the protocol
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 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	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	IP-MAC-VLAN-Port binding 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 SSH 2.0,SSL,Port isolation,ARP message speed limit User hierarchical management and password protection
DHCP	DHCP Client,DHCP Snooping,DHCP Server,DHCP Relay
Management	One-key recovery Cable Diagnose,LLDP 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



APPLICATION



ORDERING INFORMATION

Model	Description	Recommended Power Supply
ONV-IPS33064PFM-bt	L2+ managed bt industrial PoE switch with 4*10/100/1000M bt PoE ports and 2*100/1000M uplink SFP ports. Port 1- 4 can support IEEE802.3af/at/bt PoE standard. It can support dual DC power input and DIN rail mounting.	240W
Note: Industrial PoE switch does no include the SFP optical module and power supply.		

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 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: 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
	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

POWER SUPPLY

Product	Model	Description	Unit
240W DIN Rail Industrial Power Supply	GWS-DP240-48	Din Rail type 240W single set of output power supply; Input Voltage:AC 100V~240V 50-60Hz,3A Output Voltage:DC 48V 5A Operation Temperature:-40℃—+70℃	PC
480W DIN Rail Industrial Power Supply	GWS-DP480-48	Din Rail type 480W single set of output power supply; Input Voltage:AC 100V~240V 50-60Hz,5A Output Voltage:DC 48V 10A Operation Temperature:-40℃—+70℃	PC

RELATED PRODUCT

Model	Description
ONV-IPS33064P-bt	Unmanaged bt industrial PoE fiber switch with 6*10/100/1000M RJ45 ports. Port 1-4 can support IEEE802.3af/at/bt PoE standard. It can support dual DC power input and DIN rail mounting.
ONV-IPS33064PFG-bt	Unmanaged bt industrial PoE fiber switch with 5*10/100/1000M RJ45 ports and 1*1000M SFP port. Port 1-4 can support IEEE802.3af/at/bt PoE standard. It can support dual DC power input and DIN rail mounting.
ONV-IPS33064PF-bt	Unmanaged bt industrial PoE fiber switch with 2*10/100/1000M RJ45 ports and 2*1000M SFP ports. Port 1-4 can support IEEE802.3af/at/bt 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 can support IEEE802.3af/at/bt PoE standard. It can support dual DC power input and DIN rail mounting.
ONV-IPS31064PFG-bt	Unmanaged bt industrial PoE fiber switch with 4*10/100M RJ45 ports and 1*10/100/1000M uplink RJ45 port and 1*1000M uplink SFP port. Port 1-4 can support IEEE802.3af/at/bt PoE standard. It can support dual DC power input and DIN rail mounting.
ONV-IPS31064PF-bt	Unmanaged bt industrial PoE fiber switch with 4*10/100M RJ45 ports and 2*155M uplink SFP ports. Port 1-4 can support IEEE802.3af/at/bt PoE standard. It can support dual DC power input and DIN rail mounting.

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