SUNELLITALIA®
Stark Solution

Product Datasheet

6-port Full Gigabit Managed Industrial PoE Switch

SUN-IPS33064PFM

SUN-IPS33064PFM è uno switch industriale PoE gestito full Gigabit L2+. Dispone di 4* porte RJ45 adattive 10/100/1000M e 2* porte SFP 100/1000M. Le porte 1-4 supportano lo standard IEEE802.3af/at PoE. Alimentazione POE a porta singola fino a 30W. Come dispositivo di alimentazione PoE, è in grado di rilevare e riconoscere automaticamente i dispositivi conformi allo standard e di fornire alimentazione attraverso il cavo di rete.

SUN-IPS33064PFM dispone di una funzione di gestione completa della rete L2+, supporta la gestione IPV4/ IPV6, l'inoltro di percorsi statici, il meccanismo di protezione della sicurezza, i criteri ACL/QoS e le VLAN ed è facile da gestire e mantenere. Supporto di più protocolli di ridondanza di rete STP/RSTP/MSTP (<50ms) e (ITU-T G.8032) ERPS (<20ms) per migliorare il backup dei collegamenti e l'affidabilità della rete. Quando la rete unidirezionale si guasta, la comunicazione può essere ripristinata rapidamente per garantire una comunicazione ininterrotta importante per le applicazioni. In base ai

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requisiti effettivi dell'applicazione, è possibile configurare più servizi applicativi come la gestione dell'alimentazione PoE, il controllo del traffico delle porte, la divisione VLAN e SNMP attraverso la modalità di gestione della rete Web.

■ **Gigabit access, SFP fiber port uplink**

◇ Support non-blocking wire-speed forwarding.

◇ Support full-duplex based on IEEE802.3x 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**

◇ 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.

◇ 4*10/100/1000Base-T RJ45 ports, meeting the needs of security monitoring, teleconferencing system, wireless coverage, and other 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.

■ **PoE network management and fast Ring function**

◇ Support ERPS ring network and STP/RSTP/MSTP to eliminate layer 2 loops and realize link backup.

◇ Support IEEE802.1Q VLAN, Users can flexibly divide VLAN, Voice VLAN, and QinQ configuration according to their needs.

◇ 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, IGMP Snooping meets 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, No fan, aluminum shell.

◇ 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

◇ Support CPU monitoring, memory monitoring, Ping detection, cable length detection.

◇ Support HTTPS, SSLV3, SSHV1/V2 and other encryption methods, making management more secure.

◇ Support RMON, system log, and port traffic statistics to facilitate network optimization and transformation.

◇ Support LLDP to facilitate the network management system to query and judge the communication status of the link.

◇ Support Web network management, CLI command line (Console, Telnet), SNMP (V1/V2/V3) and other diversified management and maintenance.

TECHNICAL SPECIFICATION

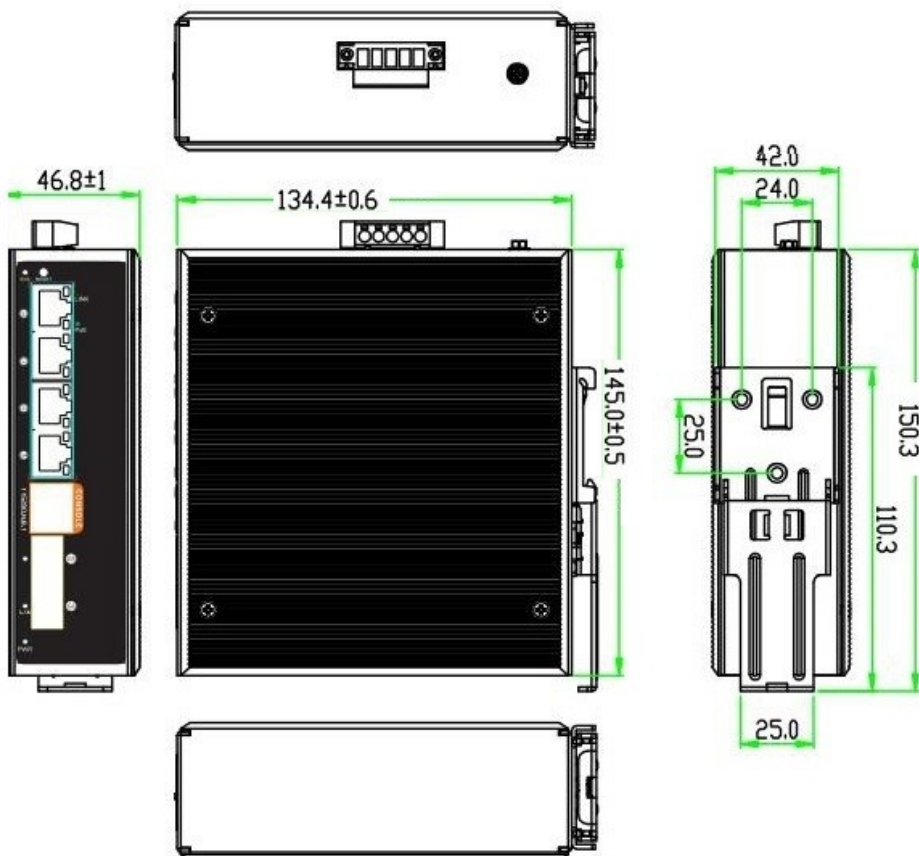| Model	SUN-IPS33064PFM
Interface Characteristics	
Fixed Port	4*10/100/1000M PoE ports (Data/Power) 2*100/1000M uplink SFP slot ports (Data) 1*RS232 console port(115200,N,8,1) 2 set of V+, V- redundant DC power interface (5 Pin Phoenix terminal)
Ethernet Port	Port 1-4 support 10/100/1000Base-T auto-sensing, 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 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	16Gbps
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 to 4, IEEE802.3af/at
PoE Management	Total power limit of PoE power supply PoE output power allocation, PoE on/off & af/at PoE working status, Delay start of power supply PoE output priority configuration,Scheduling of PoE operation and time
Power Supply Pin	1/2(+) 3/6(-)
Max Power Per Port	30W, IEEE 802.3 af/at
Power Consumption	Standby<8W, Full load af<60W, at<120W
Working Voltage	DC48-57V, 5 Pin industrial Phoenix terminal, support anti-reverse protection.
Power Supply	No, optional 48V/60W or 48V/120W 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 (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(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

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
	The speed limit of the message flow in the access port. The minimum particle size is 64Kbps.
Layer 3 Features	Support L2+ network management function, IPV4/IPV6 dual stack management
	Support L3 routing and forwarding, and support communication between different network segments and different VLAN

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	Support static routing/default routing with a maximum of 128 entries Support ARP protocol maximum entries 1024
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 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	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	One-key recovery Cable Diagnose, LLDP, SNMP V1/V2/V3 NMS platform cluster management (LLDP+SNMP) Download & Management on FTP, TFTP, Xmodem, SFTP NTP, System work log, Ping Test, CPU instant utilization status view Web Management (HTTPS), Console/AUX Modem/Telnet/SSH2.0 CLI
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
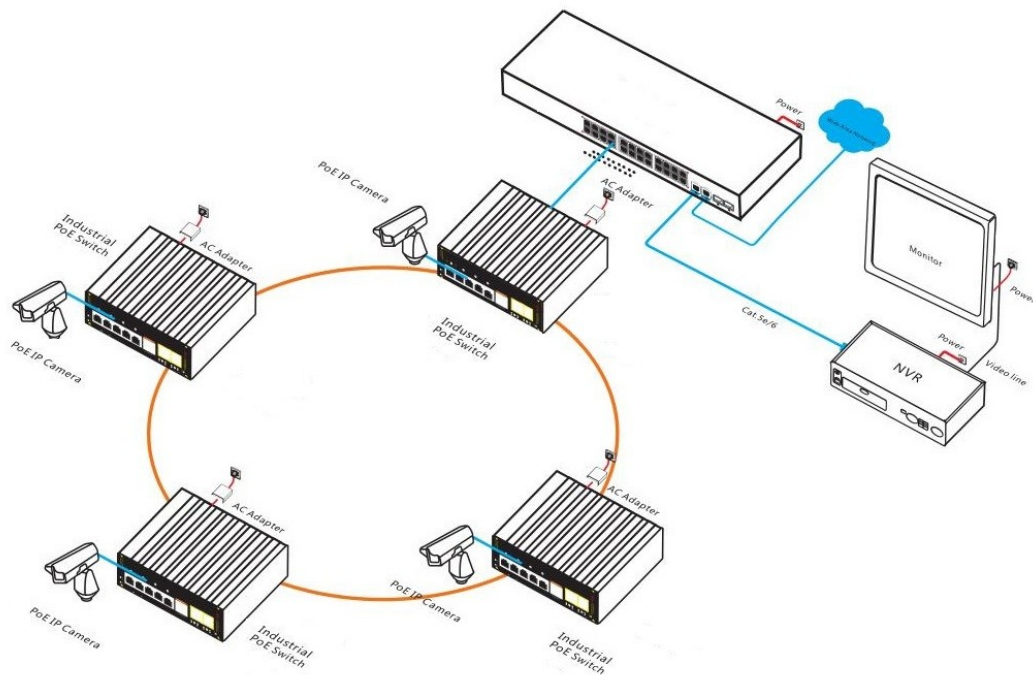
ORDERING INFORMATION

Model	Description	Recommended Power Supply
SUN-IPS33064PFM	L2+ managed industrial PoE fiber switch with 4*10/100/1000M RJ45 ports and 2*100/1000M SFP ports. Port 1-4 can support IEEE 802.3 af/at PoE standard. It can support dual DC power input and DIN rail mounting.	60W/120W
Note: Industrial PoE switches do not include SFP optical modules and power supplies by default.		

OPTICAL MODULE

Product	Model	Description	Unit
1.25G Optical Module	SUN-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
	SUN-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
	SUN-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
	SUN-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
	SUN-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
	SUN-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 Module	SUN-2633	1.25G SFP optical module transfers to 10/100/1000M RJ45 port.	PC

POWER SUPPLY

Product	Model	Description	Unit
65W Desktop Power Adaptor	SUN-AP65-52	Desktop 65W single set of output power adapter Input Voltage: AC 100V~240V 50-60Hz, 1.1A Output Voltage: DC 52V 1.25A Operation Temperature: -20°C to +65°C	PC
110W Desktop Power Adaptor	SUN-AP110-52	Desktop 110W single set of output power adapter Input Voltage: AC 100V~240V 50-60Hz, 2.0A Output Voltage: DC 52V 2.0A Operation Temperature: -20°C to +65°C	PC
60W DIN Rail Industrial Power Supply	SUN-DP60-48	Din Rail 60W single set of output power supply Input Voltage: AC 100V~240V 50-60Hz,1.0A Output Voltage: DC 48V 1.25A Operation Temperature: -40°C to +70°C	PC
120W DIN Rail Industrial Power Supply	SUN-DP120-48	Din Rail 120W single set of output power supply Input Voltage: AC 100V~240V 50-60Hz,1.5A Output Voltage: DC 48V 2.5A Operation Temperature: -40°C to +70°C	PC

RELATED PRODUCT

Model	Description
SUN-IPS33084PFM	L2+ managed industrial PoE fiber switch with 4*10/100/1000M RJ45 ports and 4*100/1000M SFP slot ports. Port 1-4 can support

12	IEEE802.3af/at PoE standard. It can support dual DC power input and DIN rail mounting.
SUN-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 dual DC power input and DIN rail mounting.
SUN-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 dual DC power input and DIN rail mounting.
SUN-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 dual DC power input and DIN rail mounting.
SUN-IPS36168PFM	L2+ managed industrial PoE fiber switch with 12*10/100/1000M RJ45 ports and 4*1/10G SFP+ slot ports. Port 1-8 can support IEEE802.3af/at PoE standard. It can support dual DC power input and DIN rail mounting.