Datasheet

12-Port Full Gigabit Managed Industrial Ethernet Switch

SUN-IPS33128FM

SUN-IPS33128FM è uno switch in fibra Ethernet industriale gestito full gigabit. Dispone di 10*10/100/1000Base-T porte RJ45 e 2*100/1000Base-X porte SFP in fibra. Ogni porta può supportare l'inoltro wire-speed.

Dispone di una funzione di gestione della rete L2+, supporta la gestione IPV4/IPV6, supporta l'inoltro di indirizzi statici, un meccanismo di sicurezza completo, una politica ACL/QoS e una funzione VLAN. Supporta 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 una rete unidirezionale si guasta, è possibile riprendere rapidamente la connessione e garantire una comunicazione ininterrotta. È possibile configurare la gestione delle porte, la gestione degli indirizzi di routing, il controllo del traffico delle porte, la divisione VLAN, IGMP e i criteri di sicurezza in base ai metodi di gestione della rete quali Web, CLI, SNMP e Telnet.

SUN-IPS33148FM segue il design e i materiali dei prodotti industriali. L'involucro esterno è realizzato in lega di alluminio per migliorare le prestazioni di dissipazione del calore. Ha un'eccellente adattabilità all'ambiente industriale e una protezione di grado IP40, supporta la doppia alimentazione ridondante.

1

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■ **Full gigabit port access**

◇ All series supports 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.

■ **Port lightning protection, ultra-wide voltage input**

◇ Contact discharge 8KV, air discharge 15KV; port lightning protection common-mode 4KV, differential mode 2KV;

◇ Industrial dual power input

◇ Non-PoE DC INPUT: 12-48V.

■ **Network management and fast Ring function**

◇ IGMP V1/V2 and IGMP Snooping.

◇ ERPS/STP/RSTP/MSTP.

◇ Static and dynamic aggregation.

◇ IEEE802.1Q VLAN, flexible VLAN division 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.

■ **Security**

◇ 802.1X authentication.

◇ Port isolation,Storm control.

◇ IP-MAC-VLAN-Port binding.

■ **Stable and reliable**

◇ CE, FCC, RoHS.

◇ Low power consumption, fan-less design, aluminum shell.

◇ The user-friendly panel, it can show the device status through the LED indicator of PWR,SYS,

Link.

- **One-stop remote control and 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

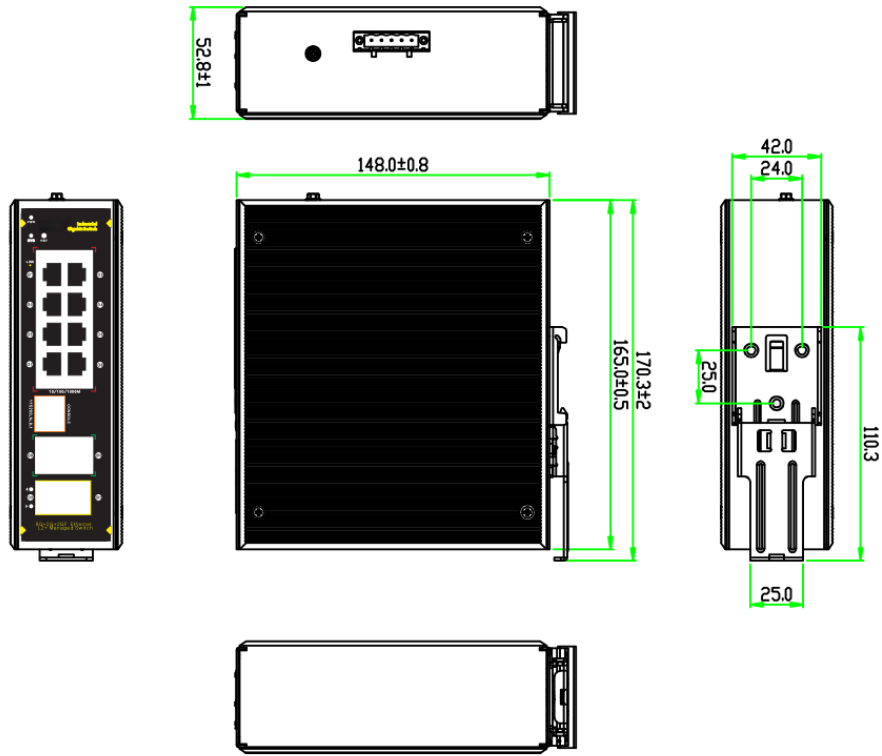| Model	SUN-IPS33128FM	SUN-IPS33148FM
Interface Characteristics		
Fixed Port	10*10/100/1000Base-T RJ45 ports (Data) 2*100/1000Base-X uplink SFP fiber slot ports (Data) 1 * RS232 console port(115200,N,8,1) 2 set of V+, V- redundant DC power interface (5 Pin Phoenix terminal)	10*10/100/1000Base-T RJ45 ports (Data) 4*100/1000Base-X uplink SFP fiber slot ports (Data) 1 * RS232 console port(115200,N,8,1) 2 set of V+, V- redundant DC power interface (6 Pin Phoenix terminal) Power-off alarm switch (FAULT)
Ethernet Port	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 not matching optical modules (optional order single-mode / multi-mode, single fiber / dual fiber optical	

	module. LC)	
SFP Port Expansion	No	Turbo overclocking 2.5G optical module and ring
Optical Fiber / 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/FX; IEEE802.3ab 1000Base-TX IEEE802.3z 1000Base-X IEEE802.3x	
Forwarding Mode	Store and Forward(Full Wire Speed)	
Switching Capacity	192Gbps	256Gbps
Forwarding Rate@64byte	17.86Mpps	20.83Mpps
MAC	8K	
Buffer Memory	6M	
Jumbo Frame	9.6K	
LED Indicator	Power: PWR (green), System : SYS (green), Network: Link (yellow), SFP: L/F (green)	
Reset Switch	Yes, Press and hold the reset switch for 10s and release it to restore the factory settings	
Power		
Working Voltage	12-48VDC, 5 Pin industrial Phoenix terminal, support anti-reverse protection.	12-48VDC, 6 Pin industrial Phoenix terminal, support anti-reverse protection.
Power Consumption	Standby<8W;Full load<13W	Standby<10W;Full load<15W
Power Supply	No, optional 24V/24W 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)	165*148*54mm	
Net /Gross Weight	<0.8kg / <1.3kg	<1.1kg / <1.4kg
Installation	Desktop, DIN rail	
Certification & Warranty		
Lightning protection / protection level	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 A 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	
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	4K VLAN based on port, IEEE802.1q
	VLAN based on the protocol
	VLAN based on MAC
	Voice VLAN, QinQ configuration
	Port configuration of Access, Trunk, Hybrid
Port Aggregation	LACP, Static aggregation Max 6 aggregation groups and 8 ports per group.	LACP, Static aggregation Max 7 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 1024 devices per ring.
Multicast	MLD Snooping v1/v2,Multicast VLAN
	IGMP Snooping v1/v2, Max 250 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 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
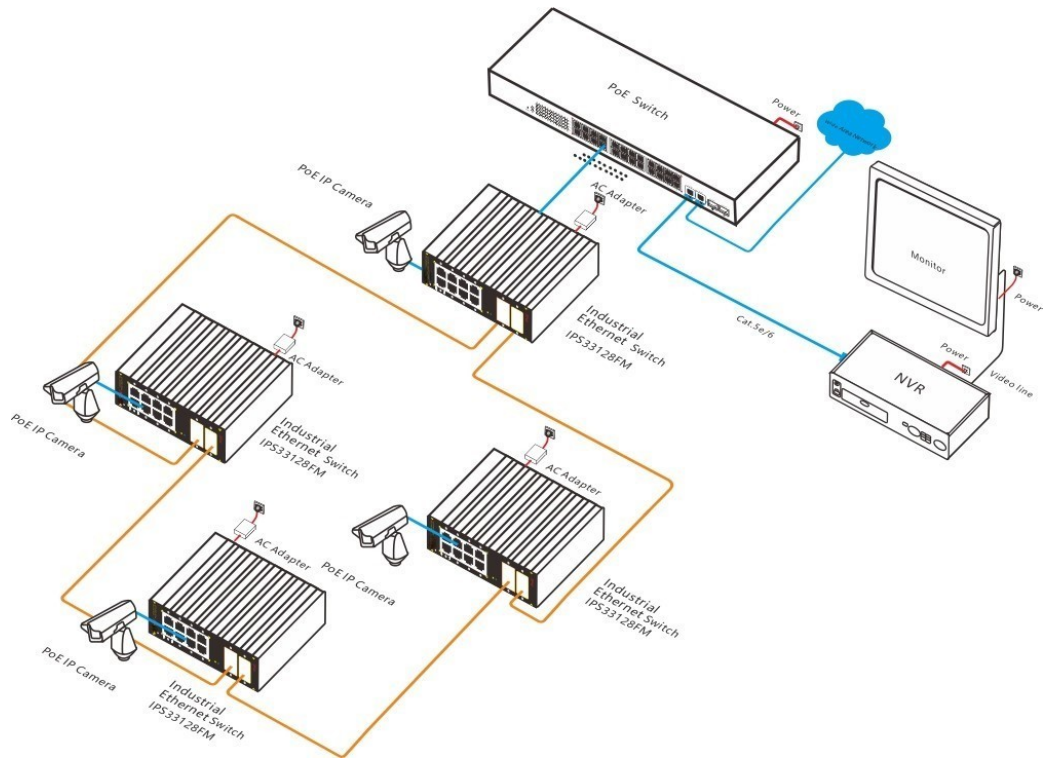
ORDERING INFORMATION

Model	Description	Recommended Power Supply
SUN-IPS33148FM	L2+ managed industrial Ethernet fiber switch with 10*10/100/1000M RJ45 ports and 4*100/1000M SFP fiber ports. It can support DC dual power supply and DIN rail mounting.1 way alarm switch output.	24W
SUN-IPS33128FM	L2+ managed industrial Ethernet fiber switch with 10*10/100/1000M RJ45 ports and 2*100/1000M SFP fiber ports. It can support DC dual power supply and DIN rail mounting.	24W

Note: Industrial Ethernet switch does not match the SFP optical module and power supply.

OPTICAL MODULE INFORMATION

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

POWER SUPPLY SELECTION TABLE

Product	Model	Description	Unit
24W DIN Rail Industrial Power Supply	SUN-DP24-24	Din Rail type 24W single set of output power supply; Input Voltage:AC 100V~240V 50-60Hz,0.35A Output Voltage:DC 24V 1A Operation Temperature:-40℃—+70℃	PC

RELATED PRODUCT

Model	Description
SUN-IPS33064FM	L2+ managed industrial Ethernet fiber switch with 4*10/100/1000M RJ45 ports and 2*100/1000M SFP fiber ports. It can support DC dual power supply and DIN rail mounting.
SUN-IPS33084FM	L2+ managed industrial Ethernet fiber switch with 4*10/100/1000M RJ45 ports and 4*100/1000M SFP fiber ports. It can support DC dual power supply and DIN rail mounting.
SUN-IPS33108FM	L2+ managed industrial Ethernet fiber switch with 8*10/100/1000M RJ45 ports and 2*100/1000M SFP fiber ports. It can support DC dual power supply and DIN rail mounting.
SUN-IPS33168FM	L2+ managed industrial Ethernet fiber switch with 8*10/100/1000M RJ45 ports and 8*100/1000M SFP fiber ports. It can support DC dual power supply and DIN rail mounting.

SUN-IPS33168FM-4GF	L2+ managed industrial Ethernet fiber switch with 12*10/100/1000M RJ45 ports and 4*100/1000M SFP fiber ports. It can support DC dual power supply and DIN rail mounting.
SUN-IPS38168FM	L3 managed industrial Ethernet core fiber switch with 12*10/100/1000M RJ45 ports and 4*1/10G SFP+ fiber ports. It can support DC dual power supply and DIN rail mounting.

SUNELL ITALIA STARK SOLUTION

Via 3° Strada n°36 Zona Industriale 95121 Catania (CT)

info@sunellitalia.net