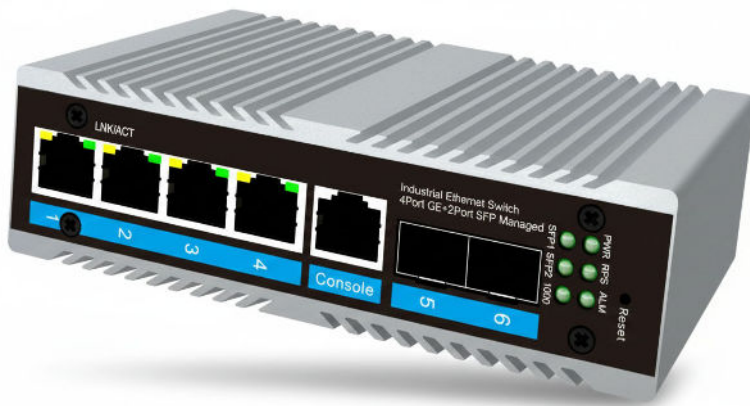# 4N-S1004GT-SFP
6-port 10/100M/1000M L2 Managed PoE Industrial Ethernet Switch

LOOP ROTECTION

VLAN

6KV LIGHTING PROTECTION

Product Overview

The 4NSYS 4N-S1004GT-SFP is a full Gigabit L2 managed industrial PoE Ethernet fiber switch independently developed by 4NSYS. It is equipped with 4 × 10/100/1000Base-T PoE ports (Port 1–4 support IEEE 802.3af/at with a maximum power output of 30W per port, total PoE budget 65W) and 2 × 100/1000Base-X SFP fiber ports. The switch can automatically detect and identify standard-compliant powered devices and provide power through Ethernet cables. It is capable of supplying power to PoE terminal equipment such as wireless access points, IP cameras, VoIP phones, and sensors.

The 4N-S1004GT-SFP supports comprehensive Layer 2 network management functions, including IPv4 static route forwarding, advanced security protection mechanisms, ACL/QoS policies, and extensive VLAN features, enabling convenient management and maintenance. It also supports multiple network redundancy protocols such as STP/RSTP/MSTP (<50 ms) and ERPS ring protection (recovery <20 ms), effectively enhancing link redundancy and network reliability to ensure continuous communication for critical applications.

According to actual application requirements, routing address management, port management, traffic control, VLAN configuration, IGMP, and security policies can be managed through Web, CLI, SNMP, Telnet, and other network management interfaces.

The chassis is made of aluminum alloy, providing excellent durability and adaptability to harsh industrial environments—including mechanical stability, climate resistance, and electromagnetic interference resistance. It features an IP40 protection rating, dual redundant power supply support, low power consumption, and fanless design, with a 3 year warranty.

FEATURE

Gigabit access, SFP fiber port uplink, Integrated Bypass function

- 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.
- Support physical single-mode single fiber optical path(Bypass) function, pure hardware switching, short switching time, does not affect the data transmission rate and improves the stability of the network system.

Network management and fast ring function

- STP/RSTP/MSTP.
- Static and dynamic aggregation.
- IEEE802.1Q VLAN, flexible VLAN division, Access,Trunk and Hybrid.
- QoS, Priority mode based on 802.1P, Port & DSCP, queue scheduling algorithm including EQU, SP,WRR & SP+WRR.
- IGMP Snooping V1/V2/V3 meets multi-terminal high-definition video surveillance and video conference access requirements.
- ALC, filter data packet through configuring matching rules, processing operation & time permission, andprovide flexible and safe access control.

Security

- 802.1X authentication.
- Port isolation, storm control.
- IP-MAC-VLAN-Port binding.

Stable and reliable

- CCC, CE, FCC, RoHS.
- Low power consumption, No fan, aluminum shell.
- The user-friendly panel displays device status via PWR, SFP, ALM, RPS, PoE, 1000 and LNK/ACT LEDs.

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, SNMP (V1/V2/V3).

Model	4N-S1004GT-SFP		
Interface Characteristics			
Fixed Port	4*10/100/1000Base-T PoE ports 2*100/1000Base-X uplink SFP slot ports 1*RS232 console por		
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 interface, default no include optical modules (Only supports single-mode single fiber optical module. LC)		
Wavelength/Distance	multimode: 850nm 0~550M,1310nm 0~2KM single mode: 1310nm 0~40KM ，1550nm 0~120KM		
Chip Parameter			
Network Management Type	L2		
Ring network	Supports ERPS ring network function, with a maximum number of rings of 5 and a convergence time of<20ms		
Network Protocol	IEEE802.3 10BASE-T, IEEE802.3i 10Base-T, IEEE802.3u 100Base-TX IEEE802.3ab 1000Base-X, IEEE802.3z 1000Base-X, IEEE802.3x IEEE802.3az, IEEE802.3af, IEEE802.3at		
Forwarding Mode	Store and Forward(Full Wire Speed)		
Switching Capacity (Fabrie)	12Gbps		
Packet Buffer Size	8.92Mpps		
Jumbo Fram size	10KBytes		
MAC	8K		
LED Indicator	PowerIndicatorLight	P：1 Green	
	Fiber Indicator Light	F：1 Green	
	On the PoE seat	Yellow:Indicate PoE	
		Green: Indicates network working status	
Reset Switch	Yes, Press and hold the reset switch for 5s and release it to restore the factory settings		
Device Monitoring	LFS (Link Fault Signalling)		

PoE characteristics	
Power supply	DC: 48-52V/1.25A 90W Industrial Grade Adaptor / AC: 220V
Power connection	4-pin DC-Jack (48VDC)(Primary Power Input) 6-pin Terminal block (Primary/Redundant Power Input)
PoE power supply method	Supports 1,2+, 3,6-power supply
PoE output power	IEEE802.3af/at, with a maximum power of 30W per port and a total power of 65W

Certification & Warranty	
Lightning Protection	ESD protection: 8KV , 15KV 8/20us 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 A, RoHS

Physical Parameter	
Operation TEMP /Humidity	-40~+75°C;5%~90% RH Non condensing
Storage TEMP /Humidity	-40~+85°C;5%~95% RH Non condensing
Dimension (L*W*H)	142mm* 101mm*42mm
Installation	Desktop, DIN rail

L2 functions	
Port configuration	Auto-negotiation Flow Control Port Mirror: TX/RX/BOTH; Many-to-1 monitor Traffic statistics
Link Aggregation	Static link aggregation LACP Algorithm based on Source/Destination MAC Algorithm based on Source/Destination IP
MAC Table	Aging Time Static MAC address Dynamic MAC address management
VLAN	4094 Active VLANs 4094 VID 802.1Q Tag VLAN Port VLAN Protocol VLAN MAC VLAN Voice VLAN 802.1ad Q-in-Q tunneling Private VLAN (Protected port) GARP/GVRP
ACL	256ACLs L2, L3 e L4 Time-based ACL
Spanning tree	802.1D Spanning Tree Protocol (STP) 802.1w Rapid Spanning Tree Protocol (RSTP) 802.1s Multiple Spanning Tree Protocol (MSTP) Loop Guard Root Guard TC-BPDU Guard BPDU Guard BPDU Filter
Ring Protection	<20ms G.8032 ERPS Ring
Multicast	256 groups IGMP v1/v2/v3 Snooping, Fast Leave MLD Snooping Multicast VLAN
QOS	port-based CoS 802.1p-based CoS DSCP-based Scheduling algorithms SP, WRR, SP+WRR Storm Control (Broadcast, Multicast, Unknown Unicast) Bandwidth control per port
DHCP	SNMP v1/v2c/v3 with Full Private MIBs RMON 4 groups WEB (HTTP/HTTPS) CLI (Telnet, Console, SSHv1/v2) Firmware upgrade via console/web/TFTP Configuration Backup/Reload Dual Firmware LLDP

Security Features	Port Security MAC address filter ARP Association (Manual, ARP scanning, DHCP snooping) ARP Protection DoS (Denial of Service) Classification of packages based on: End.MAC, IP End, TCP / UDP Ports, Protocol Type; 802.1x Authentication (port-based e MAC-based) TACACS/TACACS+ Authentication RADIUS Authentication DHCP Filter Guest VLAN SSLv2/SSLv3/TLSv1 SSHv1/SSHv2 Restriction of WEB access based on: IP Address, And. MAC and Port; Port Isolation Loopback detection
Other Features	DNS Client DHCP Relay DHCP Client DHCP Snooping DHCP Option 82 SNTP Client UDLD
PoE management	Soft-Reboot PoE Non-stop Total PoE Per port PoE function enable/disable PoE classification detection PD alive check PoE schedule
Maintenance	Cable Diagnostics Ping SFP DDM(Digital Diagnostics Monitoring) Thermal protection System log (Local and Remote) Memory and CPU Monitoring

South Korea