

# 4N-TY408GP-SFP-PLUS

L2 WEB Managed Industrial PoE Ethernet Switch



LOOP  
PROTECTION



VLAN



6KV LIGHTING  
PROTECTION

## Product Overview

The 4N-TY408GP-SFP+ is a full Gigabit L2 WEB managed industrial PoE Ethernet fiber switch independently developed by 4NSYS. It has 8\* 10/100/1000Base-T PoE ports(IEEE802.3af/at , with a maximum power of 30W per port and a total power of 120W) and 4\* 100/1000Base-X SFP Uplink ports. It can automatically detect and recognize power-compliant devices that meet the standard and supply power through the network cable. It can supply power to POE terminal equipment such as wireless AP, webcam, VoIP, sensor through the network cable.

The 4N-TY408GP-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

Engineered for mission-critical environments, the switch supports multiple redundancy protocols including STP, RSTP, and MSTP, enabling rapid failover in under 50ms. This ensures communication remains stable and uninterrupted even when unexpected link failures occur.

According to real-world deployment needs, users can conveniently configure port management, flow control, VLAN segmentation, IGMP functions, and security policies through a Web interface or other supported management methods.

Constructed with a robust aluminum-alloy enclosure, the device is built to withstand demanding industrial conditions—including vibration, harsh climates, and electromagnetic interference. The unit carries an IP40 protection rating, supports dual redundant power inputs, operates with low power consumption, and uses a fanless design for enhanced durability. It also includes a 3-year warranty for long-term confidence.

The 4N-TY408GP-SFP+ is an ideal networking solution for industrial applications such as intelligent transportation systems, rail networks, power utilities, mining, petroleum operations, maritime communication, metallurgy facilities, and green energy infrastructure—providing a cost-effective, stable, and dependable communication backbone.

# 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, and provide 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 can show the device status through the LED indicator of PWR, SYS, Link, L/A.

## 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, SNMP (V1/V2/V3).

Model	4N-TY408GP-SFP+	
<b>Interface Characteristics</b>		
Fixed Port	8* 10/100/1000Base-T PoE ports 4* 100/1000Base-X uplink SFP slot ports	
Ethernet Port	Port 1-8 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 not include optical modules (optional single-mode / multi-mode, single fiber / dual fiber optical module. LC)	
Wavelength/Distance	multimode: 850nm 0~550M,1310nm 0~2KM single mode: 1310nm 0~40KM , 1550nm 0~120KM	
<b>Chip Parameter</b>		
Network Management Type	L2 (WEB management)	
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	
Buffer Memory Jumbo Frame	≥4 Mbit; Supports up to 9K bytes	
Forwarding Mode	Store and Forward(Full Wire Speed)	
Switching Capacity	32Gbps	
Packet forwarding	23.8Mpps	
MAC	16K	
LED Indicator	PowerIndicatorLight	P: 1 Green
	Fiber Indicator Light	F: 1 Green (Link,SDFED)
	On the PoE seat	Yellow:Indicate PoE
		Green: Indicates network working status

PoE Power	
power supply	DC: 48-58V/2.3A 120W
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 120W
Certification & Warranty	
Lightning Protection	<p>Lightning protection: 6KV 8/20us, Protection level: IP40</p> <p>IEC61000-4-2(ESD):±8kV contact discharge,±15kV air discharge</p> <p>IEC61000-4-3(RS):10V/m(80~1000MHz)</p> <p>IEC61000-4-4(EFT): power cable:±4kV; data cable:±2kV</p> <p>IEC61000-4-5(Surge):power cable:CM±4kV/DM±2kV; data cable:±4kV</p> <p>IEC61000-4-6(radio frequency transmission):10V(150kHz~80MHz)</p> <p>IEC61000-4-8(power frequency magnetic field):100A/m;1000A/m ,1s to 3s</p> <p>IEC61000-4-9(pulsed magnet field):1000A/m</p> <p>IEC61000-4-10(damped oscillation):30A/m 1MHz</p> <p>IEC61000-4-12/18(shockwave):CM 2.5kV,DM 1kV</p> <p>IEC61000-4-16(common-mode transmission):30V; 300V, 1s</p> <p>FCC Part 15/CISPR22(EN55022):Class B</p> <p>IEC61000-6-2(Common Industrial Standard)</p>
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
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)	172mm*145mm*54mm
Installation	Desktop, DIN rail

Network Management Features	
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
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) upgrade via web/TFTP Configuration Backup/Reload Dual Firmware LLDP

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



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