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12-port 10G L3 Uplink Managed Industrial PoE Switch

(TN3M12P10GUPSW-L3)

DC48-57V

OVERVIEW

The TN3M12P10GUPSW-L3 is a 12-port 10G L3 Uplink Managed Industrial PoE Switch independently developed by TEXA. It has 8*10/100/1000Base-T adaptive RJ45 ports and 4*1/10G uplink SFP+ fiber ports. Port 1-8 can support the IEEE802.3af/at PoE standard, and the single-port max PoE power is 30W. 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 can supply power to PoE terminal equipment such as wireless AP, IP cameras, VoIP phones, and industrial sensors through a network cable, and meet the network environment that needs a 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, setting up a cost-effective and stable communication network.

TheTN3M12P10GUPSW-L3 has L3 network management function, supports IPV4/IPV6 management, dynamic routing and forwarding, complete security protection mechanism, complete ACL/QoS policy, rich VLAN functions, and is easy to manage and maintain. Supports multiple network redundancy protocols STP/ RSTP/ MSTP (<50ms) and (ITU-T G.8032) ERPS (<20ms) to improve link backup and network reliability. When a one-way network fails, communication can be quickly restored to ensure important, uninterrupted application communication. According to the application needs, port management, routing address management, port flow control, VLAN division, IGMP, security policy, and other application services are configured through networ management methods such as Web,CLI, SNMP, Telnet, etc.

FEATURE

Gigabit access, uplink 1/10G SFP+ fiber port

- Support non-blocking wire-speed forwarding.
- Support full-duplex based on IEEE 802.3x and half-duplex based on Backpressure.
- Support Gigabit RJ45 port and 1/10G uplink SFP+ fiber port combination, which enables users to flexibly build networking to meet the needs of various scenarios.

SmartPoEpowersupply

- PoEnetwork management, realize PoE port power allocation, port power status viewing, time scheduling, etc.
- Comply with IEEE802.3af/at PoE standard, automatically identify PoE devices for power supply, and not damage non-PoE devices.
- ThePoEport supports the priority mechanism. When the remaining power is insufficient, the power of the high-priority port is given priority to avoid overloading of the device.

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- 8*10/100/1000Base-T RJ45 ports support PoE power, meeting the PoE power requirements of security monitoring, industrial automation systems, wireless coverage and other scenarios.

Strongbusiness processing capability

- 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.
- SupportACLto 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 Snoopingmeets multi-terminal high-definition video surveillance and video conference access requirements.

Security

- Support port+MAC binding, IP+MAC+port binding functions.
- Support port isolation and port broadcast storm suppression.
- 802.1X authentication provides authentication functions for LAN computers and controls the authorization status of controlled ports according to the authentication results..

Stable and reliable

- CCC,CE,FCC, RoHS.
- Theuser-friendly panel can show the device status through the LED indicator of PWR, SYS, Link, L/A, and PoE.
- Lowpowerconsumption, aluminum alloy housing, and excellent heat dissipation to ensure the stable operation of the switch..

EasyO&Mmanagement

- HTTPS,SSLV3,SSHV1/V2,and other encryption methods are more secure in management.
- RMON,system log,and port traffics tatistics are convenient for network optimization and transformation.
- LLDP is convenient for the network management system to query and judge the communication status of the link.
- Support diverse management and maintenance methods such as Web network management, CLI commandline(Console,Telnet),SNMP(V1/V2/V3) ,Telnet,etc.

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TECHNICAL SPECIFICATION

Model	TN3M12P10GUPSW-L3
Interface Characteristics	
Fixed Port	1*Console port (115200, N, 8,1) Power failure alarm switch port (FAULT) 4*1/10G uplink SFP+ fiber ports (Data) 8*10/100/1000Base-T PoE ports (Data/ Power) 2*DC48-57V input ports (support reverse connection protection)
Ethernet Port	Port 1-8 can support 10/100/1000Base-T(X) 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/6 or later UTP (≤100 meters)
Optical Fiber Port	Default no include optical module (optional single-mode/ multi-mode, single fiber/ dual fiber optical module. LC)
Optical Fiber Port Expansion	Turbo overclocking 2.5G optical module expansion and ring network
Optical Cable/ Distance	Multi-mode: 850nm/ 0-550m(1G), 850nm/ 0-300m (10G), Single-mode:
	1310nm/ 0-40km, 1550nm/ 0-120km
Chip Parameter	
Network Management Type	L3
Network Protocol	IEEE 802.3 10BASE-T, IEEE 802.3i 10Base-T, IEEE 802.3u 100Base-TX, IEEE 802.3ab 1000Base-T, IEEE 802.3z 1000Base-X, IEEE 802.3ae 10GBase-SR/LR, IEEE 802.3x

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Forwarding Mode	Store and forward (Full sire speed)
Switching Capacity	128Gbps (non-blocking)
Forwarding Rate@64byte	71.42Mpps
CPU(Hz)	800M
DRAM	1G
FLASH	128M
MAC	16K
Buffer Memory	12M
Jumbo Frame	12K
LED Indicator	System: SYS (Green), Network: Link (Yellow), PoE: PoE (Green), Fiber port: L/A (Green)
Reset Switch	Yes, press and hold the switch for 10 seconds and release it to restore the factory settings
PoE& Power Supply	
PoE Port	Port 1-8
PoE Management	Port PoE real-time load power display, Port PoE output on/off, PoE work and time scheduling
Power Supply Pin	1/2(+) 3/6 (-)
Max Power Per Port	30W, IEEE802.3af/at
Power Consumption	Standby<13W, full load af<120W, at<240W
Input Voltage/ Interface	DC48-57V, 6P industrial Phoenix terminal, support anti-reverse protection.
Power Supply	No, optional 48V/120W or 48V/240W industrial power supply
Physical Parameter	
Operation Temp/ Humidity	-40~75°C, 5%~90% RH non condensing
Storage Temp/ Humidity	-40~80°C, 5%~95% RH non condensing

Dimension (L*W*H)	166*150*75mm
Net /Gross Weight	1.8kg/ 2.1kg
Installation	Desktop, 35mm DIN Rail
Certification& Warranty	
Lightning Protection	IEC61000-4-3 (RS):10V/m (80-1000MHz) FCC Part 15/CISPR22 (EN55022): Class A IEC61000-6-2 (Common Industrial Standard) IEC61000-4-9 (Pulsed magnet field): 1000A/m IEC61000-4-10 (Damped oscillation): 30A/m 1MHz IEC61000-4-12/18 (Shockwave): CM2.5kV, DM1kV Protection level: IP40, Lightning protection: 6KV 8/20us IEC61000-4-4(EFT): Power cable: ±4kV, data cable: ±2kV IEC61000-4-16 (Common-mode transmission): 30V, 300V, 1s IEC61000-4-2 (ESD): ±8kV contact discharge, ±15kV air discharge IEC61000-4-6 (Radio frequency transmission): 10V(150kHz~80MHz) IEC61000-4-8 (Power frequency magnetic field): 100A/m, 1000A/m, 1s-3s IEC61000-4-5 (Surge): Power cable: CM±4kV/ DM±2kV, data cable: ±4kV
Mechanical Properties	IEC60068-2-6 (Anti Vibration), IEC60068-2-27 (Anti Shock), IEC60068-2-32 (Free Fall)
Certification	CE mark, commercial, CE/LVD EN62368-1, FCC Part 15 Class A, RoHS
Warranty	3 years, lifelong maintenance.

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