

TNS4208-8P-DC

EN50155 Layer 3 Managed 2.5G Industrial PoE Switch



Product Description:

The TNS4208-8P-DC is a rugged, high-performance industrial PoE switch designed for mission-critical applications in railway, rolling stock, and harsh industrial environments. Featuring 8 × 100/1000/2500Mbps M12 (X-code) copper ports, it ensures ultra-reliable, high-speed connectivity for train/trackside networks, onboard vehicle systems, and mining operations. With an extended operating temperature range of -40°C to +75°C, it delivers unmatched flexibility in extreme conditions.

Key Features & Benefits

1. Industrial-Grade Reliability

- EN50155 certified for railway applications
- M12 X-coded connectors (vibration-resistant)
- -40°C to +75°C operating temperature range
- DC power input for industrial environments

2. High-Power PoE+ Connectivity

- 8× 2.5Gbps PoE+ ports (30W per port)
- Powers IP cameras, wireless APs, sensors, and other PDs
- Total PoE budget: [XX]W (optional spec)

3. Advanced Network Management

- **Layer 3 Features:** VLAN, QoS, IGMP snooping, LLDP
- **Redundancy Protocols:** STP/RSTP/MSTP, ERPS (<200ms failover)
- **Security:** Port security, ACL, DHCP snooping
- **Monitoring:** Port mirroring, statistics, diagnostics

4. Multiple Management Options

- Web GUI (user-friendly interface)
- CLI, Telnet, SSH (secure access)
- SNMP v1/v2c/v3
- Rapid configuration and firmware upgrades

Product Specifications

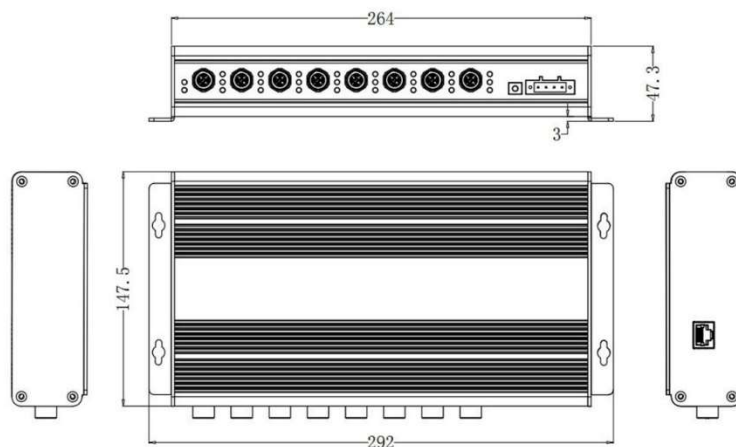
Attributes	
Networking Interfaces	8 x 100/1000/2500Base-TX with X-coded M12 connectors 1 x RJ45 Console port
LED Indicators	Power, Link/Act, Speed, PoE
Performance	
Switching Capacity	40 Gbps
Forwarding Capacity	29.76 Mpps

Forwarding Mode	Store and Forward
Packet Buffer Memory	12 Mbit
RAM for CPU	1 Gbit
Flash Memory	256 Mbit
MAC Address Table	16K
Max. Jumbo Frame size	16K
ACL Table	512
VLAN Quantity	4K
VLAN Interface	32
Routing Host	512
Routing Entries	64
Port Queues	8
Physical	
Dimensions	292*147.5*50mm
Weight	3KG
Operating Temperature	-40 to 75℃
Storage Temperature	-40 to 75℃
Operating Humidity	5 to 95% Noncondensing
Power Method	44-57VDC
Max. Power Consumption	Including PoE Output: 240W Excluding PoE Output: 15W
EMC Safety	FCC, CE, RoHS
Reliability	5 Years Warranty
Power over Ethernet	
PoE Interfaces	All 8 100/1000/2500Base-TX PoE ports
PoE Standard	IEEE802.3af, IEEE802.3at
Max. PoE Wattage per Port	30W
PoE Voltage	52VDC (Depend on Power Adapter)
PoE Pin Assignment	V- (M12 Pin1,2), V+ (M12 Pin 3,4)
Port Configuration	
Enable and Disable	Support control enable and disable
Auto-Negotiation	Support force port mode and speed
Flow Control	Support IEEE802.3x full-duplex Support half-duplex backpressure
Storm Control	Support broadcast, multicast and DLF package rate limit
Port Mirroring	Support many to one mirroring
Rate Limit	Support Port input and output rate limit
Link Aggregation	Support manual Link Aggregation Support LACP Up to 8 maximum aggregation groups, each containing up to 8 ports
Aggregation Strategy	Source src-dst-mac Source src-dst-mac-ip
Port Protection	Each port can be configured into isolated protected port from each other
MAC Configuration	
MAC Address Table Management	Support
MAC Quantity Limitation	Support limit the number of MAC-addresses Learning per port
VLAN Configuration	
VLAN Based on 802.1Q	Support

MAC-Based VLAN	Support
Surveillance VLAN	Support
Protocol-Based VLAN	Support
Guest VLAN	Support
Voice VLAN	Support
Reliability Protocol	
Spanning Tree	Support STP/RSTP/MSTP
Port Loop Detection	Support
LLDP Protocol	Support LLDP and LLDP-MED
UDLD Protocol	Totally compatible with UDLD protocol of CISCO
L3 Routing	
Static Routing	Support
Multicast	
Static Multicast MAC Address	Support
IGMP SNOOPING	Support
IGMP Querier	Support
IGMP Filter	Support
MVR	Support
GMRP	Support
Access Control List (ACL)	
Based on Standard IP	Support
Based on Extend IP	Support
Based on MAC IP	Support
Based on MAC ARP	Support
Quality of Service (QOS)	
Scheduling Mode	Support WRR, SP, WFQ
Sorting Based on Port	Support
Sorting Based on 802.1p	Support
Sorting Based on DSCP	Support
DHCP	
DHCP Client	Support
DHCP Snooping	Support
Security	
Administrative Security	Support start and end TELNET, WEB and SNMP serve Support TELNET, WEB and SNMP serve binding with Standard IP ACL Support control the number of user for TELNET
CPU Protect	Switch self-security protect, forbid flow attack
IP-MAC Address Binding	Support binding between static configuration IP, MAC and Port
AAA	Support 802.1x protocol Support RADIUS protocol Support RADIUS server authentication authorization and bill Support MAC-based 802.1X authentication. Support 802.1x guest VLAN
DHCP SNOOPING	Support dynamic ARP binding to prevent ARP spoofing Support dynamic IP, MAC port binding Support stationary port connect to DHCP server, to prevent privately connect to DHCP sever
Prevent ARP Spoofing	Support manual configure ACL rule based on MAC ARP prevent ARP spoofing Support DHCP SNOOPING function, switch dynamically binding ARP and port, when the DHCP get IP address , to prevent ARP spoofing

Management Feature	
CLI Management	Support serial port management Support TELNET management Support SSH management
WEB Management	Support HTTP/HTTPS
SNMP Management	Support SNMP protocol Support SNMP TRAP Support standard and private MIB
User management	Support multi-user management
Show CPU Utilization	Support
Show RAM Utilization	Support
Log Management	Support
Configuration Download / Upload	Support
Upgrade Firmware	Support
Timer Management	Support local timer management Support SNTP protocol get clock
Debugging Tools	
PING	Support
TRACEROUTE	Support
TELNET Client	Support
Cable-Diag	Support
SFP DDM	Support
Package List	
Switch	1pcs
User Manual	1pcs
Power Cord	1pcs
DB9 to RJ45 Cable	1pcs
Rack Mount Kit	2pcs
Rubber Feet	4pcs

Dimemnsions:



Order Information:

Switch Models	
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