

TRIAX TNS



Network Switches

Seamless Connectivity for Commercial and Residential Installations

TNS008, 8-Port Gigabit Ethernet Switch

Article No.: 308001



The TRIAX TNS008 is a compact and efficient Gigabit Ethernet switch designed to deliver reliable wired network connectivity in residential and small office environments. With eight auto-negotiating Gigabit Ethernet ports, it enables fast and stable data transmission without bottlenecks, making it well suited for internet access, HD streaming, IP services and file sharing.

Thanks to its plug-and-play operation and space-saving design, the TNS008 integrates seamlessly into existing network installations. It offers a straightforward and dependable solution for expanding wired network connections while maintaining consistent performance and ease of installation.

- Eight Gigabit Ethernet ports (10/100/1000 Mbps) for high-speed and flexible network connectivity
- Automatic MAC address learning and updating to ensure efficient data forwarding
- Auto MDI/MDIX support, allowing the use of standard Ethernet cables without crossover requirements
- Gigabit performance for smooth data transfer and improved network responsiveness
- Compact plastic housing, suitable for desktop placement or wall mounting

Model	TNS008
Art No.	308001
EAN	5061038089097
Ethernet Ports	8*10/100/1000Mbps RJ45 Ports
Network Protocol	IEEE802.3 10BASE-T ; IEEE802.3i 10Base-T IEEE802.3u 100Base-TX ; IEEE802.3ab 1000Base-T IEEE802.3x.
Twisted Pair Transmission	10BASE-T: Cat5 UTP (≤100 meter) 100BASE-TX: Cat5 or higher UTP (≤100 meter) 1000BASE-T: Cat5 or higher UTP (≤100 meter)
Switching Capacity	16Gbps
Forwarding Rate	11.9Mpps
MAC Address Table	2K
Buffer Memory	3M
Power Consumption	Standby: <0.7W / Full load: <4W
Power Supply Input/Output	100-240VAC / 50-60Hz to DC 12V/1A Power adapter Power indicator: PWR (Green)
LED Indicators	Network indicator: 1-8 (Link/Act)/ (Green)
Dimensions / Net weight	128 x 60 x 24mm / 0.2 Kg
Installation Method	Desktop
Temperature/Humidity	
Operation	-20~55°C; 10%~90% RH non-condensing
Storage	-40~+70°C; 10%~90% RH non-condensing
Protection	IEC61000-4-2(ESD): ±8kV contact discharge, ±15kV air discharge IEC61000-4-5(Lightning protection/ Surge): Power: CM±4kV/DM±2kV; Port: ±4kV

TNS042/082/162/242 Gigabit Ethernet Switches

Article NO.: 308002/3/4/5



The TRIAX TNS switch range consists of high-performance Gigabit PoE network switches designed for both professional and residential installations.

Available with 4, 8, 16 or 24 Gigabit PoE ports, the range delivers power and high-speed data over a single Ethernet cable, making it ideal for powering compatible devices such as IP cameras, wireless access points and other PoE-enabled equipment.

Integrated uplink ports allow for flexible and scalable network expansion, while the plug-and-play design ensures fast and straightforward installation with no configuration required.

Featuring a non-blocking Gigabit architecture, robust metal housing, and flexible installation options, TRIAX TNS switches provide a reliable and efficient solution for high-density PoE network infrastructures.

- Flexible range – 4 models available with 4, 8, 16 or 24 PoE ports, plus 2 or 4 dedicated uplink ports
- True Plug & Play for fast, hassle-free installation
- Single-cable PoE – delivers power and data over one Ethernet cable
- Extended transmission up to 300 m for long-distance deployments
- Built-in VLAN & AI Watchdog for improved security and network stability
- Robust metal housing for reliable performance and long service life



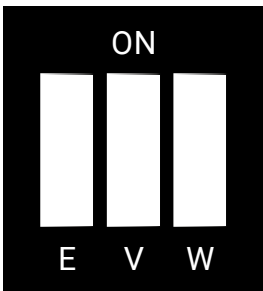
Model	TNS042	TNS082	TNS162	TNS242
Art No.	308002	308003	308004	308005
PoE Ports	4	8	16	24
Uplink Ports	2 x RJ45	2 x RJ45	2 x RJ45 2 x SFP Fibre	2 x RJ45 2 x SFP Fibre
Power Supply	65W	120W	300W	300W

Unique Features:

- **300 m Long-Range Transmission (AI Extend Mode):** Designed for long-distance deployments, the AI Extend function allows a single port to transmit data up to 300 meters, with automatic speed adjustment (up to 10 Mbps). All other ports continue to operate at 1000 Mbps over distances up to 100 meters, ensuring optimal overall performance.
- **VLAN Support for Network Isolation:** Built-in VLAN functionality enables logical network segmentation between departments, effectively isolating broadcast domains. This prevents issues such as virus spread from infected devices, enhances network stability, and significantly improves security and management efficiency.
- **AI Watchdog for Automatic Recovery:** The AI Watchdog continuously monitors device operating status. In the event of a port malfunction, it automatically attempts connection recovery and restarts abnormal ports or devices, reducing maintenance effort, improving system reliability, and minimising the need for manual intervention.
- **Intelligent Port Priority Power Management:** When power resources are limited, the system intelligently allocates power based on port priority, ensuring uninterrupted power delivery to critical equipment while maintaining overall network stability.

The above features are selected via a DIP switch located on the front of the device.

DIP Switch



Switch Position	Function	Description when set to ON
E - Extend	PoE + Extend 300m	Single-port long-range mode enables up to 300m transmission with automatic speed adjustment (max. 10 Mbps), while PoE ports maintain 100/1000 Mbps performance within 100m
V - Vlan	VLAN	PoE port isolation and VLAN mode enabled
W - Watchdog	Watchdog	PoE network self-healing mode enabled (PoE Watchdog)

Ports Priority / Power Management function

Power Priority Mode	Port Priority by default	Smart PoE port cutoff when the PoE budget is exceeded
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Global specifications:



Model	TNS042	TNS082	TNS162	TNS242
Art No.	308002	308003	308004	308005
EAN	5061038089103	5061038089110	5061038089127	5061038089134
PoE Ports	4*10/100/1000Mbps	8*10/100/1000Mbps	16*10/100/1000Mbps	24*10/100/1000Mbps
Uplink Ports	2*10/100/1000Mbps RJ45	2*10/100/1000Mbps RJ45	2*10/100/1000Mbps RJ45 2*100/1000Mbps SFP Fibre	2*10/100/1000Mbps RJ45 2*100/1000Mbps SFP Fibre
Switching Capacity	12Gbps	20Gbps	40Gbps	56Gbps
Forwarding Rate	8.9Mpps	14.88Mpps	29.76Mpps	41.67Mpps
MAC Address Table	2K	4K	8K	8K
Buffer Memory	768K	4M	4M	4M
Power Supply	65W (100-240VAC, 50-60Hz)	120W (100-240VAC, 50-60Hz)	300W (100-240VAC, 50-60Hz)	300W (100-240VAC, 50-60Hz)
Power Consumption	Standby: <2W Full load: <65W	Standby: <2W Full load: <120W	Standby: <5W Full load: <300W	Standby: <5W Full load: <300W
LED Indicators	Power: PWR (Green) Network: 1-4 (Link/Act)/(Green) 5-6 (Link/Act)/(Green)	Power: PWR (Green) Network: 1-8 (Link/Act)/(Green) 9-10 (Link/Act)/(Green)	Power: PWR (Green) Network: 1-16 (Link/Act)/(Green) 17-20 (Link/Act)/(Green)	Power: PWR (Green) Network: 1-24 (Link/Act)/(Green) 25-28 (Link/Act)/(Green)
Dimensions	195 x 130 x 40mm	195 x 130 x 40mm	290 x 181 x 44mm	330 x 215 x 44mm
Net Weight	<0.8kg	<0.8kg	<1.6kg	<2.5kg

Technical specifications:

Model	TNS042	TNS082	TNS162	TNS242
Art No.	308002	308003	308004	308005
PoE Standard	Ports 1-4 support: @IEEE802.3af/at Port 4 support: @IEEE 802.3af/at/bt (Max. 60W/port)	Ports 1-8 support: @IEEE802.3af/at Ports 7-8 support: @IEEE 802.3af/at/bt (Max. 60W/ port)	All PoE Ports support @IEEE802.3af/at (Max 30W/port).	
Network Protocol	IEEE802.3 10BASE-T IEEE802.3i 10Base-T IEEE802.3x IEEE802.3u 100Base-TX IEEE802.3ab 1000Base-T		IEEE802.3 10BASE-T IEEE802.3i 10Base-T IEEE802.3x IEEE802.3u 100Base-T IEEE802.3ab 1000Base-T IEEE802.3z 1000base-X IEEE802.3u 100Base-FX	
EVD Function	With the Dial code switch, support port priority by default. E-1: AI Extend 300 meters transmission and auto speed change of single port (limit 10Mbps), other ports maintain 1000Mbps within 100 meters V-2: When On each Port support port Isolation & VLAN D-3: When On, each Port support AI-PoE Network self-healing mode (PoE Watchdog function)			

Ethernet Ports feature	10/100/1000Base-T(X) automatic detection, full/half Duplex MDI/MDI-X adaptive		
Fibre Ports feature	Gigabit SFP Ports (Fibre module is not included), to be ordered separately module options include single/multi-mode, single/dual fibre, LC		
Forwarding Mode	Store and forward		
Twisted Pair Transmission	10BASE-T: Cat5 UTP (≤300 meter) 100BASE-TX: Cat5 or later UTP (≤100 meter) 1000BASE-T: Cat5 or later UTP (≤100 meter)		
Power Supply Pin	Default 1/2(+), 3/6(-)		
Power Supply	Built-in power supply AC100~240V 50-60Hz/65W	Built-in power supply AC100~240V 50-60Hz/120W	Built-in power supply AC100~240V 50-60Hz/300W
Temperature & Humidity Storage	-20~+55°C; 5%~90% RH non-condensing		
Operating	-40~+75°C; 5%~95% RH non-condensing		
Installation Method	Desktop, wall mount. TNS162 and TNS242 support 1U Rack Mount		
Protection	IEC61000-4-2 (ESD): ±8kV contact discharge, ±15kV air discharge IEC61000-4-5 (Lightning protection/Surge): Power: CM±4kV/DM±2kV; Port: ±4kV		
Protection Level	IP30		

TLC005, TLC010 Fibre Patch Cords

Articles No.: 308030, 308031

The TRIAX TLC005 and TLC010 are high-performance optical fibre jumpers, specially designed for security monitoring systems, intelligent fibre community network construction, and various fibre communication networks.

They are suitable for stable transmission requirements in various harsh environments. Equipped with LC-LC interface to ensure telecommunication-level connection accuracy and reliability, they are compatible with mainstream optical fibre equipment, are easy to plug and unplug, and have low signal losses.

- LC-LC High-Precision Connectivity
- Low Insertion Loss & Stable Transmission
- Reinforced with High-Strength Aramid Yarn
- Designed for Harsh Environments
- Wide Application Range
- Available in 2 lengths: 0.5m and 1m



Model	TLC005	TLC010
Art No.	308030	308031
EAN	5061038089165	5061038089172
Item type	Single mode dual-core patch cord	
Number of fibres	1	2
Fibre connector	LC	
Length	0.5m	1.0m
Outer diameter	2mm	
Insertion Loss	≤0.3dB	
Return Loss	≥50dB	
Operating temperature	-20...+85°C	

TSFP1GB 1Gb/s SFP Optical Transceiver

Article No.: 308020

The TRIAX TSFP1GB is a reliable 1 Gigabit SFP optical transceiver designed for high-performance data transmission over single-mode fibre. Housed in a compact SFP package with an LC connector, it is ideally suited for network infrastructure applications requiring stable operation, low power consumption, and long transmission distances.

Operating at a wavelength of 1310nm, the module uses an FP laser paired with a PIN photodiode, ensuring robust signal integrity over distances of up to 20km. Its low power dissipation of less than 1W contributes to energy-efficient system design while maintaining excellent thermal performance, making it suitable for professional and commercial installations.



- SFP package with LC connector
- 1310nm FP laser and PIN photodetector
- Up to 20 km transmission over single-mode fibre
- Power dissipation < 1W
- LVPECL-compatible data input/output interface
- Low EMI and excellent ESD protection
- Compliant with IEC-60825 laser safety standard

	Minimum	Typical	Maximum	Units
Supply Voltage	0	-	+3.6	V
Operating Relative Humidity	5	-	95	%
Operation Environment				
Supply Voltage	3.15	3.3	3.45	V
Operating temperature	0	-	70	°C
Power Dissipation	-	-	1	W
Data Rate	-	1.25	-	Gbps
Optical Characteristics - Transmitter Section				
Centre Wavelength	1260	1310	1360	nm
Receiver Sensitivity	-	-	4	nm
Receiver Overload	-9	-	-3	dBm
Optical Characteristics - Receiver Section				
Centre Wavelength	1260	-	1620	nm
Receiver Sensitivity	-	-	-22	dBm
Receiver Overload	-3	-	-	dBm
Return Loss	12	-	-	dB
Electrical Characteristics - Transmitter Section				
Input Differential Impedance	90	100	110	Ohm
Electrical Characteristics - Receiver Section				
Output differential Impedance	-	100	-	Ohm

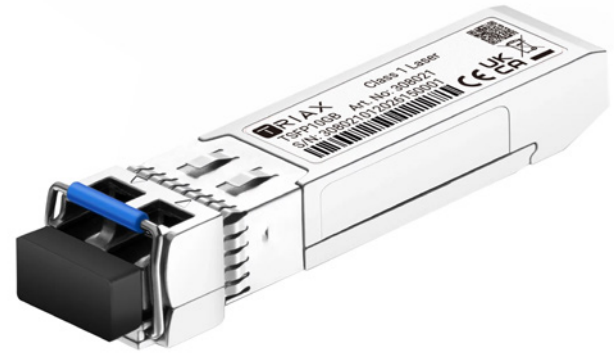
TSFP10GB 10Gb/s SFP+ Optical Transceiver

Article No.: 308021

The TRIAX TSFP10GB is a high-performance 10 Gigabit SFP+ optical transceiver designed for demanding data communication applications over single-mode fibre. Packaged in a compact SFP+ form factor with an LC connector, it is ideal for modern network infrastructures requiring high bandwidth, reliability, and low power consumption.

Operating at a wavelength of 1310 nm, the module incorporates a DFB laser together with a PIN photodetector, ensuring stable and high-quality signal transmission over distances of up to 10km on single-mode fibre. Its optimised design keeps power dissipation below 1W, supporting efficient thermal management in dense networking environments.

The TSFP10GB features ensure safe deployment in professional and commercial installations.



- SFP+ package with LC connector
- 1310nm DFB Laser and PIN photo detector
- Up to 10km transmission on Single Mode Fibre
- Power dissipation < 1W
- LVPECL compatible data input/output interface
- Low EMI and excellent ESD protection
- Laser safety standard IEC-60825 compliant

	Minimum	Typical	Maximum	Units
Supply Voltage	0	-	+3.6	V
Operating Relative Humidity	0	-	85	%
Operation Environment				
Supply Voltage	3.15	-	3.45	V
Operating temperature	0	-	70	°C
Power Dissipation	-	-	1	W
Data Rate	-	10.3125	-	Mbps
Optical Characteristics - Transmitter Section				
Centre Wavelength	1290	1310	1330	nm
Average Output Power	-5	-	+0.5	dBm
Relative Intensity Noise	-	-	-128	dB/Hz
Optical Characteristics - Receiver Section				
Centre Wavelength	-	1310	-	nm
Receiver Sensitivity	-	-	-14	dBm
Receiver Overload	+0.5	-	-	dBm
Return Loss	12	-	-	dB
Electrical Characteristics - Transmitter Section				
Input Differential Impedance	90	100	110	Ohm
Electrical Characteristics - Receiver Section				
Output differential Impedance	-	100	-	Ohm