

## TNS042/082/162/242 Gigabit Ethernet Switches

Articles 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.

### Features:

- **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

### Available models:

Model	TNS042	TNS082	TNS162	TNS242
Art. Number	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
Dimensions	195 x 130 x 40mm	195 x 145 x 44mm	290 x 181 x 44mm	330 x 215 x 44mm
Net Weight	<0.8kg	<0.8kg	<1.6kg	<2.5kg

**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

**Global specifications:**

Model	TNS042	TNS082	TNS162	TNS242
Art. Number	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. Number	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	Built-in power supply AC100~240V 50-60Hz/300W
Temperature & Humidity Storage Operating	-20~+55°C; 5%~90% RH non-condensing -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			

**Mechanical specifications:**

