524TX-A Industrial Ethernet Switch

N-Tron Networking Series



Unmanaged Industrial Ethernet Switch

PRODUCT FEATURES

- Full IEEE 802.3 and 1613 Compliance
- NEMA TS1/TS2 Compliance
- · American Bureau of Shipping (ABS) Type Approval
- Twenty-four (24) 10/100 BaseTX RJ-45 Ports
- -40° to 85°C Operating Temperature
- Auto Sensing 10/100BaseTX, Duplex, and MDIX
- · Store-and-Forward Technology
- · Up to 2.6 Gb/s Maximum Throughput
- · Rugged Industrial 19" Rackmount* Enclosure
- Redundant Power Inputs (10-30 VDC)
- Bi-Color LEDs For Link, Speed, Activity & Duplex Status

Advanced Management Functions (With -A option only):

- IGMP Snooping
- VLAN
- QoS
- Trunking
- Mirroring
- N-View[™] (Remote Monitoring Using OPC Technology)

PRODUCT OVERVIEW

The N-TRON[®] 524TX Series Industrial Ethernet Switch offers outstanding performance and ease of use. It is ideally suited for connecting Ethernet-enabled industrial and/or security equipment and can be optionally configured with advanced Ethernet communication management functions.

Industrial Packaging and Specifications

The 524TX, designed to operate in industrial environments, is housed in a rugged rackmounted steel enclosure. The switch comes standard with extended temperature rating, extended shock and vibration specs, redundant power inputs, and a high MTBF (greater than 1M hours).

Ease of Use

The 524TX requires no setup unless the advanced port functions are utilized. The twenty-four 10/100BaseTX ports are auto sensing and auto configuring. Each port automatically negotiates for maximum speed and performance by default. Bi-color LEDs are provided to display the link status, link speed and activity of each port as well as power on/off status.

Performance

The 524TX supports up to 4,000 MAC addresses and uses advanced IEEE 802.3 Fast Ethernet 10/100BaseTX switching technology to eliminate network collisions and increase network determinism. A high-speed processor and backplane provide outstanding throughput performance.



ADVANCED MANAGEMENT FEATURES

The 524TX-A offers several management functions that can be easily configured using the COM Port (DB 9 connector located on the right side of the switch).

IGMP Snooping: Internet Group Management Protocol allows the N-Tron switch to intelligently forward and filter multicast traffic.

VLAN: Virtual Local Area Network allows switch segmentation in order to create two or more separate local area network domains.

QoS: Quality of Service streamlines network operation by managing packet priority. The primary goal of QoS is to improve the latency of prioritized Ethernet packets required for ring management, real-time and other interactive applications.

Trunking: Trunking (aggregation) enables multiple physical ports to be linked together and function as one uplink to another identically configured trunking-capable switch. This feature increases the bandwidth between switches and creates redundancy for applications requiring high levels of fault tolerant operation.

Port Mirroring: Port mirroring allows traffic on one port to be duplicated and sent to a designated mirror port. This function can be used to monitor Ethernet traffic on the designated source port using the assigned mirror port.

N-View OPC Switch Monitoring: (With -A or -N Option Only) N-View OPC server software can be used with popular HMI software packages to transmit operational information from N-View-capable switches. This technology enables network traffic monitoring, as well as alarm and trending details. In all, the N-View OPC Server collects 41 different traffic variables per port and five system level variables per switch, providing a complete overview of network load, service quality, and packet traffic. Empowered with N-View OPC Server data, users can resolve network problems faster and make more informed decisions about overall system performance.



>>> 524TX-A Specifications

Specifications

Switch Properties Number of MAC Addresses: Aging Time: Latency Typical: Switching Method:

Case Dimensions

Height - 1U: Width: Depth: Weight: 300s, Programmable (-A option) 2.1 µs Store & Forward

1.75" (4.5 cm) 19" (48.3 cm) 4.3" (11 cm) 3.7 lbs

4,000

Electrical Redundant Input Voltage: Input Current: Inrush: N-Tron Power Supply:

10-30 VDC 720 mA @ 24 VDC 9.5 amp/0.75 ms @ 24 VDC NTPS-24-3 (3 amps @ 24 VDC)

Environmental

Operating Temperature: Operating Humidity: Operating Altitude: -40°C to 85°C 10% to 95% (Non Condensing) 0 to 10,000 ft.

50 g, 5-200 Hz, Triaxial

Shock and Vibration (bulkhead mounted) Shock: 200 g @ 10 ms

Vibration/Seismic:

Reliability

MTBF:

Serial Configuration Port Com Parameters:

Network Media 10BaseT:

100BaseTX:

≥Cat3 Cable ≥Cat5 Cable

9600,n,8,1

>1 Million Hours

Connectors

10/100BaseTX:

Twenty-four (24) RJ-45 Copper Ports

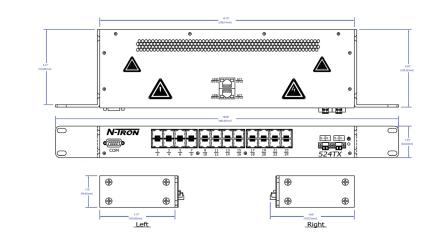
Recommended Wiring Clearance

Front: Side: 4" (10.2 cm) 1" (2.6 cm)

Regulatory Approvals

FCC/CE (CFR 47, Part 15, Subpart B, Class A); ICES-003 EMC Dir 89/336/EEC, EN 50204, EN 55011 EN61000-4-2, 3, 4, 5, 6, 8,11, EN61000-6-2, 4 ANSI C63.4 UL /cUL: Class I, Div 2, Groups A, B, C, D and T4 UL 508 and UL 1604 CAN/CSA-C22.2 No.213, ATEX II 3 G Ex nA IEEE 1613 for Electric Utility Substations ABS Type Approval for Shipboard Applications GOST-R Certifi ed, RoHS Compliant

Designed to comply with: NEMA TS1/TS2 for Traffic Control



ORDERING INFORMATION

PART NUMBER	DESCRIPTION
524TX-A	24-port 10/100BaseTX, Industrial Ethernet Rackmount* Switch with Advanced Management Features (includes N-View)
524TX-N	24-port 10/100BaseTX, Industrial Ethernet Rackmount* Switch with N-View OPC switch monitoring
524TX	24-port 10/100BaseTX, Industrial Ethernet Rackmount* Switch
NTPS-24-3	N-Tron Power Supply (3 amp @ 24 VDC)

* Switch can also be panel mounted



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As the global experts in communication, monitoring and control for industrial automation and networking, Red Lion has been delivering innovative solutions for over forty years. Our award-winning technology enables companies worldwide to gain real-time data visibility that drives productivity. Product brands include Red Lion, N-Tron and Sixnet. With headquarters in York, Pennsylvania, the company has offices across the Americas, Asia-Pacific and Europe. For more information, please visit www.redlion.net. Red Lion is a Spectris company.