

### 7026TX 7026TX-AC

# 7026TX 7000 SERIES Fully-Managed Switches



#### PRODUCT FEATURES

- Twenty-four (24) 10/100BaseTX RJ-45 ports
- Two (2) gigabit full duplex SFP ports supports optional:
  - · 1000BaseSX/LX Fiber tranceiver with LC style connectors
  - · 1000BaseT Copper transceiver with RJ-45 connectors
- -40°C to 80°C operating temperature (includes onboard sensor)
- · Auto-sensing 10/100BaseTX, duplex, and MDIX on copper ports
- Up to 8.8 Gb/s maximum throughput
- · ESD and surge protection diodes on all ports
- · Hardened rackmount enclosure
- · Fault relay support
- · Configurable bi-color (red/green) fault status LED
- 7026TX: 18-49 VDC redundant inputs
- 7026TX-AC: 90-264 VAC/90-300 VDC (regulated) input

#### **FULLY MANAGED FEATURES**

- · SNMP v1, v2, v3 and web browser management
- EtherNet/IP™ CIP messaging
- Configuration backup via optional SD card (part number NTCD-128)
- · Detailed ring map and fault location charting
- N-Ring<sup>™</sup> technology with ~30ms healing
- · Redundant ring coupling
- N-View<sup>™</sup> OPC monitoring
- RSTP 802.1d, 802.1w, 802.1D
- · IGMP auto-configuration
- · 802.1Q Tagged VLAN and port VLAN
- 802.1p QoS, port QoS and DSCP
- LLDP (Link Layer Discovery Protocol)
- DHCP Server, Option 82 Relay, Option 61, IP Fallback
- · Port mirroring and trunking
- · Local port IP addressing
- · Port security-MAC address-based

#### **BUILT FOR EXTREME CONDITIONS**

The N-Tron® 7026TX and 7026TX-AC fully managed Industrial Ethernet Switches deliver expanded port offerings, including gigabit capability, in a standard 1U rackmount form factor. Loaded with a powerful combination of twenty-four (24) 10/100BaseTX copper ports and two (2) gigabit full duplex SFP ports, the 7026TX series is designed for high-traffic industrial environments including process control, Ethernet I/O, data acquisition and other mission-critical applications. Select the model based on your input power source—the 7026TX uses DC power; the 7026TX-AC accepts high-voltage AC or DC power.

#### ADVANCED RING TECHNOLOGY

Advanced N-Ring technology provides expanded capacity, detailed fault diagnostics, and fast ~30ms healing times in rings composed of N-Tron fully managed switches. The integrity of the N-Ring is continually monitored for error conditions. If a fault is detected, the ring converts to a daisy chain topology and restores communications within ~30ms. For convenience, users can easily access a detailed ring map and fault location chart through the ring manager's browser or the OPC server. Each N-Ring accommodates up to 250 fully-managed N-Tron switches. N-Link easily connects multiple N-Rings, creating additional pathways to critical applications and increasing overall network resiliency.

#### MONITORING OPTIONS

N-Tron provides multiple means of network monitoring. A robust browser interface offers convenient interaction with device settings and options, as well as viewing of network traffic, alarms, and trend information. N-View OPC server software dispenses important switch data that can be used by comprehensive monitoring and HMI applications. Finally, a highly-visible user-configurable LED on the front panel clearly indicates switch status.

#### **EASY TO USE**

Both 7026TX models feature 24 auto-sensing and auto-configuring 10/100BaseTX ports. Each copper port automatically negotiates maximum speed and performance. If preferred, these variables can be easily hardcoded through the user interface. A high-speed processor allows full wire speed on all ports simultaneously.

#### **SPECIFICATIONS**

Switch Properties

Number of MAC Addresses: 8000 Aging Time: Configurable

Latency (typical): 2.6 µs

Switching Method: Store-and-Forward

**Case Dimensions** 

Height: 1.8" (4.6 cm) Width: 16.1" (40.9 cm) Depth: 5.4" (13.7 cm)

Weight (maximum): 5.5 lbs (2.5 kg)

19" Rackmount 1U

Electrical

7026TX:

Dual Redundant Power Inputs: 18-49 VDC (regulated)

Input Current (max): 605mA @ 24 VDC

BTU/hr: 49.6 @ 24 VDC

N-TRON Power Supply: NTPS-24-1.3 (1.3A @ 24V)

7026TX-AC:

Input Voltage: 90-264 VAC/90-300 VDC (regulated) Input Current (max): 215mA @ 120 VAC/110mA @124 VDC

BTU/hr: 100 @ 120 VAC/47 @ 124 VDC

Environmental

Operating Temperature: -40°C to 80°C Storage Temperature: -40°C to 85°C

Operating Humidity: 5% to 95% (non condensing)

Operating Altitude: 0 to 10,000 ft.

Reliability

MTBF: >1 million hours

Network Media

10BaseT: ≥Cat3 cable 100BaseTX: ≥Cat5 cable 1000BaseT: ≥Cat5e cable

1000BaseSX Multimode: 50-62.5/125µm 1000BaseLX Singlemode: 7-10/125µm

Connectors

10/100BaseTX: Twenty-four (24) RJ-45 copper ports 1000BaseT: Up to two (2) RJ-45 gigabit copper ports 1000BaseSX: Up to two (2) LC duplex gigabit fiber ports

Recommended Wiring Clearance

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

Back (allows for power input):

7026TX: 1" (2.6 cm) 7026TX-AC: 2" (5.1 cm)

#### SFP Gigabit Fiber Transceiver Characteristics

| Fiber Length       | 550m for 50/125µm<br>275m @ 62.5/125µm* | 10km**     | 40km**     | 80km**     |
|--------------------|---|------------|------------|------------|
| TX Power Min       | -9.5 dBm                                | -9.5 dBm   | -2 dBm     | 0 dBm      |
| RX Sensitivity Max | -17 dBm                                 | -20 dBm    | -22 dBm    | -24 dBm    |
| Wavelength         | 850 nm                                  | 1310 nm    | 1310 nm    | 1550 nm    |
| Assumed Fiber Loss | 3.5 to 3.75 dB/km                       | 0.45 dB/km | 0.35 dB/km | 0.25 dB/km |
| Laser Type         | VCSEL                                   | DFB        | DFB        | DFB        |

\*\* LX Fiber Optic Cable

#### Regulatory Certifications

- · Safety: Class I, Division 2, Groups A, B, C and D, T4
- EMI: ANSI C63.4; FCC CFR Title 47, Part 15, Subpart B Class A; ICES-003 - Class A
- EMC: EN 61000-3-2/3 (Emissions), EN 55022 (Emissions), EN 55024 (Immunity), EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (RF), EN61000-4-8 (PFMF), EN61000-4-11 (VDI)
- GOST-R certified





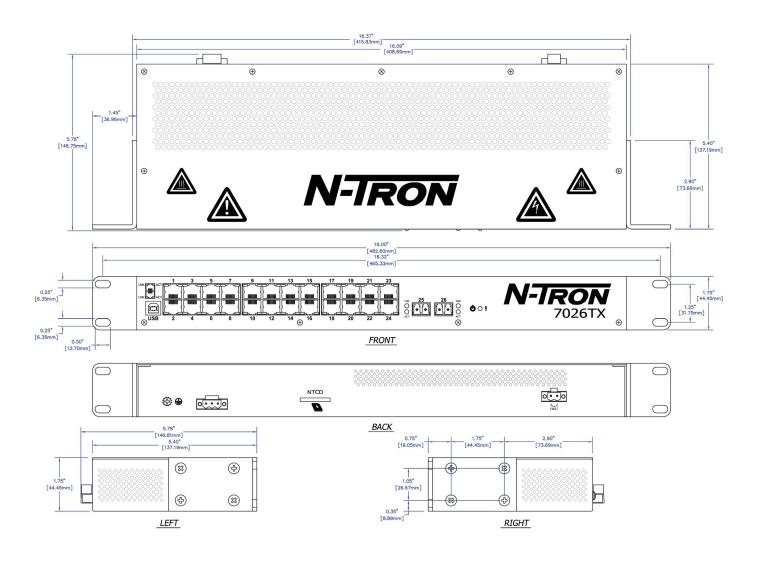


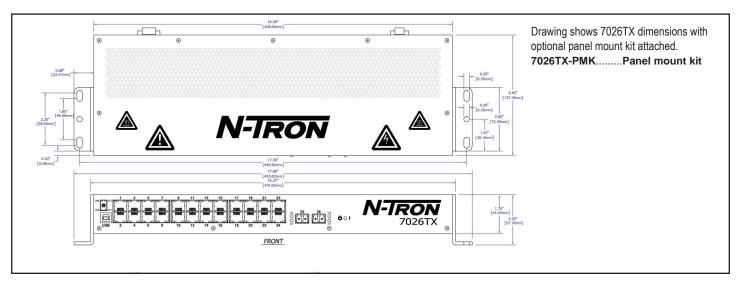




Further information regarding this product's regulatory conformity can be found on the N-Tron website at www.n-tron.com/tech\_docs.php







#### ORDERING INFORMATION

| PART NUMBER                        | DESCRIPTION   |
|------------------------------------|---|
| 7026TX                             | 26-port (24 10/100BaseTX, 2 1000Base SFP mini-GBIC gigabit expansion ports) fully-managed Industrial Ethernet switch, 19" rackmount design, redundant 18-49 VDC power input   |
| 7026TX-AC                          | 26-port (24 10/100BaseTX, 2 1000Base SFP mini-GBIC gigabit expansion ports) fully-managed Industrial Ethernet switch, 19" rackmount design, 90-264 VAC/90-300 VDC power input |
| NTSFP-TX                           | 1000BaseT copper SFP pluggable mini-GBIC transceiver (RJ-45 connector)  |
| NTSFP-SX                           | 1000BaseSX multimode fiber SFP pluggable mini-GBIC transceiver (LC style connector)   |
| NTSFP-LX-ZZ                        | 1000BaseLX singlemode fiber SFP pluggable mini-GBIC transceiver (LC style connector)  |
| NTCD-128                           | Optional configuration card for backup/restore  |
| 7026TX-PMK                         | Panel mount kit   |
| 7026TX Power Supply<br>NTPS-24-1.3 | N-TRON DIN-rail power supply (1.3 amp @ 24 VDC)   |

Where: ZZ = 10, 40, or 80 for GB singlemode (if SFP transceivers are not specified at the time of purchase, ports will remain empty with covers)

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## QUALITY MANAGEMENT SYSTEM CERTIFIED BY DNV

=== ISO 9001:2008 ====