NT24k®-16TX-POE Industrial PoE+ Switch

N-Tron® Networking Series

red lion®

▶▶▶ Industrial Managed Gigabit PoE+ Switch

Red Lion's N-Tron® series NT24k®-16TX-POE industrial managed Gigabit Ethernet switch features 16 10/100/1000Base-T(X) ports and IEEE802.3af/at (PoE+), providing a robust solution for transmitting power and data to equipment in harsh environments.

Housed in a compact, hardened DIN-rail enclosure, the NT24k-16TX-POE managed switch features 16 Gigabit ports, redundant 22-49 VDC power inputs, high shock and vibration tolerance and a wide -40° to 80°C operating temperature range. Rugged, reliable and easy to use, the NT24k-16TX-POE switch offers a 240 Watt PoE budget that can be allocated to any of its 16 ports, up to 30 Watts per port.

APPLICATIONS

> Alternative Energy
> Manufacturing
> Oil & Gas
> Transportation
> Water/Wastewater

PRODUCT HIGHLIGHTS

> IEEE 802.3af/at output up to 30 Watts per port/ 240 Watts per switch
> Smart Plug-and-Play Operation
> 22 to 49 VDC Redundant Power Inputs
> Wide -40° to 80°C Operating Temperature
> Robust Remote Monitoring
> N-Ring™ and N-Link™ Network Ring Technology

IEEE 1588v2 PTP OPTIONS

• Boundary Clock
• Transparent Clock

IEEE 1588v2 applications include
• Coordinated motion control
• Time-stamped data logging
• Time-stamped fault detection

PTP Models & Upgrade Kit Available

FEATURES & BENEFITS

> 16 Copper Ports
  • 10/100/1000Base-T(X) copper ports
> Redundant 22 to 49 VDC Power Inputs
  • Boosts power to meet PoE+ output requirements
> IEEE 802.3af/at PoE Output
  • 240 Watt PoE budget configurable across all 16 ports, up to 30 Watts per port
> Extended Environmental Specifications
  • Wide -40° to 80°C operating temperature range
  • Ultra-reliable > 2 million hours MTBF
  • UL/cUL: Class I, Div. 2 Groups A, B, C and D
> Plug-and-Play Operation
  • IGMP auto-configuration
  • MDIX auto-sensing cable
  • Simple network ring configuration
  • Backup and restore via recovery card or XML

> Fully Managed Networking Functionality
  • SSH/SSL/HTTPS
  • SNMP v1, v2, v3
  • Web browser management
  • Detailed ring map and fault location charting
  • RSTP - 802.1d, 802.1w, 802.1D
  • Trunking and port mirroring
  • 802.1Q tag VLAN and port VLAN
  • IEEE 802.1x with RADIUS remote server authentication
  • DHCP Server, Option 82 relay, Option 61, IP fallback
  • Port Security – MAC address based
  • 802.1p QoS, port QoS and DSCP
  • Event log/Syslog
  • SNTP (Simple Network Time Protocol)
  • IEEE 1588v2 (PTP) models available
  • Multi-Member N-Ring technology with ~30ms healing
  • N-Link redundant ring technology
  • N-View™ monitoring technology
  • EtherNet/IP™ CIP™ messaging

industrial networking

SWITCH PROPERTIES

Operation: Managed
Number of MAC Addresses: 16,000
IEEE Compliant: 802.3, 802.3u, 802.3ab, 802.3x, 802.3af/at,
    802.1d/D/w, 802.1p, 802.1Q, 802.1x
IEEE 1588v2 Software-Based Option
Latency (Typical):1.6 µs
Switching Method: Store-and-Forward
PoE Budget: Configurable up to 240 Watts
    Up to 30 Watts per port (25.5 at the PD)
LED Status Indicators
Configurable Alarm Contact
Onboard Temperature Sensor
Supports Full/Half Duplex Operation
Maximum Throughput: Up to 32 Gb/s
MDIX Auto Sensing Cable
Auto Sensing Speed and Flow Control
Communications: Full Wire Speed
MTBF: >2 million hours
Jumbo Frame Support

POWER INPUT

Input Voltage: 22-49 VDC
Steady Input Current: 11.24 A @ 24 VDC
Inrush: 67 A / .096 ms @ 24 VDC
BTU/HR: 122

POWER OVER ETHERNET

PoE Standard: IEEE 802.3af/at Gigabit PSE
PoE Budget: Configurable up to 240 Watts
    Up to 30 Watts per port (25.5 at the PD)
PoE Output Power: 57 VDC
Power Pin Assignment: Pins 1/2 (-), Pins 3/6 (+)
PSE Type: Type 2

CONNECTORS

10/100/1000BaseT: Sixteen (16) RJ-45 ports
    ESD and surge protection diodes on all copper ports
Configuration Port: One (1) USB Type B

NETWORK MEDIA

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

RECOMMENDED WIRING CLEARANCE

Front: 2" (5.08 cm)
Top: 4" (10.16 cm)

ENVIRONMENTAL

Operating Temperature: -40°C to 80°C
Storage Temperature: -40°C to 85°C
Operating Humidity: 10% to 95% (non condensing)
Operating Altitude: 0 to 10,000 ft.
Shock: 200 g @ 10 ms (bulkhead mounted)
Vibration: 50 g @ 5-200 Hz, Triaxial (bulkhead mounted)

CERTIFICATION & COMPLIANCE

Product Safety:
    ANSI/ISA 12.12.01-2013 Class I and II, Div. 2 and Class III, Div. 1 and
    2, Groups A, B, C and D Hazardous Locations
UL508 Industrial Control Equipment
CAN/CSA-C22.2 No. 213-M1987 Class I Div. 2 Hazardous Locations
CAN/CSA-C22.2 No. 14-M1987 Industrial Control Equipment
Emissions:
    FCC Title 47, Part 15, Radio Frequency Devices, Subpart B ANSI
    C63.4-2009; Industry Canada ICES-003, EN 55011; EN 61000-6-4,
    EN 61000-3-2, EN61000-3-3, EN 55032
Immunity:
    EN 55024, EN 61000-6-2; IEC 61000-4-2 (ESD); IEC 61000-4-3
    (RFAM); IEC 61000-4-4 (EFT); IEC 61000-4-5 (SURGE); IEC 61000-4-6
    (RFCM); IEC 61000-4-8 (PFMF); IEC 61000-4-11 (VDI)
Rail:
    EN 50155, EN 50121 and EN 61373
Designed to Comply with:
    IEEE 1613 (Electric Utility Substations), NEMA TS1/TS2 (Traffic Control)
Other:
    ABS Type Approval for Shipboard Applications; EMC Directive
    2014/30/EU; LV Directive 2014/35/EU GOST-R, RoHS Compliant

MECHANICAL

Case Dimensions:
    Height: 5.88" (14.92 cm)
    Width: 4.28" (10.88 cm)
    Depth: 5.54" (14.07 cm)
Weight: 3.25 lbs (1.48 kg)
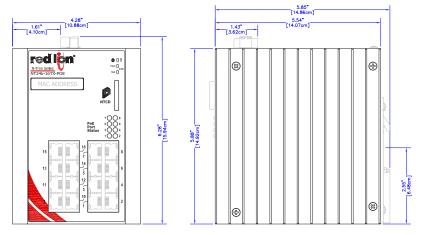Mount: DIN Rail 35 mm

WARRANTY

3 Years on Design and Manufacturing Defects

ORDERING GUIDE

MODEL NUMBER	DESCRIPTION
NT24K-16TX-POE	16 Port 10/100/1000BaseT Managed PoE+ Industrial Ethernet Switch
NT24K-16TX-POE-PT	16 Port 10/100/1000BaseT Managed PoE+ Industrial Ethernet Switch, PTP Enabled
NTCD-CFG	NT24k Configuration Recovery Device
NTPS-24-20	DIN-Rail Power Supply 20 Amp @ 24 VDC
NTPS-48-10	DIN-Rail Power Supply 10 Amp @ 48 VDC
NT24K-NM-PMK	NT24k Non-Modular Panel Mount Kit
NT24K-KIT-PTP	NT24k Upgrade License to Enable IEEE 1588/PTP on Non-PT NT24k Switches

DIMENSIONS

All specifications are subject to change. Consult the company website for more information.

www.redlion.net

Connect. Monitor. Control.

As the global experts in communication, monitoring and control for industrial automation and networking, Red Lion Controls has been delivering innovative solutions for over forty years. Our automation, Ethernet and cellular M2M technology enables companies worldwide to gain real-time data visibility that drives productivity. Product brands include Red Lion, N-Tron and Sixnet. Headquartered in York, Pennsylvania, the company has offices across the Americas, Asia-Pacific and Europe. Red Lion is part of Spectris plc, the productivity-enhancing instrumentation and controls company. For more information, please visit www.redlion.net.