NT24k®-14GX6 Industrial Ethernet Switch

N-Tron® Networking Series



▶▶▶ Industrial Managed Gigabit Ethernet Switch

Red Lion's N-Tron® series NT24k®-14GX6 compact managed Gigabit Ethernet switch features eight 10/100/1000Base-T(X) ports and six 1000Base-FX fiber ports with SC connectors, providing a reliable and secure communication network to equipment in harsh environments.

The versatile NT24k-14GX6 managed switch features 14 ports (eight Gigabit copper ports and six 1000Base-FX fiber ports) and is housed in a compact, hardened metal DIN-rail enclosure with redundant 10-49 VDC power inputs. Designed to handle the most demanding environments, the NT24k-14GX6 offers wire-speed throughput, expanded shock and vibration ratings and wide -40° to 85°C operating temperature rating. IGMP auto-configuration, IEEE 802.1x with RADIUS remote server authentication and N-Ring[™] fast healing ring technology ensure quick deployment and robust secure network communications.



APPLICATIONS

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

PRODUCT HIGHLIGHTS

- > Copper & Fiber Ports
- > Smart Plug-and-Play Operation
- > 10 to 49 VDC Redundant Power Inputs
- > -40° to 85°C Wide Operating Temperature
- > Robust Remote Monitoring
- > N-Ring[™] & 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

- > 14 Copper and Fiber Ports
 - Eight 10/100/1000Base-T(X) copper ports
 - Six 1000Base-FX ports with SC connectors
- > Redundant 10 to 49 VDC Power Inputs
 - Keeps network running in the event of a power supply failure
- > Extended Environmental Specifications
 - -40° to 85°C operating temperature range
 - > 2M 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 Features Include:
 - 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
 - 802.1AB-2005 LLDP (Link Layer Discovery Protocol)

















►►► NT24k-14GX6 Specifications

SWITCH PROPERTIES

Operation: Managed

Number of MAC Addresses: 16,000

IEEE Compliance: 802.3, 802.3u, 802.3ab, 802.3x,

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

LED Status Indicators

Configurable Alarm Contact Onboard Temperature Sensor Supports Full/Half Duplex Operation Maximum Throughput: Up to 28.0 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: 10-49 VDC

Steady Input Current: 780 mA @ 24 VDC Inrush: 22.6 A / .3 ms @ 24 VDC

BTU/HR: 63.89

CONNECTORS

10/100/1000BaseT: Eight (8) RJ-45 ports ESD and surge protection diodes on all copper ports 1000BaseFX: Six (6) SC duplex fiber ports Configuration Port: One (1) USB Type B

NETWORK MEDIA

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

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

RECOMMENDED WIRING CLEARANCE

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

ENVIRONMENTAL

Operating Temperature: -40°C to 85°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 @ 5-20 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)

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: 3.10" (7.87 cm) Depth: 5.54" (14.07 cm) Weight: 2.06 lbs (0.94 kg) Mount: DIN Rail 35 mm

WARRANTY

3 Years on Design and Manufacturing Defects

▶▶▶ NT24k-14GX6 Specifications

FIBER TRANSCEIVER CHARACTERISTICS

Fiber Mode	MM	SM	SM	SM
Fiber Length*	550m @ 50/125µm 300m @ 62.5/125µm	10 km	40 km	80 km
TX Power Min	-9.5 dBm	-9.5 dBm	-5 dBm	0 dBm
RX Sensitivity Max	-17 dBm	-20 dBm	-23 dBm	-24 dBm
Wavelength	850 nm	1310 nm	1310 nm	1550 nm
Laser Type	VCSEL	FP	DFB	DFB

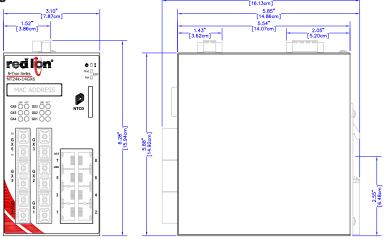
^{*} Fiber Length distances represent typical performance. Link budgets should be evaluated based on specific application conditions.

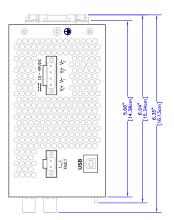
ORDERING GUIDE

PART NUMBER	DESCRIPTION
NT24K-14GX6-SC	14-Port Gigabit Managed Industrial Ethernet Switch (8 10/100/1000BaseT, 6 1000BaseSX, multimode 550m ports)
NT24K-14GX6-SC-PT	14-Port Gigabit Managed Industrial Ethernet Switch (8 10/100/1000BaseT, 6 1000BaseSX, multimode 550m ports), PTP Enabled
NT24K-14GXE6-SC-ZZ	14-Port Gigabit Managed Industrial Ethernet Switch (8 10/100/1000BaseT, 6 1000BaseLX, singlemode ports)
NT24K-14GXE6-SC-ZZ-PT	14-Port Gigabit Managed Industrial Ethernet Switch (8 10/100/1000BaseT, 6 1000BaseLX, singlemode ports), PTP Enabled
NTCD-CFG	NT24k Configuration Recovery Device
NTPS-24-1.3	DIN-Rail Power Supply 1.3 Amp @ 24 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

Where ZZ=10, 40, or 80

DIMENSIONS





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



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