N-TRON
THE INDUSTRIAL NETWORK COMPANY

516TX

The *N-TRON*™ *516TX* sixteen port 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.

PRODUCT FEATURES

- Full IEEE 802.3 and 1613 Compliance
- NEMA TS1/TS2 Compliance
- American Bureau of Shipping (ABS) Type Approval
- Sixteen 10/100 BaseTX RJ-45 Ports
- -40º to 85ºC Operating Temperature
- Auto Sensing 10/100BaseTX, Duplex, and MDIX
- Store-and-forward Technology
- Up to 2.6 Gb/s Throughput
- Rugged Industrial DIN-Rail Enclosure
- Redundant Power Inputs (10-30 VDC)
- Bi-Color LED's For Link, Speed, Activity & Duplex Status

Advanced Management Features (Optional):

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

Advanced Management Functions

The *516TX* 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 is a feature that allows the *516TX* switch to forward multicast traffic intelligently.

VLAN - Virtual Local Area Network allows you to segment the switch in order to create two or more separate local area network domains.

QoS - Quality of Service provides prioritization of network traffic in order to provide better network service. 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 - Port trunking (aggregation) enables multiple physical ports to be linked together and function as one uplink to another 500 series switch configured in the same manner, thereby increasing the bandwidth between switches. This configuration can provide increased bandwidth and redundancy to applications requiring high levels of fault tolerant operation.

Port Mirroring - This *516TX* function allows the traffic on one port to be duplicated and sent to a designated mirror port. Port mirroring can be used to monitor Ethernet traffic on the designated source port using the assigned mirror port.

N-View OPC Switch Monitoring Option

The *N-TRON* N-View OLE for Process Control (OPC) Server Software can be combined with popular HMI software packages to add network traffic monitoring, trending and alarming to any application using *N-TRON* switches configured with the N-View option. *N-TRON*'s N-View OPC Server collects 41 different traffic variables per port and 5 system level variables per switch. This information can provide a complete overview of the network load, service quality, and packet traffic. OPC client software can use N-View OPC Server data to resolve network problems quickly and improve system reliability.

Industrial Packaging and Specifications

The *N-TRON 516TX* is designed to operate in industrial environments. It is housed in a rugged steel enclosure that can be DIN-RAIL or Panel Mounted. Optional kits are available for rackmount applications. Like all *N-TRON* switches, the *516TX* comes standard with extended temperature ratings, extended shock and vibration specs, redundant power inputs, and a high MTBF (greater than 1M hours).

Ease of Use

The *N-TRON 516TX* requires no setup unless the advanced port functions are utilized. The sixteen 10/100BaseTX ports are auto sensing and auto configuring. Each port is automatically negotiated for maximum speed and performance by default. Bi-color LED's are provided to display the link status, link speed and activity of each port as well as power on/off status.

Performance

The *N-TRON 516TX* uses "state of the art" IEEE 802.3 Fast Ethernet 10/100BaseTX switching technology. This eliminates network collisions and increases network determinism. 8,000 MAC addresses are supported enabling sophisticated and complex network architectures. A high speed processor and backplane allow wire speed capability on all ports simultaneously.

N-TRON
THE INDUSTRIAL NETWORK COMPANY

516TX

516TX Industrial Ethernet Switch Ordering Information

516TX	Sixteen10/100BaseTX Ports
516TX-N	516TX with N-View
516TX-A	516TX with N-View and Advanced Management Features

Specifications

Switch Properties

Number of MAC Addresses:	8,000
Aging Time:	300
Latency Typ.:	2.1 μs
Backplane Speed:	2.6Gb/s
Switching Method:	Store & Forward

Physical

Height:	2.3"
Width:	7.6"
Depth:	3.4"
Weight:	1.75 lbs
Din-Rail:	35mm

Electrical

Redundant Input Voltage:	10-30 VDC
Input Current:	400 mA@24V
Inrush:	7.0Amp/0.8ms@24V

Environmental

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

Shock and Vibration (bulkhead mounted)

Shock:	200g @ 10ms
Vibration/Seismic:	50g, 5-200Hz, Triaxial

Reliability

MTBF:	>1 Million Hours

Network Media

10BaseT:	>Cat3 Cable
100BaseTX:	>Cat5 Cable

Serial Configuration Port

Com Parameters:	9600,n,8,1

Recommended Wiring Clearance

Front:	2" (5.08 cm)
Side:	1" (2.54 cm)

Regulatory Approvals

FCC Part 15 Class A,
UL 1604 (US & Canada)
CLASS I, DIV 2, GROUPS A,B,C,D,T4A
ATEX Zone 2, Category 3G, EEx nL IIC (0316686U)
CE: EN61000-6-2,4, EN55011, EN61000-4-2,3,4,5,6
EN61010-1, CLASSIII, Pollution Degree2

Contact Information

PACIFIC PARTS & CONTROLS, INC.
6255 PRESCOTT COURT • CHINO, CA 91710
909-465-1174 • FAX 909-465-1178
www.pacificparts.com
Electrical Supply Distributor

REV 070404