

Redundant Ring Gigabit Fiber Switch

Model TC3820

- Fault Recovery within 38ms
- IEC 61850 & IEEE 1613 Compliant
- Network Management (Web, Telnet, SNMP)
- IEEE 802.3, 802.3u, 802.3x Compliant
- 6 Ethernet 10/100-Base Auto-Sensing UTP Ports
- 2 Fiber Optic 1000Base-SX/LX Ports
- Standard Single Mode Distance of 50km (optional 100km)
- Multi-mode or Single-mode (1300/1550nm)
- 12VDC, Optional 24VDC, -48VDC, 125VDC or 115/230VAC
- Industrial Hardened (optional)
- Hi-Temp2 Version Exceeds NEMA & Caltrans Traffic Control Specs



TC3820 Front View



TC3820 Rear View

Ideal for mission critical fiber optic ring networks, the TC3820 Redundant Ring Gigabit Ethernet Switch provides maximum reliability through its sophisticated redundant ring technology. If a fiber cable or device failure occurs, the data path automatically switches over within 38 msec. to the secondary path to maintain Ring network integrity.

Available with SNMP Management, the Model TC3820 1000Base- SX/LX Switch provides six 10/100M copper ports and two Gigabit fiber ports. It can be daisy-chained and supports distances between switches up to 100 km.

The Ring can be single-mode fiber, multi-mode fiber, or CAT5 UTP cables. The TC3820 is IEEE 802.3, 802.3u, 802.3x and 802.z compliant.

Industrial Hardened, Rugged or Outdoor versions are available for harsh environments (e.g. Process Control applications in Manufacturing, Utility, SCADA, Transportation, & Traffic Control). These versions exceed all pertinent Utility (substation hardened) and Traffic Control environmental and temperature specifications (-40°C to 80°C). It complies with IEC 61850 & IEEE 1613 standards.

A Web-based configuration user interface is provided to view and change network settings such as IP Address, Subnet, Gateway, Speed, Half/Full Duplex, Name, Password and other parameters. It also monitors the fiber ring status, alarm conditions, fault locations for local and remote units. The TC3820 can also be configured through a serial console (Out-of-Band).

The TC3820's store-forward switching technology eliminates the congestion problem inherent to the contention-oriented Ethernet CSMA/CD protocol.

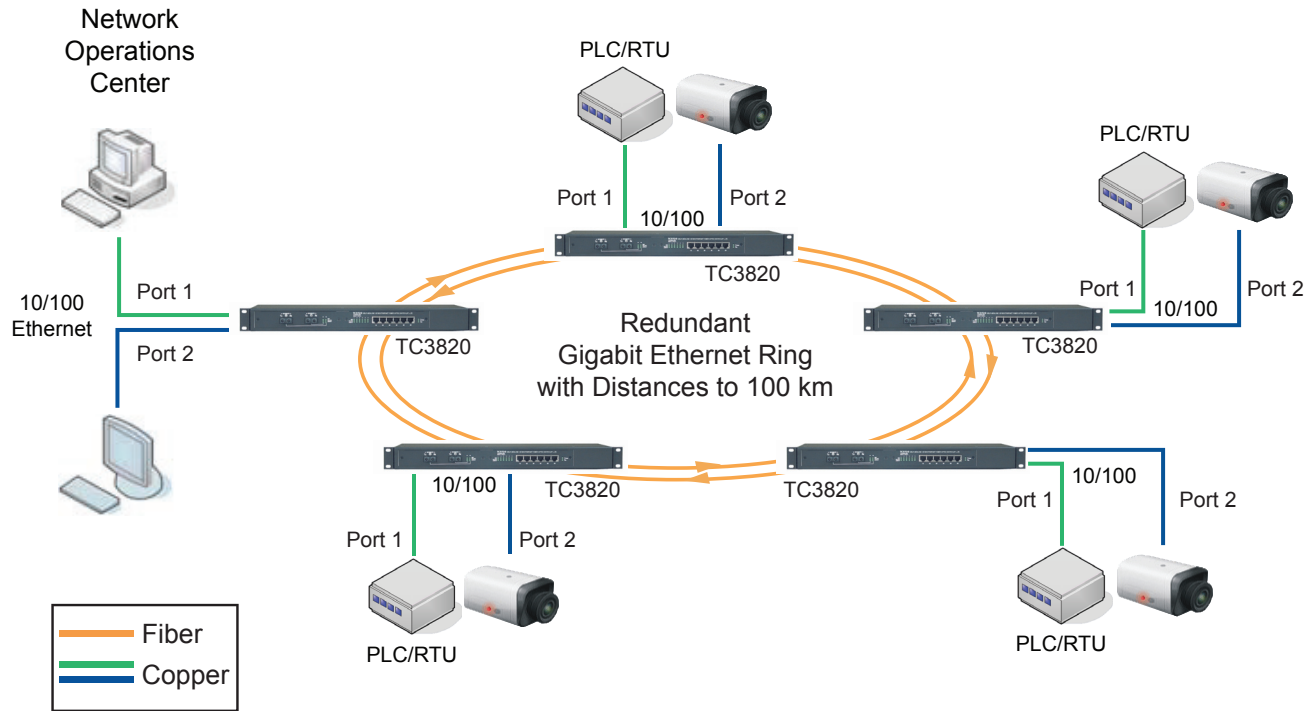
Power is 12VDC, optional 24Vdc, -48Vdc, 125Vdc or 115/230VAC. Power redundancy is standard on 12Vdc. The unit is 19" rack mountable. Optical connectors can be ST, FC or SC.



Applications

The TC3820 is frequently used to interconnect Remote Programmable Logic Controllers (PLCs) in high bandwidth applications, such as interconnecting traffic control video cameras, that require multiple channels and the reliability of a Self-healing Ring Topology.

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Typical Traffic Control Application using TC3820 Redundant Gigabit Ethernet Fiber Optic Switches.

Data Rates

- 10/100 Mbps (electrical)
- 1000Mbps (optical)

Optical

- TransmitterLED/LASER*
- ReceiverPIN Diode
- Wavelength
-850/1300nm Multi-mode
-1300/1550nm Single-mode
- Fiber Optic ConnectorsST
-Optional FC, SC
- Loss Budgets* -1300/1550nm
- LED/ELED.....15dB MM @62.5/125µm
- LASER.....20dB SM @9/125µm
- Interface 2 x 1000Base-SX/LX

Visual Indicators

- System LEDs.....PWR A, PWR B, Vcc
- Port Status (each port).....
-100M, FULL/COL, LINK/ACT

Electrical

- Switch Ports6
- ConnectorRJ-45 Female
- Interface..... Ethernet 10/100Base-T
- StandardIEEE 802.3/3u/3x

System

- ManagementWeb, SNMP, Telnet
- Bit Error Rate1 in 10¹⁰ or better
- Fault Recovery< 38 msec.

Power

- Standard12VDC @ 500mA
- Optional24VDC, -48VDC,
-125VDC, 115/230VAC

Temperature

- Operating.....-10°C to 50°C
- Hi-Temp1 (optional)-20°C to 70°C
- Hi-Temp2 (optional)-40°C to 80°C
- Storage.....-40°C to 90°C
- Humidity.....95% non-condensing

Physical (Rackmount Unit)

- Height.....(3.53 cm) 1.39"
- Width.....(48.26 cm) 19.0"
- Depth.....(16.59 cm) 6.53"
- Weight.....(544 gm) 1.2 lbs

*Contact factory for higher requirements



ISO 9001
QMI-SAI Global
#1045959

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