6-Port Gigabit Copper Ethernet Switch

TC3841

- **6-Port 10/100/1000 Copper Ethernet Switch**
- **6-Port 10/100 Copper Ethernet Switch (Optional)**
- **Rate-Limit, VLAN, QoS & More**
- **Network Manageable Via Web (with TC3840 MGMT card)**
- **Temperature & Power Consumption Monitoring**
- **Extreme Temp (-40°C to +80°C) Optional**
- **Meets or Exceeds IEC 61850-3, IEEE 1613, & NEMA TS-2 Standards**
- **Member of the JumboSwitch® Product Family**

TC3841 with Various JumboSwitch Chassis & Card Cages

Featuring a wide range of advanced networking features, the TC3841 is a 6-Port Gigabit (10/100/1000M) Copper Ethernet Switch. It can also be configured as a 6-Port 10/100 Ethernet Switch as an option.

Advanced networking features include Rate Limiting, VLAN, QOS and Security. Rate Control gives users, especially data service providers, the ability to control or limit bandwidth. For example, rates can be limited to 96Kb, 128Kb, 256Kb, 512Kb, 1Mb, 2Mb, etc. Password protection provides secure user administration via SSHv2, SNMPv3 and other security features.

Management is through Web Interface, SNMP, TELNET or Serial Console (via Management Card). Configuration settings can be saved and loaded to simplify network administration, and firmware can be remotely upgraded. Diagnostics include Traffic Statistics, Temperature and Power Consumption Monitoring.

The TC3841 interface card can fit into any available JumboSwitch housing options including 2S Standalone chassis and 1U/2U/4U card cages. Power supply options are 12VDC, 24VDC, -48VDC or 115/230VAC. Standard operating temperature is -20°C to +70°C and the extreme temperature version is -40°C to +80°C.

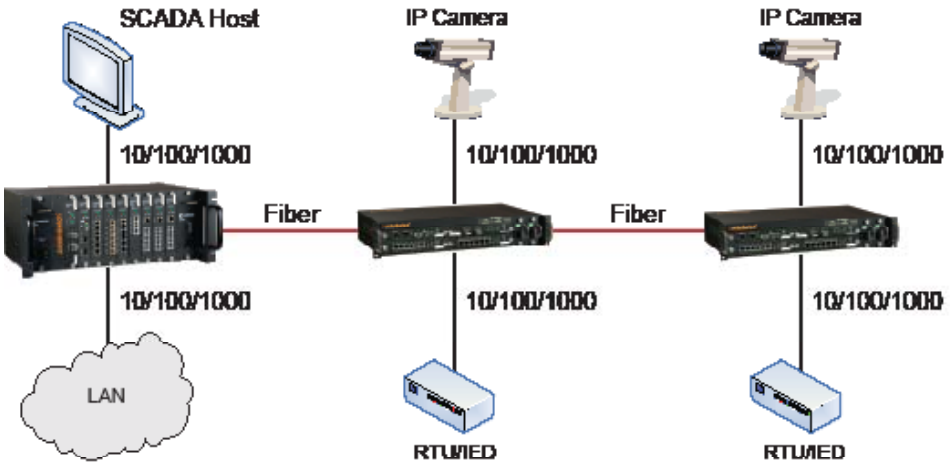
Applications

With its ability to operate in the harshest of environments and its advanced networking features, the TC3841 is the perfect solution for virtually all Ethernet Switch applications encountered in the Industrial Automation, Utility and Transportation industries. It is also used by Data Service Providers to control the bandwidths they offer to their customers

Environmental & EMI Compliance

The JumboSwitch product family meets all pertinent industry-specific standards for environmental, performance and security requirements including IEC 61850-3, IEEE 1613, NEMA TS-2 and NERC CIP. Furthermore, future JumboSwitch family products will continue to be compliant with both existing and emerging industry standards and requirements, including developing Ethernet standards. Please refer to the charts below for specific standards compliance information.

	Tests	Industrial Standards	TC Communications - JumboSwitch Type Test and Levels	
			Power Supply Unit (PSU)	RJ-45 & Signal
Temperature/Humidity	Low Temperature Use	IEC 61850-3, IEEE 1613, NEMA TS-2	IEC 60068-2-1; Ae; -40°C; 16 hour	
	Low Temperature Storage	IEC 61850-3, IEEE 1613, NEMA TS-2		
	High Temperature Use	IEC 61850-3, IEEE 1613, NEMA TS-2	IEC 60068-2-2; Be; +80°C; 16 hour	
	High Temperature Storage	IEC 61850-3, IEEE 1613, NEMA TS-2	IEC 60068-2-2; Bd; +85°C; 16 hour	
	Damp Heat	IEC 61850-3, IEEE 1613, NEMA TS-2	IEC 60068-2-30; Db; +55°C; 95%; 96 hours	
Mechanical	Vibration	IEC 61850-3, IEEE 1613, NEMA TS-2	IEC 60068-2-6; Fc; 3 - 150 Hz; 7.5 mm; 2 g; 10 sweeps per axis	
	Shock	IEC 61850-3, IEEE 1613, NEMA TS-2	IEC 60068-2-27; Ea; 30g; 11ms	
ElectroMagnetic Compatibility	Electrostatic Discharge Immunity	IEEE 1613	IEC 61000-4-2; 8kV contact; 15 kV air	
	Radiated RF Immunity	IEC 61850-3, IEEE 1613	IEC 61000-4-3; 80 MHz - 1000 MHz; 20 V/m; AM 80% 1 kHz	
	EFT/Burst Immunity	IEC 61850-3, IEEE 1613	IEC 61000-4-4; 4 kV CM	IEC 61000-4-4; 4 kV CM
	Surge Immunity	IEC 61850-3	IEC 61000-4-5; 4 kV LG; 2 kV LL	IEC 61000-4-5; 4 kV LG; 2 kV LL
	Conducted RF immunity	IEC 61850-3	IEC 61000-4-6; 150 kHz - 80 MHz; 10 V; AM 80% 1 kHz	IEC 61000-4-6; 150 kHz - 80 MHz; 10 V; AM 80% 1 kHz
	Magnetic Field Immunity	IEC 61850-3	IEC 61000-4-8; 50 Hz; 100 A/m cont.; 1000 A/m 1 s	
	Damped Oscillatory Magnetic Field Immunity	IEC 61850-3	IEC 61000-4-10; 100 kHz; 30 A/m	
	Damped Oscillatory Magnetic Field Immunity	IEC 61850-3	IEC 61000-4-10; 1 MHz; 30 A/m	
Power Supply Unit (PSU) Variations	AC Voltage Dips	IEC 61850-3	IEC 61000-4-11; 30% & 100%, 0.5s	NA
	DC Voltage Dips	IEC 61850-3	IEC 61000-4-29; 40% & 70%, 0.1s	NA
	Damped Oscillatory Wave	IEC 61850-3	IEC 61000-4-12; 2.5 kV CM, 1.0 kV DM @1MHz	IEC 61000-4-12; 2.5 kV CM, 1.0 kV DM @ 1MHz
	Conducted PF CM Voltage	IEC 61850-3	IEC 61000-4-16; 50 Hz; 30 V cont.; 300 V 1s	IEC 61000-4-16; 50 Hz; 30 V cont.; 300 V 1s
	Conducted Emission	IEC 61850-3	CE/FCC/CISPR22 class A	CE/FCC/CISPR22 class A
	Conducted emission	IEC 61850-3	CE/FCC/CISPR22 class A	CE/FCC/CISPR22 class A
	Radiated emission	IEC 61850-3	CE/FCC/CISPR22 class A	
Dielectric	Dielectric 50 Hz Test	IEEE 1613	IEC 60255-5; 2 kV	IEC 60255-5; 0.5 kV
	Impulse Voltage Test	IEEE 1613	IEC60255-5; 5 kV	IEC 60255-5; 5 kV



Application Using TC3841 to Provide 10/100/1000 Ethernet Connections to an Existing Local Area Network

Data Rates
..10/100/1000Mbps with rate control
.....10/100Mbps Only (Optional)

Electrical
Ethernet Interface
Connector.....RJ45
(CAT5E/CAT6 gold plated contact)

System
Bit Error Rate.....1 in 10^{10} or Better

LEDs
ALM, Vcc, PWR (A, B), Link/Act, Duplex (10/100/1000 ports only), Speed (10/100/1000 ports only), BP, MGM

Regulatory Approval
CE, FCC Part 15, CISPR (EN55022) CLASS A, IEC 61850-3, IEEE 1613, NEMA TS-2

Power
Standard.....12VDC
Optional.....24, -48 VDC
.....90-260 VAC, 50/60Hz
Power Consumption.....<10W

Operating Temperature
High Temp.....-20°C to 70°C
Extreme Temp.....-40°C to 80°C

Storage
Temperature.....-40°C to 90°C
Humidity.....95% non-condensing

Physical (rack mount card)
Height.....(3.15 cm) 1.24"
Width.....(17.78 cm) 7.0"
Depth.....(22.86 cm) 9.0"
Weight.....(0.3 kg) 0.75 lbs

Note - Information contained in this data sheet is subject to change without prior notice.

TC COMMUNICATIONS®
FIBER OPTIC CONNECTIVITY

Certified System™
ISO 9001
QMI-SAI Global
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