

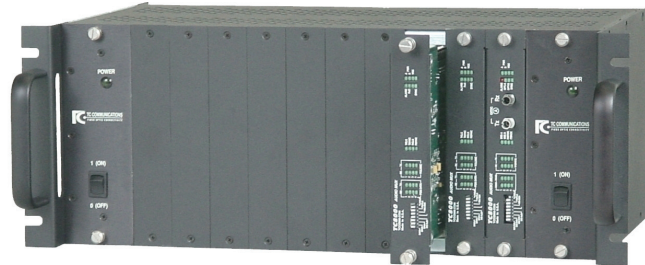
Analog/Intercom/Data Fiber Optic Multiplexer

TC8000 Series

- Up to 28 Channels of 2/4-wire Analog, Intercom and/or RS-232, RS-422, TTL Dry Contact Detectors & Closures
- Voice Bandwidths from 300Hz to 3.4Khz
- Multimode (850/1300nm) or Single Mode (1300/1550nm)
- Built-In Power Redundancy
- Optical Redundancy (optional)
- Rackmount or Standalone
- Hardened Temperature Version (optional)



TC8000S Standalone/Wallmount Unit (8-channel unit shown)



TC8000R (Housed in TCRM191 19" Rackmount Card Cage)

The TC8000 Series* is a highly specialized 4-to-28 channel analog and data Fiber Optic Multiplexer that extends 600 Ohm audio and data channels to remote sites in a campus network. Users can mix or match audio/intercom channels or RS-232, RS-422, TTL and Dry Contact Interfaces in increments of four up to a maximum of 28 channels. The intercom interface is for 4-wire voice communication (handsets) and the analog interface is 2 or 4-wire, 600 Ohm transformer coupled. It is typically used for Frequency Shift Keying (FSK) applications.

Since the TC8000 digitizes the analog and voice signals (PCM), voice quality does not degrade over extended distances. Distances up to 80 km** are typical over single mode fiber, 4 km over multimode fiber.

It supports analog audio channels from 300Hz to 3.4KHz and asynchronous data rates to 19.2Kbps. Diagnostics include LEDs for "Alarm," "Power A," "Power B," "Tx," "Rx" and "Sync." Power redundancy is standard, optical redundancy is optional. Fiber optic connectors are ST or FC. Electrical connectors are RJ-11. Power is 12VDC with optional 24VDC, -48VDC, 125VDC or 115/230VAC with an external power cube.

The TC8000 is available standalone or rack mount. Standalone versions support up to 8 channels, rack mount versions support up to 28 channels. Four RJ-11 ports are provided on the rear side of each card to connect with handsets or customer's audio & data devices. A hardened temperature version (-20°C to 70°C), Model TC8000T, is also available for harsh environments.

The TC8000 is based on modern FPGA (Field Programmable Gate Array) technology. As a result, it benefits users by enabling optimum flexibility, low current consumption, high reliability and maximum MTBFs.

*Check with sales for additional options: TC8001 (intercom), TC8002 (analog), TC8003 (data)

**Contact factory for higher requirements (Laser version)



Applications

The TC8000 is frequently used to link voice communications devices in telecommunications and SCADA environments. It is also used in harsh environments where ground loops, EMI/RFI interference and lightning conditions may occur.

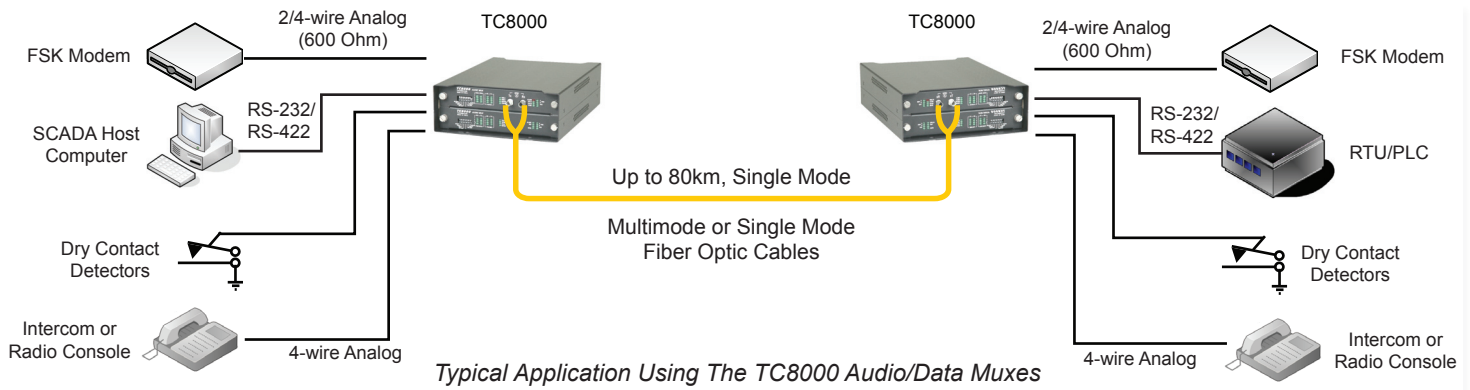
TC Communications, Inc.
17881 Cartwright Rd. Irvine, CA 92614 U.S.A.

Tel: (949) 852-1972, Fax: (949) 852-1948

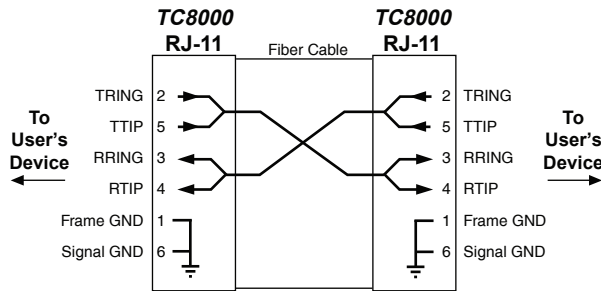
Sales: (800) 569-4736

Web Site: www.tccomm.com

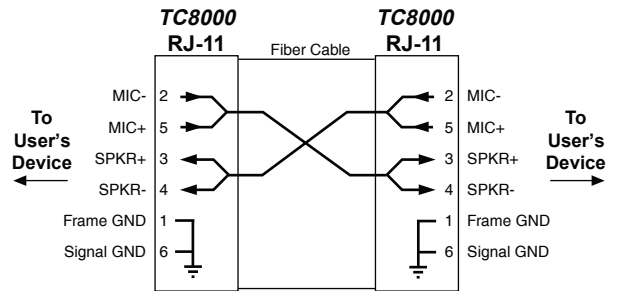
E-mail: sales@tccomm.com



Virtual Connection (Analog Interface)



Virtual Connection (Intercom Interface)



Audio Bandwidth

Analog300 Hz to 3.4 KHz
Intercom.....300 Hz to 3.4 KHz

Signal Level

Input Range.....-1.5 to -40dBm
SNR.....32 to 36dB

Data Interfaces

Async RS-232, RS-422, TTL, or Dry
Contact Closure/Detector
Data RatesUp to 19.2 Kbps

Channel Capacity

Standalone Unit4 or 8 Channels
Rack Mount Unit4, 8, 12, 16, 20,
24 or 28 Channels

Optical

Transmitter.....LED/ELED
Receiver.....PIN Diode
Wavelength
.....850/1300nm MM
.....1300/1550nm SM
Fiber Optic Connectors.....ST, FC
Loss Budget* - 850/1300/1550nm
Multimode @ 62.5/125µm15dB
Single Mode @ 9/125µm.....20dB

Electrical

ConnectorRJ11 Female
Max Analog Input.....3Vp-p
Analog Interface (2 or 4-wire).....
600 Ohm Isolated Transformer
Intercom Interface
Capacitor Coupled

System

Bit Error Rate1 in 10⁹ or better

Visual Indicators

Power A, Power B, Alarm, Vcc,
Volume, RxA, RxB, Sync, FSR

Power

Standard.....12VDC@300mA (per board)
Optional.....24, -48, 125VDC, or
115/230VAC with power cube

Temperature

Operating-10°C to 50°C
Hi-Temp (optional).....-20°C to 70°C
Storage-40°C to 90°C
Humidity95% non-condensing

Physical (Standalone Unit)

Height.....(3.53 cm) 1.39"
Width.....(18.13 cm) 7.14"
Depth.....(24.89 cm) 9.80"
Weight.....(907 gm) 2.0 lbs

*Contact factory for higher requirements



ISO 9001
QMI-SAI Global
#1045959

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