Fiber Optic Phone/Data Multiplexer

- Up to 28 Telephone Lines and/or 2/4-wire 600 Ohm Analog, RS-232, RS-422, TTL, Dry Contact Closure, Dry Contact Detector
- 2-Wire Analog PBX and Key System Compatible
- Multimode or Single Mode (850/1300/1550nm)
- Built-In Power Redundancy
- Optical Redundancy (optional)
- Hi-Temp & Extreme Temp (optional)
- Hot Swappable Rackmount Cards
- Tested and Compatible with:

The TC8800* is a 4-to-28 channel telephone and data fiber optic multiplexer that extends multiple telephone lines and data channels to remote sites such as other buildings in campus networks. Users can mix or match telephone channels or 2/4-wire 600 Ohm Analog, RS-232, RS-422, TTL and Dry Contact Interfaces in increments of four up to a maximum of 28 channels. For example, a user could multiplex 20 telephone channels and 8 RS-232 data channels.

The TC8800 Series converts 2-wire FXS to fiber optics on the telephone side with ring down capability and FXO on the PBX side. Distances up to 80km are possible over single mode fiber, 4km over multimode fiber. Because the TC8800 digitizes the analog signals (PCM), voice quality does not degrade over extended distances.

It supports Telephone channels from 300Hz to 3.4KHz and asynchronous data rates to 19.2 Kbps. Twelve LEDs are available for status monitoring and diagnostics. A local dry contact alarm relay is standard. Diagnostic LEDs for each channel include TX, RX, Ring, and Hook.

The TC8800R PC Card version requires the TCRM191 or TCRM195 19" Rackmount Card Cage. Each TC8800R card can be removed or installed on the TCRM191 without powering down the system ("hot swappable"). The TC8800S Standalone version currently supports up to 8 telephone or data channels. High and extreme operating temperature versions (−20°C to 70°C, −40°C to 80°C), are also available.

The TC8800 works with all types and sizes of multimode or single mode fiber optic cable at 850/1300/1550nm**. Fiber optic connectors are ST or FC. RJ-11F ports are provided on the rear side to connect with telephones. Power redundancy is standard; optical redundancy is optional. Power is 12VDC; optional 115/230VAC, 24VDC and -48VDC.

*The TC8800 consists of the TC8800(FXS), TC8801(FXO) and/or TC8802(data)
**Contact factory for higher loss budget requirements (Laser version)
Typical Point-to-Point Application Using TC8800 Telephone/Data Fiber Optic Multiplexers.

Audio Bandwidth
Telephone ...............300 Hz to 3.4 KHz
2/4-wire Analog........300 Hz to 3.4 KHz

Data Interfaces
Async RS-232, RS-422, TTL, or Dry Contact Closure/Detector
Data Rates ............Up to 19.2 Kbps
*Contact factory for other requirements

Channel Capacity
TC8800S.........................4 or 8
TC8800R..............4, 8, 12, 16, 20, 24 or 28

Optical
Transmitter.....................LED/ELED
Receiver..........................PIN Diode
Wavelength.............850/1300nm MM
............................1300/1550nm SM
Fiber Optic Connectors.....ST or FC
Loss Budget* - 850/1300/1550nm
Multimode @ 62.5/125μm......15dB
Single Mode @ 9/125μm ......20dB
*Contact factory for higher requirements

Electrical
Connector .................RJ11 Female

System
Bit Error Rate ..........1 in 10^9 or better

Visual Indicators
Power A & B, Vcc, FXS-0, Tx, Rx,
Monitor, Optic-Rx, Sync, TxFCLK,
LOCLB, RMTLB
For each channel: Tx, Rx, Ring, Hook

Power
Standard ..................12VDC
Optional ..............24, -48VDC, or ..............115/230VAC*
*Currently available for TC8800R. Future release for TC8800S.

Temperature
Operating ..................-10°C to 50°C
Hi-Temp (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 Card)
Height......................(3.18 cm) 1.25"
Width.....................(15.06 cm) 5.93"
Depth.....................(21.84 cm) 8.60"
Weight...................(477 gm) 1.05 lbs

Note - Information contained in this data sheet is subject to change without prior notice. 010C