

“Channel Stacker” 8-to-128 Channel Fiber Optic Multiplexer

Model TC8108

- Mix or Match Field-Interchangeable Interfaces: RS-232, RS-422, RS-485*, TTL & Dry Contact Relays
- Data Rates up to 19.2 Kbps*
- 8 to 64 Channels (Expandable to 128)
- Optional Optical Redundancy
- Local Dry Contact Relay Alarm
- Built-In Test Signal Generator
- Local & Remote Loopback Features
- Multimode or Single Mode (850/1300/1550nm)
- Rackmount or Standalone



TC8108 Rackmount

The “Channel Stacker”, Model TC8108 Fiber Optic Multiplexer, maximizes user flexibility by offering field interchangeable interfaces, modular expandability from 8 to 64 channels and power/optical redundancy. It supports most popular interfaces including RS-232, RS-422, TTL, RS-485* and Dry Contact Relays. It supports data rates up to 19.2 Kbps*. Power redundancy is standard, optical redundancy is optional. Both feature automatic switch-over. Each unit consists of an 8-channel base unit and up to seven optional 8-channel add-in PC Cards. These PC Cards can be “stacked” (in 8-channel increments) up to 64 channels. A 128-channel version is possible by using a fan-out cable to expand each RJ-11 port into two RS-232 Async channels.

Because the electrical interfaces are modular, they are interchangeable at any time-before or after installation. A user can mix up to four different interfaces (in 4-channel increments) on each 8-channel card. Each PC expansion card is identified by a card number defined by a front panel DIP switch.

Diagnostics are extensive and include Local and Remote Loopback, 22 LEDs, and Test Signal Generator. LEDs include “TX,” “Rx,” “Alarm,” “Vcc,” “RxA,” “RxB,” & “PWR.” Individual “Tx,” and “Rx” LEDs are provided for each channel. The built-in test signal generator verifies both device and fiber optic link operation. This feature benefits users by helping technicians verify that both local & remote devices and the fiber optic link are operating normally. No other test equipment is required for link and device verification.

The TC8108 is compatible with all types and sizes of multimode (850/1300nm) or single mode (1300/1550nm) fiber optic cable. Fiber optic connectors are ST or FC; electrical connectors are RJ-11. Power is 12VDC or 115/230VAC with an external power cube. A hardened temperature version (-20° to 70°C), Model TC8108T, is also available.

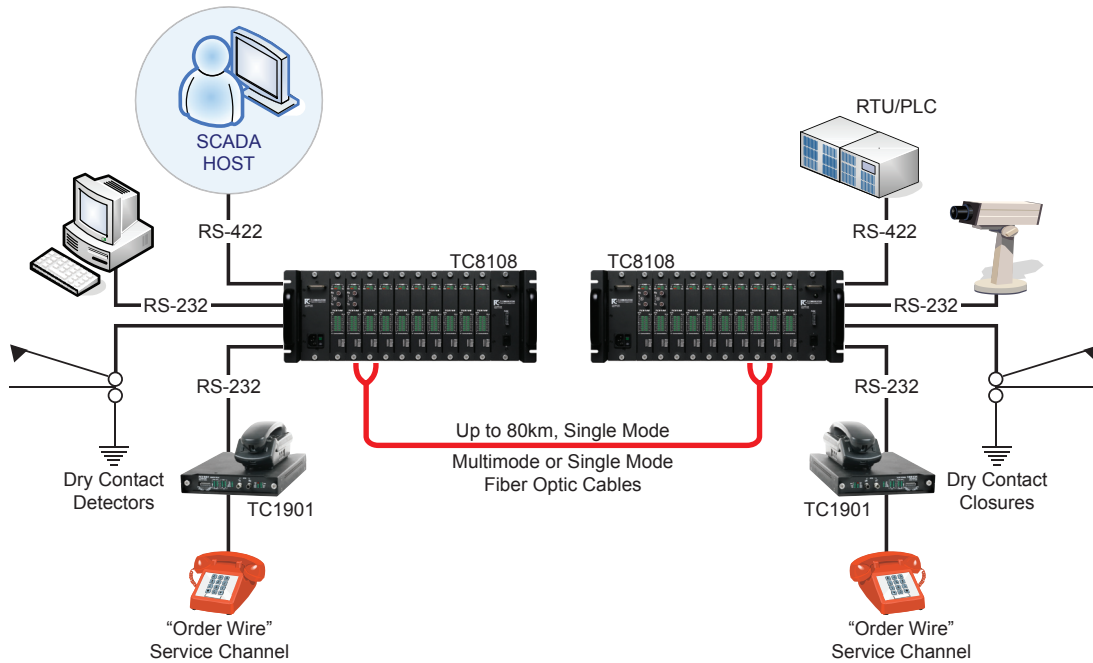
* Contact factory for higher requirements/availability



Applications

The “Channel Stacker” is an inexpensive, reliable and flexible method for connecting large numbers of printers, terminals and status collecting devices. It is also used in harsh environments where EMI/RFI interference, ground loops or lightning conditions may exist.

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Typical Application using TC8108 "Channel Stacker" Fiber Optic Multiplexers

Data Rates (per channel)

Async 8/16/24/32 Ch..... to 38.4 Kbps
 Async 40/48/56/64 Ch..... 19.2 Kbps
 Async 128 Ch..... up to 16 Kbps
 Sync (up to 16 Channels w/Ext. Clk).
 up to 38.4 Kbps
 Sync (32 Channel Version w/Ext. Clk)
 up to 19.2 Kbps

Channel Capacity

Async..... 8: stackable to 64 Channels
 (up to 128 w/Fan-Out Cables)
 Sync..... 4: stackable to 32 Channels

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
 15db.....Multimode @ 62.5/125µm
 20db.....Single Mode @ 9/125µm

Visual Indicators

Channel Status (each ch.)TX, Rx
 System..... Power A & B, Vcc, Alarm
 Optic..... RxA, RxB, Optic Rx, FCLK

Electrical

ConnectorRJ11 Female
 Interface (standard) RS-232,
 RS-422, Dry Contact Relay
 Interface (custom)TTL, 2 or 4-wire
 RS-485* or combination

System

Bit Error Rate1 in 10⁹ or better

Alarm

Dry Contact Normal OPEN

Power

Standard12VDC @600mA
 Optional115/230VAC
 w/ external cube or card

Temperature

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

Physical (Rackmount Card)

Height.....(17.7 cm)7.0"
 Width.....(3.2 cm) 1.25"
 Depth.....(23 cm) 9.0"
 Weight.....(280 gm) 8 oz

*Contact factory for higher requirements



ISO 9001
 QMI-SAI Global
 #1045959

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