

4 or 8 CH 600 Ohm Analogy & Dry Contact-over-T1/E1 Multiplexer

TC8634

- 4 or 8 Channel 600 Ohm Analog & Dry Contact
- 2-Wire or 4-Wire Analog
- ESF Framing Support for T1
- PCM31C Framing Support for E1
- Very Low Latency
- Dry contact detectors with Isolated Ground
- Built-in Power Redundancy
- Rack Mount or Stand Alone



2x TC8634 in 1U Chassis (Front)



2x TC8634 in 1U Chassis (Rear)

The TC8634 is a 4-channel 600 Ohm Analog & Dry Contact-over-T1/E1 Multiplexer. Two TC8634 cards can be combined to form an 8-channel 600 Ohm Analog & Dry Contact unit that utilize a single T1/E1 line or provide T1/E1 line redundancy. It allows network managers the flexibility of leveraging their existing T1/E1 circuits by adding low cost analog or dry contact links as needed. It is economical, simple to install and comes standard with built-in power redundancy.

Each TC8634 utilize 4 RJ11 Ports for 600 Ohm analog interface and 4 RJ11 Ports for dry contact interface. It also features extensive diagnostics and includes DIP switches for Local & Remote Loopback, and are also used to configure other applications. This means no additional equipment is required for T1/E1 line and device verification.

Three different types of built-in loopbacks: local, remote, and T1/E1 loopback, assist in isolating whether an issue lies on your serial line or your T1/E1 line. CSU Loop Code Up/Down is also supported.

Each unit provides TX/RX and RLY/DET LEDs for verifying analog signals on each serial channel. As well as Power LEDs for verifying power inputs, Alarm LEDs for verifying T1/E1 signal, and a Remote LED to monitor the remote unit.

All products part of the JumboBank series are equipped with the "R2" button. The "R2" button, was developed to isolate causes of disruptions, leveraging the Alarm LEDs and allows users to clear the history on the local unit and mirror and reset the Alarm LEDs on the remote unit. Each of the Alarm LEDs have the ability to show current T1/E1 errors and a history of up to 3 errors.



Applications

The TC8634 provides an inexpensive method for connecting terminals such as relays, and status collecting devices. It is also used in harsh environments where EMI/RFI interference, ground loops and lightning conditions may exist.

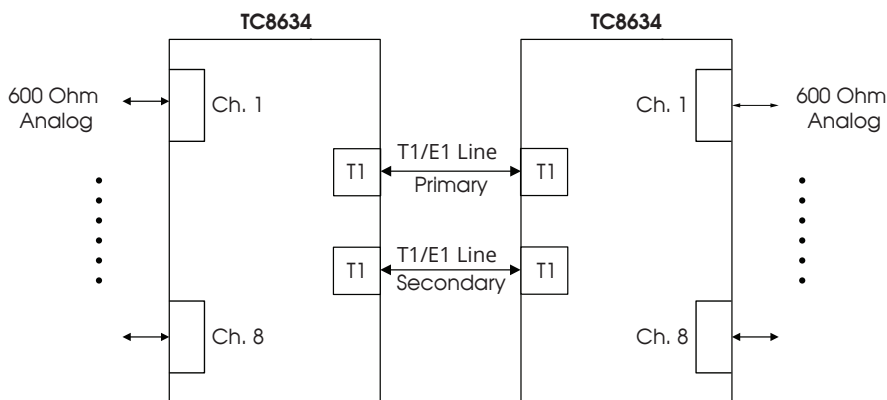
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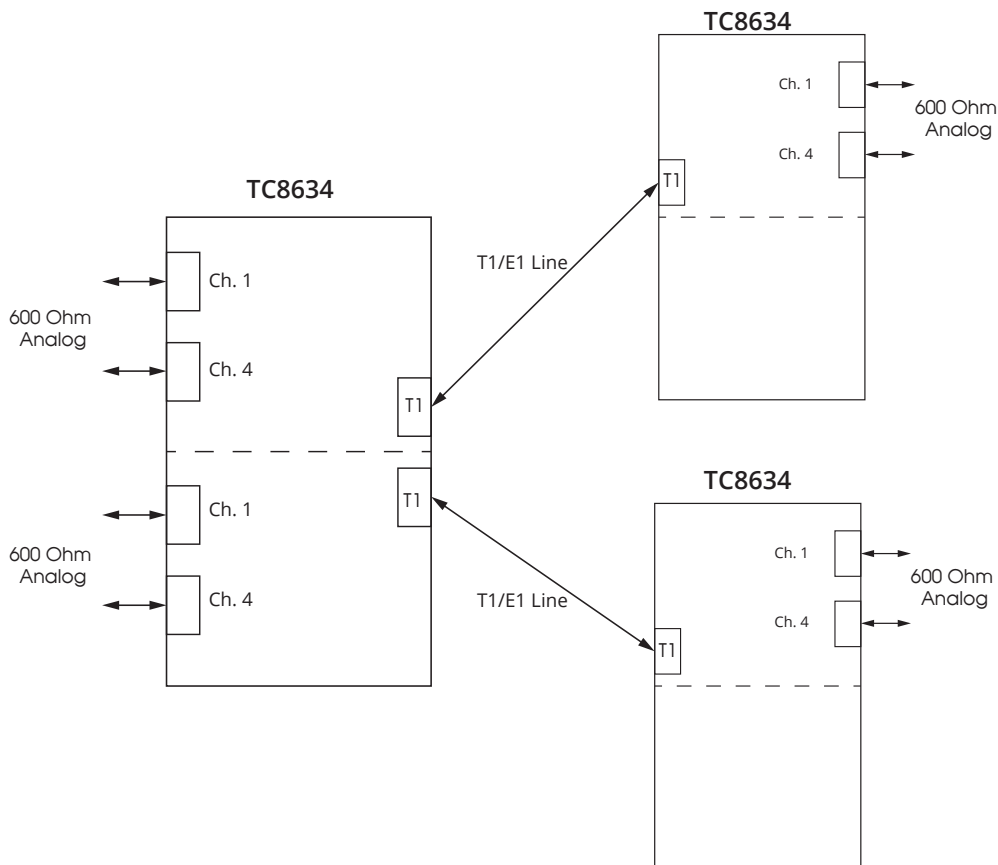
The TC8634 is compatible with standard 100 Ohm T1 for copper line lengths up to 6000ft and up to 2.5km for 75 Ohm / 120 Ohm E1 (copper line length is the distance between the TC8634 and the T1/E1 cross-connect). The T1/E1 uses an RJ48 connector and the serial channels use RJ-11 connectors. Optional BNC adapter cable is available for 75 Ohm E1. Power is 12VDC standard or optional 24VDC, -48VDC, 125VDC, or 115/230VAC with an external power cube. Optionally, a high temperature version (-20°C to 70°C) and extreme temperature version (-40°C to 80°C) are also available.

With two TC8634 cards in one 1U chassis, there are two T1/E1 connections available for following configurations:

- Two combined TC8634 cards to form a 8-channel analog and dry contact multiplexer. Primary and secondary T1/E1 line can be utilized to provide redundancy.
- Two independent TC8634 cards that each card is a 4-channel analog and dry contact multiplexer. Each cards has it's own T1/E1 line that is independent of each other.



TC8634 with Redundant T1/E1 Line Block Diagram



TC8634 with Independent T1/E1 Line Block Diagram

Connection Capacity

600 Ohm (2/4 Wire)..... 4 Ports
Dry Contact 4 Ports

T1/E1

T1
Receiver sensitivity 0dB to -36dB
Line CodeAMI / B8ZS
Framing..... ESF

E1
Receiver sensitivity 0dB to -43dB
Line Code AMI / HDB3
Framing..... PCM31C

Electrical

Dry Contact Interface
Normal open Standard
Normal close Optional
Load Voltage (peak AC) 60V
Load Voltage (DC) 60V
Continuous load current 0.55A
Peak load current 1.2A
Max On Resistance 2.5 Ω
Output Capacitance 150pF
600Ω analog interface
Impedance..... 600Ω
Max Input.....3Vp-p
Frequency band300 to 3400Hz

Visual Indicators

Channel Status..... TX/RX or RLY/DET
System PWR A, PWR B, Vcc, ALM, RMT
T1/E1..... AMI, RAI, AIS, CRC, BPV, LOS, SYNC

System

Bit Error Rate 1 in 10⁹ or better

Alarm

Dry Contact..... NormalOpen/Closed

Power

Standard 12VDC @200mA
Optional..... 24VDC, -48VDC, 125VDC,
..... or 115/230VAC w/ Power Cube

Temperature

Operating -10°C to 50°C
Hi-Temp (optional) -20°C to 70°C
Extreme (optional) -40°C to 80°C
Storage..... -40°C to 90°C
Humidity 95% Non-Condensing

Physical (Standalone Unit)

Height (3.53cm) 1.40"
Width (18.14cm) 7.20"
Depth (24.89cm) 9.80"
Weight (907g) 2.0lbs



SAI GLOBAL
ISO 9001
Quality

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