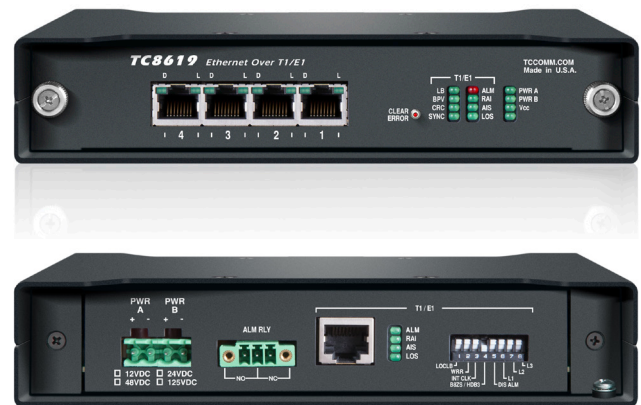


# Ethernet-over-T1/E1 Multiplexer

# TC8619

- **Fast Ethernet Transport over Framed T1 or E1**
- **IEEE 802.1p QoS with Four Queues**
- **Strict or Weighted Round Robin Priority Scheduling**
- **Extreme Temp (-40°C to +80°C) Optional**
- **Built-in Power Redundancy**
- **Meets or Exceeds IEC 61850-3, IEEE1613 & NEMA TS-2 Standards**
- **Member of the Mini Channel Bank Product Family**



TC8619 Ethernet-over-T1/E1

The TC8619 Ethernet-over-T1/E1 Gateway allows the user to extend Ethernet backhaul applications to remote locations over existing TDM Telecom infrastructure. It converts the Ethernet data into framed T1/E1 format for transmission over T1/E1 links, and the modules are used in pairs.

The TC8619 performs store-and-forward of frames with Ethernet traffic conditioning and bridging functions at wire speed, fully utilizing the TDM circuit.

The TC8619 interface card can fit into any available Mini Channel Bank housing option including 1S Standalone chassis and 1U/4U card cages. Power Redundancy is standard and power supply options available for standalone version are 90-260VAC, 12VDC, 24VDC and -48VDC. Standard operating temperature is -10°C to +50°C, high temp version is -20°C to +70°C, and the extreme temperature version is -40°C to +80°C.



## Applications

- Bridging Ethernet LANs over Existing T1/E1 Telecom Network
- Extending Ethernet Networks by Utilizing TDM Telecom Infrastructure (i.e. T1/E1 Landline, or T1/E1s/PDH/SDH Microwave Carrying T1/E1)
- Demarcation Between the Carrier's and Customer's Networks
- Bonded Transparent LAN Service

**Ethernet Device**



**Ethernet Device**



*Typical Application using TC8619 Ethernet-over-T1/E1 Multiplexer*

**Electrical**

**T1 Interface**

- Connector ..... Electrical, RJ-48
- Line Termination ... 100Ω, balanced
- Data Rate ..... 1.544Mbps
- Line Code ..... AMI, B8ZS

**E1 Interface**

- Connector ..... Electrical, RJ-48
- Line Termination .. 120Ω, balanced,  
.....  
75Ω, unbalanced via RJ-48  
.....to BNC adapter cable
- Data Rate .....2.048Mbps
- Line Code .....AMI, HDB3

**Ethernet Interface**

- Connector ..... Electrical, RJ-45
- Type ..... 10/100Base-T
- Compliance ..... IEEE 802.3

**System**

- Bit Error Rate.....1 in 10<sup>9</sup> or Better

**Regulatory Approval**

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

**LEDs**

- ALM, D (Duplex), L (Link), PWR A,  
PWR B, Vcc, LOS, RAI, AIS, BPV, CRC,  
SYNC

**Power**

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

**Operating Temperature**

- Standard Temp ..... -10°C to 50°C
- High Temp (opt.) ..... -20°C to 70°C
- Extreme Temp (opt.) ..... -40°C to 80°C

**Storage**

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

**Physical (Standalone Unit)**

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



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

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