

## Highlights

- TDM multiplexing of up to 8 x E1/T1 or 1 x E3/DS3 plus one Gigabit Ethernet transparent over fiber optics
- 4 x 10/100/1000Base-T integrated Ethernet switch with VLAN and QoS support, Rate limiting
- Or configurable as 4 x 10/100/1000Base-T Point-to-Point
- TDM traffic does not occupy Ethernet bandwidth on the link, wirespeed is still 1Gbit/s
- Redundant SFP module slot to the fiber for use with SM, MM oder WDM/CWDM transceivers
- E1/T1/E3/DS3 fully transparent to all signaling and protocols
- Integrated Management via VT100-CLI, SNMP and Telnet
- Digital Diagnostic Monitoring (DDM) of the SFP modules
- 2x Copper RJ45 and one fiber SFP port for Ethernet SNMP/Telnet management allow cascading
- Redundant Power Supply 100-240V AC or -48V DC

# gigabit TDM

## Voice+Data over Redundant Fiber Optic



The gigabit TDM is an optical time-division multiplexers series that facilitates transmission of voice and data at the same time.

It connects one Gigabit Ethernet at full wirespeed and up to eight E1/T1 or one E3/DS3 connection over one 1.25Gbit/s fiber optical link.

Additional formerly required leased lines for voice can be fully substituted.

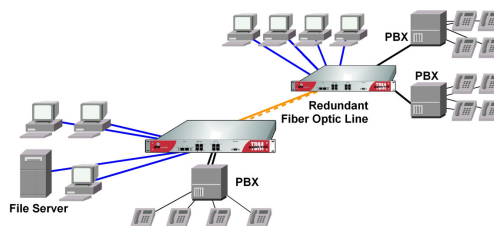
An optional redundant fiber optic line connector allows the transmission over a second, independent fiber optic line in case of failure.

A special carrier mode replaces the built-in 4-port LAN switch functionality with four point-to-point Ethernet Ports. Because of this, with our gigabit TDM devices Telcos and Carriers can offer highly available access solutions with low cost-to-performance ratio.

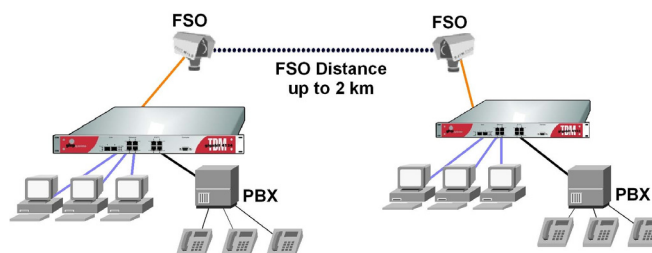
Due to the power supply and fan redundancy, this device is also well-prepared for use in environments with demand for high reliability.

## Application Examples

- Point-to-point Ethernet-plus-TK Connection over Fiber Optics
- Cross-Linking of two LANs with PBXs Coupling
- Freespace Optic Connection of two Buildings
- Last-Mile Ethernet Access for Telcos or Carriers/Providers



Multiplexer Application with Redundant Point-to-point Fiber Optic Link for up to 8 x 2Mbit/s Voice and 1000Mbit/s Data



Multiplexer Applikation over Freespace Optic (FSO)

# gigabit TDM

## Voice+Data over Redundant Fiber Optic

### Specification

<b>TDM Data Rates E1/T1</b>	Four/eight Interface Ports with 1.544 Mbit/s at T1 or 2.048 Mbit/s at E1 Compliance: TBR12, TBR13, G.703, G.823
<b>TDM Data Rates E3/DS3</b>	One Interface Port with 34.368 Mbit/s at E3 or 44.736 Mbit/s at DS3
<b>TDM Clock Modes</b>	Internal, External, Adaptive
<b>Ethernet</b>	Integrated Ethernet Switch with 4 x 10/100/1000Base-T, Auto Negotiation, MDI / MDI-X, VLAN, QoS, Rate Limiting Enterprise Mode: Switched LAN Carrier Mode: Ethernet Point-to-Point
<b>Fiber Optic</b>	2 x SPF Module Slot, Data Rate 1.25 Gbit/s
<b>Management</b>	VT100 Console, SNMP Config and Monitoring Telnet integrated Power and Status LEDs Software-Update via TFTP
<b>Diagnostics</b>	Several Loop Modes BERT Generator / Test Digitalen Diagnostic Monitoring (DDM) of the SFP Modules
<b>Power Supply</b>	Two Redundant Plugs with 2 x 100 - 240V AC or 2 x -48V DC
<b>Fans</b>	Redundant Fan
<b>Mechanical</b>	19" 1HU, Depth 260 mm
<b>Environmental</b>	Temperature 0-40°C, Humidity max. 90%, Non-condensing

### Ordering Information

<b>gigabit TDM 4124</b> 4 x E1/T1 switchable RJ45 4 x 10/100/1000Base-T RJ45 2 x Gigabit Fiber SFP slot  2 x 100-240V, europ. plug <b>Order Code: G4124-EU</b>  2 x 100-240V, US plug <b>Order Code: G4124-US</b>  2 x -48V power supply <b>Order Code: G4124-48</b>	<b>gigabit TDM 4128</b> 8 x E1/T1 switchable RJ45 4 x 10/100/1000Base-T RJ45 2 x Gigabit Fiber SFP slot  2 x 100-240V, europ. plug <b>Order Code: G4128-EU</b>  2 x 100-240V, US plug <b>Order Code: G4128-US</b>  2 x -48V power supply <b>Order Code: G4128-48</b>	<b>gigabit TDM 4321</b> 1 x E3/DS3 switchable BNC 4 x 10/100/1000Base-T RJ45 2 x Gigabit Fiber SFP slot  2 x 100-240V, europ. plug <b>Order Code: G4321-EU</b>  2 x 100-240V, US plug <b>Order Code: G4321-US</b>  2 x -48V power supply <b>Order Code: G4321-48</b>
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