Gigabit Ethernet Fiber Optic Mode Converter/Repeater

- Converts/Repeats Multimode to Single Mode (and vice versa)
- 1000Mbps Continuous Data Rate
- One Fiber Bi-Directional Communication (optional, single mode only)
- Distances up to 100km
- Local Dry Contact Alarm Relay
- 8 Diagnostic LED Indicators
- Built-In Power Redundancy
- Rackmount or Standalone

The TC3006 “MAXI” Gigabit Ethernet Multimode-to-Single Mode Fiber Optic Converter converts multimode formats to single mode formats, or vice versa, for Gigabit data transmission. It also repeats the multimode & single mode fiber signals. Transmission distances to more than 100km are possible with the laser 1550nm singlemode option and 2km with the 1300nm multi mode option.

The MAXI will convert or repeat all popular wavelengths 850/1300nm Multimode or 1300/1550nm Single Mode. It is compatible with Gigabit Ethernet standards 1000Base-SX and 1000Base-LX.

The MAXI provides users with several key features including Local & Remote Loopback, Dry Contact Relay Alarm, Audible Alarm Buzzer, Power Redundancy, and standalone or rackmount modularity.

The Dry Contact Alarm is particularly beneficial. Along with an audible alarm buzzer, it identifies Optical Signal Loss on either the multimode or single mode ends.

Power redundancy is load sharing and switches over automatically in the event of a failure. Power can be either 12VDC (standard), 24VDC, -48VDC, 125VDC or 115/230VAC with an external power cube. Standalone versions are modular, i.e. used either in a standalone case or in a rackmount assembly. Standard connectors are ST, SC or FC type.

Four DIP switches and eight LED indicators are provided to help installation and troubleshooting. A hardened temperature version (-20°C to 70°C), Model TC3006T, is also available.

Applications

The MAXI Mode Converter is used to convert multimode to single mode, or vice versa, in a variety of LAN environments including Gigabit Ethernet Switches and Routers. This conversion is done to cross-connect different fiber types, regenerate optical signals and/or extend transmission distances. It can also be used to repeat a Gigabit signal on multimode or single mode fibers.

*Note - Multimode 850nm reaches distances up to 550m, and multimode 1300nm reaches distances up to 2km.
**Data Rate**

- 1000 Mbps

**Optical**

- **Transmitter:** LED/LASER
- **Receiver:** PIN Diode
- **Wavelength:**
  - 850/1300nm Multimode
  - 1300/1550nm Single Mode
- **Fiber Optic Connectors:** ST, SC, FC

**Loss Budgets**

- **LED:** 16dB 850/1300nm Multimode @62.5/125μm
- **LASER:** 25dB 1300nm Single Mode @9/125μm
- **HI-PWR LASER:** 34dB 1300/1550nm Single Mode @9/125μm

*Any two wavelengths are available on each unit*

**System**

- **Bit Error Rate:** 1 in 10^10 or better

**Visual Indicators**

- PWRA, PWRB, VCCA, VCCB, MM RX, MM TX, SM RX, SM TX

**Alarm**

- Dry Contact: Normal OPEN

**Power**

- **Standard:** 12VDC @800mA (max)
- **Optional:** 24VDC, ~48VDC, or 115/230VAC with power cube

**Temperature**

- Operating: -10°C to 50°C
- Hi-Temp (optional): -20°C to 70°C
- Storage: -40°C to 90°C
- Humidity: 95% non-condensing

**Physical (Standalone Unit)**

- Height: (3.53 cm) 1.39"
- Width: (18.13 cm) 7.14"
- Depth: (16.59 cm) 6.53"
- Weight: (512 gm) 1.5 lbs

**Certified System**

ISO 9001

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