

# “MAXI” Fiber Optic Mode Converter/Repeater

## Model TC3005

- Converts Multimode to Single Mode (and vice versa)
- Data Rates up to 200 Mbps
- Distances up to 100km
- Repeats Multimode and Single Mode Signals
- Local Dry Contact Alarm Relay
- 8 Diagnostic LED Indicators
- Built-In Redundant Power Supply
- Two-way Single Fiber Communication (option, single mode)



TC3005 Stand Alone

The TC3005 “MAXI” Multimode-to-Single Mode Fiber Optic Converter converts multimode formats to single mode formats, or vice versa, for data transmission up to 200 Mbps. Transmission distances to more than 100km are possible with the Laser 1550nm option (34dB loss budget).

The MAXI will convert or repeat wavelengths 850/1300nm Multimode or 1300/1550nm Single Mode. It is compatible with all popular communication technologies including Ethernet, Token Ring, TAXI, OC1/OC3, ATM, FDDI and SONET.

The MAXI provides users with several key features including Dry Contact Relay Alarm, Audible Alarm Buzzer, Power Redundancy, and standalone or rackmount modularity. The Dry Contact Alarm Relay, which includes an audible alarm buzzer, 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, 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 SC, ST 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 TC3005T, is also available.



## Applications

The MAXI Mode Converter is used to convert multimode to single mode, or vice versa, in a variety of LAN and Telephony communication environments including PABX, Ethernet, Token Ring, FDDI, ATM & SONET (OC1 & OC3). This conversion is done to cross-connect different fiber types, regenerate optical signals and/or extend transmission distances.

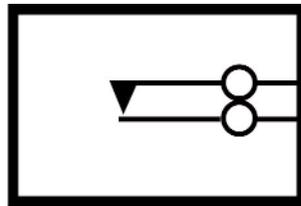
TC Communications, Inc.  
17881 Cartwright Rd. Irvine, CA 92614 U.S.A.  
Tel: (949) 852-1972, Fax: (949) 852-1948  
Sales: (800) 569-4736  
Web Site: [www.tccomm.com](http://www.tccomm.com)  
E-mail: [sales@tccomm.com](mailto:sales@tccomm.com)



Typical applications using TC3004 Fiber Optic Mode Converter/Repeaters

Reply Switch Specifications:

Maximum Switch Voltage: 100VDC  
 Switch Current: 0.5 Amp  
 Maximum Carry Current: 1.2 Amp  
 Contact Resistance: 0.2 Ohm



to  
 Remote  
 Alarm Status  
 Indicator

A terminal block connector on the TC3005 rear panel provides for the dry contact relay alarm. Normally in the OPEN position, any loss of optical signal will trigger an alarm condition and force the switch to the CLOSED position. This relay can be used in conjunction with an external device to monitor the condition of the link.

Dry Contact Alarm Relay Switch

**Data Rates**

.....up to 200 Mbps

**Optical**

Transmitter.....ELED/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 @62.5/125nm  
 ELED .....16dB 1300/1550nm  
 Single Mode @9/125nm  
 LASER .....25dB 1300nm  
 Single Mode @9/125nm  
 HI-PWR LASER ...34dB 1300/1550nm  
 Single Mode @9/125nm

\*Any two wavelengths are available on each unit

**System**

Bit Error Rate .....1 in 10<sup>10</sup> 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



ISO 9001  
 QMI-SAI Global  
 #1045959

TC Communications, Inc.  
 17881 Cartwright Road  
 Irvine, CA 92614 U.S.A.  
 Factory Tel: (949) 852-1972  
 Fax: (949) 852-1948

Sales Office  
 U.S.A. Domestic International  
 (800) 569-4736 (949) 852-1973

Web Site: www.tccomm.com  
 E-mail: sales@tccomm.com