

“MAXI” Fiber Optic Mode Converter/Repeater

Model TC3004

- Converts Multimode to Single Mode (and vice versa)
- Data Rates up to 622 Mbps
- Distances up to 100km
- Repeats Multimode and Single Mode Signals
- Local & Remote Loopback
- Local Dry Contact Alarm Relay
- 8 Diagnostic LED Indicators
- Built-In Redundant Power Supply
- Two-way Single Fiber Communication (option, single mode)
- Test Signal Generator (optional)



TC3004 Stand Alone



TC3004 Rackmount

The TC3004 “MAXI” Multimode-to-Single Mode Fiber Optic Converter converts multimode formats to single mode formats, or vice versa, for data transmission up to 622 Mbps. Transmission distances to more than 100km are possible with the Laser 1550nm option (34dB loss budget).

The MAXI will convert or repeat wavelengths 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 Local & Remote Loopback, a Test Signal Generator, Dry Contact Relay Alarm, Audible Alarm Buzzer, Power Redundancy, and standalone or rackmount modularity.

The Test Signal Generator and Dry Contact Alarm are particularly beneficial. The Signal Generator (160 Mbps) helps technicians conduct various installation tests including fiber link verifications. 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.

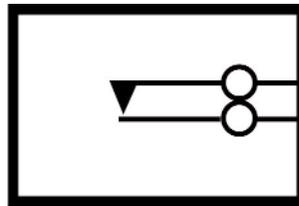
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Typical applications using TC3004 Fiber Optic Mode Converter/Repeaters

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 TC3004 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 622 Mbps

Optical

Transmitter.....ELED/LASER

Receiver.....PIN Diode

Wavelength

.....1300nm Multimode

.....1300/1550nm Single Mode

Fiber Optic Connectors

SM SC, ST, FC

MM SC, ST

Loss Budgets*

LED16dB 1300nm

Multimode @62.5/125 nm

ELED16dB 1300/1550nm

Single Mode @9/125 nm

LASER00.....25dB 1300nm

Single Mode @9/125 nm

HI-PWR LASER...4dB 1300/1550nm

Single Mode @9/125 nm

*Any two wavelengths are available on each unit

System

Bit Error Rate1 in 10¹⁰ 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

Humidity95% 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

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