Fiber Optic Mode Converter / Repeater

TC3026

- **Data Rates from 64 Kbps to 52 Mbps**
- **Supports Burst Data**
- **Transmits Distances up to 80km**
- **850nm/1300nm Multi-mode & 1310nm/1550nm Single Mode**
- **Multiple Diagnostic LED Indicators**
- **Built-In Loopback Functions**
- **Local Dry Contact Alarm Relay**
- **Available in Standalone or Rack Mount Chassis**

TC3026S Standalone Unit

2 X TC3026R
(Housed in TCRM196 1U High Rack Mount Card Cage)

Supporting data rates from 64 Kbps to 52 Mbps, the TC3026 Mode Converter Series converts, regenerates or extends 850nm/1300nm multi-mode or 1310nm/1550nm single mode optical signals up to 80 km. Standard connectors are ST.

The TC3026 provides several key features including Dry Contact Alarm Relay with audible alarm buzzer, Power Redundancy, and standalone or rack mount modularity. The Dry Contact Alarm Relay, which includes an audible alarm buzzer, identifies Optical Signal Loss on either the multi-mode or single mode ends.

Power redundancy is load-sharing and switches over automatically in the event of power failure. Power can be either 12VDC (standard), 24VDC, -48VDC, 125VDC, or 115/230VAC with an external power cube. Individual units are modular, and can be used either in a standalone case or in a rack mount assembly.

Four DIP switches and eight LED indicators are provided for easier installation and troubleshooting. High Temp (-20°C to +70°C) and Extreme Temp (-40°C to +80°C) options are also available with Model TC3026T.

TC COMMUNICATIONS®
FIBER OPTIC CONNECTIVITY

Applications

The TC3026 Mode Converter Series is frequently used to convert multi-mode fiber optic signals to single mode, and to connect various devices in Telephony or LAN communication environments. This conversion is done to cross-connect different fiber types, regenerate optical signals and/or extend transmission distances. It is also used for Burst Data applications.

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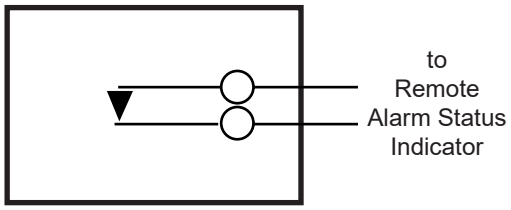
Typical Application Using TC3026 Fiber Optic Mode Converter

Reply Switch Specifications:

Maximum Switch Voltage: 60VDC
Switch Current: 1.0 Amp
Maximum Carry Current: 2.0 Amp
Contact Resistance: 0.1 Ohm



A terminal block connector on the TC3026 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
TC3026 ..... 64 Kbps to 52 Mbps

Optical
Transmitter ..... LED/ELED
Receiver.....PIN Diode
Wavelength ..... 850/1300nm MM
.....1310/1550nm SM
Fiber Optic Connectors .....
.....ST, Optional SC
Loss Budget* - 850/1310/1550nm
Multi-mode @62.5/125µm 15dB
Single Mode @9/125µm 20dB

System
Bit Error Rate.....1 in 10^{10} or better

Visual Indicators
MM RX, MM TX, MM LB, SM RX, SM TX, SM LB, S-H, ALARM, PWRA, PWRB, Vcc

Diagnostic Functions
.....SM & MM Loopback,
.....High/Low Speed, Disable Alarm

Alarm
Dry Contact.....Normal OPEN

Power
Standard..... 12VDC @200mA
Optional ..... 24VDC, -48VDC, or
..... 115/230VAC (with external cube)

Temperature
Operating ..... -10°C to 50°C
Hi-Temp (optional) ..... -20°C to 70°C
Extreme Temp (optional)-40°C to 80°C
Storage..... -40°C to 90°C
Humidity .....95% non-condensing

Physical (Stand Alone 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
*Contact factory for higher requirements

TC COMMUNICATIONS®
FIBER OPTIC CONNECTIVITY

Certified System™
SAI GLOBAL
ISO 9001
Quality

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