

Low Speed Fiber Optic Mode Converter/Repeater

Model
TC3020R/S

- Supports Burst Data
- Data Rates up to 5 Mbps
- Distances up to 30 km*
- Multimode & Single Mode (850/1300/1550nm)
- Multiple Diagnostic LED Indicators
- Test Signal Generator
- Built-In Loopback Functions
- Local Dry Contact Alarm Relay
- Stand Alone or Rackmount



Intended for low speed and Burst Data applications, the TC3020R/S Multimode-to-Single Mode Fiber Optic Converter converts multimode formats to single mode formats, or vice versa, for data transmission up to 5 Mbps.

The TC3020R/S is also used to regenerate or extend optical signals. It will convert, regenerate or extend 850nm, 1300nm or 1550nm wavelengths up to distances of 30 km*.

Eleven LEDs are provided for diagnostics, monitoring optic signals in both directions and indicating system status. A Test Signal Generator is available to help technicians conduct various installation tests including fiber link verifications. A Dry Contact Relay Alarm is also provided as a standard feature.

The TC3020R/S works with all popular types and sizes of fiber optic cable. Fiber optic connectors are ST or FC type. Power is 12VDC or 115/230VAC with an external power cube. An extreme temperature version (-20° to 70°C), Model TC3020T, is also available.

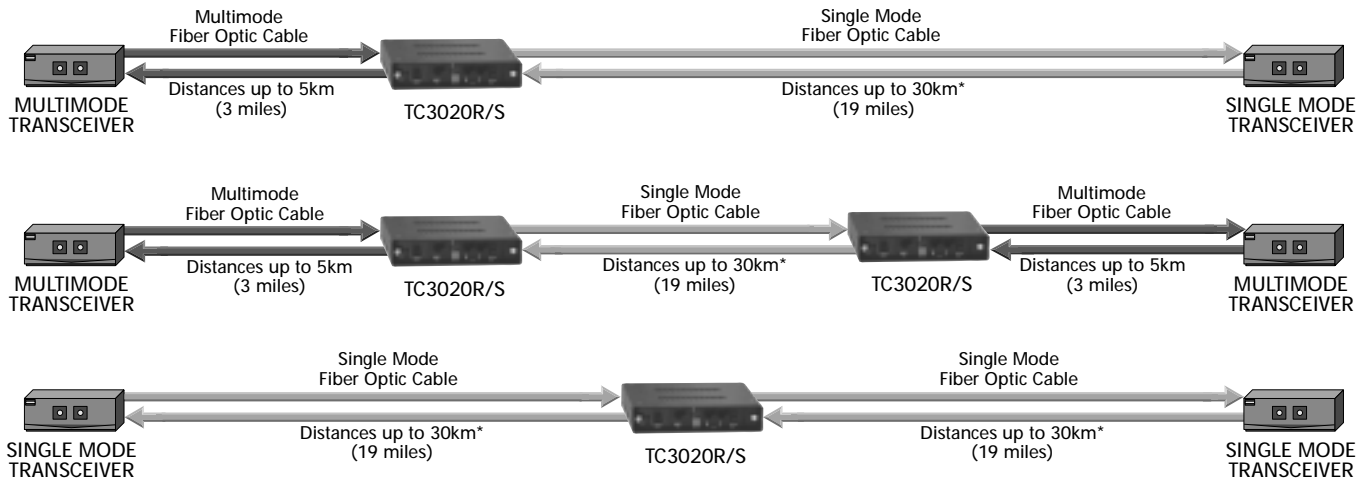
**Contact factory for higher requirements*



Applications

The TC3020R/S Mode Converter is frequently used to convert multimode to single mode, or vice versa, for various low speed devices in Telephony or LAN communication environments. It is also used for Burst data applications. This conversion is done to cross-connect different fiber types, regenerate optical signals and/or extend transmission distances.

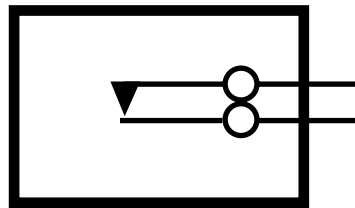
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Typical applications using Model TC3020R/S Mode Converter/Repeater

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 rear panel provides for the dry contact relay alarm. Normally in the OPEN position, any loss of electrical or 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

.....DC to 5 Mbps

Optical

TransmitterLED/ELED

ReceiverPIN Diode

Wavelength*

.....850/1300nm Multimode

.....1300/1550nm Single Mode

Fiber Optic ConnectorsST
 {trademark of AT&T}; Optional FC

Loss Budget** - 850/1300/1550nm

15dB.....Multimode @62.5/125µm

15dB.....Single Mode @9/125µm

*Any two wavelengths are available on each unit

System

Bit Error Rate1 in 10¹⁰ or better

Visual Indicators

.....MM RX, MM TX, MM LB,

SM RX, SM TX, SM LB, SIGGEN,

ALARM, PWRA, PWRB, Vcc

Diagnostic Functions

.....SM & MM Loopback, Signal
 Generator, Disable Alarm

Alarm

Dry Contact.....Normal OPEN

Power

Standard12VDC @200mA

Optional24VDC, -48VDC, or
 115/230VAC (with external 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) 1.4"

Width(18.14 cm) 7.1"

Depth(16.57 cm) 6.5"

Weight.....(544 gm) 1.2 lbs

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