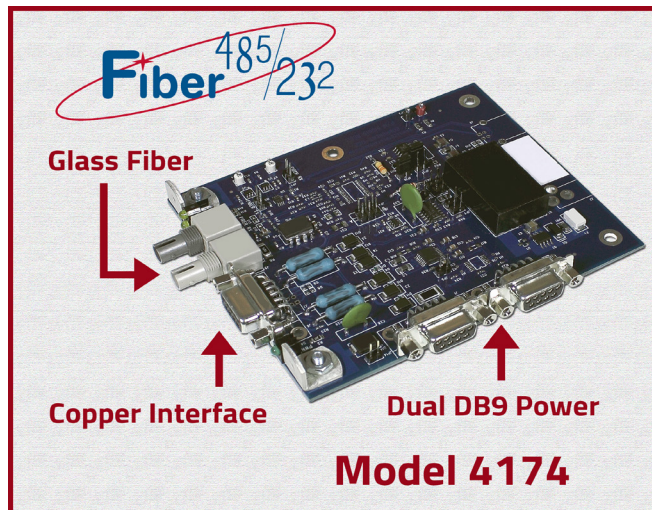


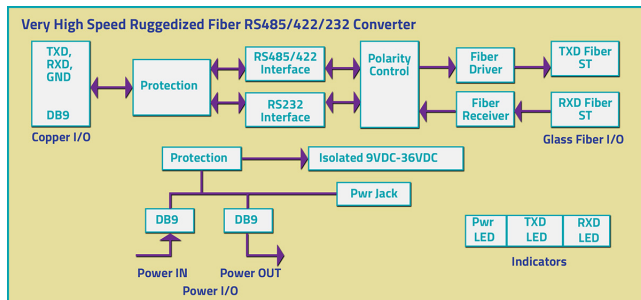
Model 4174 High Speed Ruggedized ST Fiber-to-RS485/422/232 Interface Converter Board

The Model 4174 is a very high speed ruggedized, protocol independent, Fiber to RS485/422/232 interface converter from Electro Standards Laboratories. Typical operating speeds are up to 1.5 Mbps for RS232 to fiber conversion and up to 5 Mbps for RS485/422 to fiber conversion. Designed to operate from -40°C to +85°C, it is a member of Electro Standards Laboratories' (ESL) rugged community fiber-to-copper media converter family. The unit features protection circuitry on all receivers and transmitters for both RS232 and RS485/422 interfaces. The Model 4174 Board Unit has front mounted threaded brackets for rack mounting in embedded applications. The unit's power input is protected from transients and features 3kVDC isolation to prevent system ground loops. It can be powered from a wide input range of 4.5VDC-9VDC. Custom models are also available for other voltage ranges such as 10VDC-36VDC and 19VDC-72VDC. Dual D9 connectors for Power Daisy Chaining. Other features include user selectable fiber polarity, TX, RX and Power indicator LEDs.



FEATURES

- Converts ST fiber link to RS485/422/232 interface via a DB9 connector.
- Typical operating speeds are 1.5 Mbps for RS232 to fiber conversion.
- Supports constructing an optically isolated high speed communication link between a PC and a serial data network.
- Supports point-to-point and multi-point network configurations.
- LED indicators for TXD, RXD, and power.
- Fiber Interface: Fiber Optic ST connectors.
- Fiber Size: 50/125 µm, 62.5/125 µm, 100/140 µm.
- Wavelength: 820nm/850nm, multimode.
- Copper Interface: DB9 Female.
- Terminations: RS485/422 120 Ohm jumper selectable.
- Unit features ESD protection circuitry on the copper I/O connector.
- Unit can be powered from a wide input range of 4.5 VDC - 9 VDC.**
- Power input is protected from transients and features 3kVDC isolation to prevent system ground loops.
- Dual DB9F for power daisy chaining.



SPECIFICATIONS:

Glass Fiber Interface:

Connectors: Fiber Optic ST
TX Power: -12.5 dBm
RX Sensitivity: -27.5 dBm
Optical Budget: 15 dB
Max. Link Distance with 62.5/125 mm fiber:
5.35 km at up to 5 Mbps, 25°C
3.75 km at up to 5 Mbps, -40°C to +85°C
Wavelength: 820 nm/850 nm, multimode
Fiber Size: 50/125 mm, 62.5/125 mm, 100/140 mm

Fiber Polarity:

Logical 1 = Light ON/OFF: User Selectable

Copper Interface:

Connectors: DB9, Female
Type: RS485, RS422, RS232
Terminations: RS485/422 120 Ohm insertable

Bit Rate (nom.):

RS232: 0 to 1.5 Mbps
RS485/422 0 to 5 Mbps

Indicators:

LEDs: TXD, RXD, PWR

Power:

Input Power: 4.5VDC-9VDC,
Isolation: 3 kVDC
Connectors: Dual DB9F for Power Daisy Chaining

Operating Environment:

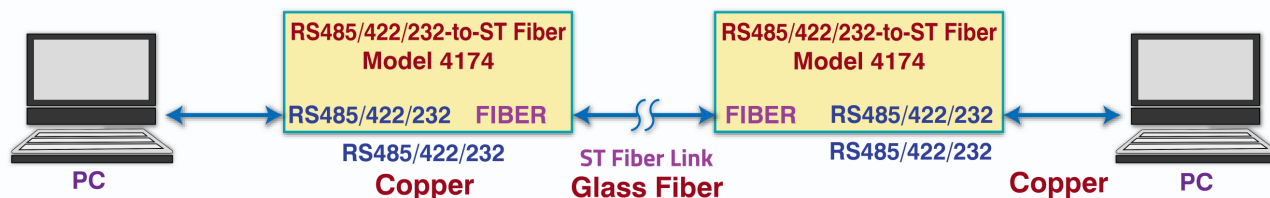
-40°C to +85°C

Model 4174 Mechanical (Board Only):

Model 4174, Cat No 304174
Size: 4.8" x 3.9" x 0.63" [12.2 x 9.9 x 1.6 cm]
Weight: Approx. 3.5 oz (99g)
Mounting: Mounting Holes, Right Angle Brackets

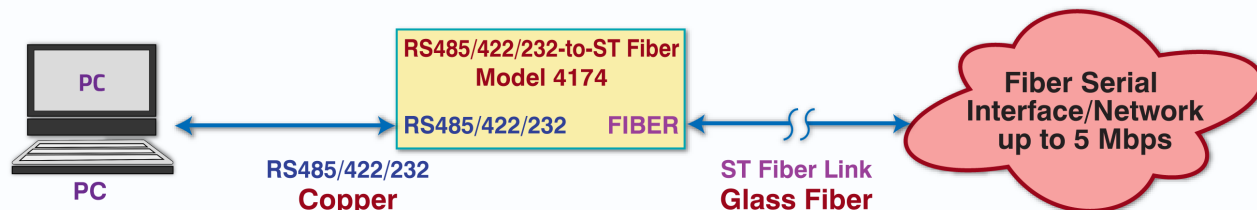
Model 4174 High Speed Ruggedized ST Fiber-to-RS485/422/232 Interface Converter Board

Fiber-to-RS485/422/232 Model 4174 Application:



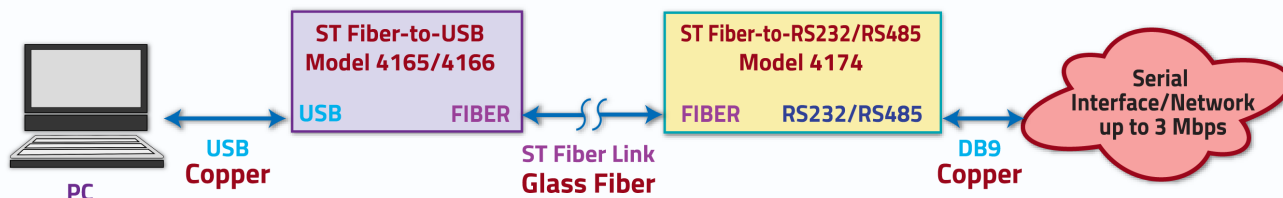
Point-to-Point Isolated PC RS485/422/232 Communications.

Fiber-to-RS485/422/232 Model 4174 Application:



Isolated PC RS485/422/232 communications to fiber serial interface/network.

Fiber-to-USB Model 4165/4165-DIN, & 4166 to Model 4174 Application:



Isolated PC USB to RS232/RS485 communications serial interface/network.