



Electro Standards Laboratories
ADVANCED SYSTEMS DESIGN & SERVICES



SPECIFICATIONS
Desktop Unit... Model 4045
(Cat No. 304045)

Model 4045 Very High Speed Ruggedized ST Fiber-to-RS422 Interface Converter

The **Model 4045** is a high speed ruggedized **ST Fiber to RS422** interface converter. Typical operating speeds are up to 12.6 Mbps for RS422 to fiber conversion. When operating in RS422 mode, the converter is configured for 4-wire full duplex operation.

Applications: The converter provides an industrial solution for applications requiring a single point-to-point or a communications link over short and long distances. Applications include: PC to PC long distance communications, factory automation, data collection devices, barcode readers, time clocks, scales, data entry terminals, ATM's and serial communications.

The converter is powered from a +28V power source via the DB9 connector from a customer supplied power supply. Other features TX, RX and Power indicator LEDs.



FEATURES:

- Model 4045 converts ST Duplex Fiber to Copper RS422 DB9 (F) port.
- Supports constructing an optically isolated high speed communication link between connected devices.
- Typical operating speeds are up to 12.6 Mbps for RS422 to fiber conversion.
- Provides full galvanic isolation (no metallic connection) between connected devices.
- LED Status indicators display Fiber RX, TX activity and power indication.

SPECIFICATIONS:

Fiber Interface:

Connectors: Fiber Optic ST Female, Multimode
TX Power: -14 dBm with 62.5/125µm Fiber
RX Sensitivity: -24 dBm with 62.5/125µm Fiber
Optical Budget: 10 dB
Max. Link Distance with 62.5/125 µm fiber:
2 km at up to 12.6 Mbps
Wavelength: 850 nm, multimode
Fiber Size: 50/125 µm, 62.5/125 µm, 100/140 µm

Copper Interface:

Connectors: DB9, Female
Type: RS422 (4-wire)

Bit Rate (nom.):

RS422 0 to 12.6 Mbps

Network Configurations:

RS422 Point-to-Point

Indicators LED's:

- (1) Red: Fiber RCV (RX Data)
- (1) Yellow: Fiber XMT (TX Data)
- (1) Green: Power Indicator

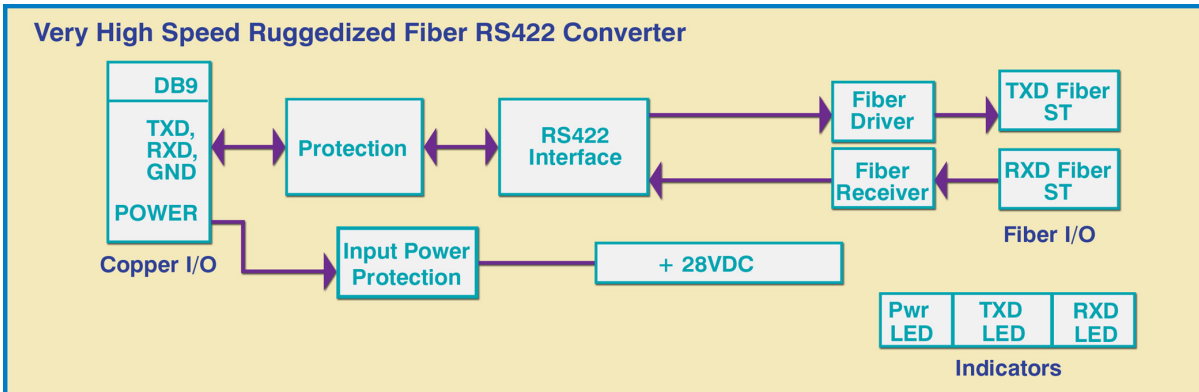
Power:

Input Power: (8-32 VDC) +28VDC (Nominal)
Connectors: DB9F, Pin 1 (+28V), Pin 5 (GND)
Customer Supplied power to unit via DB9(F) connector.

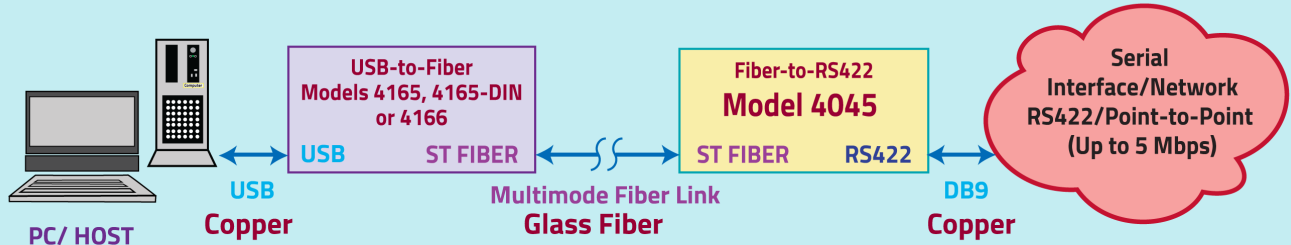
Model 4045 Mechanical (Desktop Unit):

Model 4045, Cat No: 304045
Size: 3.14" x 1.77" x 1.08" [8.0 cm x 4.5 cm x 2.8 cm]
Weight: 0.2 lb (74g)

Very High Speed Ruggedized ST Fiber-to-RS422 Interface Converter

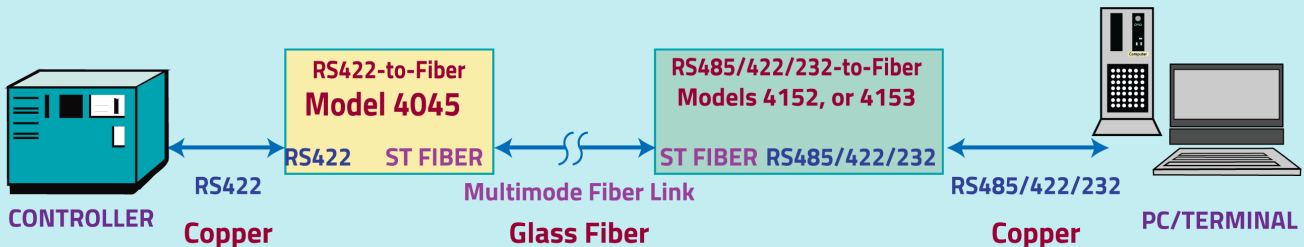


Models 4165, 4165-DIN, or 4166 to Model 4045 Application



Isolated PC/HOST USB to RS422 communications serial interface/network.

Model 4045 to Models 4152, 4153 Application



Point-to-Point Isolated RS422 Communications.

MODEL 4045 APPLICATION: RS422 to Multimode Fiber to (POF) Fiber

