Electro Standards Laboratories
ADVANCED SYSTEMS DESIGN & SERVICES

®Fiber232

Fiber 232® Model 4107 F07 (POF) Fiber/RS232 Converter

- *Provides Electrical-to-Optical, Optical-to-Electrical Conversion.*
- *Plastic Optical Fiber interface provides immunity to electromagnetic interferences and pulses common to industrial applications.*
- *Totally eliminates ground loops and noise problems associated with high-voltage applications.*
- *Ideal for providing isolation to sensitive test equipment/computers used in conjunction with electrostatic test simulation devices.*

Model 4107 Application

The Model 4107 F07 (POF) Fiber/RS232 Converter is used to provide copper/fiber media conversion between an RS232 interface device and a plastic optical fiber (POF) interface device. While the RS232 is a versatile communication standard, conversion to a fiber optic communication standard allows data transmission that is no longer susceptible to electro-static or electromagnetic fields. Additionally, the ports of the connected devices are protected from damage by potential differences (ground variations) that often exist between them.

F07 POF Fiber / RS232® Features:

- Converts RS232 Serial Communication Interface to **Fiber (POF) interface**.
- RS232 copper connection via **DB9 Connector.**
- Plastic Optical Fiber connection via **F07 Fiber POF Connector.**
- Provides full galvanic isolation (no metal connection) between connected devices.
- Full duplex connection between F07 fiber optic interface device and an RS232 interface device.
- Allows interference-free fiber optical transfer of data to the device having an RS232 interface.
- Data transfer rate up to 1 Mbps.
- Fiber connections via a full duplex F07 connector.
- Model 4107 is configurable for use as DCE or DTE. It is factory configured as a DCE unless otherwise specified with order. To reconfigure the unit to a different setting in the field, jumpers on board must be changed.
- LED Status indicators display data transfer activity.
- Provided with external wall mount power supply, UL Listed, RoHS, LPS.

Model 4107 F07 (POF) Fiber to RS232 Converter — Polymer Fiber F07 (POF), DB9 RS232

SPECIFICATIONS:

Plastic Fiber: (POF)
Cable Type: 1 mm plastic optical filament.
Wavelength: 660 nm (red).
Transmission Distance: 75 m (250 ft.) (POF).
Data Transfer Rate: Up to 1 Mbps.
Optical Fiber Connector: F07 (POF) Full Duplex (TX, RX).

RS232 Serial Interface:
Transmission Distance: At 115.2 Kbps, 100 meters using low capacitance cable.
RS232 Connector: DB9 Female.
External Power Supply (included with Model 4107): 100 -240 VAC @ 50/60 Hz. UL Listed, RoHS, LPS (Cat No 529954)
Dimensions: 5.57" x 2.25" x 1.13" (141mm x 58mm x 29mm).
Weight: Approximately 0.5 Lb. (226 grams).
Status: Red LED indicates Fiber RX Data Activity. Green LED indicates Fiber TX Activity.

RS232 Signals

Model 4107 DTE DB9 Pin #	Model 4107 DCE DB9 Pin #	Signal	Signal Direction
2	3	RXD	← IN
3	2	TXD	→ OUT
5	5	REF/GND	

F07/F07 Plastic Core Cables

Catalog Number	Length
989546-010	10 Feet
989546-020	20 Feet
989546-XXX	Length in Feet

MODEL 4107 APPLICATION: Providing electrical interference isolation via copper-to-fiber media conversion.

Computer or Sensitive Monitor Equipment — RS232 Serial — DB9 — MODEL 4107 — F07 — (POF) Fiber — F07 — Potential "Noise" Source, such as Electrostatic Test Simulation Device

Protected Devices — Provides galvanic isolation via copper / fiber conversion — Electrical Interference Source