



## 232-FIBER-MM

RS-232 To Fiber Optic  
Multi-Mode Converter  
Datasheet Revision 1.2

www.serialcomm.com

### INTRODUCTION:

The SerialComm 232-FIBER-MM is a bi-directional externally powered RS-232 to Multi-Mode Fiber Optic Converter. It can convert any standard full duplex RS-232C to a Multi-mode SC connector type or ST connector type fiber optic link. In simple terms, it will extend the distance of any RS-232 signal up to 1.2 miles (2 km) using a MM fiber optic cable. It also supports data direction auto-turnaround. Therefore, no flow control is required. The data direction auto-turnaround automatically enables the RS-232 drivers when data is present making the device plug-and-play, requiring no software drivers. The 232-FIBER-MM has a db-9 for serial connections and either ST type or SC type connectors for fiber optic links. Separate external power supply is included in package.

### CERTIFICATIONS:



### GENERAL FEATURES:

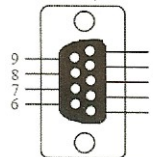
- Transmits RS-232 up to 1.2 miles or 2 km
- Plug-and-Play (Device is hot-pluggable)
- 5 Year Manufacturer's Warranty
- RoHS, CE, FCC, ISO 9001 and IAF Compliance Certified
- Built-in surge protection, static protection and circuit protection
- Surface Mount RoHS Compliant Technology manufactured to ISO 9001 Standards

### PINOUT CONFIGURATION:

#### RS-232 SIDE - DB9 FEMALE

SIG.	DCD	DTR	DSR	RTS	CTS	TX	RX	GND
PIN #	1	4	6	7	8	2	3	5
FUNC.	TIED			TIED		TX	RX	GND

#### FEM DB9



### SPECIFICATIONS:

PART NUMBER:	232-FIBER-MM
STANDARDS:	EIA/TIA RS-232C Standard
BAUD RATES:	From 300 Baud To 120K Baud
POWER SOURCE:	9 to 36VDC (External AC to DC power adapter included)
AC/DC POWER ADAPTER:	9VDC - 500ma (100-240VAC 50/60HZ US type A plug)
POWER CONSUMPTION:	4 Watts
WAVELENGTH:	1310nm
FIBER OPTIC CABLES:	Multi-mode: 50/125um, 62.5/125um
CONNECTOR (SERIAL)	RS-232 DB9 Female
CONNECTOR (POWER)	DC Input: 2-way Terminal Block
CONNECTOR (FIBER OPTIC)	2 X ST Connector or 2 X SC Connector
DISTANCE - SERIAL PORT:	RS-232 Side: 16 ft (5m);
DISTANCE - FIBER OPTIC:	Multi-mode: 1.2 miles (2 km)
STATIC PROTECTION:	1500W Static Protection
SURGE PROTECTION:	600W Surge Protection
ELECTRO STATIC DISCHARGE - (ESD)	Up to 15KV
WEIGHT:	<b>With ST Connector:</b> 8.87oz (251.4 grams) <b>With SC Connector:</b> 8.73oz (245.3 grams)
DIMENSIONS:	<b>With ST Connector:</b> 5.00" X 3.60" X 0.90" (126.0 mm X 91.0 mm X 22.0 mm) <b>With SC Connector:</b> 4.50" X 3.60" X 0.90" (115.0 mm X 91.0 mm X 22.0 mm)
OPERATING TEMP.:	-40° F to 167° F (-40°C to 75° C)
OPERATING HUMIDITY:	0% To 95% - No Condensation

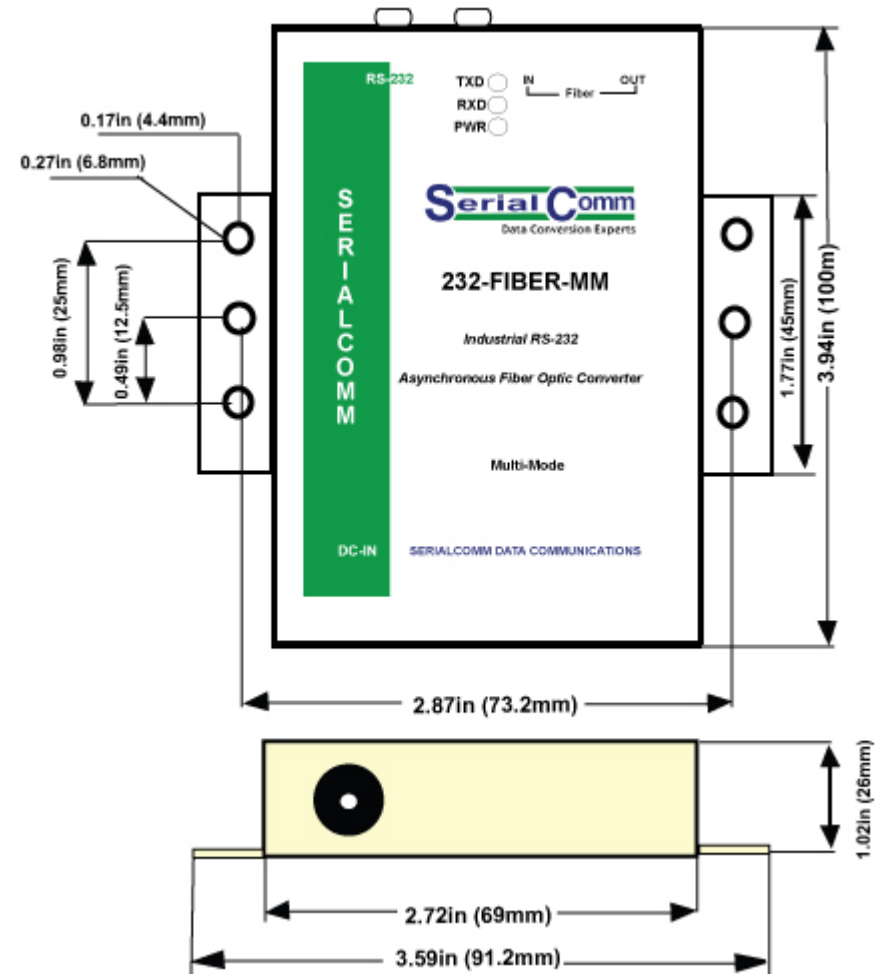
### TROUBLESHOOTING INSTRUCTIONS:

- Check the connections according to the connection diagrams.
- Make sure the power LED is ON and the RX & TX LEDs are OFF when there is no data communications.
- Perform a loop back test on two 232-FIBER-MM converters. Attach the two 232-FIBER-MM converters by attaching the FIBER IN to the FIBER OUT using a MM Fiber Optic Cable. Connect the 232-FIBER-MM RS-232 port to a PC. Send ASCII Characters from a hyper terminal program from one converter to the other. this will test both the transmit and receive functions.

## LED INDICATIONS:

PWR	●	<b>PWR INDICATOR</b> STEADY: POWER ON OFF: POWER OFF
RX	●	<b>RX INDICATOR</b> STEADY: FIBER IN CONNECTED FLASHING: DATA ACTIVITY
TX	●	<b>TX INDICATOR</b> FLASHING: DATA ACTIVITY

## DIMENSIONS:



## APPLICATIONS:

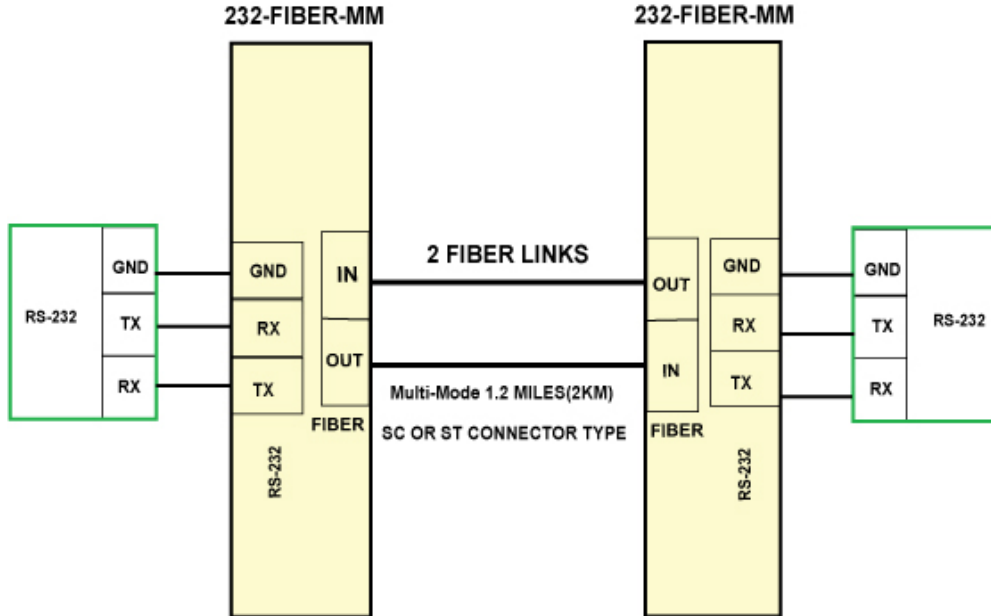


FIGURE 2: EXTENDING RS-232 DATA DISTANCE