

# RS232/RS485/RS422 Fiber Modem

OP-FM-RS232/485/422





Shenzhen Optostar Optoelectronics Co., Ltd

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#### Overview

This device is based on FPGA, which supports asynchronous RS-232/422/485 communication interface Fiber Modem. The device is the best choice of connecting to the remote terminal unit (RTU) to a host (HOST) or a distributed data acquisition system (SCADA) controllers, with very high performance price ratio. Using ordinary multi-mode fiber, effective communication distance is up to 4KM, while using ordinary single-mode fiber, effective communication distance up to more than 40KM. Serial port communication rate is up to 921.6KBPS. As a result of the fiber as a transmission medium, you can completely avoid the threat to communication device under the adverse environment, such as lightning, surges and electromagnetic interference, at the same time it saves investments of the original lightning surge protection devices that using copper .

### **Prduct Features**

- Based on self -copyright IC.
- Support 3 interfaces RS232,RS422,RS485, you can only use one, cannot use the three interfaces at the same time.
- Can automatically detect and control RS485 data flow without handshake signals to control the flow direction of data.
- > Have the ability to automatically detect the baud rate of serial port signal.
- Automatically test the reason of the device matt is that the device is power off, or E1 line is broken.
  And then indicate on the LED.
- > Support SNMP Network Management.
- > Serial channel can transmit adaptable serial data asynchronously 300 Kbps-921.6Kbps baud rate.
- Serial port interface lightning-protection reached IEC61000-4-5 (8/20µS) DM(Differential Mode):
  6KV, Impedance (2 Ohm), CM(Common Mode): 6KV, Impedance (2 Ohm) standard.



## **Technical Parameter**

OP-FM-RS232/485/422	RS232/RS485/RS422Fiber Modem
Optical interface	
Multi-mode Fiber	
Diameter of fiber core	50/125um, 62.5/125um
Transmission distance	5Km @ 62.5 / 125um single mode fiber, attenuation (3dbm/km)Wave Length: 820nm
Transmitting power	-12dBm (Min) ~-9dBm (Max)
Receiver sensitivity	-28dBm (Min)
Link budget	16dBm
Connector	SC/FC
Single-mode Fiber	•
Diameter of fiber core	8/125um, 9/125um
Transmission distance	40Km @ 9 / 125um single mode fiber, attenuation (0.35dbm/km)
Wave Length	1310nm
Transmitting power	-9dBm (Min) ~-8dBm (Max)
Receiver sensitivity	-27dBm (Min)
Link budget	18dBm
Connector	SC/FC
Serial interface	·
	EIA/TIA-232 RS-232 (ITU-T V.28)
Standard	EIA/TIA-422 RS-422 (ITU-T V.11)
	EIA/TIA-485 RS-485 (ISO/IEC8284)
	RS-422: TXD+, TXD-, RXD+, RXD-, Signal Ground
	RS-485 4 wires: TXD+, TXD-, RXD+, RXD-, Signal Ground
Serial Interface	RS-485 2 wires: Data+(Correspond TX+), Data- (Correspond TX-),
	Signal Ground
	RS-232: RXD, TXD, Signal Ground
Dimension	
Product Size	103X93X28mm(WXDXH)
Simple packaging	200X176X55mm(WXDXH)
Piece Weight	1.2KG
<b>Operation Environment</b>	
Operating temperature	-10°C ~ 50°C
Storing temperature	-40°C ~ 80°C
Relative humidity	5%~95 % (no condensation)

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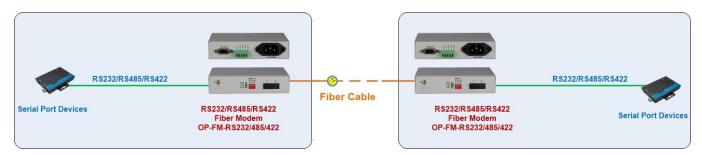
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No causticity and solvent, dust free, and no strong magnetic interference.		
Power		
Voltage	AC180V ~ 260V; DC -48V; DC +24V	
Consumption	≤10W	
Warranty	2 Year Warranty, Life-time Maintenance	

## Application



### **Order Information**

Model	Description
OP-FM-RS232/485/422	RS232/RS485/RS422 Fiber Modem

### Package include

No	Package List
1	RS232/RS485/RS422 Fiber Modem
2	User Guide
3	Warranty Card

## **Important Notice**

Performance figures, data and any illustrative material provided in this data sheet are typical and must be specifically confirmed in writing by OPTOSTAR before they become applicable to any particular order or contract. In accordance with the OPTOSTAR policy of continuous improvement specifications may change without notice.

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