Multi-drop RS-485
Fiber Optic Converter

User Manual

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1. Overview

1.1 Introduction

Product Description

The RS-485 Multi-Drop Bus Fiber Optic Modem series products provide an optical bus network for RS-485, data interfaces over a pair of multimode or singlemode optical fibers. The Terminal module units operate as the end or terminal points and provide an electrical connection and a two fibre optical connection. The Repeater module units act as in-line repeater stations and provide a single electrical connection and two optical connections, one upstream and one downstream.

This series is available in either wall mount, DIN rail or 3U chassis card configurations. The series Fiber Optic Modem can be widely used, such as Industrial Controls, Intelligent Transportation Systems (ITS), Industrial Networking, Supervisory Control and Data (SCADA) and so on.

1.2 Technical Specification

DATA	
Number of Channels	1
Interface	RS-485
Maximum Access Nodes Number	128
RS-485 Working Rate	50bps-~ 3.0Mbps
RS-485 Distance	0 ~ 1200m
Connector Type	Terminal

OPTICAL		
Number of Fibers	4	
Wavelength	1310nm	
Fiber Type	62.5/125 MM	9/125 SM
Distance	0-2.5km(MM)	0 ~ 20km(SM)
Connector Type	ST/PC,	

GENERAL	
Operating Temperature	-30 ~ 70˚C / -30 ~ +158ºF
Operating Humidity	0 ~ 95% non-condensing
Mean Time Between Failure (MTBF)	> 70,000hrs
Power Supply Adaptor	DC:24V(18V-36V)
Enclosure Color	Silver
Dimensions (Wall mount, L× W×H)	149mm×135.1mm×36mm

1.3 Warranty

- Repair
  - Please contact your local distributors when product is defective. Please apply RA in advance and prepay shipping cost when returning the defective product to us. We will pay the cost for sending it back to you.
  - Please attach a statement clearly describing the problem.
- We will repair defective product under warranty free of charge to our customer.
- 5 years warranty for product only.
- Any unauthorized modification of hardware and software voids the warranty.
- Warranty does not cover mishandling and/or abuse of the product.

Products comply with the following Safety Label for International Fiber Communication Equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful Interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at this own expense.

2 Installation

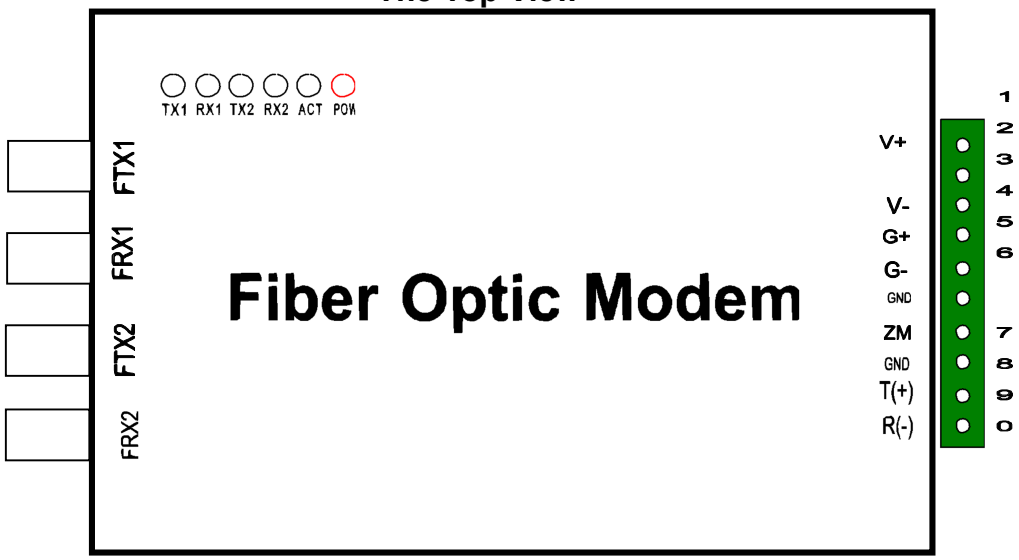
2.1 Package Contents

- Two Multi-Drop Bus Fiber Optic Modem
- One User Manual

Please contact dealer or distributor if part is missing or damaged.

2.2 Wall Mount Enclosure

The Top View



LED Indicators:

POW:	Power Supply	On if power input is OK.
ACT :	RS-485 Data transmit/receive.	Flashing if there is activity.
FTX1:	The secondary ring Transmit Fiber Link	Flashing if there is activity.
FRX1:	The secondary ring Receive Fiber Link	Flashing if there is activity..
FTX2:	The primary ring Transmit Fiber Link	Flashing if there is activity.
FRX2:	The primary ring Receive Fiber Link	Flashing if there is activity..

Connectors:

Terminal (10 pins) assignment:

1	V+	24VDC +
2	NC	Power Ground
3	V-	24VDC +
4	G+	None
5	G-	None
6	GND	None
7	ZM	None
8	GND	GND of RS-485
9	T(+)	Pro+
0	R(-)	Pro-

FTX1: Fiber Optical ST of the secondary channel (transmit)
FRX1: Fiber Optical ST of the secondary channel (receive)
FTX2: Fiber Optical ST of the primary channel (transmit)
FRX2: Fiber Optical ST of the primary channel (receive)

2.3 Caution

- Switch off all power supply before installation
- Ensure fiber is properly aligned to the receiving connector
- Do NOT stare at the fiber core
- On the bottom of the product, there is a DIP Switch, the users should setup the DIP Switch according to the selecting mode.

DIP Switch setup table:

The Primary mode:

DIP	D1	D2	D3	D4	D5
STATE	OFF	Terminal Resistance	OFF	OFF	OFF

The Secondary mode:

DIP	D1	D2	D3	D4	D5
STATE	OFF	Terminal Resistance	OFF	ON	OFF

2.4 Install Application

Figure 1. Multi-Drop Bus

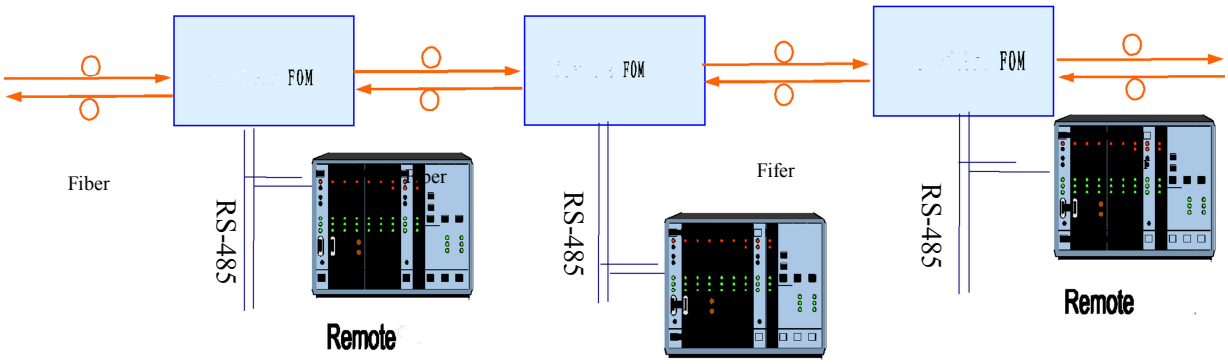
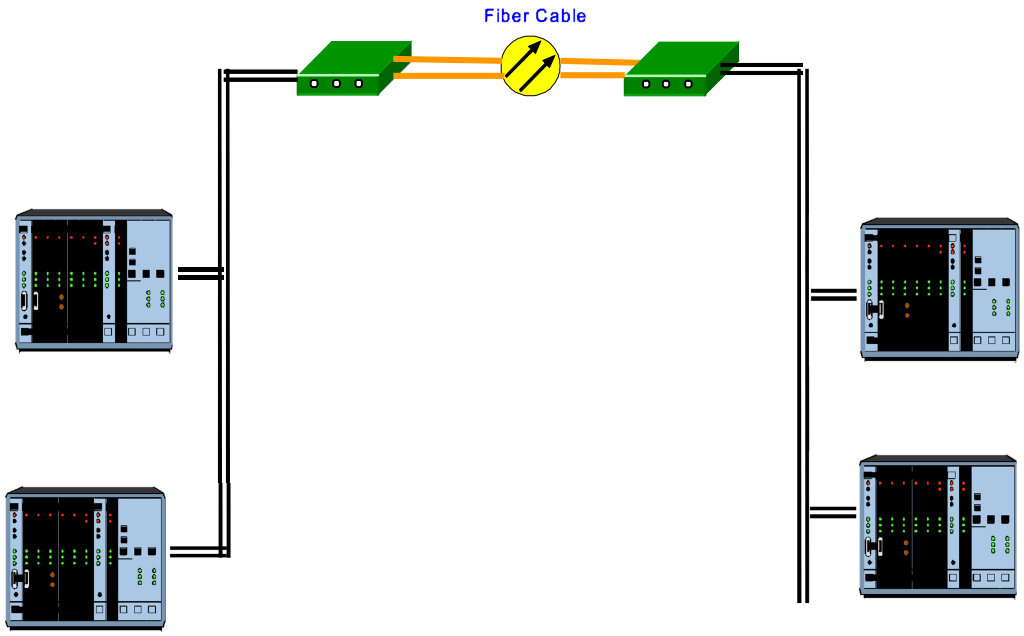


Figure 2. Point-to-Point (Trunk Line)



3 Dimensions (mm)

Wall Mount: