

tM-7510U

Tiny Isolated RS-485 Repeater

Features

- 2-way 2500 VDC Isolation Protection
- ESD Protection for RS-485 Data Line
- Low power consumption
- Long-cable application
- Power and data flow indicator for troubleshooting
- Easy-to-use rotary switch for baud rate setting, 1200 ~ 115200 bps
- Tiny packaging fits on your DIN-Rail Mounting

Introduction

The tM-7510U repeater simply amplifies, or boosts, existing RS-485 signals to enable them to cover longer distances. It extends the communication distance by 4000 ft. (1200 m) or increases the maximum number of bus nodes. The module provides 2500 VDC of isolation allowing you to separate and protect critical segments of the system from the rest of the RS-485 network.

The tM-7510U provides 2 modes of baud rate setting, one is Self-Tuner mode and the other is Fixed baud rate mode. The Self-Tuner mode can support multiple baud rate and multiple data format. The Self-Tuner design is exactly the same as I-7510 series. The Fixed baud rate mode offers a better quality for data transmission over long or lossy lines or electrically noisy environments.



Baud rate 1200 ~ 115200 bps

Comparison Table of Repeater

Mode name	tM-7510U	I-7510
RS-485 Direction Control	Fixed baud rate setting and Automatic RS-485 Direction Control (Self-Tuner, default)	Automatic RS-485 Direction Control (Self-Tuner)
Baud rate	300 ~ 115200 bps for Self-Tuner 1200 ~ 115200 bps for Fixed baud rate setting	300 ~ 115200 bps
Dimensions (W x L x H)	52 mm x 27 mm x 95mm	72 mm x 35 mm x 122 mm
Remarks	Entry-level Long-cable application	Entry-level

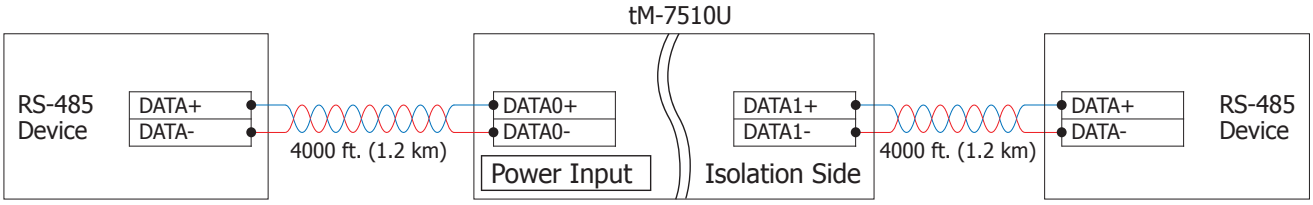
System Specifications

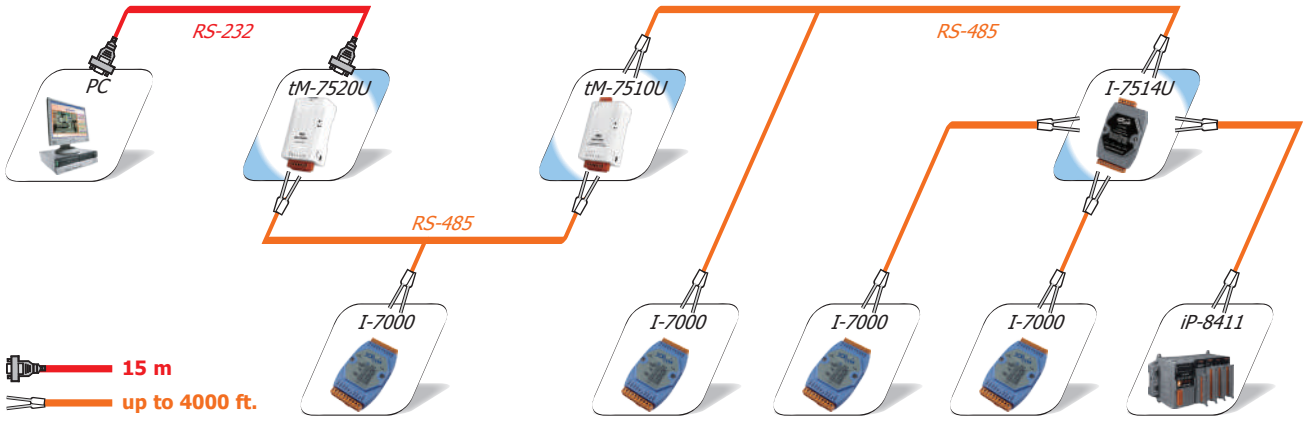
Interface		
Serial Interface	RS-485	Data+, Data-
Transmission Distance		Max. 1,200 m at 9.6 kbps; Max. 400 m at 115.2 kbps (Belden 9841 2P twisted-pair cable, if different cables are used, the transmission distance may change)
2500 VDC Isolated Voltage		2-way Isolation
Connector		Removable 7-Pin Terminal Block x 1; Removable 3-Pin Terminal Block x 1
LED Indicators		
Power/Communication		Yes
Power		
Input Voltage Range		+10 VDC ~ +30 VDC (Non-isolated)
Power Consumption		0.6 W
Environment		
Operating Temperature		-25 °C ~ +75 °C
Storage Temperature		-30 °C ~ +75 °C
Humidity		10 ~ 90% RH, non-condensing

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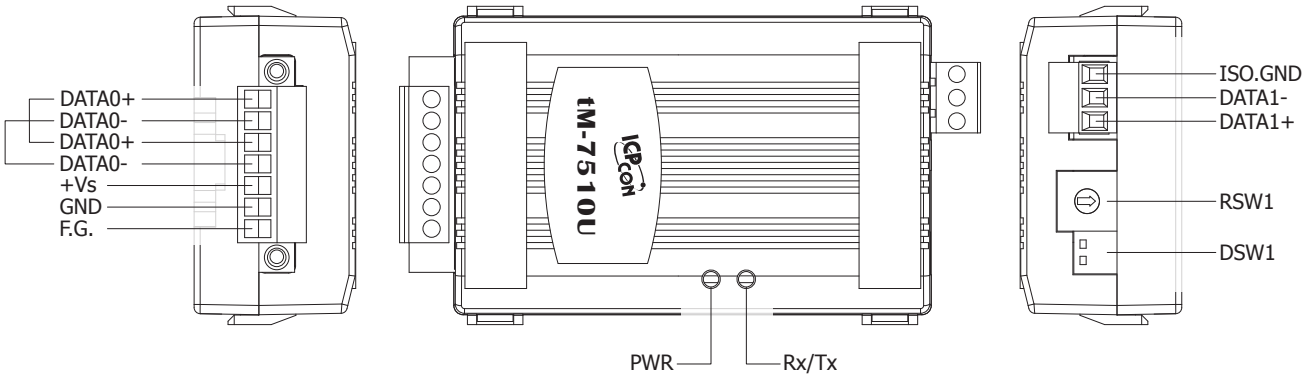
Applications

RS-485 to RS-485 Repeater (Only for half duplex application)

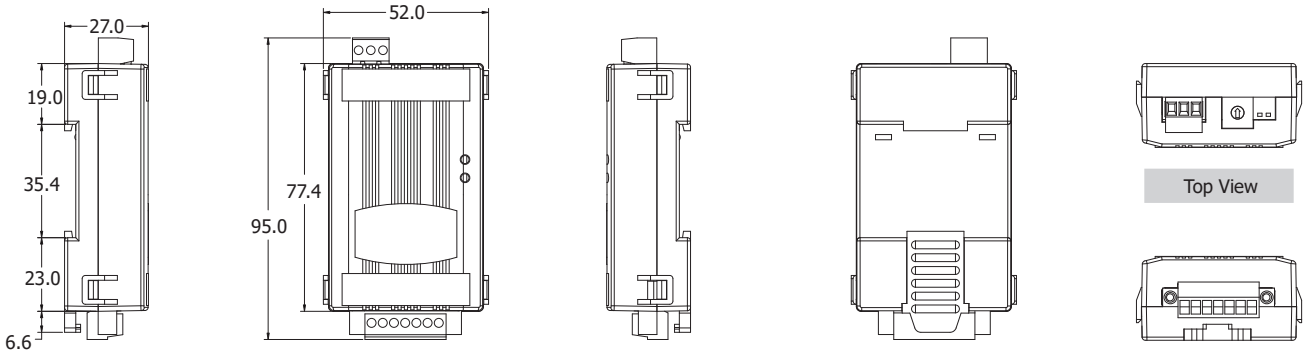




Pin Assignments



Dimensions (Units: mm)



Ordering Information

tM-7510U CR	Tiny Isolated RS-485 Repeater (RoHS)

Accessories

GPSU06U-6 CR	Power Supply, 110~240 VAC to 24 VDC/0.25 A, 6 W, two pins USA plug (RoHS)

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