



tM-7520A

Tiny Isolated RS-232 to RS-422/485 Converter

Features

- Automatic RS-485 Direction Control
- ESD Protection for the RS-232/422/485 Data Line
- Transmission Speed of up to 115200 bps



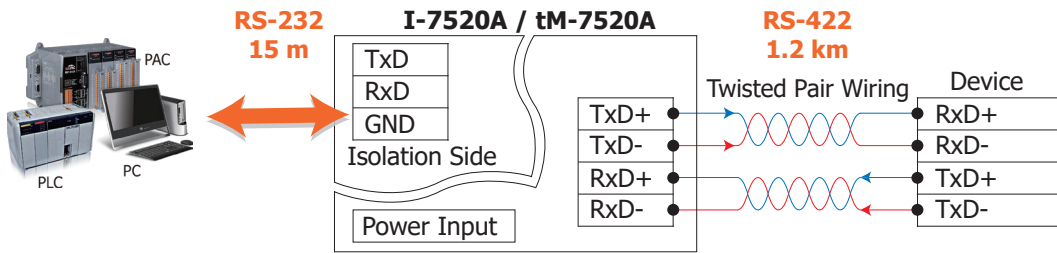
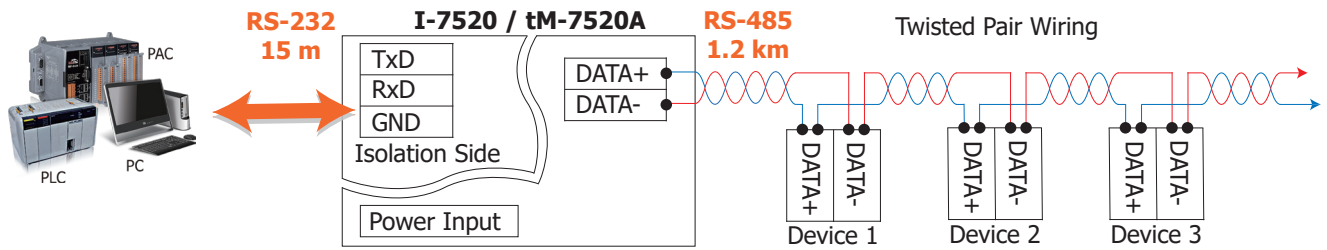
Introduction

Most industrial computer systems provide standard RS-232 serial ports. Though widely accepted, RS-232 has limited transmission speed, range, and networking capabilities. The RS-422 and RS-485 standards overcome these limitations by using differential voltage lines for data and control signals, which transparently converts RS-232 signals into isolated RS-422 or RS-485 signal with no need to change any hardware or software. The tM-7520A lets you easily build an industrial grade, long-distance communication system using standard PC hardware.

System Specifications

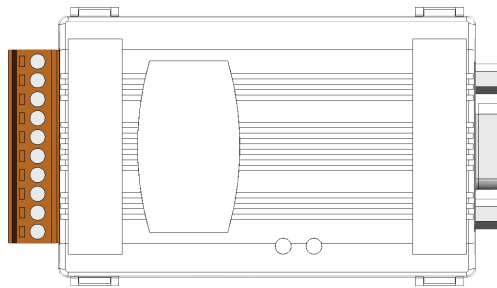
Interface		
Serial Interface	RS-232	TxD, RxD, GND
	RS-422	TxD+, TxD-, RxD+, RxD-
	RS-485	DATA+, DATA-
Transmission Distance	Max. 1,200 m at 9.6 kbps; Max. 400 m at 115.2 kbps (Belden 9841 2P twisted-pair cable, if different cables are used, the transmission distance may change)	
Self-Tuner Asic Inside	Yes	
Speed	300 ~ 115200 bps	
ESD Protection	Yes	
2500 Vdc Isolated Voltage	on RS-232 side	
Connector	RS-232	9-Pin Female D-Sub
	RS-422/485	Removable 10-Pin Terminal Block
LED Indicators		
Power/Communication	Yes	
Power		
Input Voltage Range	+10 Vdc ~ +30 Vdc (Non-isolated)	
Power Consumption	1.2 W	
Mechanical		
Casing	Plastic	
Dimensions (W x L x H)	52 mm x 93 mm x 27 mm	
Installation	DIN-Rail Mounting	
Environment		
Operating Temperature	-25 °C ~ +75 °C	
Storage Temperature	-30 °C ~ +75 °C	
Humidity	10 ~ 90% RH, non-condensing	

Applications



Pin Assignments

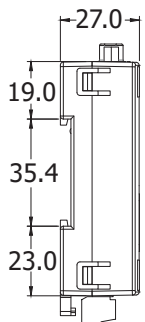
Terminal No.	Pin Assignment
RS-485	01 DATA+
	02 DATA-
	03 --
RS-422	04 TxD+
	05 TxD-
	06 RxD+
	07 RxD-
	08 --
	09 +Vs
	10 GND



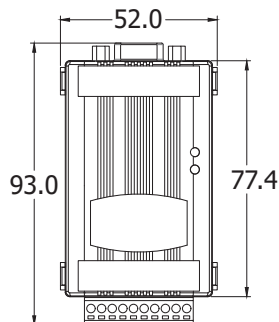
Pin Assignment	Terminal No.	Pin Assignment
--	01	06 --
TxD	02	07 --
RxD	03	08 --
--	04	09 --
GND	05	

RS-232: Female DB-9 Connector

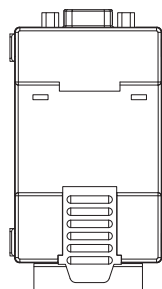
Dimensions (Units: mm)



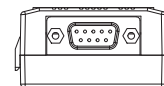
Left Side View



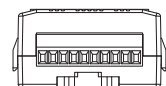
Front View



Rear View



Top View



Bottom View

Ordering Information

tM-7520A CR Tiny Isolated RS-232 to RS-422/485 Converter (RoHS)

Accessories

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