



## I-7510/I-7510A

Isolated RS-422/485 Repeater/Converter

### Features

- Automatic RS-485 Direction Control
- Transmission Speed of up to 115200 bps
- 2-way 3000 Vdc Isolation Protection
- ESD Protection for RS-485 Data Line



### Introduction

The I-7510 provides 2-way optical isolation between one piece of RS-485 equipment and the rest of the system. It can also be used as a repeater to extend the transmission of an existing network. Additionally, an RS-485 system can be expanded beyond the 256 node limitation imposed by the standard. It can also be used to convert a 2-wire RS-485 signal, and vice versa.

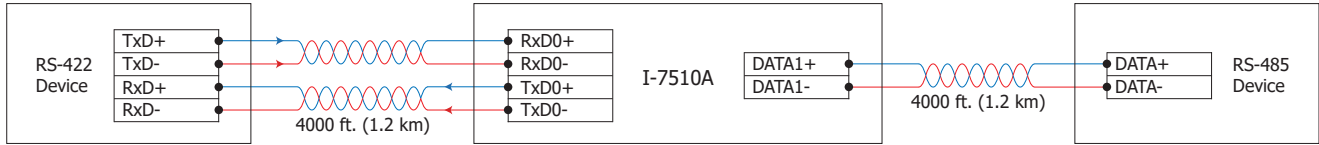
### System Specifications

Models	I-7510		I-7510A
<b>Interface</b>			
Serial Interface	RS-422	–	TxD+, TxD-, RxD+, RxD- The RS-422 and RS-485 cannot be used simultaneously
	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		
Isolated Voltage	2-way 3 kV Isolated		
Connector	Removable 10-Pin Terminal Block x 2		
<b>LED Indicators</b>			
Power/Communication	Yes		
<b>Power</b>			
Input Voltage Range	+10 Vdc ~ +30 Vdc		
Power Consumption	2.2 W		
<b>Mechanical</b>			
Casing	Plastic		
Dimensions (W x L x H)	72 mm x 35 mm x 122 mm		
Installation	DIN-Rail Mounting		
<b>Environment</b>			
Operating Temperature	-25 °C ~ +75 °C		
Storage Temperature	-30 °C ~ +75 °C		
Humidity	10 ~ 90% RH, non-condensing		

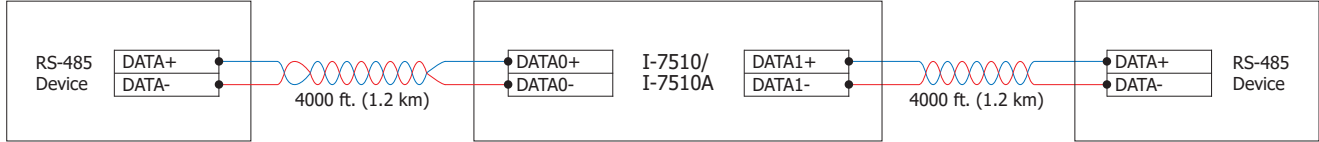
## Applications

### Applications for RS-422/485

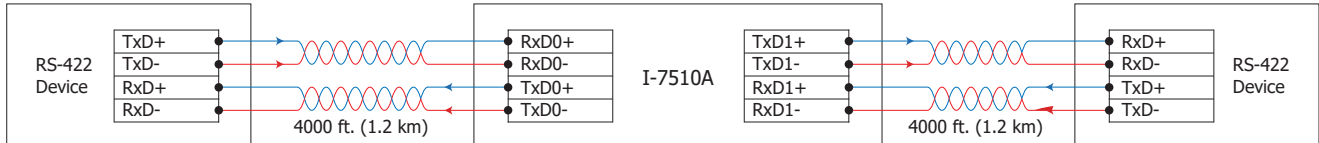
#### RS-422 to RS-485 Converter (Only for half duplex application)



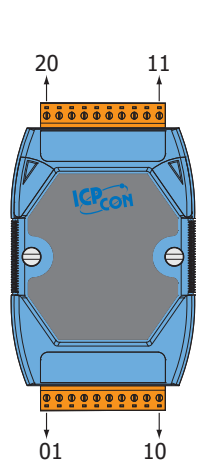
#### RS-485 to RS-485 Repeater (Only for half duplex application)



#### RS-422 to RS-422 Repeater



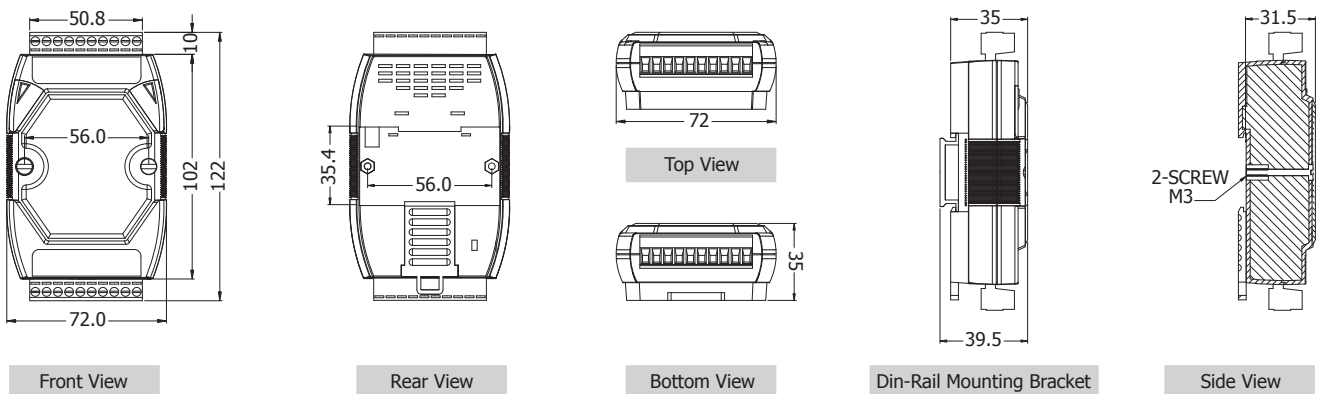
## Pin Assignments



I-7510			
Terminal No.	Pin Assignment	Terminal No.	Pin Assignment
01	DATA+	20	DATA1+
02	DATA-	19	DATA1-
03	--	18	--
04	--	17	--
05	--	16	--
06	--	15	--
07	--	14	--
08	--	13	--
09	(R)+Vs	12	--
10	(B)GND	11	--

I-7510A				
Terminal No.	Pin Assignment	Terminal No.	Pin Assignment	
RS-485	01	DATA0+	RS-485 20	DATA1+
	02	DATA0-	RS-485 19	DATA1-
	03	--	18	--
RS-422	04	RxD0+	RS-422 17	TxD1+
	05	RxD0-	RS-422 16	TxD1-
	06	TxD0+	RS-422 15	RxD1+
	07	TxD0-	RS-422 14	RxD1-
08	--	13	--	
09	(R)+Vs	12	--	
10	(B)GND	11	--	

## Dimensions (Units: mm)



## Ordering Information

I-7510 CR	Isolated RS-485 Repeater (RoHS)
I-7510A CR	Isolated RS-422/485 Repeater/Converter (RoHS)

## Accessories

GPSU06U-6 CR	Power Supply, 110~240 V <sub>AC</sub> to 24 V <sub>DC</sub> /0.25 A, 6 W, two pins USA plug (RoHS)
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