Converters, Repeaters and Hubs

►►►► RS-485 Star Wiring Hub

.....

I-7513

4-3

RS-485 Repeater/Hub/Splitter

Three Way Isolated RS-485 Active Star Wiring Hub





Features ►►►►

- RS-485 Active Star Wiring Applications
- 3000 V_{DC} Three Way Isolation Protection
- Power Input, +10 ~ +30 V_{DC}

- Automatic RS-485 Direction Control
- ESD Protection for the RS-485 Data Line
- Operating Temperatures, -25 °C ~ +75 °C

DIN-Rail

- Introduction

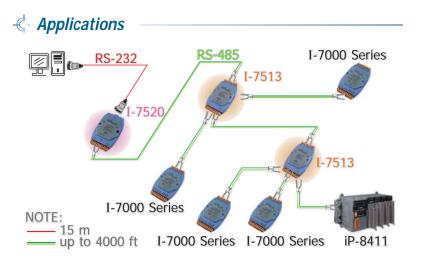
The I-7513 is a 3-ch RS-485 Active Star Wiring Hub. The unit has three independent RS-485 output channels, each with their own driver, which can transmit signals across 4,000 ft (1200 m) of cable on each channel.

The I-7513 includes both Hub and Repeater functions, so each output channel can be connected to another hub.

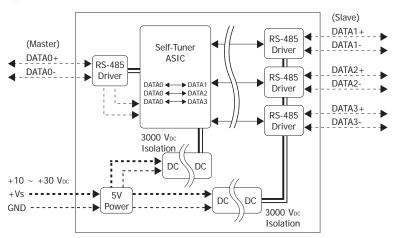
The isolation site of the I-7513 is located in the input and output interface circuit. In other words, the I-7513 is a three-way isolation module.

Interface Input 1 RS-485 Channel: Data+, Data-Output 3 RS-485 Channels: Data+, Data-Max, 1,200 m at 9.6 kbps; Max, 400 m at 115.2 kbps Transfer Distance (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 3000 Vpc Three Way Isolated Yes Protection Connection Removable 10-Pin Terminal Block x 2 LED Indicators Power/Communication Yes Power Input Voltage Range +10 Vpc ~ +30 Vpc (Non-isolated) **Power Consumption** 2.16 W Mechanical Casing Plastic Flammability Fire-Retardant Materials (UL94-V0 Level) Dimensions (W x H x D) 72 mm x 122 mm x 35 mm DIN-Rail Installation Environment **Operating Temperature** -25 °C ~ +75 °C Storage Temperature -30 °C ~ +75 °C Humidity 10 ~ 90% RH, non-condensing

- System Specifications

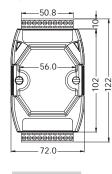


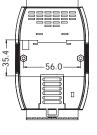
- Internal I/O Structure



The following block diagram shows how I-7513 was designed as independent channel. Data coming from the master input will be transmitted to all four RS-485 slave channels. But data coming from the slave channels will be returned to the master input only. Thus reduces the possibility of interference between each RS-485 slave loop and makes the RS-485 networks more robust and reliable.

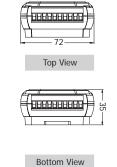
Dimensions (Unit: mm) .Ć-

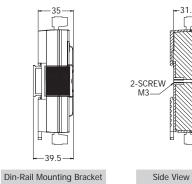




Front View

Rear View





Ordering Information ¢

I-7513 CR	Three Way Isolated RS-485 Active Star Wiring Hub (RoHS)	
I-7513-G CR	Three Way Isolated RS-485 Active Star Wiring Hub (Gray Cover) (RoHS)	

- Accessories

Т		
GPSU06U-6	24 Vpc/0.25 A, 6 W Power Supply	
DIN-KA52F	24 Vpc/1.04 A, 25 W Power Supply with Din-Rail Mounting	

LED	Color	Description		
PWR	Red	Power is On		
TxD Green Data transmission				
Termi	nal No.	Pin Assignment		
01		DATA+		
02		DATA-		
03				
04				
05				
06				
07				
08				
09		(R)+Vs		
10		(B)GND		
11		DATA3-		
12		DATA3+		
13		 DATA2-		
14 15		DATA2- DATA2+		
15		DATAZ+		
	17			
	18			
	19	DATA1-		
20		DATA1+		

- C- Pin Assignments

RS-485 Repeater/Hub/Splitter

Converters, Repeaters and Hubs

I-7513