

I-7513

Three Way Isolated RS-485 Active Star Wiring Hub

Features

- RS-485 Active Star Wiring Applications
- Automatic RS-485 Direction Control
- 3000 VDC Three Way Isolation Protection
- ESD Protection for the RS-485 Data Line

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.

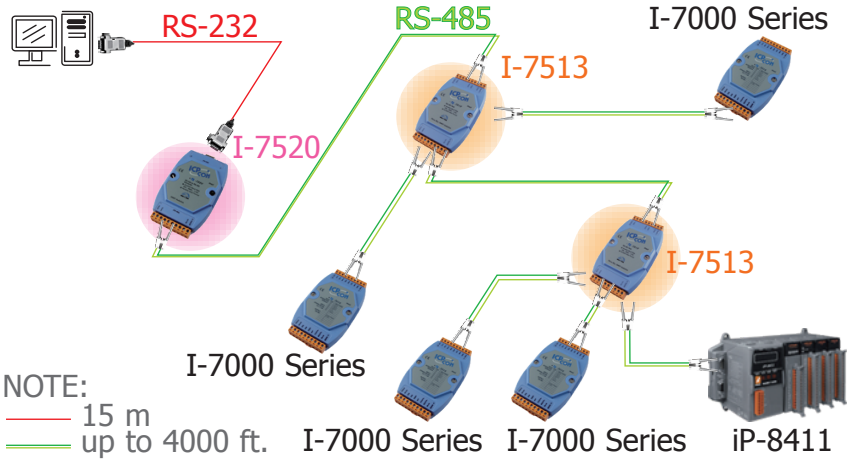
The isolation site of the I-7513 is located in the input and output interface circuit. In other words, the I-7513 is a three-way isolation module.

System Specifications

Interface	
Input (Master)	1 RS-485 Channel: Data+, Data-
Output (Slave)	3 RS-485 Channels: Data+, Data-
Transfer 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
3000 VDC Three Way Isolated Protection	Yes
Connection	Removable 10-Pin Terminal Block x 2
LED Indicators	
Power/Communication	Yes
Power	
Input Voltage Range	+10 VDC ~ +30 VDC (Non-isolated)
Power Consumption	2.16 W
Mechanical	
Casing	Plastic
Dimensions (W x L x H)	72 mm x 35 mm x 122 mm
Installation	DIN-Rail
Environment	
Operating Temperature	-25 °C ~ +75 °C
Storage Temperature	-30 °C ~ +75 °C
Humidity	10 ~ 90% RH, non-condensing

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Applications

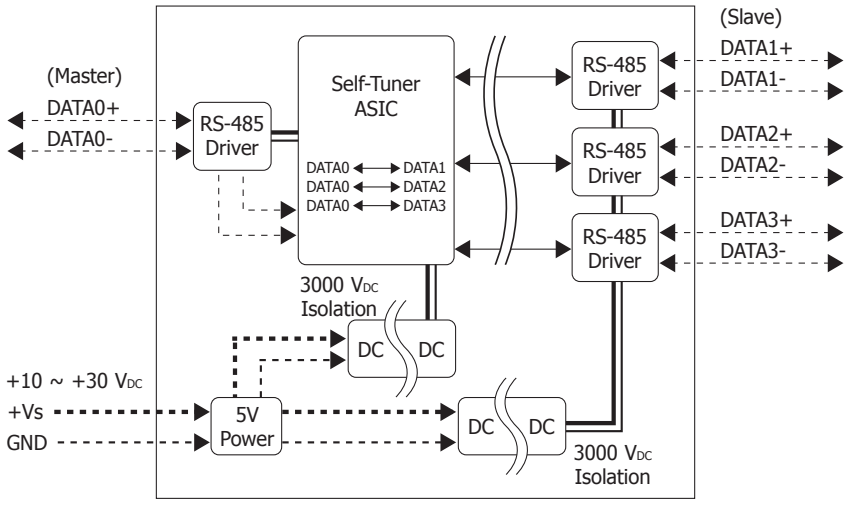


Pin Assignments



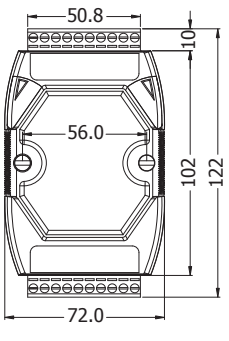
Terminal No.	Pin Assignment
01	DATA+
02	DATA-
03	--
04	--
05	--
06	--
07	--
08	--
09	(R)+Vs
10	(B)GND
11	DATA3-
12	DATA3+
13	--
14	DATA2-
15	DATA2+
16	--
17	--
18	--
19	DATA1-
20	DATA1+

Internal I/O Structure

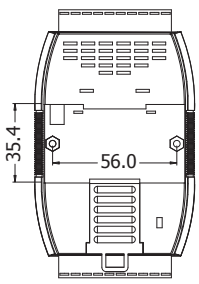


The following block diagram shows how I-7513 was designed as independent channel. Data coming from the master input will be transmitted to all four RS-485 slave channels. But data coming from the slave channels will be returned to the master input only. Thus reduces the possibility of interference between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

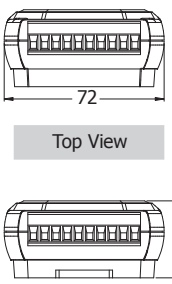
Dimensions (Units: mm)



Front View

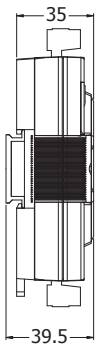


Rear View

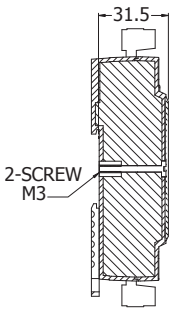


Top View

Bottom View



Din-Rail Mounting Bracket



Side View

Ordering Information

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