I-7520U4

Isolated RS-232 to 4 Channels RS-485 Active Star Wiring Hub

Features ▶▶▶▶

- True RS-485 Star Wiring Hub
- Power and data flow indicator for troubleshooting
- Easy-to-use rotary switch for fixed baud rate setting, 1200 ~ 115200 bps
- Power Input, +10 ~ +30 V_{DC}

- Independent RS-485 driver for each channel
- Automatic RS-485 Direction Control
- 120 Ω termination resistor for each channel
- Operating Temperatures, -25 °C ~ +75 °C
- DIN-Rail Mounting

Introduction

RS-485 Active Hub

The I-7520U4 is isolated RS-232 to 4-ch RS-485 active star wiring hub, it has 4 independent RS-485 output channels and one RS-232 input channel. Each output channel is equipped with an individual driver. The data from a master to the input channel will simultaneously be forwarded to all the four output channels.

Baud Rate Setting

The I-7520U4 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-7520 series. The Fixed baud rate mode offers a better quality for data transmission over long or lossy lines or electrically noisy environments.

RS-485 Short-Circuit

The Short-circuit protection can automatically shut off the breakdown channel, this kind of design can suffice to protect the communication system. When a connected RS-485 equipment breaks down, the breakdown channel will be isolated to ensure that other equipments work normally.

Termination resistors

In some critical environments, you may need to add termination resistors to prevent the reflection of serial signals. The I-7520U4 includes a jumper-selectable 120Ω termination resistor for each channel (Default disable).

LED Indicators

The I-7520U4 has 6 LED to indicate the power status and network traffic. The TxD/RxD LED will flash when the unit is being sent out or received data.

System Specifications

Interface	
Input	1 RS-232 Channel: TxD, RxD and GND
Output	4 RS-485 Channels: 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 via Self-Tuner mode; 1200 ~ 115200 bps via Fixed Baud Rate mode
ESD Protection	Yes
2500 V_{DC} Three Way Isolated Protection	Yes
Connector	Removable 10-Pin Terminal Block x 1; 9-Pin Female D-Sub x 1
LED Indicators	
Power/Communication	Yes
Power	
Input Voltage Range	+10 V_{DC} ~ +30 V_{DC} (Non-isolated)
Power Consumption	1.2 W
Mechanical	
Casing	Plastic
Dimensions (W x H x D)	72 mm x 118 mm x 35 mm
Installation	DIN-Rail Mounting
Environment	
Operating Temperature	-25 °C ~ +75 °C
Storage Temperature	-30 °C ~ +75 °C
Humidity	10 ~ 90% RH, non-condensing

Converters, Repeaters, Hubs and Splitters

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Applications
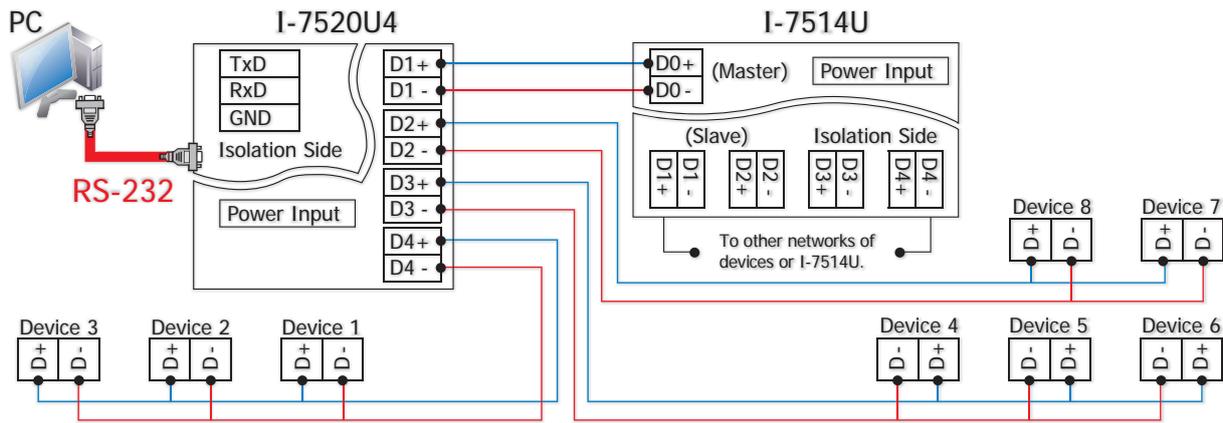
Pin Assignments

Terminal No.		Pin Assignment
RS-485	01	D1+
	02	D1-
	03	D2+
	04	D2-
	05	D3+
	06	D3-
	07	D4+
	08	D4-
	09	(R)+Vs
	10	(B)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)

Front View

Rear View

Top View

Bottom View

DIN-Rail Mounting Bracket

Side View
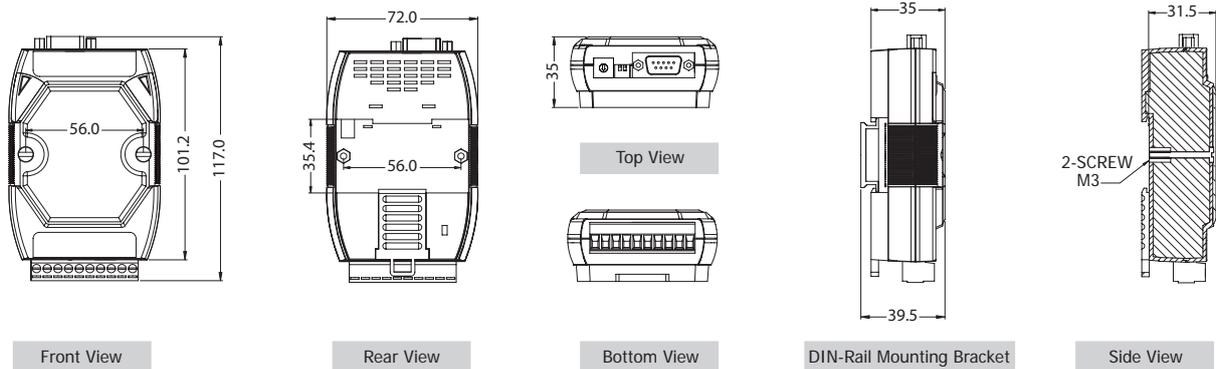
Ordering Information

I-7520U4-G CR	Isolated RS-232 to 4 Channels RS-485 Active Hub (Gray Cover) (RoHS)
I-7520U4-CA-G CR	I-7520U4-G CR with CA-0915 cable x 1

Accessories

GPSU06U-6	24 V$_{DC}$/0.25 A, 6 W Power Supply
DIN-KA52F	24 V$_{DC}$/1.04 A, 25 W Power Supply with DIN-Rail Mounting
I-7510 CR	Isolated RS-485 Repeater (RoHS)
CA-0915	9-Pin Male-Female D-Sub Cable, 1.5 m

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Converters, Repeaters, Hubs and Splitters