

RS-485 Star Wiring Hub



I-7520U4

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

Features

- True RS-485 Star Wiring Hub
- Independent RS-485 driver for each channel
- LEDs for indicating Tx/RxD activity
- Self-Tuner baud rate, 300 ~ 115200 bps and fixed baud rate setting via rotary switch, 1200 ~ 115200 bps
- 120Ω termination resistor for each channel
- Power Input, +10 ~ +30 V_{DC}
- Operating Temperatures, -25 °C ~ +75 °C
- DIN-Rail



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 120Ω termination resistor for each channel by jumper selectable (Default disable).

LED Indicators

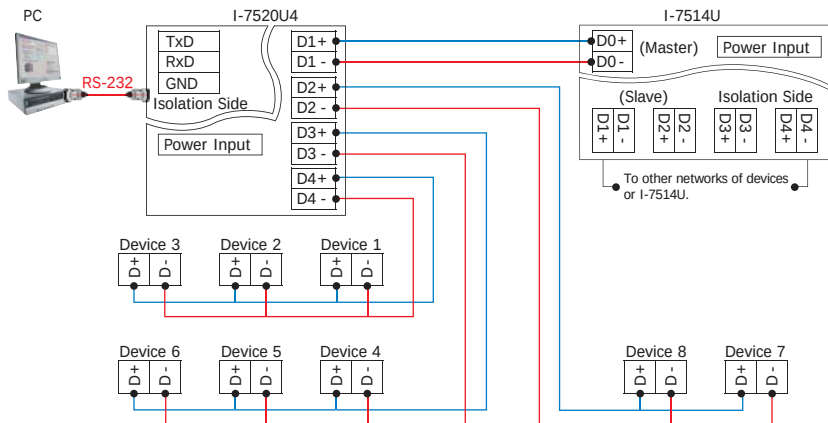
The I-7520U4 has 6 LED to indicate the power status and network traffic.

The Tx/RxD LED will flash when the unit is being sent out or received data.

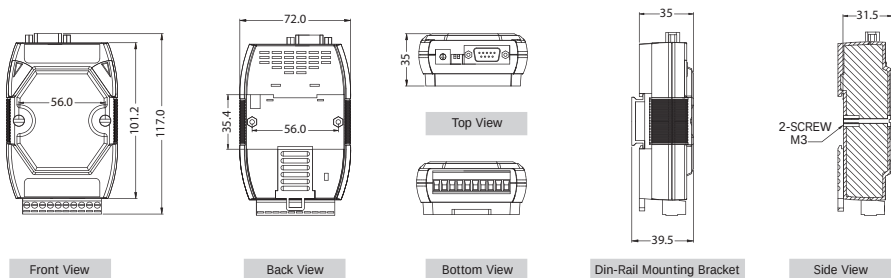
Specifications

Interface	
Input	1 RS-232 Channel: Tx/D, Rx/D and GND
Output	4 RS-485 Channels: Data+, Data-
2-wire Cabling	Belden 8941 (2P twisted-pair cable), if different cables are used, the transmission distance may change
Transfer Distance	Max. 1,200 m at 9.6 kbps; Max. 400 m at 115.2 kbps
Max. Devices Supported	256 (Each channel)
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} isolation on RS-232	Yes
Connection	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
Flammability	Fire Retardant Materials (UL94-V0 Level)
Dimensions (W x H x D)	72 mm x 118 mm x 35 mm
Installation	DIN-Rail
Environment	
Operating Temperature	-25 °C ~ +75 °C
Storage Temperature	-30 °C ~ +80 °C
Humidity	10 ~ 90% RH, non-condensing

Applications



Dimensions (Unit: mm)



Pin Assignments

Terminal No.	Pin Assignment	Pin Assignment	Terminal No.	Pin Assignment
RS-485	01 D1+	CH1	RS-232: Female DB-9 Connector	05 ISO.GND
	02 D1-	CH1		04 --
	03 D2+	CH2		03 RxD
	04 D2-	CH2		02 TxD
	05 D3+	CH3		01 --
	06 D3-	CH3		09 --
	07 D4+	CH4		08 --
	08 D4-	CH4		07 --
	09 (R)+Vs			06 --
	10 (B)GND			

Ordering Information

I-7520U4 CR	Isolated RS-232 to 4 Channels RS-485 Active Hub (Gray Cover) (RoHS)
I-7520U4 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