

4.6. USB to RS-232/422/485 Converters



I-7560

USB to RS-232 Converter

Introduction

The I-7560 contains a Windows serial com port via its USB connection and is compatible with new and legacy RS-232 devices. USB Plug-and-Play allows easy serial port expansion and requires no IRQ, DMA, or I/O port resources.

The I-7560 features a full set of RS-232 modem data and control signals (TxD, RxD, RTS, CTS, DSR, DTR, DCD, RI and GND) on its PC compatible DB-9 male connector. It also features a high-speed 115200 bps transmission rate.

The I-7560 is powered from the USB bus and no additional power supply is needed.

Software

Driver
Windows 98/ME/2000/XP/Vista (32-bit)/Linux

Specifications

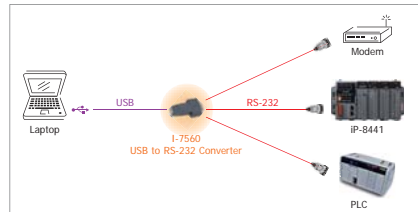
Interface		
USB	Compatibility: USB 1.1 and 2.0 standards	
RS-232	TxD, RxD, RTS, CTS, DSR, DTR, DCD, RI and GND: non-isolated	
Speed	300 – 115200 bps	
Connection	RS-232	9-Pin Male D-Sub
	USB	Type B
Cable Included	CA-USB18 (1.8 m Cable) x 1	
LED Indicators		
Power	Yes	
Power		
Input Voltage Range	+5 V _{DC} from USB	
Power Consumption	0.3 W	
Mechanical		
Casing	Plastic	
Flammability	Fire Retardant Materials (UL94-V0 Level)	
Dimensions (W x H x D)	33 mm x 60 mm x 15 mm	
Environment		
Operating Temperature	-25 °C – +75 °C	
Storage Temperature	-30 °C – +75 °C	
Humidity	10 – 90% RH, non-condensing	

Features

- Fully Compliant with the USB 1.1/2.0 (High Speed)
- No External Power Supply is required as the I-7560 is powered from the USB Bus
- Transmission Speed of up to 115200 bps
- Supports Operating Temperatures from -25 °C – +75 °C
- Driver Supports Windows 98/ME/2000/XP/Vista (32-bit)/Linux



Applications



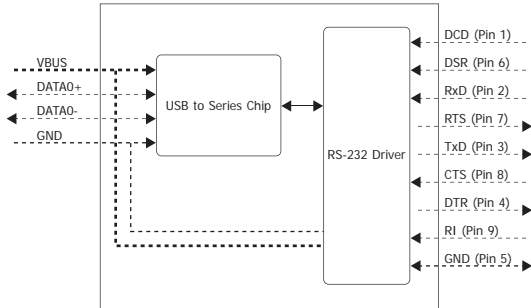
I-7560 with CA-USB18

I-7560 with IP-8441

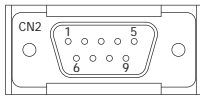
I-7560 with Modem



Internal I/O Structure

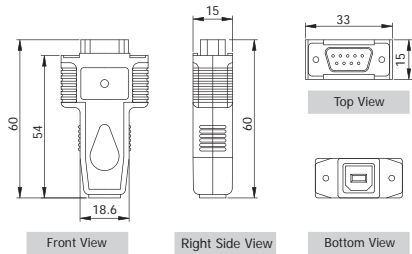


Pin Assignments



Pin	Signal	Mode	
01	DCD	Data Carrier Detect	Input
02	RxD	Receive Data	Input
03	TxD	Transmit Data	Output
04	DTR	Data Term Ready	Output
05	GND	Ground	--
06	DSR	Data Set Ready	Input
07	RTS	Request To Send	Output
08	CTS	Clear To Send	Input
09	RI	Ring Indicator	Input

Dimensions (Unit: mm)



Ordering Information

I-7560 CR	USB to RS-232 Converter (RoHS)
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Accessories

USB-2560 CR	Industrial 4-port USB 2.0 Hub
CA-USB18	USB Type A to Type B Cable



I-7561

USB to Isolated RS-232/422/485 Converter

Features

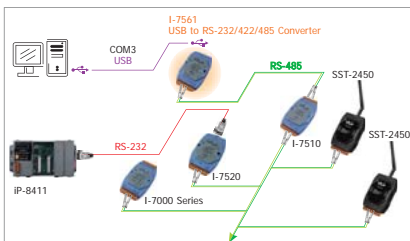
- Fully Compliant with the USB 1.1/2.0 (High Speed)
- No External Power Supply is required as the I-7561 is powered from the USB Bus
- Transmission Speed of up to 115200 bps
- 3000 V_{DC} Isolation Protection on the RS-232/422/485 side
- ESD Protection for the RS-232/422/485 Data Line
- Supports Operating Temperatures from -25 °C ~ +75 °C
- Driver Supports Windows 98/ME/2000/XP/Vista (32-bit)/Linux
- DIN-Rail



Introduction

The I-7561 is a cost-effective module for transferring serial data via USB. It allows you to connect your serial devices to systems that use a USB interface. Connecting the I-7561 to a PC, you get one RS-232/422/485 port. Like the I-7520A, the I-7561 contains "Self-Tuner" chip auto-tunes the Baud Rate and data format to the RS-485 network. The I-7561 module derives its power from the USB port and doesn't need any power adapter. It also features a high-speed 115.2 kbps transmission rate, and supports various O.S. independent RS-232/422/485 Ports.

Applications



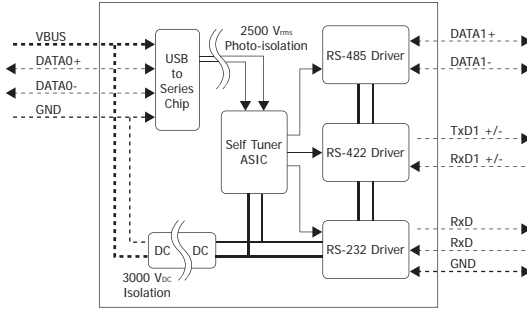
Software

Driver
Windows 98/ME/2000/XP/Vista (32-bit)/Linux

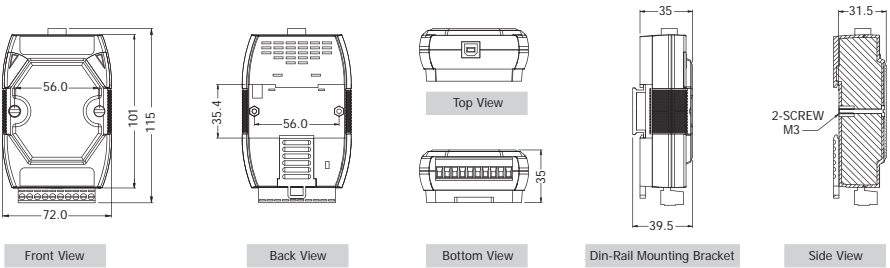
Specifications

Interface		
USB		Compatibility: USB 1.1 and 2.0 standards
Serial Interface	RS-232	TxD, RxD, GND
	RS-422	TxD+, TxD-, RxD+, RxD-
	RS-485	Data+, Data-
2-wire cabling/4-wire cabling		Belden 8941 (2P twisted-pair cable)/Belden 8942 (4P twisted-pair cable), if different cables are used, the transmission distance may change
RS-422/485 Transfer Distance		Max. 1,200 m at 9.6 kbps; Max. 400 m at 115.2 kbps
Maximum Supported RS-485 Devices		256 (Without repeater)
Self-Tuner Asic Inside (RS-485)		Yes
Speed		300 ~ 115200 bps
Connection	RS-232/422/485	Removable 10-Pin Terminal Block
	USB	Type B
Cable Included		CA-USB18 (1.8 m Cable) x 1
LED Indicators		
Power		Yes
Power		
Input Voltage Range		+5 V _{DC} from USB
Power Consumption		0.5 W
Mechanical		
Casing		Plastic
Flammability		Fire Retardant Materials (UL94-V0 Level)
Dimensions (W x H x D)		72 mm x 115 mm x 35 mm
Installation		DIN-Rail
Environment		
Operating Temperature		-25 °C ~ +75 °C
Storage Temperature		-30 °C ~ +75 °C
Humidity		10 ~ 90% RH, non-condensing

Internal I/O Structure



Dimensions (Unit: mm)



Pin Assignments



Terminal No.	Pin Assignment
RS-485	01 DATA+
	02 DATA-
	03 TxD+
RS-422/485	04 TxD-
	05 RxTD-/DATA2+
	06 RxTD-/DATA2-
RS-232	07 TxD
	08 RxTD
	09 (B)GND
	10 (B)GND

Ordering Information

I-7561 CR	USB to RS-232/422/485 Converter (RoHS)
I-7561-G CR	USB to RS-232/422/485 Converter (Gray Cover) (RoHS)
Include Cable	CA-USB18 (1.8 m Cable) x 1

Accessories

USB-2560 CR	Industrial 4-port USB 2.0 Hub
CA-USB18	USB Type A to Type B Cable



I-7563

USB to Isolated RS-485 Active Star Wiring Converter

Features

- Fully Compliant with USB 1.1/2.0 (High Speed)
- No External Power Supply is required as the I-7561 is powered from the USB Bus
- RS-485 Active Star Wiring Applications
- Transmission of up to 115200 bps
- 3000 V_{oc} Isolation Protection on the RS-485 side
- ESD Protection for the RS-485 Data Line
- Supports Operating Temperatures from -25 °C – +75 °C
- Driver Supports Windows 98/ME/2000/XP/Vista (32-bit)/Linux
- DIN-Rail

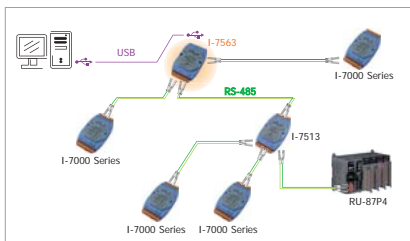


Introduction

The I-7563 is a cost-effective module for transferring serial data via USB. It allows you to connect your serial devices to systems that use a USB interface. Connecting the I-7563 to a PC. The I-7563 contains "Self-Tuner" This chip auto-tunes the Baud Rate and data format to the RS-485 network. The I-7563 module derives its power from the USB port and doesn't need any power adapter. It also features a high-speed 115.2 kbps transmission rate, and supports various O.S.

Do you have any RS-485 wiring problems I-7563 is a USB to 1-channel RS-485 converter with a 3-way RS-485 Hub. Each channel contains its own RS-485 driver IC, so it can support star-shaped wiring.

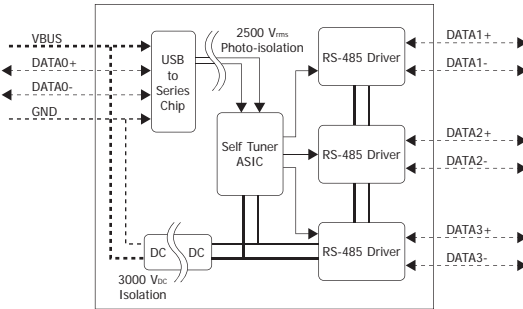
Applications



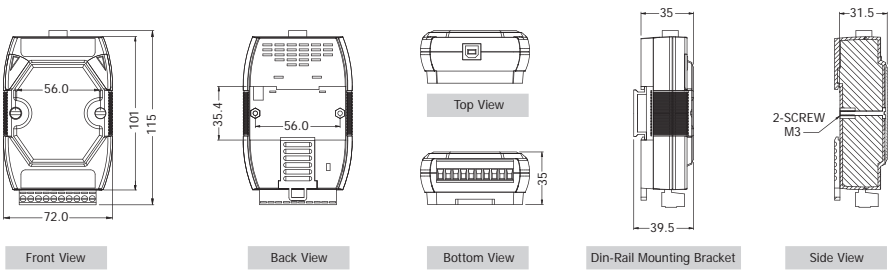
Specifications

Interface	
USB	Compatibility: USB 1.1 and 2.0 standards 3 Channels: For active star wiring applications
RS-485	Data1+, Data1- Data2+, Data2- Data3+, Data3-
2-wire cabling	Belden 8941 (2P twisted-pair cable), if different cables are used, the transmission distance may change
RS-485 Transfer Distance	Max. 1,200 m at 9.6 kbps; Max. 400 m at 115.2 kbps
Maximum Supported RS-485 Devices	Max. of 256 devices
Self-Tuner Asic Inside for RS-485	Yes
Speed	300 – 115200 bps
Connection	RS-485: Removable 10-Pin Terminal Block USB: Type B
Cable Included	CA-USB18 (1.8 m Cable) x 1
LED Indicators	
Power	Yes
Power	
Input Voltage Range	+5 V _{oc} from USB
Power Consumption	0.5 W
Mechanical	
Casing	Plastic
Flammability	Fire Retardant Materials (UL94-V0 Level)
Dimensions (W x H x D)	72 mm x 115 mm x 35 mm
Installation	DIN-Rail
Environment	
Operating Temperature	-25 °C – +75 °C
Storage Temperature	-30 °C – +75 °C
Humidity	10 – 90% RH, non-condensing

Internal I/O Structure



Dimensions (Unit: mm)



Pin Assignments



Terminal No.	Pin Assignment
01	DATA3+
02	DATA3-
03	--
04	--
05	DATA2-
06	DATA2+
07	--
08	--
09	DATA1-
10	DATA1+

Ordering Information

I-7563 CR	USB to Isolated RS-485 Active Star Wiring Converter (RoHS)
I-7563-G CR	USB to Isolated RS-485 Active Star Wiring Converter (Gray Cover) (RoHS)
Include Cable	CA-USB18 (1.8 m Cable) x 1

Accessories

USB-2560 CR	Industrial 4-port USB 2.0 Hub
CA-USB18	USB Type A to Type B Cable