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ISC-1210U-I / 1310U-I

>> *Industrial USB to Serial Media Converter with Isolation*

- Auto direction flow control on RS-485
- Full-Duplex RS-232/RS-422 support
- Provide 3000VDC isolation protection
- Auto switching serial type and baud rate
- Ultra low power consumption and can be powered by USB interface

> Features

- Fully compliant with USB specification 1.1
- Support Full-Duplex transmission for RS-232/RS-422
- RS-232 support RTS/CTS handshake signals
- Provide 3000 VDC isolation protection
- Transient suppression on RS-485 data lines
- Auto detect and switching for USB to RS-232/422/485

- Auto detect and switching baud rate up to 115.2Kbps
- USB bus powered with ultra low power compliant
- Wide operating temperature range from -10°C to 70°C
- NYLON Din-Rail mounting adapter SECC panel mounting bracket
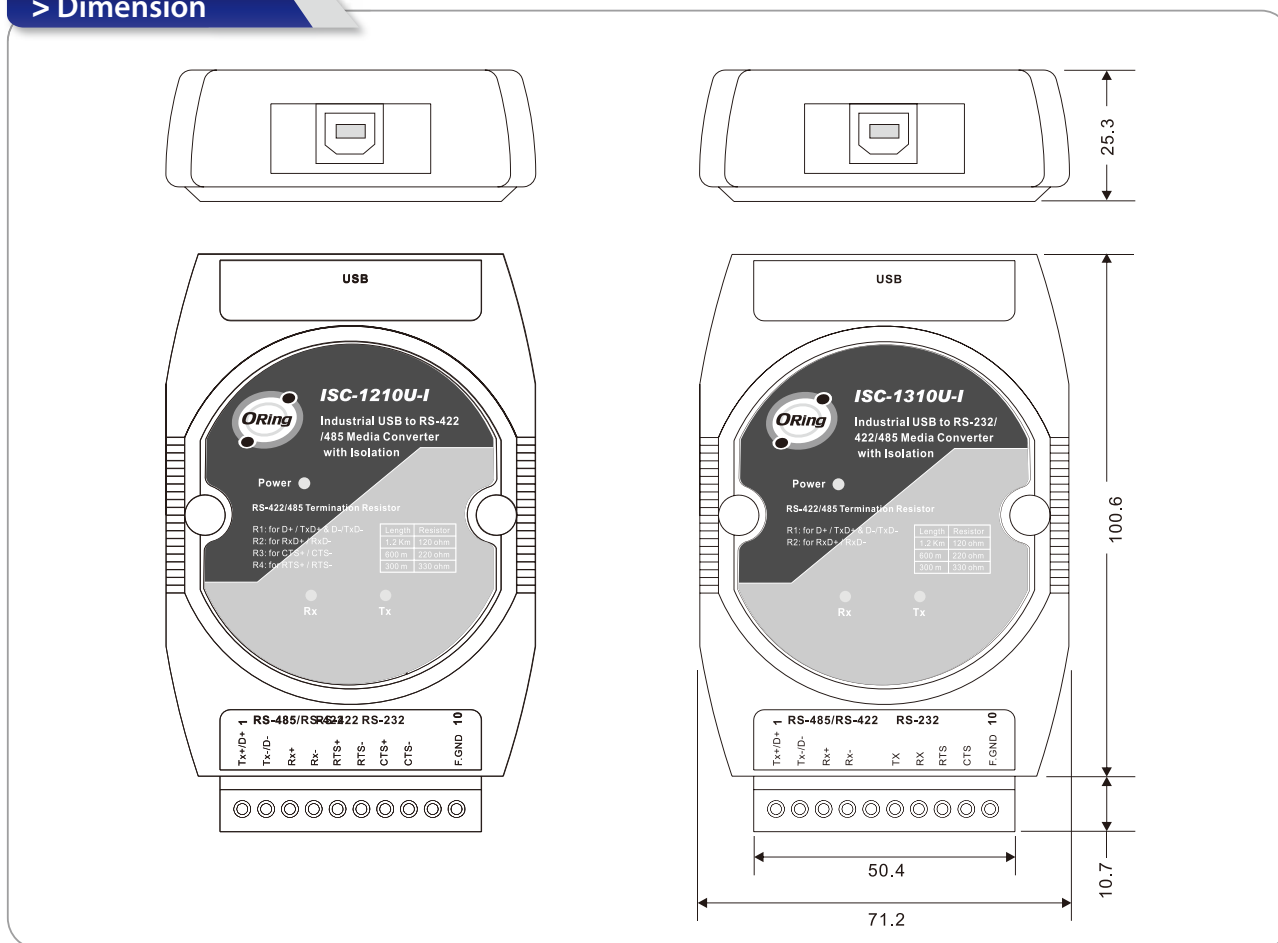
> Introduction

   The ISC-1210U-I / ISC-1310U-I convert is an intelligent, stackable expansion module that connects to a PC USB port or USB Hub via the Universal Serial Bus(USB) port, providing one High-Speed RS-232/RS-422 or RS-485 serial port(jumperless). The ISC-1210U-I / ISC-1310U-I features easy connectivity for traditional serial devices. The RS-232 standard supports full-duplex communication and handshaking signals (such as RTS, CTS) and The RS-485 control is completely transparent to the user and software written for half-duplex COM works without any modification. The ISC-1210U-I / ISC-1310U-I's Opto-isolators provide 3000 VDC of isolation to protect the host computer from ground loops and destructive voltage spikes on the RS-232/RS-422 and RS-485 data lines. ISC-1210U-I / ISC-1310U-I also offer internal surge-protection on their data lines. Internal high-speed transient suppressors on each data line protect the modules from dangerous voltages levels or spikes. The ISC-1210U-I / ISC-1310U-I module derives the power from USB port and doesn't need any aid of external power adapter.

Connections of Media Converter

Company Overview

Key Technologies

New Products

Product
Selection Guide

Industrial
Ethernet Switch

Industrial
Media Converter

Industrial
Device Server

Industrial
Wireless Solution

Industrial
Serial Card

USB Server

Accessories

> Dimension

USB

ISC-1210U-I
Industrial USB to RS-422
/485 Media Converter
with Isolation

Power ●

RS-422/485 Termination Resistor

R1: for D+ / TxD+ & D-/TxD-
R2: for RxD+ / RxD-
R3: for CTS+ / CTS-
R4: for RTS+ / RTS-

Length	Resistor
1.2 Km	120 ohm
600 m	220 ohm
300 m	330 ohm

● Rx   ● Tx

RS-485/RS-422 RS-232

USB

ISC-1310U-I
Industrial USB to RS-232/
422/485 Media Converter
with Isolation

Power ●

RS-422/485 Termination Resistor

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R2: for RxD+ / RxD-

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600 m	220 ohm
300 m	330 ohm

● Rx   ● Tx

RS-485/RS-422   RS-232

25.3

100.6

50.4

71.2

10.7

(Unit=mm)

> Specifications

ORing Media Converter Model	ISC-1210U-I	ISC-1310U-I
Physical Ports		
USB V1.1 port	1	1
Serial Port	RS-422/485	RS-232/422/485
Serail connector	10-pin terminal block	
Baud Rate	300 to 115.2Kbps	
Signals	RS-422 : TX+, TX-, RX+, RX-, RTS+, RTS-, CTS+, CTS-, GND RS-485 : Data+, Data-, GND	RS-232 : TX, RX, RTS, CTS, GND RS-422 : TX+, TX-, RX+, RX-, GND RS-485 : Data+, Data-, GND
LED Indicators		
Power Indicator	Green : Power LED x 1	
TxD Indicator	Green LED x 1	
RxD Indicator	Red LED x 1	
Power		
Input Power	USB bus power (self power)	
Power Consumption (Typ.)	0.65 Watts	

Protection	
Isolation	3000 VDC
Driver Support	
O.S.	Windows 95/98/ME/2000/XP, Linux
Physical Characteristic	
Enclosure	ABS
Dimension (W x D x H)	71.2(W) x 25.3(D) x 100.6(H) mm (2.8x1x3.96 inch.)
Weight (g)	130g
Environmental	
Storage Temperature	-25 to 85°C (-13 to 185°F)
Operating Temperature	-10 to 70°C (14 to 158°F)
Operating Humidity	5% to 95% Non-condensing
Regulatory approvals	
EMI	FCC Part 15, CISPR (EN55022) class A
EMS	EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11
Shock	IEC60068-2-27
Free Fall	IEC60068-2-32
Vibration	IEC60068-2-6
Warranty	2 years

> Ordering Information

ISC- A B C D E - F

Code Definition	Serial Port Number	Port Number	Converter Prot Number	Converter Type	Other Type	Additional Function
Option	- **1 :** 1 ports	- **1 :** RS-232 - **2 :** RS-422/485 - **3 :** RS-232/422/485	- **1 :** 1 ports	- **0 :** other type - **1 :** RS-232 - **2 :** RS-422/485 - **3 :** RS-232/422/485	- **F :** 100FX Fiber - **U :** USB	- **I :** Isolation

	Model Name	Description	Operating Temperature
Available Model	ISC-1210U-I	Industrial USB to RS-422/485 media converter with Isolation	-10 to 70°C
	ISC-1310U-I	Industrial USB to RS-232/422/485 media converter with Isolation	