



I-8142/I-8142-G

2-port Non-isolated
RS-422/485 Module

I-8142i/I-8142i-G

2-port Isolated
RS-422/485 Module

Features

- Serial Port with +/-4 kV ESD Protection
- Baud Rate of up to 115200 bps
- Built-in Self-Tuner or Auto-Direction Control
- 2500 VDC Isolation for I-8142i
- Internal 16-byte Hardware FIFO for each Port
- LED Indicators for TxD, Error and Power Status

Introduction

The I-8142 provides 2 non-isolated RS-422/485 serial ports, while the I-8142i provides 2 isolated RS-422/485 serial ports. It is equipped with a 16-byte hardware FIFO for each port and offers speeds up to 115.2 kbps with support for RS-422 full-duplex communication. In the harsh industrial environment, the onboard ESD protection devices can divert this potentially damaging charge away from sensitive circuitry and protect the I-8142/I-8142i/I-8144 from permanent damage. The serial communication modules are designed for use with intelligent devices like bar code readers, serial printers, intelligent sensors, instrumentation equipment, computers, and almost any device with an RS-422/485 port.

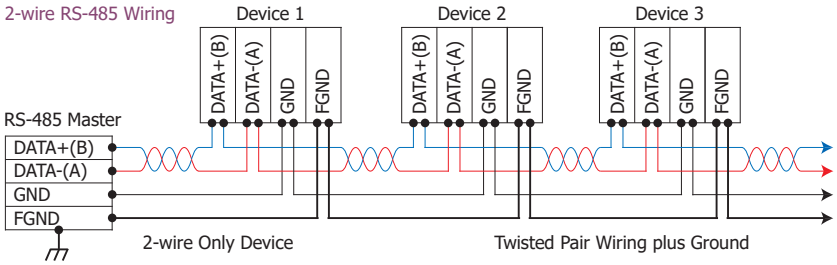
Specifications

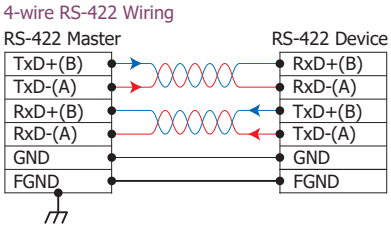
Models	I-8142	I-8142i
LED Indicators/Display		
Power	1 LED	
TxD	2 LEDs	
Error	2 LEDs	
Isolation		
Intra-module Isolation, Field-to-Logic	-	2500 VDC
EMS Protection		
ESD (IEC 61000-4-2)	±4 kV Contact for each Terminal	
Power		
Power Consumption	1.6 W	2.4 W
Mechanical		
Dimensions (W × L × H)	31 mm × 114 mm × 67 mm	
Environment		
Operating Temperature	-25 ~ +75 °C	
Storage Temperature	-40 ~ +85 °C	
Humidity	5 ~ 95% RH, Non-condensing	

Models	I-8142	I-8142i
COM Ports		
Ports	2 x RS-422/485	
Interface	RS-422/485 (The RS-422 and RS-485 can not be used simultaneously) RS-422: TxD+, TxD-, RxD+, RxD-, GND RS-485: D+, D-, GND	
Baud Rate	115200 bps Max.	
Parity	None, Even, Odd, Mark, Space	
Data Bit	5, 6, 7, 8	
Stop Bit	1, 1.5, 2	
FIFO Size	Internal 16 bytes for each port	
Self-Tuner Asic inside	Yes	
Interrupt	Shared Interrupt	
Supports Max devices	Supports 32 devices max by each port. (For Hardware version 6.7)	

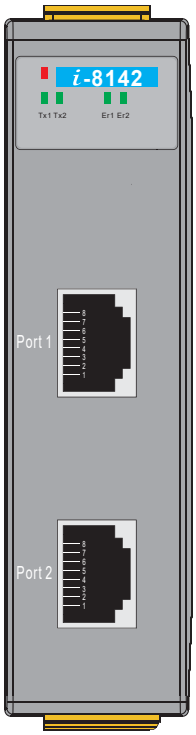
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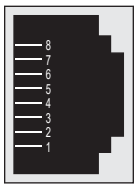
Wire Connections





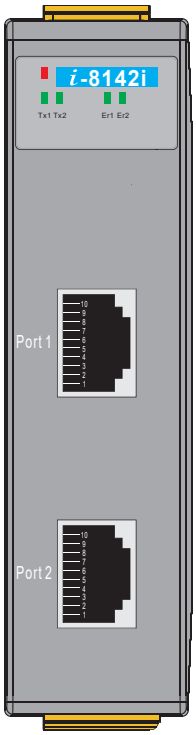
Pin Assignments

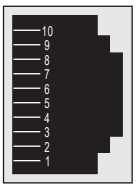




8-pin RJ-45

Pin	Signal		Mode
01	TxD+/D+	Transmit Data Positive Data+	Output
02	TxD-/D-	Transmit Data Negative Data-	Output
03	RxD+	Receive Data Positive	Input
04	RxD-	Receive Data Negative	Input
05	RTS+	Request To Send Positive	Output
06	RTS-	Request To Send Negative	Output
07	CTS+	Clear To Send Positive	Input
08	CTS-	Clear To Send Negative	Input

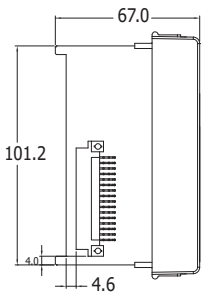




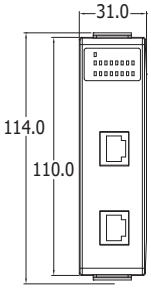
10-pin RJ-45

Pin	Signal		Mode
01	GND	Ground	
02	TxD+/D+	Transmit Data Positive Data+	Output
03	TxD-/D-	Transmit Data Negative Data-	Output
04	RxD+	Receive Data Positive	Input
05	RxD-	Receive Data Negative	Input
06	RTS+	Request To Send Positive	Output
07	RTS-	Request To Send Negative	Output
08	CTS+	Clear To Send Positive	Input
09	CTS-	Clear To Send Negative	Input
10	GND	Ground	

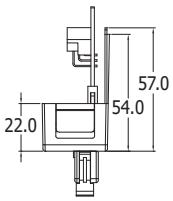
Dimensions (Units: mm)



Left View



Front View



Top View

Accessories

 CA-RJ0903	9-pin Male D-sub & RJ-45 cable, 30 cm (RoHS)
 CA-RJ1010	10-pin & RJ-45 Cable, 1 M (RoHS)

Ordering Information

I-8142 CR	2-port Non-isolated RS-422/485 Module (Blue Cover) (RoHS) Includes CA-RJ1003 Cable (10-pin RJ-45 to 10-wire Cable, 30 cm)
I-8142-G CR	2-port Non-isolated RS-422/485 Module (Gray Cover) (RoHS) Includes CA-RJ1003 Cable (10-pin RJ-45 to 10-wire Cable, 30 cm)
I-8142i CR	2-port Isolated RS-422/485 Module (Blue Cover) (RoHS) Includes CA-RJ1003 Cable (10-pin RJ-45 to 10-wire Cable, 30 cm)
I-8142i-G CR	2-port Isolated RS-422/485 Module (Gray Cover) (RoHS) Includes CA-RJ1003 Cable (10-pin RJ-45 to 10-wire Cable, 30 cm)



CA-RJ1003

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