



I-9114i

4-port Isolated RS-232 Module

Features

- Includes 4 Isolated RS-232 Ports
- Baud Rate of up to 115200 bps
- Internal 128-byte Hardware FIFO for Each Port
- RoHS Compliant & Halogen Free
- ± 4 kV ESD Protection on Each Port
- LED Indicators for TxD, RxD and Power Status
- 2500 VDC Isolation
- Low Power Consumption



Introduction

The I-9114i provides 4 isolated RS-232 serial ports. Each port is equipped with a 128-byte hardware FIFO and offers speeds up to 115.2 kbps with support for 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-9114i 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-232 port.

Applications

- Factory, Building and Home Automation

Software

- Supports interrupt driven software library
- Supports VxCOM library

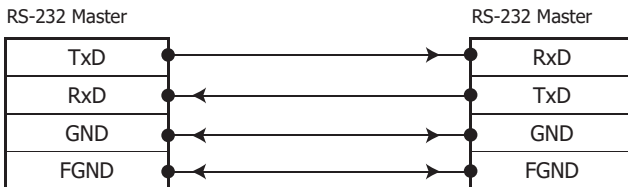
System Specifications

| RS-232 Interface | |
|----------------------------------------|-------------------------------------------------------|
| Ports | 4 |
| Interface | TxD, RxD, RTS, CTS, DSR, DTR, DCD, RI, GND |
| Controller | 16C850 Compatible |
| | Speed: 115200 bps Max. |
| | Data Bit: 5, 6, 7, 8 |
| | Stop Bit: 1, 1.5, 2 |
| | Parity: None, Even, Odd, Mark, Space |
| FIFO: Internal 128 Bytes for Each Port | |
| Self-Tuner Asic inside | Yes |
| LED Display | |
| System LED Indicator | 1 LED as Power Indicator |
| I/O LED Indicator | 4 LEDs as TxD Indicators; 4 LEDs as RxD Indicators |
| Isolation | |
| Intra-module Isolation, Field-to-Logic | 2500 VDC |
| EMS Protection | |
| ESD (IEC 61000-4-2) | ± 4 kV Contact for Each port |
| Power | |
| Power Consumption | 1.75 W Max. |
| Mechanical | |
| I/O Connector | DB-37 (Female) |
| Dimensions (W x L x H) | 31 mm x 134 mm x 134 mm |
| Environment | |
| Operating Temperature | -25 ~ +75 °C |
| Storage Temperature | -40 ~ +85 °C |
| Humidity | 10 ~ 90% RH, Non-condensing |

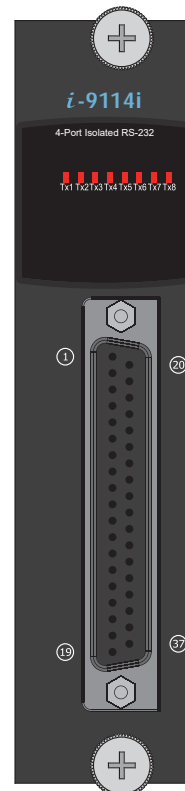
Wire Connections

| DTE Device (Computer) DB9 | | DTE to DCE Connections | | DCE Device (Modem) DB9 | |
|------------------------------|---------------------------|------------------------|---|------------------------------|---------------------------|
| Pin# | DB9 RS-232 Signal Names | Signal Direction | | Pin# | DB9 RS-232 Signal Names |
| #1 | Carrier Detector | DCD | ← | #1 | Carrier Detector |
| #2 | Receive Data | RxD | ← | #2 | Transmit Data |
| #3 | Transmit Data | TxD | → | #3 | Receive Data |
| #4 | Data Terminal Ready | DTR | → | #4 | Data Set Ready |
| #5 | Signal Ground/Common (SG) | GND | ↔ | #5 | Signal Ground/Common (SG) |
| #6 | Data Set Ready | DSR | ← | #6 | Data Terminal Ready |
| #7 | Request to Send | RTS | → | #7 | Clear to Send |
| #8 | Clear to Send | CTS | ← | #8 | Request to Send |
| #9 | Ring Indicator | RI | ← | #9 | Ring Indicator |
| Soldered to DB9 Metal-Shield | | FGND | ↔ | Soldered to DB9 Metal-Shield | |

3-wire RS-232 Wiring



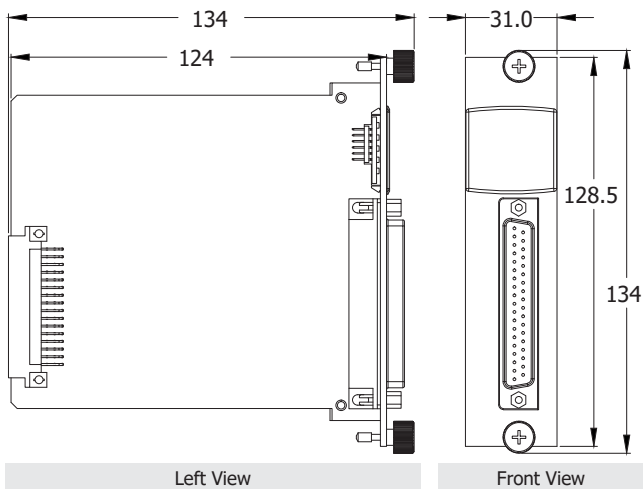
Pin Assignments



| Pin Assignment | Terminal No. | Pin Assignment |
|----------------|--------------|----------------|
| N.C. | 1 | |
| DCD3 | 2 | 20 RI3 |
| GND3 | 3 | 21 DTR3 |
| CTS3 | 4 | 22 DSR3 |
| RxD3 | 5 | 23 RTS3 |
| RI4 | 6 | 24 TxD3 |
| DTR4 | 7 | 25 DCD4 |
| DSR4 | 8 | 26 GND4 |
| RTS4 | 9 | 27 CTS4 |
| TxD4 | 10 | 28 RxD4 |
| DCD2 | 11 | 29 RI2 |
| GND2 | 12 | 30 DTR2 |
| CTS2 | 13 | 31 DSR2 |
| RxD2 | 14 | 32 RTS2 |
| RI1 | 15 | 33 TxD2 |
| DTR1 | 16 | 34 DCD1 |
| DSR1 | 17 | 35 GND1 |
| RTS1 | 18 | 36 CTS1 |
| TxD1 | 19 | 37 RxD1 |

37-pin Female D-sub Connector

Dimensions (Units: mm)



Ordering Information

| | |
|-------------------|---------------------------------------------------------------------------------------------------|
| I-9114i CR | 4-port Isolated RS-232 Module (RoHS) Includes CA-4002 (DB37 connector Male with plastic cover) |
|-------------------|---------------------------------------------------------------------------------------------------|

Accessories

| | | |
|--|-------------------|-------------------------------------------------------------|
| | CA-9-3705 | DB37 Male/90° to 4 x DB9 Male Cable [RS-232], 20 cm (RoHS) |
| | CA-9-3715D | DB37 Male/180° to 4 x DB9 Male Cable [RS-232], 1.5 M (RoHS) |