



PCI Express 2-Port RS-232, RS-422, RS-485 Isolated Serial Interface

Part: 7203e | **Model:** ISO COMM2.PCIe

The 7203e PCI Express serial interface provides two optically isolated serial ports, each individually configurable for RS-232, RS-422, or RS-485. Each serial port utilizes a 16C952 UART with 128-byte Tx/Rx FIFOs that enables data rates to 460.8K bps for reliable high-speed communications in data-intensive applications. This high-performance UART includes 9-bit framing support and is register compatible with legacy 16550 software applications. In addition, the board derives a 62.5 MHz clock from the PCI Express link. This ultra-high-speed clock is divided by a flexible 8-bit clock prescaler with 1/8 steps to provide support for the widest range of standard and non-standard baud rates.

In RS-485 mode the board provides automatic control of the RS-485 driver in hardware, eliminating the need for application software control. This allows the 7203e to be used with standard serial communications applications and removes the risk of bus contention and data corruption. Additionally, RS-485 network termination, critical to robust multi-drop communication, can be selectively added to the circuit via DIP-switches. In RS-232 mode, all modem control signals are implemented for maximum compatibility with a variety of serial peripherals.

Sealevel's SeaCOM software makes installation and operation easy using Microsoft Windows and Linux operating systems.

The 7203e is a PCI Express X1 board compatible with any low profile PCI Express slot. A standard profile bracket is also included.

Features & Specifications

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Features

- Each port individually configurable for RS-232, RS-422, or RS-485
- Optical isolation provides protection against transients and ground loops
- 16C952 buffered UARTs with 128-byte FIFOs
- Oscillator and clock prescaler support wide range of baud rates
- Supports 9-bit protocol framing
- Each port supports data rates to 460.8K bps
- RS-485 line termination, pull-up and pull-down resistors for each port are selectable via dipswitch
- RS-485 ECHO can be enabled/disabled via dipswitch
- PCI Express X1 compliant
- Compatible with all standard size PCI Express slots
- All modem control signals implemented in RS-232 mode
- Automatic RS-485 enable/disable in hardware
- Board includes two DB9M connectors

Specifications

Board Connector	(2) DB9M
Communications Chip	16C952
Electrical Interface	RS-232, RS-422, RS-485
Humidity Range	10 – 90% Relative Humidity, Non-Condensing
Host Interface(s)	PCI Express
Max Data Distance	4000 feet
Max Data Rate	460.8K bps
Optically Isolated	Yes
Operating Temperature	0°C to 70°C (32°F to 158°F)
PC Bracket	Standard Height
# of Ports	2
RoHS Compliant	Yes
Serial Connector(s)	DB9M
Storage Temperature	-50°C to 105°C (-58°F to 221°F)
UART Series	950 UART