



Model 3PCI2
Dual-Port Multi-Interface
(RS-232/RS-422/RS-485)
PCI Bus Serial Card
Automatic RS-485 Send Data Control

Features

- Dual-Port multi-interface PCI bus serial card
- Plug and Play compatible – Windows sets the addresses and IRQ used
- Windows compatible drivers for 95/98/2000 and XP
- Buffered high speed 16C950A UART (16C550 compatible) 128 byte FIFO
- Adjustable FIFO trigger thresholds for input and output
- Supports baud rates to 460.8K baud
- RS-232/RS-422/RS-485 operation independently selectable for each port
- RS-232 Mode - Supports all eight signals including DCD & RI for modem compatibility
- RS-422 Mode - Supports Transmit & Receive signal pairs
- RS-485 Mode - Supports Transmit & Receive signal pairs for half or full duplex connections.
- 2-wire or 4-wire RS-485 operation (half or full-duplex)
- Automatic Send Data Control for RS-485 operation
- Advanced driver function for Com port rename (Com1 to Com256)
- Standard DB9 male connectors

RS-232 Mode

In the RS-232 mode, the port works as a buffered standard (DTE) PC serial port. The RS-232 Standard is commonly used for modems, serial printers, and computer controlled devices such as security equipment, bar code scanners and point-of-sale devices.

RS-422 Mode

The RS-422 Standard uses balanced differential drivers and receivers for each signal. This provides greater communication distances than an unbalanced system, such as RS-232. Each port supports two channels, TD and RD in RS-422 mode, and Transmitter and Receiver are constantly enabled (TX ENABLE, RX ENABLE). RS-422 operation is suitable for interconnecting a computer and one device for full duplex bi-directional communication, or a computer and several devices for unidirectional communication. Commonly used for video editing/control, camera control, electronic signage, television studio/satellite dish control, performance lighting and audio equipment control.

RS-485 Mode

The RS-485 Standard allows multiple devices to share the same communication link using either half duplex (2-wire) or full duplex (4-wire) connections. This requires that the transmitter be enabled only while sending data, and tri-stated otherwise so another device can use the wire pair. The 3PCI2 card automatically controls the Transmitter (Automatic Send Data Control) based on the contents of the output buffer. When the buffer has data to send, the transmitter is enabled (TX SD). When all data in the buffer has been sent, the transmitter is disabled and tri-stated to a high impedance state. In half-duplex operation, the Receiver is disabled during transmit (TX SD), and enabled when not transmitting. In full-duplex operation, the receiver is set constantly enabled (RX ENABLE). Since RS-485 transmitters are tri-stated when not transmitting, the Receive inputs must be biased to establish the Mark state so that the first Space state is detected correctly at the start of the next transmission. This card includes biasing for 32 standard (12K) nodes. Provisions are made for custom biasing and/or termination.

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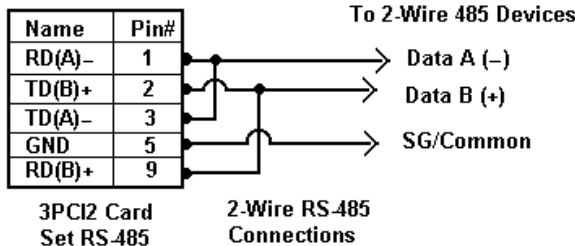
Specifications

Bus: PCI bus (33MHz/32-bit) +5V bus power
 Slot: Requires one PCI slot
 Baud rates: 460.8K baud maximum - RS-232/422/485
 Any baud rate that is a common divisor of 460.8K can be used if the application software supports it.
 Compatibility mode for X4 clock speed

UARTs: 16C950 (128-byte FIFO TX and RX buffers) (16C550 compatible)
 Character length: 5, 6, 7 or 8 bits
 Parity: Even, odd or none
 Stop bits: 1, 1.5, or 2
 Connectors: Two 9-pin male D-sub (DB9M) connectors
 Dimensions: 4.79 x 3.77 in (12.16 x 9.57 cm) card edge
 (Mounting bracket, 1.23 x 12.06 x 0.85cm)
 Environmental: Operating temperature range: 0° to 50° C
 Operating humidity: 0 to 95%, Non-condensing
 O/S Supported: Compatible with Windows 95/98/2000/XP (32-bit XP)
 Application software must be Windows driver compatible
 Supplied Accessories: Driver CD-ROM disc for Windows 95/98/2000/XP
 Instruction manual

Connections

| RS-232 Signal Description | RS-232 (DTE) Signal Name | DB9M Pin | RS-422 RS-485 Signal Name | 2-wire RS-485 Signal Name |
|---------------------------|--------------------------|----------|---------------------------|---------------------------|
| Data Carrier Detect | DCD | 1 | RD(A)- | Bridge to Pin #3 |
| Receive Data | RD | 2 | TD(B)+ | Data(B)+ |
| Transmit Data | TD | 3 | TD(A)- | Data(A)- |
| Data Terminal Ready | DTR | 4 | -- | - |
| Signal Ground | GND | 5 | GND | GND |
| Data Set Ready | DSR | 6 | -- | -- |
| Request to Send | RTS | 7 | -- | -- |
| Clear to Send | CTS | 8 | -- | -- |
| Ring Indicator | RI | 9 | RD(B)+ | Bridge to Pin #2 |



DECLARATION OF CONFORMITY

Manufacturer's Name: B&B Electronics Manufacturing Company
 Manufacturer's Address: P.O. Box 1040
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Model Numbers: 3PCIO1
 Description: 1-port RS232/422/485 PCI Serial Card
 Type: Light industrial ITE equipment
 Application of Council Directive: 89/336/EEC
 Standards: EN 55022
 EN 50082-1
 EN 61000 (-4-2, -4-3, -4-4, -4-6)

William H. Franklin III
 William H. Franklin III, Director of Engineering

CE

*This product is Designed and Manufactured in the USA
of domestic and imported components.*

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