PCI Express Serial Card

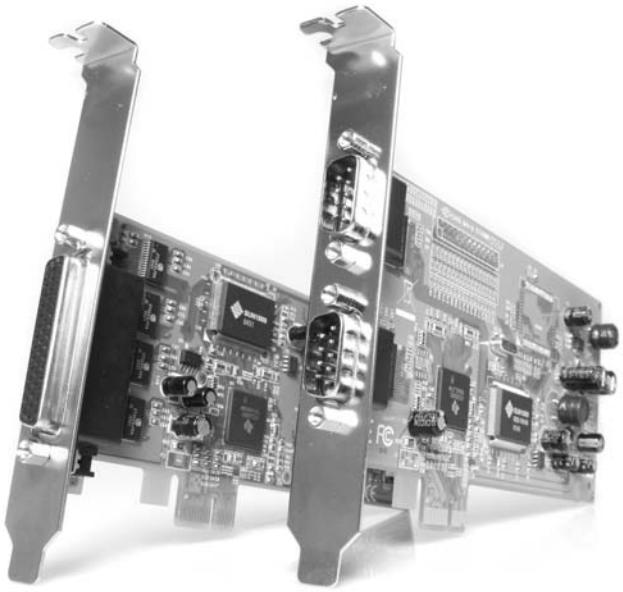
2 Port 16650 WHQL Approved PCI Express Serial Card

4 Port 16650 WHQL Approved PCI Express Serial Card

PEX2S650

PEX4S650

Instruction Manual



Actual product may vary from photo

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- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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Introduction

Thank you for purchasing a multiport WHQL approved PCI Express Serial Card. This card allows you to add 2 or 4 independent DB9 or DB25 RS-232 serial ports to your computer, for industrial communication, automation applications and more. The card is compatible with PCI Express x1, x2, x4, x8, x16 lane Bus configurations, allowing it to be installed in virtually any available PC system and making it compatible with all major operating systems. Plus, with PEX2S650/PEX4S650, you won't need to manually set jumpers to configure I/O addresses or IRQ locations, as the system will automatically eliminate any conflicts with other cards or devices.

Features

- Compliant with PCI Express base specification rev. 1.1
- Single lane (x1) PCI Express throughput up to 2.5 Gbps
- Supports x1, x2, x4, x8 and x16 lane PCI Express Bus connector keys
- 2 or 4 independent RS-232 serial ports built-in
- High speed 16C650 compatible communication controller eliminates data loss
- Each serial port has built-in 32 byte hardware and 128K byte software FIFO buffers
- Data transfer speeds of up to 921.6 Kbps
- Supports Linux, Microsoft Windows CE.NET, 2000, XP and 2003 Server
- Includes WHQL certified drivers

Before You Begin

System Requirements

- 1 available PCI Express slot
- Operating system requirement: Linux, Microsoft Windows CE.NET, 2000, XP and 2003 Server

Contents

This package should contain:

- PCI Express serial card (1)
- Software CD ROM (1)
- User's Manual (1)
- DB37 Male to 4 port DB9 or DB25 Male serial cable **(PEX4S650 only)** (1)

Installation

Installating the PCI Express serial card

1. Shut down all power connected to the computer, as well as all devices connected to the computer peripherally (i.e. Printers, Monitors, Scanners etc.). As an added step to ensure safe installation, unplug the power supply from the computer.

2. Remove the computer cover. For more detailed instruction on how to perform this step, please refer to the documentation that was included with your computer at the time of purchase.

3. Locate an empty PCI Express slot, removing the metal bracket covering the accompanying empty port/socket.

4. Position the serial card above the open PCI Express slot, ensuring that the card is properly aligned with the slot. Insert the card firmly into the slot, distributing force evenly across the length of the board. Once inserted, secure the card into the adjoining socket (previously covered by metal bracket), using the correct size screw (if necessary, please consult documentation that accompanied purchase of computer).

5. Replace the computer cover and re-connect all power to the computer.

Driver installation

Windows:
Upon rebooting the computer for the first time following the installation of the serial card, Windows will detect the PCI serial card, and prompt for driver installation. When asked to specify a location where the driver is located, insert the driver CD into your CD/DVD ROM drive and browse to one of the following locations, based on the operating system that is installed on the computer. Once you have specified the correct file, click **OK** to complete the driver installation:

Windows 95/98SE/ME: D:\IO\PCI IO\Win9x *
Windows 2000/XP/2003 Server: D:\IO\PCI IO\win2k & xp & 2003 *
Windows NT 4.0: D:\IO\PCI IO\WinNT *
Windows CE.NET: D:\IO\PCI IO\WinCE*

*Please note: **D:** specifies the CD ROM drive

DOS:
Following the physical installation of the PCI Express card, you will need to install the necessary drivers. For detailed steps on how to do so, please consult the text file located on the software CD ROM in the following path: **D:\IO\PCI IO\DOS** *

Linux:
Following the physical installation of the PCI Express card, you will need to install the necessary drivers. For detailed steps on how to do so, please consult the text file located on the software CD ROM in the following path: **D:\IO\PCI IO\Linux** *

Verifying installation

Once the serial card and the accompanying software has been installed, please launch the **Device Manager** (Start > Control Panel > System > Device Manager) to verify that the hardware has been successfully installed. Once the **Device Manager** has loaded, please click on the **(+)** symbol located next to **Ports (COM & LPT)**. Check to see that the correct number of ports appears in this section. For PEX2S650, you should notice two additional serial ports. For PEX4S650, you should notice four.

Port Settings

Once you have verified that the serial card has successfully been installed, you can modify the setting for each serial port from within the **Device Manager**:

1. Right-click on the newly installed COM port(s), and select **Properties**.

2. Select the **Port Settings** tab to modify COM port settings as needed.

3. By clicking on the **Advanced** button, you can modify the COM port number, as well as the FIFO settings.

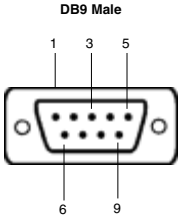
Specifications

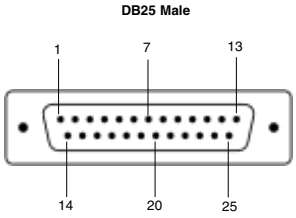
General specifications

Operating mode	Handshaking RS-232 Full-Duplex
Controller	16C650 Compatible UART
Bus Interface	PCI Express x1, x2, x4, x8, x16
Number of ports	2 / 4 DB9 or DB25 Male ports
IRQ & IO Address	Assigned by BIOS/OS
FIFO	32 byte hardware FIFO & 128K byte software FIFO
Baud Rate	75 - 921,600 bps
Data Bit	5, 6, 7, 8
Stop Bit	1, 1.5, 2
Parity	Even, Odd, None, Mark, Space
Flow Control	None, Xon/Xoff, Hardware
Operating systems	Windows CE.NET / 2000 / XP / 2003 Linux 2.4.x, 2.6.x
Certifications (regulatory and other)	CE, FCC, ROHS, Microsoft WHQL
Operating temperature	0° - 60°C

Pin Assignments

	DB9 Male	DB25 Male
DCD	1	8
RxD	2	3
TxD	3	2
DTR	4	20
GND	5	7
DSR	6	6
RTS	7	4
CTS	8	5
RI	9	2





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Revised: 16 November 2005 (Rev. A)