RocketPort® Jet Hardware and Software Installation

Introduction

The RocketPort Jet adapter is a PCI controller board that you can install to upgrade a PC computer to have multiple RS-232 (UART) ports.

The RocketPort Jet low profile form factor can fit into either a low profile PCI or standard size PCI slot.

Features

The RocketPort Jet PCI adapter includes the following features:

- Compliant with PCI Specification, Revision 3.0 and PCI Power Management Specification 1.1
- 32 bit/33MHz fully compliant PCI host interface
- 3.3V operation
- Low profile PCI form factor
- Provides low profile and standard size PCI brackets
- The 2-port model provides one DB9 connector on the bracket and an RJ45 to DB9 cable that can be connected to the 10-pin RJ45 port on the bracket
- The 4-port model provides a fan-out cable that contains DB9 connectors

The RS-232 (UART) serial port features include the following:

- Multiple 16C950 high performance RS-232 UART DB9 channels
- Superset and backward compatible to 16C550, 16C650, 16C750 and 16C850 UARTs
- 128-byte deep FIFO per transmitter and receiver
- Supports 5V DC output in each Pin 9 of the DB9 connectors (total 2A5VDC supply from the card) for POS applications
- 5V DC output can be individually enabled or disabled in each DB9 port
- Supports data transfer rate up to 920 Kbps
- Supports DOS, Linux, and Windows® drivers

Note: *See the **readme.txt** file in the **DOS** subdirectory on the CD for DOS set up information.*

*The Linux driver is built into the operating system, see the **RP_Jet_Linux.pdf** file in the **Linux** subdirectory on the CD for Linux set up procedures.*

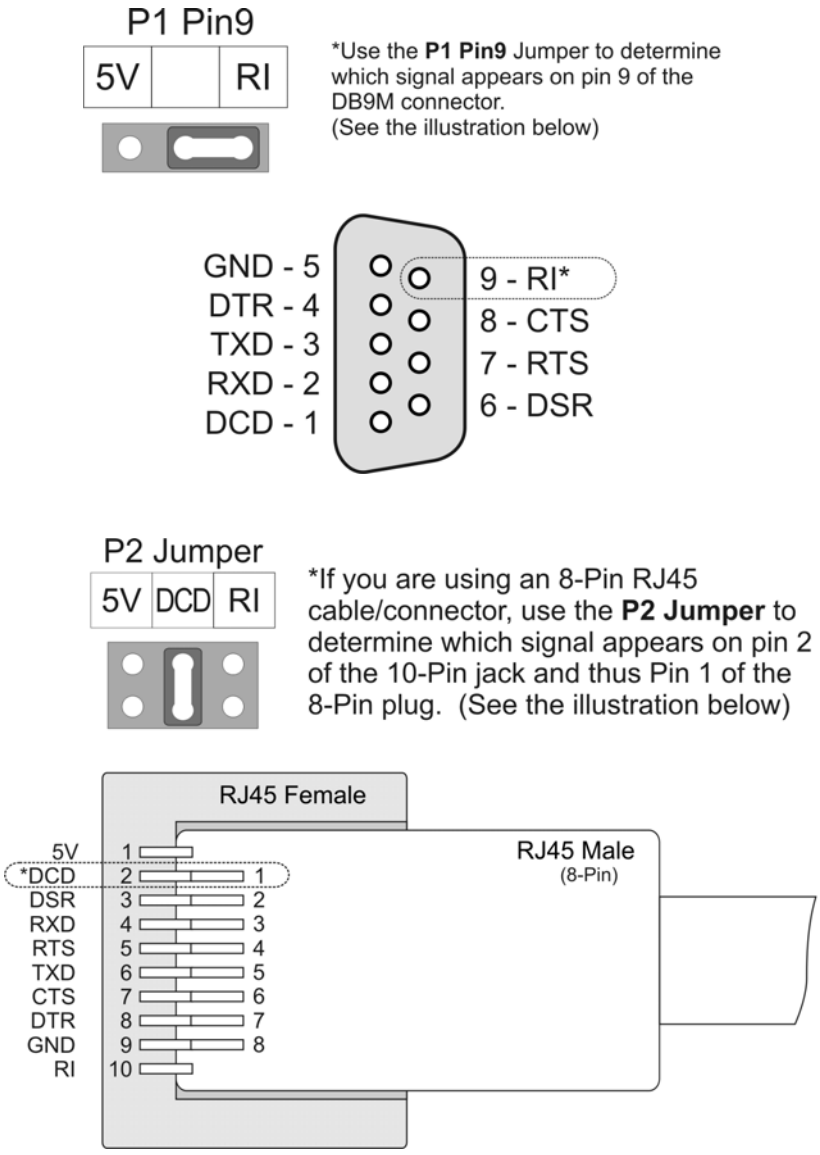
Pin Assignments and Jumper Settings

Use the appropriate discussion for your RocketPort Jet model.

- *RocketPort Jet 2-Port* (below)
- *RocketPort Jet 4-Port* on Page 3

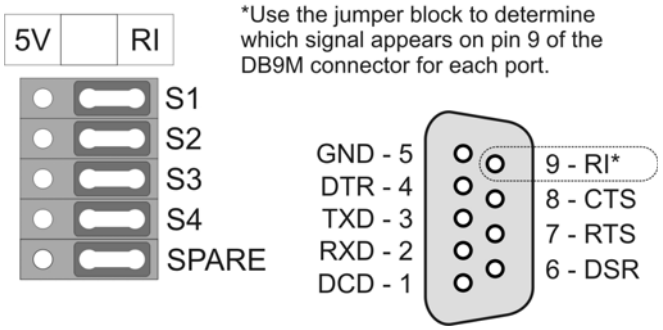
RocketPort Jet 2-Port

The following drawing illustrates the jumper settings for the RocketPort Jet 2-port model.



RocketPort Jet 4-Port

The following drawing illustrates the jumper settings for the RocketPort Jet 4-port model.



Software Installation

Go to the appropriate discussion to install the device driver for your operating system.

- *Windows 2000, Windows XP, or Windows Server 2003 Installations* on Page 3
- *Windows 9x or Windows ME Installations* on Page 4
- *Windows NT Installations* on Page 6

Note: *See the **readme.txt** file in the **DOS** subdirectory on the CD for DOS set up information.*

*The Linux driver is built into the operating system, see the **RP_Jet_Linux.pdf** file in the **Linux** subdirectory on the CD for Linux set up procedures.*

Windows 2000, Windows XP, or Windows Server 2003 Installations

Use the following procedure to install the RocketPort Jet in a Windows 2000, Windows XP, or Windows Server 2003 system.

1. Power off the system.
2. Insert the RocketPort Jet into an available PCI slot.

   Note: *Make sure that you have performed any necessary procedures in Pin Assignments and Jumper Settings on Page 2 before installing the RocketPort Jet.*
3. Power up the system and insert the *Driver and Documentation* CD into your CD-ROM or DVD drive.
4. When the operating system displays the *Found New Hardware Wizard*, click **Next**.
5. Select **Search for a suitable driver for my device (Recommended)**, click **Next**, and make sure the *Driver and Documentation* CD is in the CD-ROM or DVD drive
6. Under **Specify a location** insure that it is the only option checked and click **Next**.
7. Enter the letter for the CD-ROM or DVD drive and click **Browse**. For example: **d:** or **e:**.
8. Browse to the location of the driver, for example: **E:\Windows**, and click **OK**.
9. When the *Wizard* indicates that it found a driver for the UART, click **Next**.
10. Select **Finish**.
11. Repeat Steps 4 through 10 for the PCI bridge and each port on the RocketPort Jet.

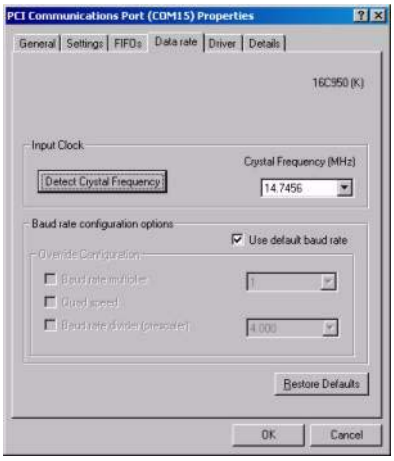
Caution

After Microsoft® driver installations, configure the correct data rate at 14.745MHz frequency or by automatic frequency detection for proper operation.

Frequency Settings Under Windows 2000, Windows XP, and Windows Server 2003

Follow the instructions in this subsection to verify that the RocketPort Jet is installed correctly and to set the frequency settings.

1. Right-click on the **My Computer** icon, select **Properties**, left-click on the **Hardware** tab, and select the **Device Manager** button.
2. Double-click **Multifunction adapters**, if there is no yellow **!** or **?** before the following entries the driver has started correctly:
   - OX16PCI954 PCI UARTs (unique bars)
   - OX16PCI95x PCI bridge
3. Double-click **Ports**, if there is no yellow **!** or **?** before the following entries, the driver has started correctly:
   - PCI Communications Port (COM3)
   - PCI Communications Port (COM4)
   - PCI Communications Port (COM5) (*4-port installations, only*)
   - PCI Communications Port (COM6) (*4-port installations, only*)
4. To configure the RocketPort Jet, right-click the **PCI Communications Port (COM3)** and select **Properties** from the context menu.
5. Select the tab labeled **Data rate**, select the **Detect Crystal Frequency** button to automatically select the input clock.
6. Select the **Use default baud rate** option under the *Baud rate configuration options* area.
7. Repeat Steps 4 through 6 for each COM port.



Windows 9x or Windows ME Installations

Use the following procedure to install the RocketPort Jet on a Windows 9x or Windows ME system.

1. Power off the system.
2. Insert the RocketPort Jet into an available PCI slot and power up the system.

   Note: *Make sure that you have performed any necessary procedures in Pin Assignments and Jumper Settings on Page 2 before installing the RocketPort Jet.*
3. When the *New Hardware wizard* displays that it found new hardware, select **Specify the location of the driver (Advanced)**, insert the *Driver and Documentation* CD in your CD-ROM or DVD drive, and click **Next**.
4. Select **Search for the best driver for your device (Recommended)** and **Specify a location**, uncheck the other boxes and enter the appropriate drive (for example: **E:**), and click **Browse**.
5. Specify the driver location, for example **E:\Windows**, click **OK**, and click **Next**.
6. When the wizard indicates that it found a driver for the device, click **Next**.

7. Select **Finish** to exit the wizard.
8. Repeat Steps 3 through 7 for each port.
9. When driver installation is finished remove the *Driver and Documentation* CD, and click **YES** to restart your computer.

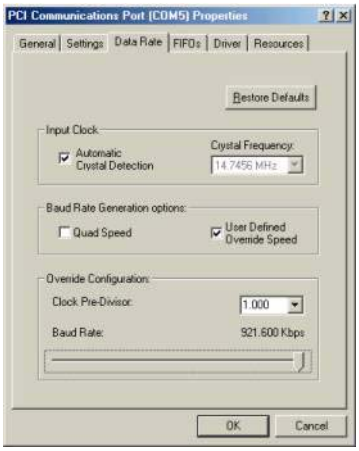
Caution

After Microsoft® driver installations, configure the correct data rate at 14.745MHz frequency or by automatic frequency detection for proper operation.

Frequency Settings Under Windows 9x and ME

Follow the instructions in this subsection to verify that the controller was installed correctly and to set the frequency settings.

1. Right-click on **My Computer** icon, select **Properties**, left-click on the **Device Manager** tab.
2. Double-click **Multifunction adapters**, if there is no yellow **!** or **?** before the following entries, the driver has started correctly.
   - OX16PCI954 PCI UARTs (unique bars)
   - OX16PCI95x PCI bridge
3. Double-click on **Ports**, if there is no yellow **!** or **?** before the following entries, the driver has started correctly.
   - PCI Communications Port (COM3)
   - PCI Communications Port (COM4)
   - PCI Communications Port (COM5) (*4-port installations, only*)
   - PCI Communications Port (COM6) (*4-port installations, only*)
4. To configure the RocketPort Jet, right-click the **PCI Communications Port (COM3)** and select **Properties** from the context menu.
5. Select the **Data Rate** tab, select the **Automatic Crystal Detection**.
6. Select the **User Defined Override Speed** under the *Baud Rate Generation options*.
7. Drag the speed bar to appropriate baud rate for this port.



Windows NT Installations

Use the appropriate procedure or procedures to install the device driver for Windows NT 4.0.

- RocketPort Jet **4-port** models, skip to Step 5
- RocketPort Jet **2-port** models, first perform Steps 1 through 4

  Note: *Before the driver installation (2-ports only), the DOS Utilities need to run in a pure DOS environment, not in a "DOS box." Use the following procedure to create a pure DOS environment and install the driver for Windows NT 4.0.*

1. Download the latest copy of the FreeDOS kernel from: http://prdownloads.sourceforge.net/freedos/ke202a16.zip.
2. Unpack the archive, change directories to where you unzipped it, insert a formatted diskette in the **a:** drive, and run the installation batch file from there, which will make a bootable diskette.
3. Insert the *Driver and Documentation* CD into your CD-ROM or DVD drive.
4. Copy the **NTutil.exe** and **Set_NT.bat** files from the **\WinNT4** subdirectory on the CD to the diskette. Do not remove the diskette because you need to reboot the system in the next step.
5. Shutdown the system and insert the RocketPort Jet into an available PCI slot, and power up the system.

   Note: *Make sure that you have performed any necessary procedures in Pin Assignments and Jumper Settings on Page 2 before installing the RocketPort Jet.*
6. *If this is a 2-port installation*, perform the following procedure:
   a. At the DOS prompt, execute **Set_NT.bat** program from the diskette.
   b. Remove the bootable diskette and restart the system.
7. Browse the *Driver and Documentation* CD to the **\Windows\WinNT4** subdirectory and execute the **Install_Serial.exe** file.
8. When the wizard displays the *Windows NT4 Device Installer*, click **Next**.
9. When the wizard displays **OxSer.INF**, select **INSTALL** and click **Next**.
10. Select **YES** to accept the license agreement.
11. When the wizard displays *The operation was completed successfully* and the driver has been started, click **Exit**.

Verifying Installation Under Windows NT

Use the following procedure to verify that the RocketPort Jet was installed correctly.

1. Right-click on **Start** icon, select **Settings** and **Control Panel**.
2. Double-click on **Ports** and if you see the additional COM ports, the driver has started correctly.

Product Specifications

Environmental Conditions

Environmental Condition	Value
Air temperature: Operating Storage	 0 to 60°C -20 to 85°C
Relative humidity	5% to 90%
Altitude	0 to 10,000 feet

Electromagnetic Compliance

Electromagnetic Compliance	Status
Emission: European standard EN55022; Amendment A1 FCC PART 15, Subpart B: Class B	Yes
Immunity: EN55024: IEC 1000-4-2: EN61000-4-2: ESD IEC 1000-4-3: EN61000-4-3: RF IEC 1000-4-4: EN61000-4-4: Fast Transient IEC 1000-4-5: EN61000-4-5: Surge IEC 1000-4-6: EN61000-4-6: Conducted disturbance IEC 1000-4-8: EN61000-4-8: Magnetic field IEC 1000-4-11: EN61000-4-11: Dips and Voltage Variations	Yes
Regulatory Approvals: CE Mark FCC Part 15: Subpart B: Class B RoHS 2002/95/EC	Yes

Product Specifications

RocketPort Jet	Specification		
Baud rate	920 K baud (maximum)		
Bus interface	3.3 or 5.0 Volt PCI		
Control by device driver: Data bits Parity Stop bits	 7 or 8 Odd, Even, None 1 or 2		
Current consumption: RocketPort Jet 2 RocketPort Jet 4	**+5V** 50 mA 90 mA	**+12V** 40 mA 50 mA	**-12V** 50 mA 100 mA
Power consumption: RocketPort Jet 2 RocketPort Jet 4	 1.4 W 2.3 W		
Dimensions (W x H)	2.54” x 4.72		
Heat output: RocketPort Jet 2 RocketPort Jet 4	 4.8 BTU/Hr. 7.9 BTU/Hr.		

RocketPort Jet	Specification
I/O ports/expansion slot	From 2 to 16
Serial Interface:	RS-232
Mean time between failures (MTBF): RocketPort Jet 2 RocketPort Jet 4	 42.8 Years 42.1 Years
RocketPort cards/system	4
Weight: Product (Device Only): RocketPort Jet 2 RocketPort Jet 4	 2.1 oz 2.5 oz

Technical Support

If you need technical support, contact Comtrol® using one of the following methods.

Contact Method	Corporate Headquarters	Comtrol Europe
Customer Support	http://support.comtrol.com/online	
Downloads	http://support.comtrol.com/download.asp	
Web site	http://www.comtrol.com	http://www.comtrol.co.uk
Fax	(763) 494-4199	+44 (0) 1 869-323-211
Phone	(763) 494-4100	+44 (0) 1 869-323-220

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First Edition, January 28, 2006

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Document Number: 2000455 Rev. A