

**Aceena Corporation**

**FLEXPORT PCI 4s**  
*4 Port PCI Serial Card*



***User's Guide***

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### Printing History

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Addonics Communications' liability under this warranty shall be limited to refund of the purchase price of the product. In no event shall Addonics Communications be liable for costs of procurement of substituted goods by the purchaser or for any special, consequential or incidental damages whether for breach of warranty, breach of contract, negligence or otherwise.

## **FCC COMPLIANCE**

This equipment has been tested and found to comply with the limits for Class B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment on and off, the user is encouraged to try to correct the interference by on or more of the following measures:

- Reorient or relocate the receiving antenna
- 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/television technician for help and for additional suggestions

## **FCC WARNING**

The user is cautioned that changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment.

# *PCI 4s USER'S GUIDE*

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# CHAPTER 1 - INTRODUCTION

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Thank you for purchasing the Addonics Communications PCI 4s four port PCI serial card. Addonics' goal is to provide its customers with affordable, quality products and customer support. Before installing the board, please review this chapter for unpacking instructions and an overview of the key features.

## 1-1 Unpacking the PCI 4s

Please verify that the following items are included in the PCI 4s' box:

- One PCI 4s card
- One Driver Installation disk
- This comprehensive user's manual
- One Addonics Communications FlexPort 4s series spider cable

## 1-2 Static Electricity Precaution

One of the routine precautions you must be aware of when working with computer components is the problem of static electricity discharge.

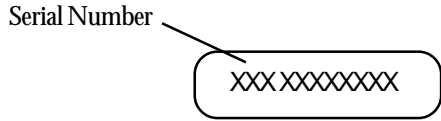
**Note** Leave the PCI 4s PCI in its static-resistant bag until you are ready to install it.

**Caution** Static electricity discharge may permanently damage your system. In order to avoid possible static electricity discharge during installation, please follow the guidelines below:

- *Discharge any static electricity buildup in your body by touching a large grounded metal surface for a few seconds.*
- *During installation procedures, avoid contact with any internal components. Handle cards only by their edges.*

### 1-3 Record the Serial Number

In order for Addonics Communications' Technical Support or Customer Service Department to give you prompt service, you will need to provide the serial number of the product whenever you contact Addonics Communications. The serial number label is located on the back of the board.



Please take a moment to record the serial number.

Serial Number:

--	--	--	--	--	--	--	--	--	--

Date Purchased: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

### 1-4 Introducing the PCI 4s

The FlexPort PCI 4S is designed to provide high speed serial connectivity for PC/AT/PC98 and compatible systems. Each board provides four high speed serial ports with the 16C654 UART. The ports are RS232 compliant and can be used with devices such as modems, terminals, printers, etc. The 16C654 UART is compatible with the industry standard 16C552; however, the 16C654 has 64 bytes of transmit and receive FIFO. The importance of this deep FIFO is to off load CPU tasks and allow for smooth running and error free operation. The PCI 4S is capable of blazing fast 1.5 Mbps operation (operating system permitting) and is fully PCI compliant. The PCI 4S is a cutting edge board utilizing only one IRQ and one I/O address for all four serial ports. As the PCI 4S is Plug & Play compatible, all settings are set automatically.

## **1-5 Key Features**

- Transmission speeds of up to 1.5 Mbps, operating system permitting.
- Surface mount design for reliability and simplicity.
- Designed for use in PCI slots.
- Full modem control and RS232 compliant.
- Software configured IRQs.
- IRQ Range from 3 to 15.
- Only one IRQ is needed for operation.
- I/O address & IRQ is automatically configured by Plug & Play OS or BIOS.
- Windows 95/98 NT 4.0 (late availability) drivers.
- Made in USA.
- Small footprint (4" X 3")
- 16C654 UART chip.

## **1-3 System Requirements**

- Pentium II or Pentium-class computer with one available PCI slot
- Windows 95, 98 or NT 4.0 (late availability)
- One MB of available hard disk space

## CHAPTER 2 - HARDWARE INSTALLATION

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This chapter provides instructions for installing the FlexPort PCI 4s in your computer. Before installing the card, familiarize yourself with the card's layout and connector locations. The card provides internal connectors for four serial ports, as well as an external spider cable for the same four ports.

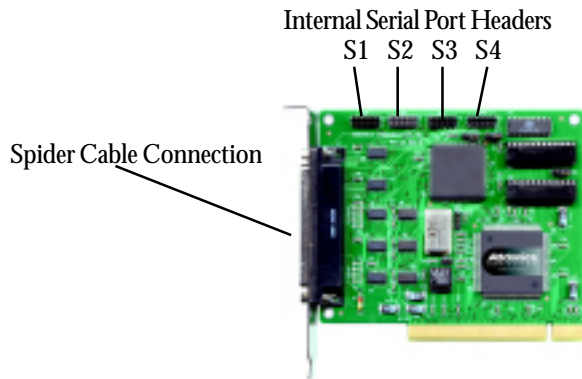


Figure 2-1. *FlexPort PCI 4s* PCI Card Layout

### 2-1 Connectors

#### **Spider Cable**

This is a 37-pin D-sub connector. It is used to connect to the Addonics FlexPort 4s series serial spider cable. Use this cable to connect modems, mice, serial printers etc. to your computer.

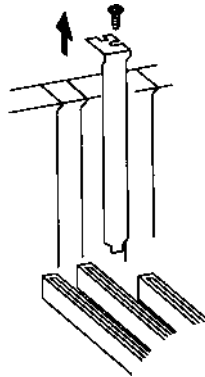
#### **Internal Serial Port Headers**

These 10-pin header type connections allow: the connection of internal serial devices, or the use of external serial devices without the spider cable. Use these connections if you wish to have 25-pin D-sub serial ports on your computer, or if you do not wish to use the spider cable. DO NOT use both connections at the same time, use either the header connections or the spider cable.

## 2-2 Installing the PCI 4s Card

Proceed with the following instructions to install the card in your computer. General instructions for installing the board are given since the design of the computer chassis varies. Refer to your computer's reference manual for information on removing your computer's cover.

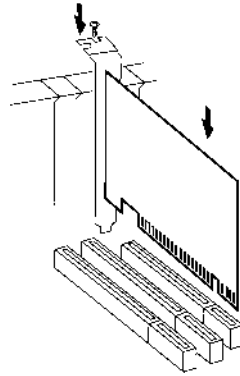
1. Turn OFF the power to your computer and any other connected devices.
2. Unplug the power cord from the back of your computer.
3. Remove the computer's cover (refer to your computer's reference manual for instructions).
4. Select an available PCI slot (usually white), remove the selected slot bracket by unscrewing the holding screw and sliding it out. Save this screw for securing the card after it is installed. See figure 2-2.



**Figure 2-2.** Remove the Slot Bracket

## Hardware Installation

5. To install the PCI 4s, carefully align the board's bus connector with the selected slot. Push the board down firmly, but gently, until it is well seated. **Note:** Hold the card by its external edges only. Try to avoid touching the components, connectors or pins. See figure 2-3.



**Figure 2-3.** Installing the *PCI 4s*

6. Replace the slot bracket's holding screw to secure the board to the rear slot panel.
7. If the internal serial port headers are to be used, connect them now.
8. Replace the computer's cover.
9. Reconnect power cord and cables.

You have now completed the hardware installation.

# CHAPTER 3 - INSTALLING THE PCI 4s DRIVERS IN WINDOWS 95

This chapter provides instructions for installing the FlexPort PCI 4s drivers in Windows 95. Make sure you have properly installed the card in your computer before proceeding with this chapter. See chapter 2 for hardware installation instructions.

## 3-1 Determining the Windows 95 Version

There are currently two versions of Windows 95: 4.00.950 and 4.00.950 B. Because the installation process differs between the two versions, it is important to determine which version you are using before proceeding with the installation process.

1. Right-click on the “My Computer” icon on your desktop, select “Properties” from the pull down menu.
2. The system Properties window will appear, in the upper right corner, there will be a system version number. See Figure 3-1. If the number is **4.00.950** proceed with section 3-2, if the number is **4.00.950 B** skip ahead to section 3-3 for the correct installation instructions.



Figure 3-1

## 3-2 Windows 95 “A” Driver Installation

1. Turn on your computer, when Windows 95 starts it will inform you that new hardware has been found. Select “**Driver from disk provided by hardware manufacturer,**” then click “**OK**” to start the installation procedure. See figure 3-1.
2. Insert the PCI 4s driver floppy that came with your card into the floppy drive of your computer. Make sure that A:\ is given as the location of the driver files. Click “**OK**” to continue. See figure 3-2
3. Occasionally, Windows will loose track of the driver files, and the window shown in figure 3-3 will appear. Make sure that A:\ is the location given in the white box, and click “**OK**” to continue.



Figure 3-2



Figure 3-3



Figure 3-4

4. Windows will inform you that it has finished installing the drivers for the PCI 4s. Shortly after, Windows will detect four unknown devices and install the Addonics Port drivers automatically.
5. To confirm the installation, left-click on the **“My Computer”** icon on the desktop. In the pop-up menu that appears, select **“Properties.”** The System Properties window will appear, click on the **“Device Manager”** tab. Select **“View devices by type”** and then double click on the category **“Multifunction adapters.”** **FlexPort 4s PCI** will appear below the category. Next, double click on the **“Ports”** category, four **Addonics Ports** will appear (#0-3). See figure 3-4. The installation of the FlexPort PCI 4s is now complete. If your computer does not show the PCI 4s in the Device Manager, call our toll free tech support line.

**Note: If the PCI 4S or the Addonics Ports show up with a question mark, restart your computer and they should disappear.**

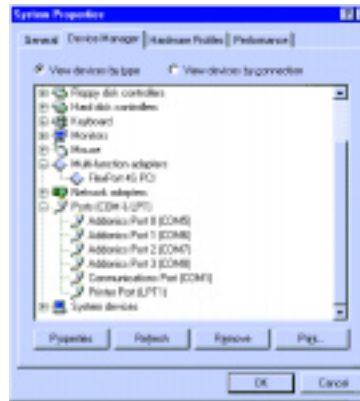


Figure 3-5

### 3-3 Windows 95 “B” Driver Installation

1. Turn on your computer, when Windows 95 starts, it will inform you that new hardware has been found. The **Update Device Driver Wizard** window will appear. See figure 3-6. Insert the PCI 4S driver floppy at this point. Click “Next” and Windows will search the floppy for the driver.
2. Windows will inform you that it has found the appropriate driver, press “Next” to start the installation. See figure 3-7.
3. Occasionally, Windows will loose track of the driver files, and the window shown in figure 3-8 will appear. Make sure that A:\ is the location given in the white box, and click “OK” to continue.

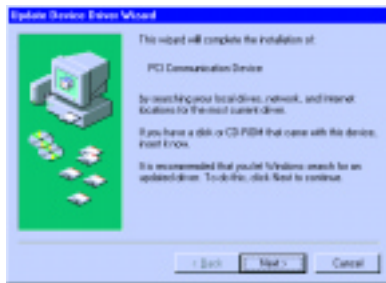


Figure 3-6



Figure 3-7



Figure 3-8

- Windows will inform you that it has finished installing the drivers for the PCI 4s. Shortly after, Windows will detect four unknown devices and install the Addonics Port drivers automatically.
- To confirm the installation, left-click on the “**My Computer**” icon on the desktop. In the pop-up menu that appears, select “**Properties.**” The System Properties window will appear, click on the “**Device Manager**” tab. Select “**View devices by type**” and then double click on the category “**Multifunction adapters.**” **FlexPort 4s PCI** will appear below the category. Next, double click on the “**Ports**” category, four **Addonics Ports** will appear (#0-3). See figure 3-9. The installation of the FlexPort PCI 4s is now complete. If your computer does not show the PCI 4s in the Device Manager, call our toll free tech support line.

**Note: If the PCI 4S or the Addonics Ports show up with a question mark, restart your computer and they should disappear.**

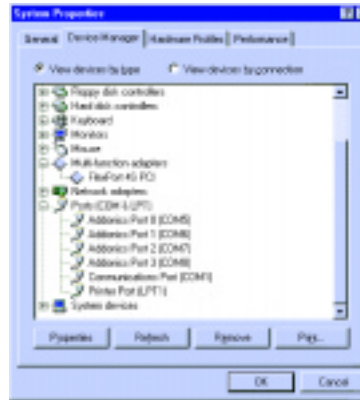


Figure 3-9

# CHAPTER 4 - INSTALLING THE PCI 4S DRIVERS IN WINDOWS 98

This chapter provides instructions for installing the FlexPort PCI 4s drivers in Windows 98. Make sure you have properly installed the card in your computer before proceeding with this chapter. See chapter 2 for hardware installation instructions.

## 4-1 Windows Driver Installation

1. After completing the hardware installation, turn on your computer. When Windows 98 starts, it will inform you that new hardware has been found. Click on “Next” to start the installation procedure. See figure 4-1.
2. Select “Search for the best driver for your device” and click “Next” to continue. See figure 4-2.
3. Insert the PCI 4s driver floppy that came with your card into the floppy drive. Select “Floppy disk drives” and click “Next” to have Windows 98 search for the PCI 4S drivers. See figure 4-3.
4. Windows will inform you that it has found the best driver for your card. Click “Next” to continue. See figure 4-4.

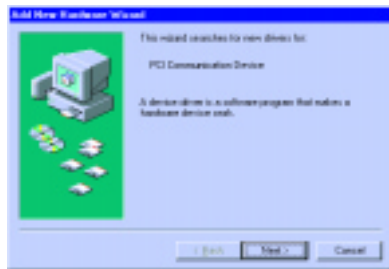


Figure 4-1

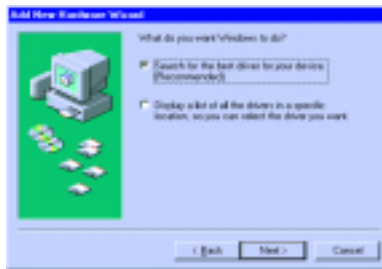


Figure 4-2



Figure 4-3

5. Windows 98 will often lose track of the driver and the window shown in figure 4-5 will appear, simply click “OK” to continue.
6. Windows will inform you that it has finished installing the drivers for the PCI 4s. Click “**Finish**” to continue the installation. Windows will detect four unknown devices and install the Addonics Port drivers automatically.
8. To confirm the installation, left-click on the “**My Computer**” icon on the desktop. Select “**Properties**” from the pop-up menu. The System Properties window will appear, click on the “**Device Manager**” tab. Select “**View devices by type**” and then double click on the category “**Multifunction adapters.**” **FlexPort 4s PCI** will appear below the category. Next, double click on the “**Ports**” category, four **Addonics Ports** will appear. See figure 4-6. The installation of the FlexPort PCI 4s is now complete. If your computer does not show the PCI 4s in the Device Manager, call our toll free tech support line.

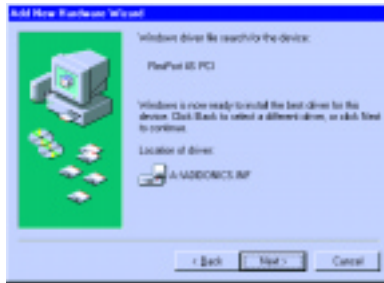


Figure 4-4



Figure 4-5

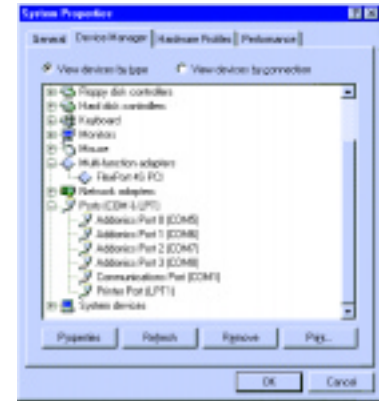


Figure 4-6

**Contacting Addonics Communications:**

**US Mail:**

Addonics Communications  
48434 Milmont Drive  
Fremont, CA 94538

**Telephone:**

510-438-5230

**Fax:**

510-438-5285

**Tech Support:**

888-291-1224

**Internet:**

[www.addcom.com](http://www.addcom.com)

## Specifications

Ports: .....	4 Serial ports
I/O Address Range: .....	000 to FFFF
Plug & Play OS/BIOS: .....	Supported
IRQ Configuration & Sharing: .....	Automatic
Data bits: .....	5,6,7,8
Stop bits: .....	1,1.5,2
Parity: .....	None, even, odd, space, mark
UARTS: .....	2X QUAD 16C654 (16C854 optional)
FIFO: .....	64 byte (16C654) 128 byte (16C854)
Speed: .....	50~460 kbps standard mode 1.5 Mbps special applications only
Cable Type: .....	4 D-Sub fanout spider cable
Connectors: .....	4 X DB-9 male connectors
Power Requirements: .....	+5VDC, +12VDC, -12VDC
Board Power Dissipation: .....	500 mw, Max.
Operating Temperature: .....	0° to 70° C non-condensing
Storage Temperature .....	-65° to 150° C non-condensing
Dimensions: .....	4" X 3"