

# PCI2S4851050

## Instruction Manual

# PCI Serial Adapter Card

**2-Port PCI RS-485/422  
Serial Adapter Card  
with 161050 UART**

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## **FCC Compliance Statement**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the 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 installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one 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/TV technician for help.

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## Introduction

The PCI2S4851050 2 Port PCI RS422/485 Serial Adapter Card with 161050 UART adds two DB9 RS422/RS485 serial ports using a single PCI expansion slot.

The serial card offers a high performance 16C1050 UART and is compliant with PCI 2.3 local bus specifications. An efficient single-chip design and a large 256-byte transmit/receive FIFO buffer work together to provide high-speed serial communication while reducing the overall load on the CPU.

With the included standard and low profile brackets, this PCI serial expansion card suits a broad range of system form factors, and is a perfect addition for connecting RS422/485 serial devices to a host computer. For added versatility, the RS422/485 adapter is able to accommodate 3.3 or 5V PCI/PCI-X slots.

## Packaging Contents

- 1 x PCI Serial Card
- 2 x Low Profile Installation Bracket
- 1 x Driver CD
- 1 x Instruction Manual

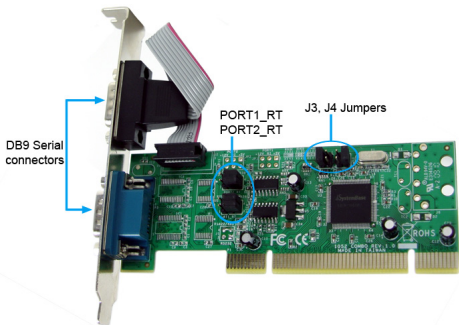
## System Requirements

- PCI enabled computer system with available 5V or 3.3V PCI slot
- Computer chassis/case with a single full profile expansion card slot, or dual adjacent low profile expansion card slots
- Microsoft® Windows® 2000/XP/Server 2003/Vista/Server 2008 R2/7 (32/64-bit), or Linux® kernel 2.4.x/2.6.x

## Installation

**WARNING!** PCI cards, like all computer equipment, can be severely damaged by static electricity. Be sure that you are properly grounded before opening your computer case or touching your PCI card. StarTech.com recommends that you wear an anti-static strap when installing any computer component. If an anti-static strap is unavailable, discharge yourself of any static electricity build-up by touching a large grounded metal surface (such as the computer case) for several seconds. Also be careful to handle the PCI card by its edges and not the gold connectors.

## Jumper Settings



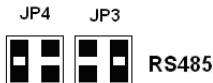
The two sets of jumpers on this card (J4, J3 and PORT1\_RT, PORT2\_RT) are used to configure the operating mode/serial protocol and 2/4-wire operation respectively.

### RS422 Operation



Jumper	Pin	Signal
485 422  (RS422)	1	TxD+
	2	TxD-
	3	RxD+
	4	RxD-
	5	GND

## RS485 Operation



Jumper	Pin	Signal
485    422  2-wire	1	Data+
	2	Data-
	3	x
	4	x
	5	GND

Jumper	Pin	Signal
485    422  4-wire	1	TxD+
	2	TxD-
	3	RxD+
	4	RxD-
	5	GND

## Hardware Installation

1. Turn your computer off and any peripherals connected to the computer (i.e. Printers, external hard drives, etc.). Unplug the power cable from the rear of the power supply on the back of the computer and disconnect all peripheral devices.
2. Remove the cover from the computer case. Refer to documentation for your computer system for details.
3. Locate an open PCI or PCI-X slot and remove the metal cover plate on the rear of the computer case.
4. Insert the card into the open PCI or PCI-X slot and fasten the card's bracket to the rear of the case.

**NOTE:** If installing the card into a small form factor/low profile system, replacing the pre-installed full profile bracket with the included low profile installation bracket may be necessary. This configuration will require two adjacent expansion card slots in the host computer system.

5. Place the cover back onto the computer case.
6. Insert the power cable into the socket on the power supply and reconnect all other connectors removed in Step 1.

## Driver Installation

### Windows 2000/XP/Server 2003

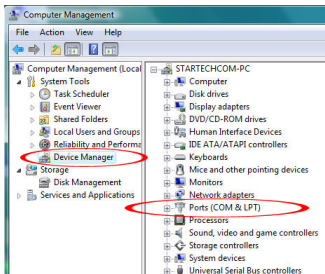
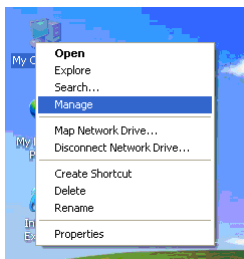
1. When the Found New Hardware wizard appears on the screen, insert the Driver CD into your CD/DVD drive. If you are prompted to connect to Windows Update, please select the “No, not this time” option and click Next.
2. Select the option to Install from a list (advanced) and then click the Next button.
3. On the next page, select the option for “Don’t Search”, and on the next page, click the button “Have Disk”. You may be required to choose a hardware type before getting the Have Disk option, so just select the very top item in the list.
4. Click on the “Browse” button in the pop up window, and from the browse window, go to the folder for your operating system version.
5. Look for the file called SBMP.inf. Select that file and then click the Open button and then just click the OK or Next button on each window until the Update Wizard finishes.
6. Follow the same procedure again for any other found hardware prompts, except use the file SBSERIAL.inf.

### Windows Vista/7/Server 2008 R2

1. When the Found New Hardware window appears on the screen, select the option to browse the computer and insert the Driver CD that came with the card, into your CD/DVD drive.
2. On the next page, select the option on the bottom to pick from a list of devices.
3. There should be a Have Disk button on the next page, so click on it, then click the browse button.
4. In the browse window, go to the folder for your operating system version.
5. In the driver folder, select the file SBMP.INF and then click the Open button, then OK, and then we can click Next to proceed with the install.
6. Follow the same procedure again for any other found hardware prompts, except use the file SBSERIAL.inf.

## Verifying Installation

From the main desktop, right-click on “My Computer” (“Computer” in Vista/7), then select Manage. In the new Computer Management window, select Device Manager from the left window panel.



Double-click on the “Ports (COM & LPT)” option. The appropriate number of additional COM ports should be visible. The port(s) are ready to be connected to serial devices.



## Specifications

<b>Host Interface</b>	PCI revision 2.3 (3.3V/5V, 33/66MHz)
<b>Form Factor</b>	Full/Low Profile
<b>Chipset ID</b>	SystemBase SB16C1052PCI
<b>External Connectors</b>	2 x 9-pin DB9 male
<b>Supported Protocols</b>	RS485, RS422
<b>Data Bits</b>	5, 6, 7, 8
<b>Stop Bits</b>	1, 1.5, 2
<b>Maximum Data Transfer Rate</b>	128,000 Kbps
<b>Buffer Size</b>	256 Byte Tx/Rx
<b>Operating Temperature</b>	0°C ~ 85°C (32°F ~ 185°F)
<b>Storage Temperature</b>	-40°C ~ 85°C (32°F ~ 185°F)
<b>Dimensions</b>	120.0mm x 45.0mm x 18.0mm
<b>Weight</b>	55.8g
<b>Compatible Operating Systems</b>	Windows 2000/XP/Server 2003/ Vista/Server 2008 R2/7 (32/64- bit), Linux kernel 2.4.x/2.6.x

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