



DP RS422/485 PCI Adapter Card Quick Installation Guide

Introduction

The *DP RS422/485 PCI Adapter Card* is a high-speed serial card that provides additional serial ports to your system.

Key Features and Benefits

- Supports serial port data transfer rates up to 921Kb/s
- Supports 3.3V & 5V PCI and PCI-X slots
- Built-in 15KVDC ESD serial interface protection
- Built in 128-byte FIFO buffer
- RS-422 & RS485 auto detect and switch
- Plug-n-Play, I/O address and IRQ assigned by BIOS

System Requirements

- PCI equipped system with an available PCI slot
- Windows® 7 (32-/64-bit) / Vista (32-/64-bit) / XP (32-/64-bit) / Server 2003 & 2008(32-/64-bit) / Server 2008 R2 / 2000

Package Contents

- *DP RS422/485 PCI Adapter Card*
- Spare enhanced low-profile bracket
- Fan Out Cable
- Jumper (4pcs for ID-P20111-S1; 8pcs for ID-P40311-S1)
- Quick installation guide
- Driver CD

Layout

ID-P20111-S1

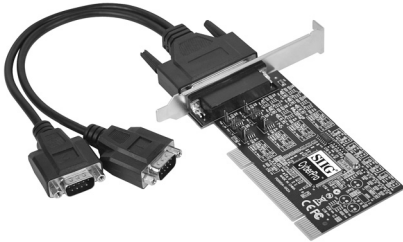


Figure 1: 2-Port RS422/485 PCI Adapter Card

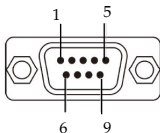
ID-P40311-S1



Figure 2: 4-Port RS422/485 PCI Adapter Card

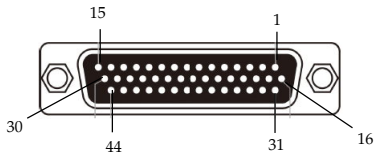
Pin Assignment

Male DB9 Connector:



| Pin | Transmission Signals | | |
|-----|----------------------|---------------|---------------|
| | RS-422 | 4-Wire RS-485 | 2-Wire RS-485 |
| 1 | Tx- | Tx- | D- |
| 2 | Tx+ | Tx+ | D+ |
| 3 | Rx+ | Rx+ | |
| 4 | Rx- | Rx- | |
| 5 | GND | GND | GND |

Female DB44 Connector:



2-Port RS422/485 PCI Adapter Card:

| RS-422 or 4-Wire RS-485 | | |
|-------------------------|-----|-----|
| Port | 1 | 2 |
| Signal | | |
| Tx+ | 1 | 29 |
| Tx- | 2 | 30 |
| Rx+ | 31 | 12 |
| Rx- | 32 | 28 |
| GND | GND | GND |

| 2-Wire RS-485 | | |
|---------------|-----|-----|
| Port | 1 | 2 |
| Signal | | |
| D+ | 1 | 29 |
| D- | 2 | 30 |
| GND | GND | GND |

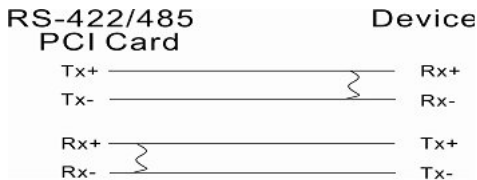
4-Port RS422/485 PCI Adapter Card:

| RS-422 or 4-Wire RS-485 | | | | |
|-------------------------|-----|-----|-----|-----|
| Port | 1 | 2 | 3 | 4 |
| Signal | | | | |
| Tx+ | 1 | 29 | 27 | 6 |
| Tx- | 2 | 30 | 23 | 20 |
| Rx+ | 31 | 12 | 10 | 25 |
| Rx- | 32 | 28 | 26 | 7 |
| GND | GND | GND | GND | GND |

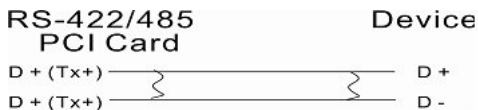
| 2-Wire RS-485 | | | | |
|---------------|-----|-----|-----|-----|
| Port | 1 | 2 | 3 | 4 |
| Signal | | | | |
| D+ | 1 | 29 | 27 | 6 |
| D- | 2 | 30 | 23 | 20 |
| GND | GND | GND | GND | GND |

Jumper Settings

RS-422 or 4-wire RS-485 working model with termination resistor



2-wire RS-485 working model with termination resistor



This *DP RS-422/485 PCI Adapter Card* equips independent TX and RX termination resistors for each serial port. User can modify the jumper setting (short the pins) to avoid impedance mismatched problem when operate under Multi-drop transmission. Resistors should be added near the receiving side.

 Short  Open (Default)

Default jumper setting is Open (disconnect 120 ohms termination resistor across the two wires)

DP 2-Port RS422/485 PCI Adapter Card

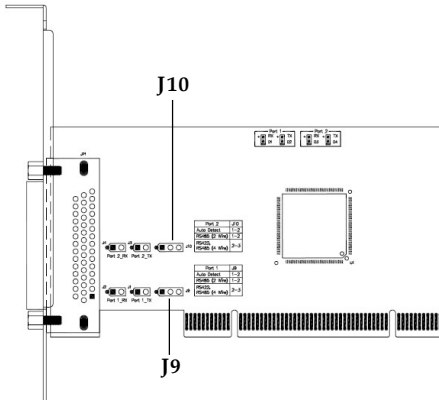


Figure 3: ID-P20111-S1 Pin Layout





| | Auto Detect RS-485 (2 Wire) | RS-422 / RS-485 (4 Wire) |
|--------|---|---|
| | 1-2 | 2-3 |
| Port 2 |  <p>1-2 jumper is shorted. The diagram shows a 3-pin connector with pins 1, 2, and 3. Pin 1 is a solid black circle, pin 2 is a solid black circle, and pin 3 is an open circle. A horizontal bar connects pins 1 and 2, indicating they are shorted. The label 'J10' is to the right.</p> |  <p>2-3 jumper is shorted. The diagram shows a 3-pin connector with pins 1, 2, and 3. Pin 1 is an open circle, pin 2 is a solid black circle, and pin 3 is a solid black circle. A horizontal bar connects pins 2 and 3, indicating they are shorted. The label 'J10' is to the right.</p> |
| Port 1 |  <p>1-2 jumper is shorted. The diagram shows a 3-pin connector with pins 1, 2, and 3. Pin 1 is a solid black circle, pin 2 is a solid black circle, and pin 3 is an open circle. A horizontal bar connects pins 1 and 2, indicating they are shorted. The label 'J9' is to the right.</p> |  <p>2-3 jumper is shorted. The diagram shows a 3-pin connector with pins 1, 2, and 3. Pin 1 is an open circle, pin 2 is a solid black circle, and pin 3 is a solid black circle. A horizontal bar connects pins 2 and 3, indicating they are shorted. The label 'J9' is to the right.</p> |

Figure 4: ID-P20111-S1 Pin Assignment

- Pin 1-2 jumper setting is short by default, **Auto Detect / RS-485(2-Wire)**
This COM port can automatically detect the state of RS-422 full duplex or RS-485 half duplex and control the data transmitting and receiving wires at the same port.
- Pin 2-3 jumper setting is short for **RS-422/ RS-485(4-Wire)**
This COM port forces to run RS-422 full duplex mode.

DP 4-Port RS422/485 PCI Adapter Card

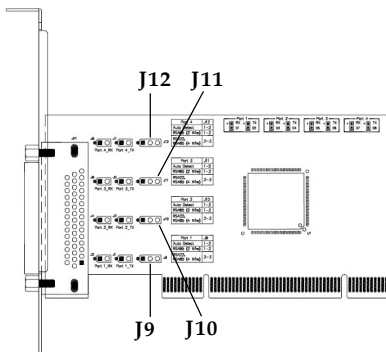


Figure 5: ID-P40311-S1 Pin Layout

| | Auto Detect RS-485 (2 Wire) | RS-422 / RS-485 (4 Wire) |
|--------|--------------------------------|-----------------------------|
| | 1-2 | 2-3 |
| Port 4 | | |
| Port 3 | | |
| Port 2 | | |
| Port 1 | | |

Figure 6: ID-P40311-S1 Pin Assignment

1. Pin 1-2 jumper setting is short by default, **Auto Detect / RS-485(2-Wire)**

This COM port can automatically detect the state of RS-422 full duplex or RS-485 half duplex and control the data transmitting and receiving wires at the same port.

2. Pin 2-3 jumper setting is short for **RS-422/RS-485(4-Wire)**

This COM port forces to run RS-422 full duplex mode.

Hardware Installation

General instructions for installing the card are provided below. Since the design of computer cases and motherboards vary, refer to your computer's reference manual for further information, if needed.

Static Electricity Discharge may permanently damage your system. Discharge any static electricity build up in your body by touching your computer's case for a few seconds. Avoid any contact with internal parts and handle cards only by their external edges.

Note: For low profile chassis, remove the standard height bracket and install the enhanced low-profile bracket now.

1. Turn OFF the power to your computer and any other connected peripheral devices.
2. Unplug the power cord and remove the cover from the computer.
3. Remove the slot bracket from an available PCI slot.

4. To install the card, carefully align the card's bus connector with the selected PCI slot on the motherboard. Push the board down firmly, but gently, until it is well seated.
5. Replace the slot bracket's holding screw to secure the card.
6. Replace the computer cover and reconnect the power cord.

Driver Installation

This section provide the steps to install the driver of *DP RS422/485 PCI Adapter Card*.

Windows 7 (32-/64-bit) / Server 2008 R2

1. Install the board and boot up Windows.

Note: Windows 7 will automatically search preconfigured driver folders for the proper driver, this process may take several minutes to complete. Do not interrupt this process.

2. Insert the driver CD. Close **AutoPlay** if prompted.
3. Click **Start**. In the **Search programs and files** box, type **D:\setup.exe**, press **Enter**. (Change **D:** to match your CD/DVD-ROM drive letter)
4. Click **Yes** at the **User Account Control** window if prompted. For 2008R2, skip this step.
5. At the **Welcome to the PLX OXuPCI952/OXuPCI954 RS-422/485 Serial PCI Card Setup** window, click **Install**.

6. At the **Completing the PLX OXuPCI952/OXuPCI954 RS-422/485 Serial PCI Card Setup** window, select **Reboot now**, then click **Finish** to complete the installation.

Windows Vista (32-/64-bit) / Server 2008 (32-/64-bit)

1. Install the board and boot up Windows.
2. At the **Found New Hardware** window, click **Cancel** for two times..
3. Insert the driver CD. Close **AutoPlay** if prompted.
4. Click **Start**. In the **Start Search** box, type **D:\setup.exe**, press **Enter**. (Change **D:** to match your CD/DVD-ROM drive letter)
5. Click **Allow** at the **User Account Control** window if prompted. For 2008, skip this step.
6. At the **Welcome to the PLX OXuPCI952/OXuPCI954 RS-422/485 Serial PCI Card Setup** window, click **Install**.

7. At the **Completing the PLX OXuPCI952/OXuPCI954 RS-422/485 Serial PCI Card Setup** window, select **Reboot now**, then click **Finish** to complete the installation.

Windows XP (32-/64-bit) / Server 2003 (32-/64-bit)

1. Install the board and boot up Windows.
2. At the **Found New Hardware Wizard**, click **Cancel** for two times.
3. Insert the driver CD. Close **AutoPlay** if prompted.
4. Click **Start, Run**. Type **D:\setup.exe**, click **OK**. (Change **D:** to match your CD/DVD ROM drive letter)
5. **Welcome to the PLX OXuPCI952/OXuPCI954 RS-422/485 Serial PCI Card Setup** window, click **Install**.
6. At the **Completing the PLX OXuPCI952/OXuPCI954 RS-422/485 Serial PCI Card Setup** window, select **Reboot now**, then click **Finish** to complete the installation.

Windows 2000

1. At the **Welcome to the Found New Hardware Wizard**, click **Next**.
2. Select **Search for a suitable driver for my device (recommended)**, and click **Next**.
3. Check **Specify a location**, uncheck the other boxes, then click **Next**.
4. Insert the driver CD, type **D:\x86**, then click **OK**. (Change **D:** to match your CD/DVD-ROM drive letter)
5. Click **Next** and **Finish**.
6. Repeat steps **1-5** for two times to complete the installation.

To Verify Windows Installation

1. Check in Device Manager to verify installation.

For Windows 7: Right click **Computer**, click **Manage**, then click **Device Manager**.

For Windows Vista: Right click **Computer**, click **Manage**, click **Continue**, then click **Device Manager**.

For Windows XP / Server 2003 / 2000: Right click **My Computer**, click **Manage**, click **Device Manager**.

For Windows Server 2008 / Server 2008 R2: Right click **Computer**, click **Manage**, double click **Diagnostics**, then click **Device Manager**.

2. Double click **Ports (COM & LPT)**, and a **Enhanced Communication Port...** should be displayed.

Changing Serial Port Number

Some serial port devices need a specific communication port in order to function properly. If your communication port device works, do not make any changes.

1. Right click **My Computer**, click **Manage**, then click **Device Manager**.
2. Double click **Ports (COM & LPT)**, and double click the **Enhanced Communication Port**.
3. Click the **Settings** tab.
4. Click the down arrow next to the **Port Number to Use** box. Select a communication port that is not in use, then click **OK**.
5. Restart your system to take effect.

Technical Support and Warranty

QUESTIONS? SIIG's **Online Support** has answers! Simply visit our web site at www.siig.com and click **Support**. Our online support database is updated daily with new drivers and solutions. Answers to your questions could be just a few clicks away. You can also submit questions online and a technical support analyst will promptly respond.

SIIG offers a lifetime manufacturer warranty with this product. This warranty covers the original purchaser and guarantees the product to be free of any defects in materials or workmanship for the life of the product.

SIIG will, at our discretion, repair or replace (with an identical product or product having similar features and functionality) the product if defective in materials or workmanship. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Please see our web site for more warranty details.

If you encounter any problems with this product, please follow the procedures below.

A) If it is within the store's return policy period, please return the product to the store where you purchased from.

B) If your purchase has passed the store's return policy period, please follow the steps below to have the product repaired or replaced.

Step 1: Submit your RMA request.

Go to www.siig.com, click **Support**, then **REQUEST A PRODUCT REPLACEMENT** to submit a request to [SIIG RMA](#) or fax a request to 510-657-5962. Your RMA request will be processed, if the product is determined to be defective, an RMA number will be issued.

Step 2: After obtaining an RMA number, ship the product.

- Properly pack the product for shipping. All accessories that came with the original package must be included.
- Clearly write your RMA number on the top of the returned package. SIIG will refuse to accept any shipping package, and will not be responsible for a product returned without an RMA number posted on the outside of the shipping carton.
- You are responsible for the cost of shipping to SIIG. Ship the product to the following address:

SIIG, Inc.

6078 Stewart Avenue

Fremont, CA 94538-3152, USA

RMA #: _____

- SIIG will ship the repaired or replaced product via Ground in the U.S. and International Economy outside of the U.S. at no cost to the customer.

About SIIG, Inc.

Founded in 1985, SIIG, Inc. is a leading manufacturer of IT connectivity solutions (including Serial ATA and Ultra ATA Controllers, FireWire, USB, and legacy I/O adapters) that bridge the connection between Desktop/ Notebook systems and external peripherals. SIIG continues to grow by adding A/V and Digital Signage connectivity solutions to our extensive portfolio. SIIG products offer comprehensive user manuals, many user-friendly features, and are backed by an extensive manufacturer warranty. High quality control standards are evident by the overall ease of installation and compatibility of our products, as well as one of the lowest defective return rates in the industry. SIIG products can be found in computer retail stores, mail order catalogs, through major distributors, system integrators, and VARs in the Americas and the UK, and through e-commerce sites.

PRODUCT NAME

DP RS422/485 PCI Adapter Card

FCC RULES: TESTED TO COMPLY WITH FCC PART 15, CLASS B
OPERATING ENVIRONMENT: FOR HOME OR OFFICE USE

FCC COMPLIANCE STATEMENT:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

THE PARTY RESPONSIBLE FOR PRODUCT COMPLIANCE

SIIG, Inc.

6078 Stewart Avenue

Fremont, CA 94538-3152, USA

Phone: 510-657-8688

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