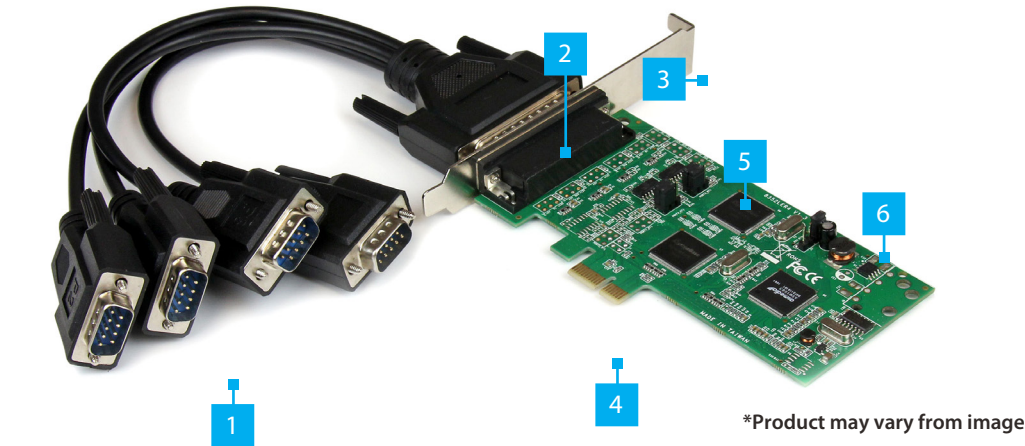


4 Port (2 x RS232, 2 x RS422/485) PCIe Serial Card

Product ID
PEX4S232485



| | Port/LED/Connector | Function |
|---|------------------------|--|
| 1 | DB9 Serial Ports (x 4) | • Connect Serial Peripheral Devices |
| 2 | DB44 Port | • Connects the Breakout Cable to the PCIe Serial Card • Use the Side Screws to secure the Breakout Cable to the Bracket |
| 3 | Bracket | • Secures the card to the Host Computer Case • The Full Profile Bracket comes pre-installed • The Low Profile Bracket is included |
| 4 | PCIe 2.0 x1 Connector | • Insert into a PCI Express Slot on the Host Computer |
| 5 | Port 3 and 4 Jumpers | • Used in combination with J3 and J4 Jumpers • Switches the Serial Mode of Ports 3 and 4 between RS422 and RS485 2 and 4 Wire |
| 6 | J3 and J4 Jumpers | • Used in combination with the Port 3 and 4 Jumpers • Switches the Serial Mode of Ports 3 and 4 between RS422 and RS485 2 and 4 Wire |

Package Contents

- PCI Express Serial Combo Card x 1
- Breakout Cable x 1
- Low Profile Bracket x 1
- Instruction Manual x 1

Requirements

- For the latest requirements, please visit: www.StarTech.com/PEX4S232485
- Computer with an available PCI Express Slot (x1, x4, x8, or x16)










Installation

WARNING!

Static electricity can cause severe damage to PCI Express cards. Ensure proper grounding before opening the computer case or touching the PCI Express card. Use an Anti-Static Strap when installing any computer component. If an Anti-Static Strap is not available, discharge built-up static electricity by touching a large grounded metal surface for several seconds. Handle the PCI Express card by its edges, avoiding contact with the gold connectors.

Jumper Settings

To change the Serial Ports 3 and 4 between RS-422 or RS-485 2 and 4 Wire, change the respective Jumpers as shown below.

| 422 Mode | |
|---|--|
| Port 3 and 4 Jumpers | J3 and J4 Jumpers |
| 3, 4  | J4  J3  |
| 485 Mode (4 Wire) | |
| Port 3 and 4 Jumpers | J3 and J4 Jumpers |
| 3, 4  | J4  J3  |
| 485 Mode (2 Wire) | |
| Port 3 and 4 Jumpers | J3 and J4 Jumpers |
| 3, 4  | J4  J3  |

Install the Card

- Note:** If the PCIe Card is to be installed into a Small Form Factor or Low-Profile Desktop, it's required to replace the pre-installed Full-Profile Bracket with the included Low-Profile Bracket.
1. Turn off the **Host Computer** and any **Peripheral Devices** that are connected to it (e.g. printers, external hard drives, etc.).
 2. Unplug the **Power Cable** from the back of the **Host Computer**.
 3. Disconnect any **Peripheral Devices** that are connected to the **Host Computer**.
 4. Remove the **Cover** from the **Host Computer Case**. Consult the documentation that came with the **Host Computer** for details about doing this safely.
 5. Locate an open **PCI Express Slot** and remove the corresponding **Slot Cover Plate** from the back of the **Host Computer Case**.

Note: Consult the documentation that came with the Host Computer for details about doing this safely.

This card works in PCI Express x1, x2, x4, x8, or x16 Slots.
 6. Gently insert the **PCI Express Card** into the open **PCI Express Slot** and fasten the **Bracket** to the back of the **Host Computer Case**.

Note: If you install the PCI Express Card into a Small Form Factor or a Low-Profile Desktop System, it may be necessary to replace the pre-installed standard Full-Profile Bracket with the included Low-Profile Bracket.
 7. Return the **Cover** onto the **Host Computer Case**.
 8. Reconnect the **Power Cable** to the back of the **Host Computer**.
 9. Reconnect all of the **Peripheral Devices** disconnected in **Step 3**.
 10. Turn on the **Host Computer** and **Peripheral Devices**.
 11. Connect an **Ethernet Cable** to the **Ethernet Port**.

(Optional) Installing the Low Profile Bracket

1. Using a **Phillips Head Screwdriver** remove the **Bracket Screws** (x 2) securing the **Full-Profile Bracket** to the **PCIe Serial Card**. Set the **Bracket Screws** aside, as they will be used to attach the **Low-Profile Bracket**.
2. Align the **Screw Holes** on the **PCIe Serial Card** with the **Screw Holes** on the **Low-Profile Bracket** ensuring the **PCIe Serial Card** is sitting on top of the **Screw Holes** on the **Low-Profile Bracket**.
3. Insert the **Bracket Screws** (x 2) through the **PCIe Serial Card** and into the **Low-Profile Bracket**. Use the **Phillips Head Screwdriver** to tighten the **Bracket Screws** (x 2).

Download the Driver

1. Navigate to www.startech.com/PEX4S232485
2. Click the **Drivers & Downloads** tab.
3. Under **Driver(s)**, download the **Driver Package** for Windows.

Note: Windows usually saves the files to the Downloads folder associated with the user account (e.g. C:\Users\useraccount\Downloads).
4. **Right-click** the zipped **Driver Package** that was downloaded. Click **Extract All**. Follow the on-screen instructions to **Extract** the files.

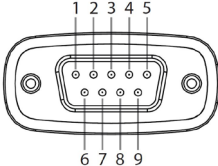
Note: Ensure to make a note of the location where the drivers were extracted. That location will be used in later steps.
5. Navigate to the folder from **Step 4**. Open the main folder and open the **x32** or **x64** folder depending on the **Windows Version**. **Double-click** the **PCI_Setup** file and follow the on-screen instructions to install the **Driver**.

Verify the Driver Installation

1. Navigate to the **Device Manager**.
2. Under **Ports (COM & LPT)**, right-click **MultiPort/PCI - Serial Port (COM#)** and click the **Properties** option.

Note: The # stands for the port number.
3. Confirm that the **Driver** is installed and working as expected.

DB9 Pin Out

| Pin | RS-232 | RS-422/RS-485 (4 Wire) | RS-485 (2 Wire) |
|-----|--------|---|-----------------|
| 1 | DCD | TXD+ | +(485) |
| 2 | RXD | TXD+ | -(485) |
| 3 | TXD | RXD+ | X |
| 4 | DTR | RXD+ | X |
| 5 | GND | GND | GND |
| 6 | DSR |  | |
| 7 | RTS | | |
| 8 | CTS | | |
| 9 | RI/PWR | | |

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Regulatory Compliance

FCC - Part 15

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:

- 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

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. Changes or modifications not expressly approved by StarTech.com could void the user's authority to operate the equipment.

Industry Canada Statement

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe [B] est conforme à la norme NMB-003 du Canada.

CAN ICES-3 (B)/NMB-3(B)

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

(1) This device may not cause interference, and (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

(1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Warranty Information

This product is backed by a lifetime warranty.

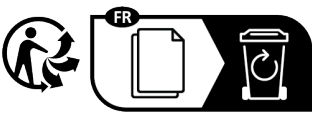
For further information on product warranty terms and conditions, please refer to www.startech.com/warranty.

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