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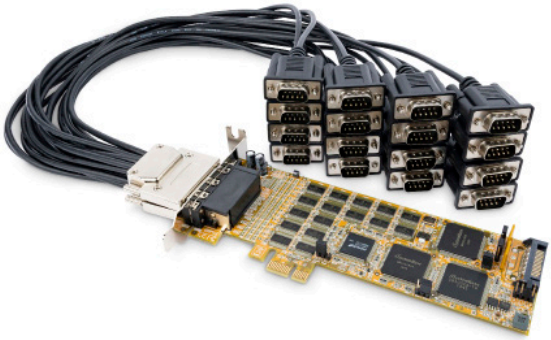
16-Port Serial Card

PEX16S550LP



*actual product may vary from photos

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For the latest information, technical specifications, and support for this product, please visit www.StarTech.com/PEX16S550LP

Manual Revision: 08/22/2025

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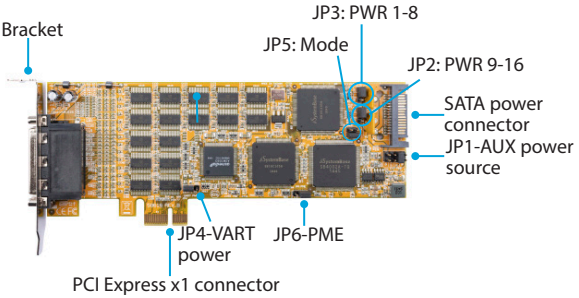
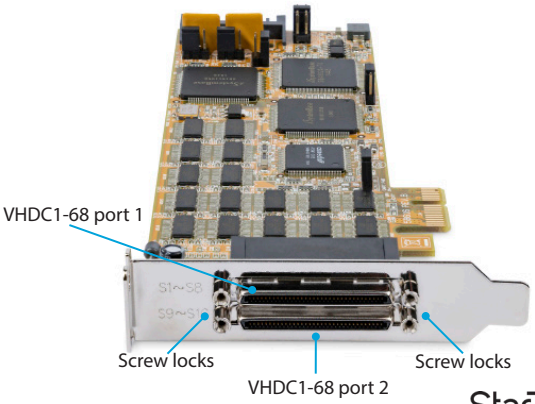
Product diagram

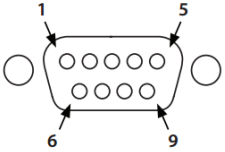
Top view



Front view



DB9 RS232 connector pinout - male



Pin 1	DCD
Pin 2	RXD
Pin 3	TXD
Pin 4	DTR
Pin 5	GND
Pin 6	DSR
Pin 7	RTS
Pin 8	CTS
Pin 9	RI or power

Introduction

This serial card lets you add 16 RS232 serial ports to your full or small form-factor computer through a PCI Express expansion slot. It's a convenient solution for connecting modern or legacy serial devices to your computer, with support for data transfer rates up to 921.6Kbps. It includes two 8-port breakout cables so you can connect up to 16 serial devices to this single card, even in low-profile computer systems.

Packaging contents

- 1 x serial card
- 1 x full-profile bracket
- 2 x breakout cables
- 16 x Optional DB9 Connector Hex Nut Pairs

Requirements

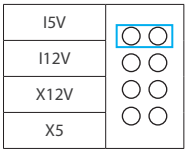
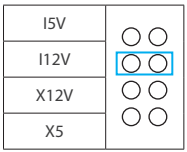
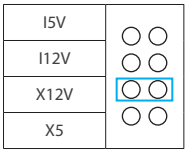
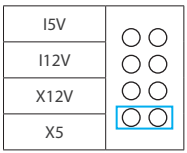
Requirements are subject to change. For the latest requirements, please visit www.StarTech.com/PEX16S550LP

- A host computer with a PCI Express x1 slot
- RS232 serial cables (DB9)

About the jumpers

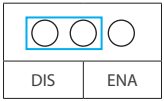
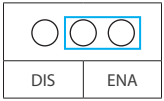
JP1 – Power selector

This jumper is used to provide pin number nine of the serial port connector(s) with DC5V or DC12V power. There are four sources depending on the jumper's position.

JP1: Power selector	Setting
Internal 5V: Power source is +5VDC, from the motherboard's PCI Express slot	
Internal 12V: Power source is +12VDC, from the motherboard's PCI Express slot	
External 12V: Power source is +12VDC, from the Aux power connector	
External 5V: Power source is +5VDC, from the Aux power connector	

JP3 and JP2 - Serial port power

These two jumpers are used to provide external power to the two breakout cables or the 16 serial ports. JP3 enables or disables power over ports 1 to 8, and JP2 enables or disables power over ports 9 to 16. When enabled, the card connects DC power to pin 9 of the DB9 port(s).

JP3/JP2: Power selector	Setting
No power is supplied to pin nine on the serial ports	
Power is supplied to pin nine on the serial ports and the power source is determined by what is selected at JP3/JP2	

JP4 – UART power selector

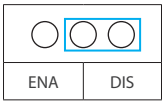
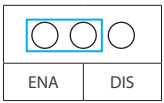
Leave at the default setting (3.3V).

JP5 - Mode setting

This is for factory test purposes only. The jumper must be fixed at SB.

JP6 - PME setting

This jumper enables or disables wake from sleep.

JP6: Power selector	Setting
PME is disabled	 (default)
PME is enabled	

Hardware installation

Install the full-profile bracket

The serial card can be installed in a low-profile (half-height) or a full-profile computer. The low-profile bracket comes preinstalled on the card, but if you have a standard form factor computer, you can install the full-profile bracket instead.

1. Remove the four screw locks that are securing the two VHDCI-68 ports to the low-profile bracket.
2. Remove the low-profile bracket from the card.
3. Align the full-profile bracket's VHDCI-68 port hole with the card's VHDCI-68 ports.
4. Insert the VHDCI-68 ports into the VHDCI-68 port hole on the full-profile bracket using the four screw locks from step 1.
5. Insert the four screw locks from step 1 and tighten them into place on the full-profile bracket.

Install the PCIe Card

Warning! PCIe cards can be severely damaged by static electricity. If an anti-static strap isn't available, discharge any built-up static electricity by touching a large grounded metal surface for several seconds.

1. Turn off your computer and any devices or peripherals that are connected to it, such as printers or external storage devices.
2. Unplug the power cable from the back of your computer.
3. Disconnect any peripheral devices that are connected to your computer.
4. Remove the cover from your computer case. Consult the documentation that came with your computer for details about how to do this safely.
5. Locate an open PCIe slot and remove the corresponding metal cover plate from the back of your computer case. Consult the documentation that came with your computer for details about how to do this safely. This card works in PCIe slots of x1, x4, x8, or x16 lanes.
6. Gently insert the card into the open PCIe slot and fasten the bracket to the back of the case.

Note: If you install the card into a full-profile (small form-factor) desktop system, it might be necessary to replace the preinstalled low-profile bracket with the included full-profile bracket. See "Install the full-profile bracket" for instructions on how to do this.

7. (Optional) Connect a SATA power cable from your computer's power supply to the card's SATA power connector.
8. Place the cover back onto your computer case.
9. Reconnect the power cable to the back of your computer.
10. Reconnect all of the peripheral devices that you disconnected in step 3.
11. Turn on your computer.

Software installation

Install the driver

1. Navigate to www.StarTech.com/PEX16S550LP
2. Click the Drivers & Downloads tab.
3. Under Driver(s), download the Driver to the computer.

For Windows Systems

1. Extract the contents of the Driver Package by Right Clicking the Driver Folder that was downloaded from the website and select Extract All. Follow the on-screen instructions to finish the Extraction.
2. Browse to the folder created in Step 1.
3. Open the Windows 32bit or Windows 64bit folder.
4. Right-click the Setup file. Click Run as administrator.

   Note If the Run as administrator option is not available, you could be attempting to run the EXE installer from within the zipped Driver Package. Extract the files using the instructions from Step 1.
5. Follow the on-screen instructions to install the Device Driver. Restart the computer if prompted.