

## 1 Port PCI Express eSATA II Controller Card

PEXESATA1



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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

Thank you for purchasing a StarTech.com SATA II PCI Express Adapter. This innovative card allows you to turn an available PCI Express (1x) slot into an internal or external SATA (eSATA) connection with support for full SATA data transfer rates of up to 3Gbps - an ideal solution if you need an extra SATA port or want to externalize your storage.

## Features

- Provides one external (eSATA) or one internal SATA II connection
- Compatible with PCI Express 1-lane (x1, x2, x4, x8, x16)
- Standard and low profile brackets included
- Supports Native Command Queuing (NCQ)
- Supports SATA II transfer rates of up to 3.0 Gbps

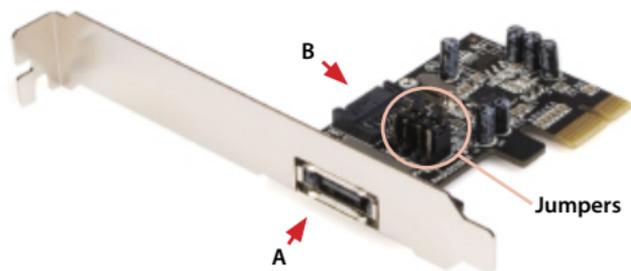
## Package contents

- 1x eSATA PCI Express Card
- 1x SATA Cable
- 1x Low Profile Bracket
- 1x Driver CD
- 1x Instruction Manual

## System Requirements

- Microsoft® Windows® 2000/XP/Server 2003/Vista™/7 (32/64-bit)
- A PCI Express enabled system with an available PCI Express port

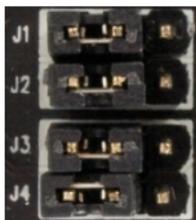
# Hardware Guide



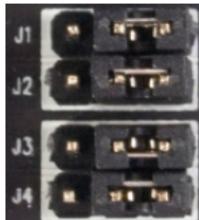
Jumper Settings		
JP	Action	Setting
J1-J4	Enable SATA Connector A	Set J1-J4 jumpers to pins 1 and 2
	Enable SATA Connector B	Set J1-J4 jumpers to pins 2 and 3

There are two SATA ports available on PEXESATA1 - referred to in the above picture as A and B. Port A is an external SATA (eSATA) port and B is an internal SATA port; **Please note** that only one of them will work at a time. Using the jumper settings provided above, please designate which port is to be used. By default, Port 2 (internal) is set to active.

Connector A  
Enabled



Connector B  
Enabled



# Installation



**WARNING!** PCI Express 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 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 card by its edges and not the gold connectors.

**Please note:** If you are performing a new operating system installation and wish to boot from the drive that will be connected to PEXESATA1, please copy the following files from the included Driver CD to a blank floppy disk that can be used during OS installation:

si3531.cat  
si3531.inf  
si3531.sys  
SiSupp.cpl  
sippd.inf  
SiRemFil.sys  
SiWinAcc.sys  
txtsetup.oem

For further instruction on how to install the card and necessary drivers for use with a fresh (boot) OS drive, please skip to the section entitled Windows 2000/XP/2003 Server Fresh Installation or Windows Vista Fresh Installation as applicable. Otherwise, if you will be installing PEXESATA1 to connect a secondary (non-boot) drive, proceed as follows:

1. Shut down all power connected to the computer, as well as all devices connected to the computer peripherally (i.e. Printers, Monitors, Scanners etc.). As an added step to ensure safe installation, unplug the power supply from the computer.
2. Remove the computer cover, allowing access to the motherboard and available slots. For more detailed instruction on how to perform this step, please refer to the documentation that was included with your computer at the time of purchase.
3. Locate an empty PCI Express slot, removing the metal bracket covering the accompanying empty port/socket on the rear panel of the computer chassis.

4. Position the card above the open PCI Express slot, ensuring that the card is properly aligned with the slot. Insert the card firmly into the slot, distributing force evenly across the length of the board.  
Once inserted, secure the card into the adjoining socket (previously covered by a metal bracket, on the rear panel of the computer chassis), using the correct size screw (if necessary, please consult documentation that accompanied purchase of computer).
5. Connect the desired SATA drive to either the internal SATA port, or the external SATA (eSATA) port (as determined by the jumper settings - see Hardware Guide for further details) and replace the chassis/case covering.

## Driver Installation - Windows XP/Server 2003

1. Following hardware installation, power up the computer. The Found New Hardware Wizard will appear.

If you are using Windows XP (with Service Pack 1 or earlier) or Windows Server 2003 (with Service Pack 1 or earlier), continue to step 2.

If you are using Windows XP (with Service Pack 2 or later) or Windows Server 2003 (with Service Pack 2 or later) please select No, not this time, then click on Next.

2. Please insert the driver CD into your CD/DVD-ROM Drive, and select Install the software automatically(Recommended), then click Next.
3. Accept the default entry, then click Next.
4. Click Finish to conclude software installation.
5. Repeat steps 1-4 a second time, then click on Yes to restart the computer.

## Driver Installation - Windows 2000

1. At the Found New Hardware Wizard, click Next.
2. Select Search for a suitable driver for my device(recommended) then click Next.
3. Insert the driver CD into your CD-ROM Drive, ensure that only CD-ROM drives is selected, then click Next, then click Next again.
4. Click Next, then Finish.
5. Repeat steps 1-4 for the remaining SATA port.
6. Click Yes to restart, to complete the installation.

## Driver Installation - Windows Vista/7

1. After powering the computer following physical installation, a window will appear indicating that new hardware has been found. Please click on Locate and Install Driver Software (recommended)
2. You will then be asked to Insert the disc that came with your Mass Storage Controller. As such, please insert the Driver CD (included), then click on Next to continue.
3. Windows will then locate and install the necessary driver files. Once complete, a screen will appear indicating that The software for this device has been successfully installed. Click on Close to complete the installation.

## Windows 2000/XP/2003 Server Fresh Installation

Follow the instructions in this section if you are performing a new installation of Windows 2000/XP/2003, and you wish to boot from the drive that will be attached to PEXESATA1.

**Note:** Ensure you've created the necessary boot disk (as outlined on page 3) prior to installation, as it will be required in order to properly conduct the OS installation.

1. Shut down all power connected to the computer, as well as all devices connected to the computer peripherally (i.e. Printers, Monitors, Scanners etc.). As an added step to ensure safe installation, unplug the power supply from the computer.
2. Remove the computer cover, allowing access to the motherboard and available slots. For more detailed instruction on how to perform this step, please refer to the documentation that was included with your computer at the time of purchase.
3. Locate an empty PCI Express slot, removing the metal bracket covering the accompanying empty port/socket on the rear panel of the computer chassis.
4. Position the card above the open PCI Express slot, ensuring that the card is properly aligned with the slot. Insert the card firmly into the slot, distributing force evenly across the length of the board.

Once inserted, secure the card into the adjoining socket (previously covered by metal bracket, on the rear panel of the computer chassis), using the correct size screw (if necessary, please consult documentation that accompanied purchase of computer).

5. If a floppy drive is available on the host system, attach PEXESATA1 to the Serial ATA drive(s), using a SATA (data) cable. Similarly, connect the drive to an available power connector as provided by the computer power supply. If no floppy drive is available, please skip to the section entitled Installation Without a Floppy Drive.
6. Replace the computer cover and re-connect all power to the computer.
7. Turn on the computer. Upon first boot, Windows will instruct you to Press [ F6 ] for third party SCSI or driver installation. As such, please hit [ F6 ] to continue.

8. Press [ S ] when setup asks if you want to specify an additional device, and insert the boot diskette into your floppy drive, then press [Enter]

Select the Sil 3531 driver, then press [Enter].

Press [Enter] again to finish driver installation, then follow the on- screen instructions to complete the Windows installation.

**Please note:** If a Security Alert warning pops up, click Yes to proceed. Follow the setup instructions to select your choice for partition and file system. After setup examines your disks, it will copy files from the CD to the hard drive selected above, and restart the system. After restart, the setup process will resume installing the new drive(s).

## Windows Vista/7 Fresh Installation

Follow the instructions in this section if you are performing a new (bootable) installation of Windows Vista™ on a drive attached to PEXESATA1:

1. Shut down all power connected to the computer, as well as all devices connected to the computer peripherally (i.e. Printers, Monitors, Scanners etc.). As an added step to ensure safe installation, unplug the power supply from the computer.
2. Remove the computer cover, allowing access to the motherboard and available slots. For more detailed instruction on how to perform this step, please refer to the documentation that was included with your computer at the time of purchase.
3. Locate an empty PCI Express slot, removing the metal bracket covering the accompanying empty port/socket on the rear panel of the computer chassis.
4. Position the card above the open PCI Express slot, ensuring that the card is properly aligned with the slot. Insert the card firmly into the slot, distributing force evenly across the length of the board.

Once inserted, secure the card into the adjoining socket (previously covered by metal bracket, on the rear panel of the computer chassis), using the correct size screw (if necessary, please consult documentation that accompanied purchase of computer).

5. Attach PEXESATA1 to the Serial ATA drive (internal or external, depending on jumper settings - see Hardware Guide for further details), using a SATA (data) cable. Similarly, attach an available SATA power connector (provided by computer power supply) to the drive.
6. Replace the computer cover and re-connect all power to the computer.
7. Start the computer as you normally would to perform an operating system installation, ensuring that the Windows Vista™ installation CD/DVD is present in the drive, and the BIOS has been suitably adjusted to boot from the CD/DVD Drive.
8. When the Windows Install screen appears, fill in the necessary information and click Next. Follow the operating system instructions until a page appears asking "Where do you want to install Windows?". From here, click on Load Driver.

9. You will then be asked to provide the necessary driver files. The files can be accessed by CD, DVD, or USB Flash Drive. As such, connect the drivers to the computer using one of these methods, and click Browse to specify the location of the files. Then, click Next.
10. Windows Vista™ will then install the necessary files, after which the drive connected to PEXESATA1 will be recognized as a usable drive onto which the OS can be installed.
11. Select the drive on which you wish to install the operating system, and click Next, to resume normal operating system installation

## Installation Without a Floppy Drive

In the absence of an available floppy drive for driver installation, once PEXESATA1 has been installed within the computer, install the desired hard drive using an existing SATA controller, as provided by the motherboard. Then:

1. Power on the computer, and boot from the operating system Boot CD, following Microsoft's Windows installation procedure to complete the operating system installation.
2. Once the operating system has been installed on the drive, follow the PEXESATA1 installation steps outlined for the appropriate operating system. (see pages 3-5)
3. From the Device Manager, verify that the RAID controller has successfully been installed. (For more information, please refer to Verifying Successful Installation on the following page).
4. Once you have established that the driver installation was successful, power down the computer, connect the hard disk onto which the operating system has been installed to PEXESATA1, and power up the computer. The computer cannot be configured to boot from the drive connected to PEXESATA1.

## Verifying Successful Driver Installation

Once the computer has been powered on following the connection of the desired drive and the subsequent driver installation, you may wish to verify that the necessary files have been installed properly. To do so:

1. Right-click on My Computer and select Manage.
2. In the left pane of the Computer Management window, select Device Manager.
3. In the right pane of the Computer Management window, click on SCSI and RAID Controllers (Storage Controllers - Vista). Here, you should find listed Silicon Image Sil 3531 SATA Controller, upon successful installation.

# Specifications

<b>Bus Interface</b>	PCI Express 1.0a (x1 slot connector) SATA revision 2.0 (3Gbps)
<b>Chipset ID</b>	Silicon Image SiI3531
<b>Connectors</b>	External: 1x eSATA plug Internal: 1x SATA plug
<b>Maximum Data Transfer Rate</b>	SATA: 3Gbps
<b>Certifications</b>	CE, RoHS, WEEE
<b>Dimensions (L x W x H)</b>	102 mm x 120 mm x 20 mm (4.02 in x 4.72in x 0.79 in)
<b>Weight</b>	44.2 g (1.56 oz)
<b>Compatible Operating Systems</b>	Windows 2000/XP/Vista™/7 (32/64-bit), Linux kernel 2.6.x or later

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