PEXSAT31E1

Instruction Manual

PCI Express SATA Controller Card

**1-Port eSATA, 1-Port SATA
PCI Express SATA 6Gbps
Controller Card**

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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 StarTech.com PCI Express SATA/eSATA 6Gbps (SATA revision 3.0) Controller Card adds one internal and one external eSATA port through a single PCIe expansion slot. Offering a cost-effective solution for connecting high-speed storage devices such as high RPM hard drives, Solid State Drives (SSD), and external storage arrays, allowing for easier data backups and archiving. With full support for SATA revision 3.0 hard drives with data transfer speeds of up to 6 Gbps and backwards compatible with SATA revision 2.0 devices this controller card provides enhanced compatibility, reliability and performance. This card also features port multiplier capability with command-based and FIS-based switching for connecting multiple external hard drives to a host PC through a single external SATA connection.
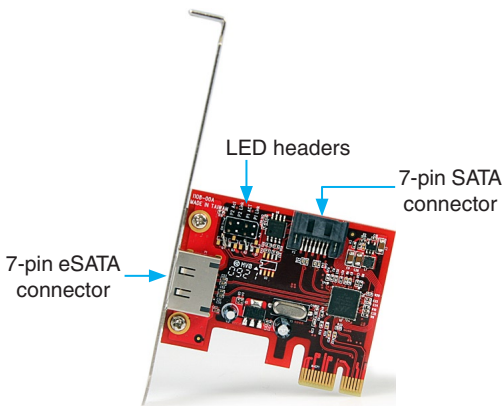
Packaging Contents

- 1 x PEXSAT31E1 card
- 1 x Low Profile bracket
- 1 x Driver Installation CD
- 1 x Instruction Manual

System Requirements

- PCI Express enabled computer system with available expansion slot
- Microsoft® Windows® XP/Server 2003/Vista/Server 2008 R2/7 (32/64-bit), or Linux®

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

LED headers

7-pin SATA connector

7-pin eSATA connector

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. See documentation for your computer system for details.

3. Locate an open PCI Express slot and remove the metal cover plate on the rear of the computer case (Refer to documentation for your computer system for details.). Note that this card will work in PCI Express slots of additional lanes (i.e. x4, x8 or x16 slots).

4. If installing the card into a low profile system, remove the screws holding the full profile bracket to the card and replace with the included low profile bracket.

5. Insert the card into the open PCI Express slot and fasten the bracket to the rear of the case.

OPTIONAL: This card features 2-pin headers for connecting LED indicators. Simply connect the 2-wire cable from the LED (not included with card) to the appropriate header connector on the card.

6. Place the cover back onto the computer case.

7. Insert the power cable into the socket on the power supply and reconnect all other connectors removed in Step 1.

Driver Installation

Windows XP/Server 2003 - Fresh Install

NOTE: These operating systems will require a 3.5" floppy disk drive to install drivers for storage controller cards. Make sure a floppy drive is installed in the computer system and the driver files from the Driver Installation CD are copied onto a floppy disk.

1. Power up the computer system and insert the Windows Installation CD.
2. Boot from the CD and when prompted, press the [F6] key to install 3rd party drivers.
3. When prompted, insert the floppy disk with the drivers into the floppy drive and follow the prompts.
4. Once the drivers are loaded, proceed with the Windows installation.

Windows Vista/Server 2008 R2/7 - Fresh Install

1. Power up the computer system and insert the Windows Installation DVD.
2. Boot from the DVD and follow the installation instructions, until reaching the screen to select the destination disk/partition.
3. Click the "Load Drivers" button and insert the Driver Installation CD and browse to the location of the drivers on the CD.
4. Once the drivers are installed, the drive(s) connected to the controller card should now be visible.
5. Proceed with the rest of the Windows installation.

Windows 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 "Install Drivers Automatically (Recommended)" and then click the Next button.

3. Windows should now start searching for the drivers. Once this has completed, click the Finish button.

Windows Vista/Server 2008 R2/7

1. When the Found New Hardware window appears on the screen, click on the "Locate and install drivers software (recommended)" option. If prompted to search online, select the "Don't search online" option.

2. When prompted to insert the disc, insert the Driver CD that came with the card, into your CD/DVD drive and Windows will automatically proceed to search the CD.

3. If a Windows Security dialog window appears, click the "Install this driver software anyway" option to proceed.

4. Once the driver is installed, click the Close button.

How to Use

RAID Configuration

To setup a RAID array using the drives connected to the SATA controller card, the BIOS level configuration menu must be accessed. To access the configuration menu, during POST (computer startup), the status display for the controller card will display. At this point, pressing [CTRL] + [m] will enter the configuration menu. From the configuration menu, the detected drives can be configured into any of the supported RAID modes.

Specifications

Bus Interface	PCI Express 2.0 (x1 slot connector)
Supported Specifications	SATA revision 3.0
Chipset ID	Marvell 9128
Connectors	1 x 7-pin SATA
	1 x 7-pin eSATA
LEDs	2 x Activity (via header)
Maximum Data Transfer Rate	SATA: 6Gbps
Supported RAID Modes	JBOD, 0, 1
Operating Temperature	5°C to 50°C (41°F to 122°F)
Storage Temperature	-25°C to 70°C (-13°F to 158°F)
Humidity	15~90% RH
Compatible Operating Systems	Windows XP/Server 2003/Vista/ Server 2008 R2/7 (32/64-bit), Linux

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