

**PEXESAT32**  
**PEXSAT32**  
**Instruction Manual**

# PCI Express Serial ATA Adapter Card

**2-Port SATA 6Gbps PCI Express  
eSATA Controller Card**

**2-Port SATA 6Gbps PCI Express  
SATA Controller Card**

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Manual Revision:07/12/2010

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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 2-Port PCI Express 6Gbps eSATA or SATA Controller Cards offers simple connectivity between a host computer system and eSATA or SATA revision 3.0 devices. A cost-effective solution for connecting high RPM hard drives and Solid State Drives (SSD), which in turn allows for easier data backups and archiving. With full support for SATA revision 3.0 hard drives and data transfer speeds of up to 6 Gbps, as well as backwards support for SATA revision 2.0 (3.0 Gbps) devices, the adapter card features a native PCI Express single chip design that provides enhanced compatibility, reliability and performance.

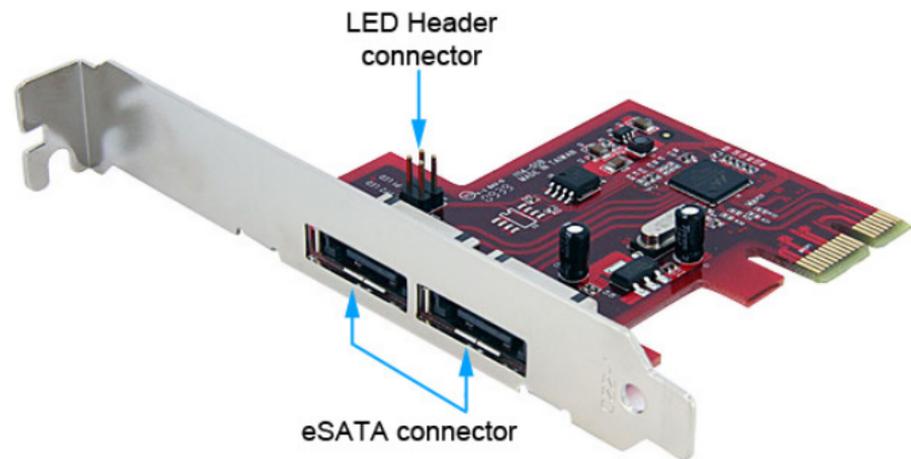
## Packaging Contents

- 1 x PEXESAT32 controller card  
or  
1 x PEXSATA32 controller card
- 1 x Low Profile bracket
- 1 x Driver Installation CD
- 1 x Instruction Manual

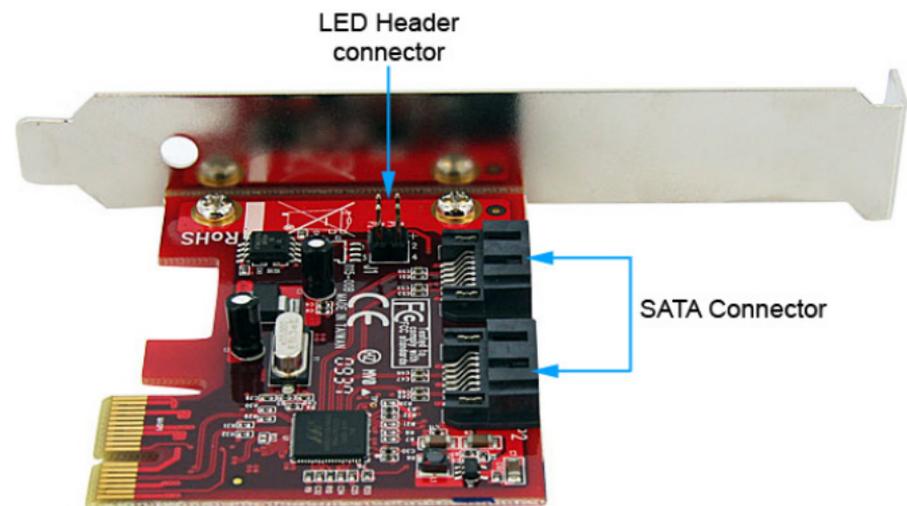
## System Requirements

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

## PEXSAT32 View



## PEXSAT32 View



# 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.

## 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.
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).

**OPTIONAL:** if installing the card into a low profile system, remove the full height bracket on the card and replace with the included low profile bracket.

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

**OPTIONAL:** if connecting external LED indicators to the card, connect the 2x4-pin header on the card to the LEDs.

5. Place the cover back onto the computer case.

6. 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/Vista/Server 2008 R2

1. After installing the card into the computer system, boot up the computer.
2. Once logged into Windows, the Hardware/Driver installation wizard should appear. Insert the Driver Installation CD into the CD/DVD drive when prompted.
3. Windows should automatically start to search the CD for the appropriate drivers. This may take several minutes.
4. Once Windows has located the drivers and installed them, the card should be ready for use.

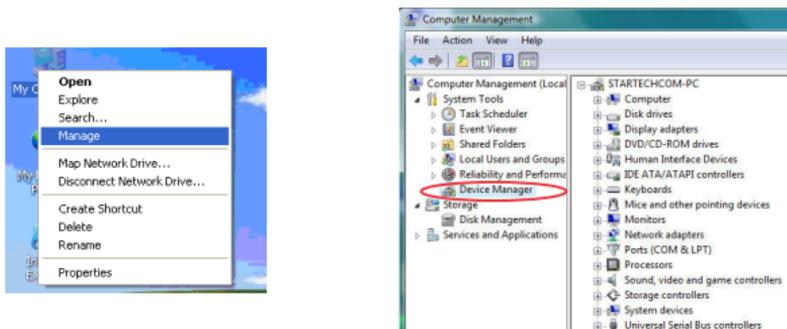
### Windows 7

No driver installation is required for Windows 7, as the controller card is natively supported, so the drivers are already installed.

## Verifying Installation

### Windows XP/Server 2003/Vista/Server 2008 R2/7

From the main desktop, right-click on “My Computer” (“Computer” in Vista or later), then select “Manage”. In the new Computer Management window, select Device Manager from the left window panel.



Under the “SCSI and RAID Controllers” category (“Storage Controllers” in Vista or later), should be a “Marvell 91xx” device. Right-click on the device and select “Properties” to make sure it is installed and working correctly.

For Windows 7, if using the native drivers, the card will instead be listed under the “IDE ATA/ATAPI Controller” category as a “Standard AHCI” device.

# 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. When prompted, 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 by following the on screen prompts.

```

Marvell 88SE91XX Adapter - BIOS Version 1.0.0.1013.
PCIe x1 2.5Gbps
Mode: CPU AHCI
Virtual Disk
  No Virtual Disk!
Physical Disk
[ID] [Disk Name]                [Size]    [Speed]
  0   SATA ST32000641AS        1.83TB    6.0G
  8   SATA ST32000641AS        1.83TB    6.0G

Press <Ctrl>+<M> to enter BIOS Setup or <Space> to continue
  
```

```

Marvell BIOS Setup (c) 2009 Marvell Technology Group Ltd.
-----
-Topology-                               -Information-
HDD 0: Marvell 0
├ Virtual Disks
└ Free Physical Disks
  └ PD 0: ST32000641AS
    └ PD 8: ST32000641AS
Vendor ID           : 184B
Device ID          : 9123
Revision ID        : B1
BIOS Version       : 1.0.0.1013
Firmware Version   : 2.11.1407
PCIe Speed rate    : 2.5Gbps
Configure SATA as  : AHCI Mode

-----
Help

Marvell RAID on chip controller.
ENTER: Operation  F10: Exit/Save  ESC: Return
  
```

# Specifications

<b>Bus Interface</b>	PCI Express rev 2.0* (x1 connector) SATA rev 3.0
<b>Connectors</b>	2 x 7-pin eSATA (PEXESAT32) 2 x 7-pin SATA (PEXSAT32)
<b>Chipset ID</b>	Marvell 9128
<b>Maximum Data Transfer Rate</b>	SATA: 6Gbps
<b>RAID Support</b>	0, 1, JBOD (single)
<b>Operating Temperature</b>	5°C ~ 50°C (41°F ~ 122°F)
<b>Storage Temperature</b>	-25°C ~ 70°C (-13°F ~ 158°F)
<b>Humidity</b>	15 ~ 90% RH
<b>Compatible Operating Systems</b>	Windows XP/Server 2003/Vista/ Server 2008 R2/7 (32/64-bit), Linux

\* PCI Express 2.0 compliant card slots support 5 Gbps transfer rates, while PCI Express 1.x card slots only support 2.5 Gbps.

## Technical Support

StarTech.com's lifetime technical support is an integral part of our commitment to provide industry-leading solutions. If you ever need help with your product, visit [www.startech.com/support](http://www.startech.com/support) and access our comprehensive selection of online tools, documentation, and downloads.

## Warranty Information

This product is backed by a lifetime warranty.

In addition, StarTech.com warrants its products against defects in materials and workmanship for the periods noted, following the initial date of purchase. During this period, the products may be returned for repair, or replacement with equivalent products at our discretion. The warranty covers parts and labor costs only. StarTech.com does not warrant its products from defects or damages arising from misuse, abuse, alteration, or normal wear and tear.

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