

## Introduction

The *Serial ATA PCI* is an ultra high-speed dual channel Serial ATA controller board for use in Pentium-class computers. It achieves burst data transfer rates up to 150MB/s (1.5Gb/s) and supports various brand of hard disk drives with capacities greater that 137GB.

#### Features and Benefits

- Add up to two high-speed SATA hard drives
- New Serial ATA cable easier to install & provides better air circulation
- Compliant with Serial ATA 1.0 specification
- Compliant with PCI 2.3 specification
- Supports data transfer rate up to 1.5Gb/s (150MB/s)
- Two independent bus master DMA channels with 256-byte FIFOs per channel for host reads and writes
- Breaks the 137GB barrier! Works with various brands of large capacity Serial ATA hard disk drives

# **System Requirements**

- Pentium or equivalent PC with an available PCI slot
- Windows®8 (32-/64-bit) / 7 (32-/64-bit) / Vista (32-/64-bit) / XP (32-/64-bit) / Server 2003 & 2008 (32-/64-bit) / Server 2008 R2 / 2000 / NT 4.0 / ME / 98SE

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# **Package Contents**

- Serial ATA PCI adapter
- Serial ATA cable
- Serial ATA power cable
- Driver CD
- Quick installation guide

# **Board Layout**

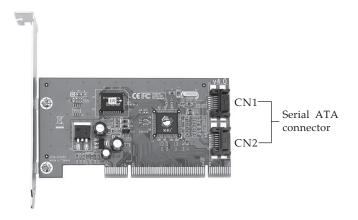


Figure 1. Serial ATA PCI Board Layout

# Hardware Installation

General instructions for installing the card are provided below. Since the design of computer cases and motherboards vary, refer to your computer's reference manual for further information, if needed.

Static Electricity Discharge may permanently damage your system. Discharge any static electricity build up in your body by touching your computer case for a few seconds. Avoid any contact with internal parts and handle cards only by their external edges.

- 1. Turn OFF the power to your computer and any other connected peripheral devices.
- 2. Unplug the power cord from the back of the computer.
- 3. Remove the computer cover.
- 4. Remove the slot bracket from an available PCI slot.
- 5. To install the card, carefully align the card bus connector to the selected PCI slot on the motherboard. Push the board down firmly, but gently, until it is well seated.
- 6. Replace the slot bracket holding screw to secure the card.

## **Device Connection**

The Serial ATA PCI is a dual channel Serial ATA controller that supports up to two Serial ATA hard disk drives. If you plan to use the second Serial ATA channel, you will need to purchase another Serial ATA cable.

- 1. Install hard disk drive(s) in chassis.
- 2. Connect the Serial ATA hard disk drive to the system power supply using the *Serial ATA power cable*.
- 3. Connect one end of the *Serial ATA cable* to the hard disk drive.



Figure 2: Hard disk drive connections

- 4. Attach the other end of the *Serial ATA cable* to the **Serial ATA connector** on the *Serial ATA PCI*.
- 5. Follow the same instructions when connecting a second hard drive. Device connection is now complete.
- 6. Replace the computer cover and reconnect the power cord.

# **Driver Installation**

This section provides information on how to install the *Serial ATA PCI* drivers.

# Windows 8 (32-/64-bit)

#### For New Windows 8 Installation

- 1. Install the board and follow Microsoft procedures to install Windows 8 accordingly.
- 2. At the Where do you want to install Windows? screen, click Load Driver.
- 3. Insert the driver CD, then click **Browse**.
- 4. Double click **CD Drive...Drivers**, double click **Win8** folder.

For Windows 8 32-bit: Select 32bit, click OK.

*For Windows 8 64-bit non-Itanium processors:* Select **AMD64**, click **OK**.

<u>For Windows 8 64-bit Itanium processors:</u> Select **IA64**, click **OK**.

- 5. Click **Next**.
- 6. At Where do you want to install Windows?, reinsert the Windows Installation disk, wait several seconds, then follow the on-screen instructions to complete Windows 8 installation.

# For Existing Windows 8 Installation

- 1. Install the board and boot up Windows.
- 2. Right click **Computer**, click **Manage**.
- 3. Click **Device Manager**, right click **PCI Device**, click **Update Driver software**.
- 4. Click Browse my computer for driver software.
- 5. <u>For Windows 8 32-bit</u>: Type **D:\Win8\32bit**, then click **Next**. (Change **D:** to match your CD/DVD-ROM drive letter)
  - <u>For Windows 8 64-bit</u>: Type **D:\Win8\64bit**, then click **Next**. (Change **D:** to match your CD/DVD-ROM drive letter)
- 6. At Windows has successfully updated your driver software, click **Close**.

# Windows 7 (32-/64-bit) / Server 2008 R2

#### For New Windows 7 Installation

- 1. Install the board and follow Microsoft procedures to install Windows 7 accordingly.
- 2. At the Where do you want to install Windows? screen, click Load Driver.
- 3. Insert the driver CD, then click **Browse**.
- 4. Double click **CD Drive...Drivers**, double click **Win7** folder.
  - For Windows 7 32-bit: Select 32bit, click OK.
  - For Windows 7 64-bit / Server 2008 R2 non-Itanium processors: Select AMD64, click OK.
  - *For Windows 7 64-bit/Server 2008 R2 Itanium processors:* Select **IA64**, click **OK**.
- 5. Click **Next**.

6. At Where do you want to install Windows?, reinsert the Windows Installation disk, wait several seconds, then follow the on-screen instructions to complete the Windows installation.

## For Existing Windows 7 / Server 2008 R2 Installation

- 1. Install the board and boot up Windows.
- 2. Right click **Computer**, click **Manage**.
- 3. Click **Device Manager**, right click **Mass Storage Controller**, click **Update Driver software**.
- 4. Click Browse my computer for driver software.
- 5. <u>For Windows 7 32-bit</u>: Type **D:\Win7\32bit**, then click **Next**. (Change **D:** to match your CD/DVD-ROM drive letter)
  - For Windows 7 64-bit / Server 2008 R2: Type D:\Win7\64bit, then click Next. (Change D: to match your CD/DVD-ROM drive letter)
- 6. At Windows has successfully updated your driver software, click **Close**.

# Windows Vista (32-bit)

#### For New Windows Vista Installation

- 1. Install the board and follow Microsoft procedures to install Windows Vista accordingly.
- 2. At the Where do you want to install Windows? screen, click Load Driver.
- 3. Insert the driver CD, then click **OK**.
- 4. Select Silicon Image Sil... SATALink Controller..., then click Next.
- 5. Follow the on-screen instructions to complete the Windows Vista installation.

## For Existing Windows Vista Installation

- 1. Install the board and boot up Windows.
- 2. At the **Found New Hardware Wizard**, click **Locate** and install driver software (recommended).
- 3. Click **Continue**, insert the driver CD, click **Next**.
- 4. Click **Close** to complete the installation.

# Windows Vista (64-bit)

#### For New Windows Vista (64-bit) Installation

- 1. Install the board and follow Microsoft procedures to install Windows accordingly.
- 2. At Where do yo want to install Windows? screen, click Load Drivers.
- 3. Insert the driver CD, click **Browse**.
- 4. Click on the **Plus** (+) sign next to the CD-ROM drive, then double click the **64bit** folder.
- 5. Highlight **AMD64** (for 64-bit extended processors) or **IA64** (for 64-bit Intel Itanium processors), then click **Ok**.
- 6. Select **Silicon Image... SATALink Controller**, then press **Next**.
- 7. Follow the on-screen instructions to complete the installation.

## For Existing Windows Vista (64-bit) Installation

- 1. Install the board and boot up Windows.
- 2. At the Found New Hardware Wizard, select Locate and install driver software (recommended), click Continue. Click Don't search online.
- 3. Insert the driver CD, click **Next**.
- 4. At The software for this device has been successfully installed, click **Close** to complete the installation.

# Windows XP (32-bit) / Server 2003 (32-bit)

#### For New Windows XP / Server 2003 Installation

A new installation of Windows XP / Server 2003 requires a floppy disk for the driver installation. To make this floppy disk, copy the **contents** of the **Floppy** folder, found on the driver CD, onto a blank floppy disk then follow the directions below.

- 1. Install the board and follow Microsoft procedures to install Windows accordingly.
- 2. Restart your system if prompted by Windows installation.
- 3. At the **Windows Setup** screen, press **F6** to install the driver.
- 4. Insert the driver diskette. Press **S** then press **Enter**.
- 5. Select **Silicon Image Sil... Controller** and press **Enter**.
- 6. Press **Enter** to continue and follow the on-screen instructions to complete the installation.

## For Existing Windows XP / Server 2003 Installation

- 1. Install the board and boot up Windows.
- At the Found New Hardware Wizard:
  XP (w/SP1 or earlier) / Server 2003: Continue to step #3
  - XP (w/SP2 or later) / Server 2003 (w/SP1 or later): Select **No, not at this time,** then click **Next**.
- 3. Insert the driver CD, select **Install the software automatically (Recommended)**, and click **Next**.
- 4. Click **Finish** and restart Windows to complete the installation.

# Windows XP (64-bit) / Server 2003 (64-bit)

# For New XP (64-bit) / 2003 (64-bit) Installation

A new installation of Windows XP (64-bit) / Server 2003 (64-bit) requires a floppy disk for the driver installation. To make this floppy disk, copy the **contents** of the **64bit** folder, found on the driver CD, onto a blank floppy disk then follow the directions below.

- 1. Install the board and follow Microsoft procedures to install Windows accordingly.
- 2. Restart your system when prompted by Windows installation.
- 3. At the **Windows Setup** screen, press **F6** to install the driver.
- 4. Insert the floppy disk you made above. Press **S** then press **Enter**.
- 5. Select **Silicon Image SiI 3512...** that matches your system processor, then press **Enter**.
- 6. Press **Enter** to continue and follow the on-screen instructions to complete the installation.

# For Existing XP (64-bit) / 2003 (64-bit) Installation

- 1. Install the board and boot up Windows.
- 2. At the Found New Hardware Wizard, select No, not at this time, then click Next.
- 3. Insert the driver CD, select **Install the software automatically (Recommended)**, and click **Next**.
- 4. Click **Finish** and restart Windows to complete the installation.

#### Windows 2000

#### For New Windows 2000 Installation

A new installation of Windows 2000 requires a floppy disk for the driver installation. To make this floppy disk, copy the **contents** of the **Floppy** folder, found on the driver CD, onto a blank floppy disk then follow the directions below.

- 1. Install the board and follow Microsoft procedures to install Windows 2000 accordingly.
- 2. Restart your system when prompted during Windows' installation.
- 3. At the **Windows 2000 Setup** screen, press **F6** to install the driver.
- 4. Insert the driver diskette. Press **S**, then press **Enter**.
- 5. Select **Silicon Image Sil... Controller** and press **Enter**.
- 6. Press **Enter** to continue and follow on-screen instructions to complete the installation.

## For Existing Windows 2000 Installation

- 1. Install the board and boot up Windows 2000.
- 2. At the **Found New Hardware Wizard**, click **Next**.
- 3. Select Search for a suitable driver for my device (recommended) and click Next.
- 4. Insert the driver CD, check **CD-ROM drives**, uncheck the other boxes, and click **Next**. Click **Next** again to continue.
- 5. Click **Finish**, remove the driver CD and restart Windows to complete the installation.

# Windows Server 2008 (32-bit)

#### New Windows Server 2008 Installation

- 1. Install the board and follow Microsoft procedures to install Windows accordingly.
- 2. At Where do you want to install Windows?, click Load Driver.
- 3. Insert driver CD, then click **Browse**.
- 4. Click **CD Drive...Drivers**, then click **OK**.
- 5. Select Silicon Image Sil 3512 SATALink Controller..., then click OK
- 6. Follow on-screen instructions to complete Windows Server 2008 installation.

# **Existing Windows Server 2008 Installation**

- 1. Install the board and boot up Windows.
- 2. At the Found New Hardware Wizard, select Locate and install driver software (Recommended), then click Don't search online.
- 3. Insert the driver CD. The driver will install automatically.
- 4. Click Close.
- 5. Remove the driver CD and restart your Windows to complete the installation.

# Windows Server 2008 (64-bit)

# New Windows Server 2008 (64-bit) Installation

- 1. Install the board and follow Microsoft procedures to install Windows accordingly.
- 2. At Where do you want to install Windows?, click Load Driver.
- 3. Insert driver CD, then click **Browse**.

- 4. Double click **CD Drive (D:)**. (change D: to match your CD-ROM drive letter)
- 5. Double click **64bit** folder, highlight **AMD64** (for 64bit extended processors) or **IA64** (for 64-bit Intel Itanium processors), then click **Ok**.
- 6. Select Silicon Image Sil 3512 SATALink Controller..., then click Next.
- 7. Follow on-screen instructions to complete Windows Server 2008 installation.

# Existing Windows Server 2008 (64-bit) Installation

- 1. Install the board and boot up Windows.
- 2. At the **Found New Hardware Wizard**, insert the driver CD, select **Locate and install driver software** (**Recommended**), then click **Next**.
- 3. The driver will install automatically.
- 4. Click Close.
- 5. Remove the driver CD and restart Windows to complete the installation.

## Windows NT4.0

## For New Windows NT4.0 Installation

A new installation of Windows NT4.0 requires a floppy disk for the driver installation. To make this floppy disk, copy the **contents** of the **NT4** folder, found on the driver CD, onto a blank floppy disk then follow the directions below.

- 1. Install the board and follow Microsoft procedures to install Windows NT4.0 accordingly.
- 2. At the **Windows NT Setup** screen, press **F6** to specify and add the driver.
- 3. Press **S**, select **Other**, then press **Enter**.

- 4. Insert the driver diskette then press **Enter**.
- 5. Select Silicon Image... for Windows NT 4.0 and 2000 and press Enter.
- 6. Press **Enter** to continue, then follow the on-screen instructions to complete Windows NT4.0 installation.

# For Existing Windows NT4.0 Installation

- 1. Install the board and boot up Windows NT4.0.
- 2. Double click **My Computer/Control Panel/SCSI Adapters**, then click the **Drivers** tab.
- 3. Click **Add...**, then click **Have Disk...**.
- 4. Insert the driver CD, type **D:\NT4**, then click **OK**. (Change **D:** to match the drive letter of your CD-ROM)
- 5. Highlight Silicon Image in the left column, then select Silicon Image Sil... SATALink Controller, and click OK.
- 6. Click **OK**, remove the driver CD and restart NT4.0 to complete the installation.

## Windows ME

## For New Windows ME Installation

- 1. Install the board and follow Microsoft procedures to install Windows ME accordingly.
- Once Windows has been installed, right click My Computer, then click Properties. Select Device Manager tab.
- 3. Double click **PCI Mass Storage Controller** listed under **Other Devices**.
- 4. Select **Driver** tab, then click **Update Driver** button.
- 5. Insert the driver CD, select **Specify the location of the driver (Advanced)**, then click **Next**.

- 6. Check **Specify a location**, uncheck the other box, type **D:\ME**, click **Next**. (Change **D:** to match the drive letter of your CD-ROM)
- 7. Click **Next**, then click **Finish**. Remove the driver CD and restart Windows to complete the installation.

# For Existing Windows ME Installation

- 1. Install the board and boot up Windows ME.
- 2. At the **Add New Hardware Wizard**, insert the driver CD.
- 3. Select Specify the location of the driver (Advanced), then click Next.
- Check **Specify a location**, uncheck the other box, type **D:\ME**, click **Next**. (Change **D:** to match the drive letter of your CD-ROM)
- 5. Click **Next**, then click **Finish**.
- 6. Remove the driver CD and restart Windows to complete the installation.

## Windows 98SE

#### For New Windows 98SE Installation

- 1. Install the board and follow Microsoft procedures to install Windows 98SE accordingly.
- Once Windows has been installed, right click My Computer and click Properties. Select Device Manager tab.
- 3. Double click **PCI Mass Storage Controller** listed under **Other Devices**.
- 4. Select **Driver** tab, then click **Update Driver** button.
- 5. Insert the driver CD and click **Next**.
- 6. Select **Search for a better driver...**, then click **Next**.
- 7. Check **Specify a location**, uncheck the other boxes, then click **Next**.

- 8. Click **Next**, then click **Finish**.
- 9. Remove the driver CD and restart Windows to complete the installation.

# For Existing Windows 98SE Installation

- 1. Install the board and boot up Windows.
- 2. At the Add New Hardware Wizard, click Next.
- 3. Select **Search for the best driver for your device** and click **Next**.
- 4. Insert the driver CD, check **Specify a location**, uncheck the other boxes, type **D:\98SE**, then click **Next**. (Change **D:** to match the drive letter of your CD-ROM)
- 5. Click **Next**, then **Finish**.
- 6. Remove the driver CD and restart Windows to complete the installation.

# To Verify Windows Installation

# Windows 8 / 7 / Vista / XP / Server 2003 & 2008 / Server 2008 R2 / 2000 Installation

- 1. Check Device Manager to verify installation.
  - For Windows 8 / 7 / Server 2003 / 2000: Right click Computer or My Computer, click Manage, click Device Manager.
    - *For Windows Vista*: Right click **Computer**, click **Manage**, click **Continue**. Click **Device Manager**.
    - <u>For Windows 2008 / 2008 R2</u>: Right click **Computer**, click **Manage**. Double click **Diagnostics**, click **Device Manager**.
- Double click Storage controllers or SCSI and RAID Controllers, Silicon Image SiI... Controller should be displayed.

#### Windows NT4.0 Installation

- 1. Double click My Computer/Control Panel/SCSI Adapters.
- 2. Highlight Silicon Image... Controller from SCSI Adapters listing and click Properties. A message This device is working properly is displayed in the dialog box when the driver is correctly installed.

#### Windows 98SE/ME Installation

- 1. Right-click **My Computer**, then click **Properties**. Select **Device Manager** tab.
- Double click SCSI controllers, Silicon Image Sil...
  Controller should be listed.
- 3. Double click **Silicon Image Sil... Controller** and click **Properties**. A message *This device is working properly* is displayed in the dialog box when the driver is correctly installed.

# **Bios Configuration**

The *Serial ATA PCI* **BIOS** will appear everytime your system starts up. If the bios doesn't show, please install your controller in another PCI slot. During this **(Post)** process, the bios will show up and indicate the devices attached to it.

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# **Technical Support and Warranty**

**QUESTIONS?** SIIG's **Online Support** has answers! Simply visit our web site at *www.siig.com* and click **Support**. Our online support database is updated daily with new drivers and solutions. Answers to your questions could be just a few clicks away. You can also submit questions online and a technical support analyst will promptly respond.

SIIG offers a lifetime manufacturer warranty with this product. This warranty covers the original purchaser and guarantees the product to be free of any defects in materials or workmanship for the life of the product.

SIIG will, at our discretion, repair or replace (with an identical product or product having similar features and functionality) the product if defective in materials or workmanship. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Please see our web site for more warranty details.

If you encounter any problems with this product, please follow the procedures below.

- A) If it is within the store's return policy period, please return the product to the store where you purchased it.
- B) If your purchase has passed the store's return policy period, please follow these steps to have the product repaired or replaced.

**Step 1:** Submit your RMA request. Go to **www.siig.com**, click **Support**, then **Request A Product Replacement** to submit a request to <u>SIIG RMA</u> or fax a request to 510-657-5962. Your RMA request will be processed, if the product is determined to be defective, an RMA number will be issued.

**Step 2:** After obtaining an RMA number, ship the product.

- Properly pack the product for shipping. All software, cable(s) and any other accessories that came with the original package must be included.
- Clearly write your RMA number on the top of the returned package.
  SIIG will refuse to accept any shipping package, and will not be responsible for a product returned without an RMA number posted on the outside of the shipping carton.
- You are responsible for the cost of shipping to SIIG. Ship the product to the following address:

SIIG, Inc.	
6078 Stewart Avenue	
Fremont, CA 94538-3152, USA	
RMA #:	

 SIIG will ship the repaired or replaced product via Ground in the U.S. and International Economy outside of the U.S. at no cost to the customer.

#### About SIIG, Inc.

Founded in 1985, SIIG, Inc. is a leading manufacturer of IT connectivity solutions (including Serial ATA and Ultra ATA Controllers, FireWire, USB, and legacy I/O adapters) that bridge the connection between Desktop/Notebook systems and external peripherals. SIIG continues to grow by adding A/V and Digital Signage connectivity solutions to our extensive portfolio. All centered around the distribution and switching of A/V signals over CAT5/6, these products include matrix switches, distribution amplifiers, extenders, converters, splitters, cabling, and more.

SIIG is the premier one-stop source of upgrades and is committed to providing high quality products while keeping economical and competitive prices. High-quality control standards are evident by one of the lowest defective return rates in the industry. Our products offer comprehensive user manuals, user-friendly features, and most products are backed by a lifetime warranty.

SIIG products can be found in many computer retail stores, mail order catalogs, and e-commerce sites in the Americas, as well as through major distributors, system integrators, and VARs.

#### PRODUCT NAME

Serial ATA PCI

FCC RULES: TESTED TO COMPLY WITH FCC PART 15, CLASS B OPERATING ENVIRONMENT: FOR HOME OR OFFICE USE

#### FCC COMPLIANCE STATEMENT:

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.

THE PARTY RESPONSIBLE FOR PRODUCT COMPLIANCE

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