

# **SATA 2-channel PCI**

## **Quick Installation Guide**

### **1. Introduction**

The SATA 2-channel PCI is an ultra high-speed dual channel Serial ATA 1.5Gbps 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 than 137GB.

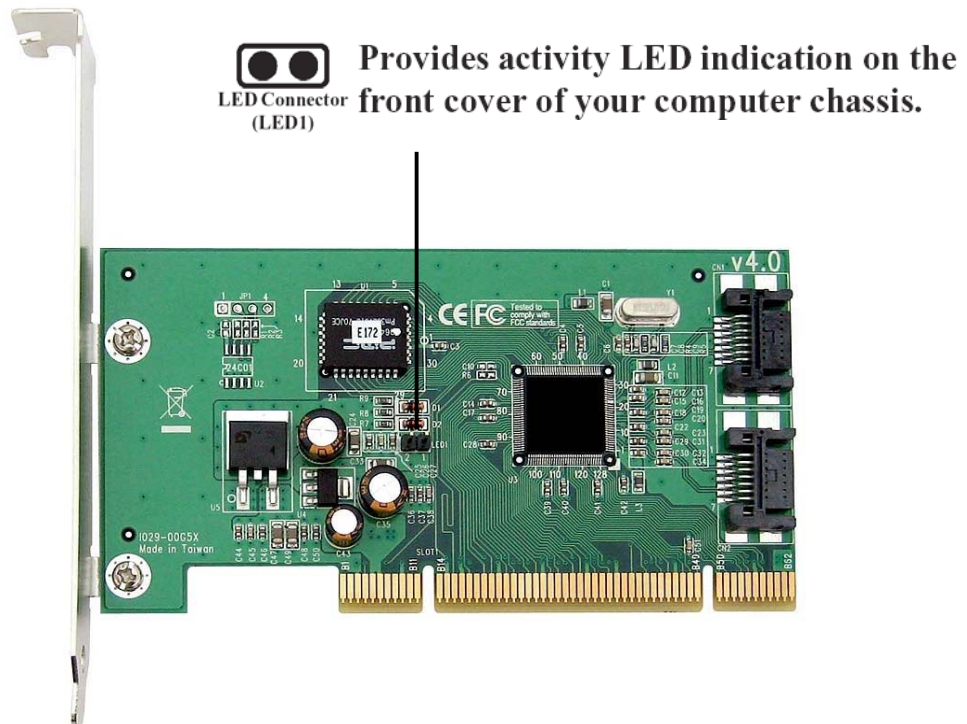
#### **1-1 Features and Benefits**

- Compliant with Serial ATA 1.0 specification
- Compliant with PCI Specification, revision 2.2
- Two independent SATA 1.5Gbps channels support up to two SATA hard disk drives.
- Co-exists with on-board Ultra ATA or SATA controller
- Features independent 256-byte FIFOs per channel for host reads and writes
- Lower pin count and voltage requirement, plus better cabling over traditional Ultra ATA make Serial ATA the controller of the future.

#### **1-2 System Requirements**

- Pentium or equivalent PC computer with one available PCI slot
- Windows 98SE/ME/NT4.0/2000/XP (32/64bit)/Server 2003 (32/64bit)/Vista (32/64bit)

## 1-3 Layout



**Figure 1, Layout of SATA 2-channel PCI**

## **2. Installation**

### **2-1 Static Electricity Precaution**

One of the routine precautions you must be aware of when working with computer components is the problem of static electricity discharge.

**Caution:** Static Electricity Discharge may permanently damage your system. To avoid possible static electricity discharge during the installation, please follow the guidelines below:

- Discharge any static electricity build up in your body by touching a large grounded metal surface or the computer case (if plugged in) for a few seconds.
- During the installation, avoid any contact with internal parts.

### **2-2 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 manual for further information, if needed.

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 your computer's cover.
4. Remove the slot bracket from an available PCI slot.
5. To install the card, carefully align the card's bus connector with the selected PCI slot on the motherboard.
6. Push the board down firmly, but gently, until it is well seated.
7. Replace the slot bracket holding screw to secure the board.
8. Connect the SATA data cable and SATA power cable to the SATA HDD.

9. Replace the computer cover and reconnect the power cord.
10. Restart the system and refer to the next section for Software Installation.

## **2-3 Software Installation**

This section provides information on how to install the *SATA 2-channel PCI* driver for **Windows 98SE/ME/NT4.0/2000/XP (32/64bit)/Server 2003 (32/64bit)/Vista (32/64bit)**, new & existing.

### **2-3.1 Windows 98SE**

#### **For New Windows 98SE Installation**

1. Install the board, then boot up your system.
2. Follow Microsoft procedures to install Windows 98SE accordingly.
3. Once Windows has installed and booted, double click **My Computer/Control Panel/System**. Select **Device Manager** tab.
4. Double click **PCI Mass Storage Controller** listed under **Other Devices**.
5. Select **Driver** tab, then click **Update Driver** button.
6. Insert the driver CD and click **Next**.
7. Select **Search for a better driver than the one your device is using now [Recommended]**, then click **Next**.
8. Check **CD ROM** drive, uncheck the other boxes, then click **Next**. Click **Next** again, then **Finish**.
9. Remove the driver CD and restart Windows to complete the driver installation.

### **For Existing Windows 98SE Installation**

1. Install the board, then boot up Windows 98SE.
2. While **Add New Hardware Wizard** displays, click **Next**.
3. Select **Search for the best driver for your device [Recommended]** then 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**, remove the driver CD and restart Windows to complete the driver installation.

## **2-3.2 Windows ME**

### **For New Windows ME Installation**

1. Install the board, then boot up your system.
2. Follow Microsoft procedures to install Windows ME accordingly.
3. Once Windows has been installed, right click **My Computer**, then click **Properties**. Select **Device Manager** tab.
4. Double click **PCI Mass Storage controller** listed under **Other Devices**.
5. Select **Driver** tab and click **Update Driver** button.
6. Insert the driver CD, select **Specify the location of the driver (Advanced)**, then click **Next**.
7. Check **Specify a location**, uncheck the other box, type **D:\ME**, click **Next**. (Change **D:** to match the drive letter of your CD-ROM)
8. Click **Next**, then click **Finish**, Remove the driver CD and restart Windows to complete the driver installation.

### **For Existing Windows ME Installation**

1. Install the board, then 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**.
4. 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 driver installation.

### **Verify Windows 98SE/ME Installation**

1. Right-click **My Computer**, then click **Properties**. Select **Device Manager** Tab.
2. Double click **SCSI Controllers** and **Silicon Image SiI 3512 SATALink Controller** should be listed.
3. Highlight **Silicon Image SiI 3512 SATALink Controller** and click **Properties**. A message **This device is working properly** displayed in the dialog box, the driver has been correctly installed. If an error message is displayed, install the **SATA 2-channel PCI** into a different PCI slot and reinstall the driver.

## 2-3.3 Windows NT4.0

### For New Windows NT4.0 Installation

A new installation of Windows NT 4.0 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 diskette and press **Enter**.
5. Select **Silicon Image Sil 3x12 SATA Link Controller for Windows NT 4.0 and 2000** and press **Enter**.
6. Press **Enter** to continue and follow on-screen instructions to complete Windows NT4.0 installation.

### For Existing Windows NT4.0 System

1. Install the board, then boot up Windows NT4.0.
2. Select **My Computer/Control Panel/SCSI Adapters**, then click on the **Drivers** tab.
3. Click **Add...** then **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. Select **Silicon Image Sil... Controller**, click **OK**, then click **OK** again.
6. Remove the driver CD and restart NT to complete the driver installation.

## Verify Windows NT 4.0 Installation

1. Double click **My Computer/Control Panel/SCSI Adapter**.
2. Highlight **Silicon Image SiI 3512 SATA Link Controller** from **SCSI Adapters** Listing and click **Properties**. A message **This device is working properly** is displayed in the dialog box, the driver has been correctly installed.

## 2-3.4 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, then boot up your system.
2. Execute the Windows 2000 installation program
3. Restart the computer when prompted by Windows installation
4. At the **Windows 2000 Setup** screen promptly press **F6** to install the driver.
5. Press **S** to specify Additional device.
6. Insert the driver diskette and press **Enter**.
7. While **Silicon Image Sil... Controller** and press **Enter**.
8. Press **Enter** to continue and follow the on-screen instructions to complete Windows 2000 installation.

### For Existing Windows 2000 Installation

1. Install the board, then boot up Windows 2000.
2. At the **Found New Hardware Wizard**, click **Next**.

3. Select **Search for a suitable driver for my device (recommended)**, then 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 driver installation.

## **2-3.5 Windows XP/Server 2003**

### **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 XP/Server 2003 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 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 Windows XP/Server 2003 installation.

### **For Existing Windows XP/Server 2003 Installation**

1. Install the board, then boot up Windows XP/Server 2003.
2. 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 driver installation.

### **To Verify Windows 2000/XP/Server 2003 Installation**

1. Right click **My Computer** and click **Manager**.
2. Select **Device Manager**.
3. Double click **SCSI and RAID Controllers**, then double click **Silicon Image SiI 3512 SATALink Controller** to display driver properties.
4. A message **This device is working properly** is displayed in the dialog box, the driver has been correctly installed.

## **2-3.6 Windows Vista**

### **For New Windows Vista Installation**

A new installation of Windows Vista 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 Vista accordingly.
2. At the **Where do you want to install Windows?** screen, click **Load Driver**.
3. Insert the floppy diskette that you made earlier, then click **OK**.
4. Select **Silicon Image Sil... SATALink Controller (A:\SI3112.inf)**, then click **Next**.
5. Follow the on-screen instructions to complete the Windows Vista installation.

### For Existing Windows Vista Installation

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

### To Verify Windows Vista Installation

1. Right click **My Computer** and click **Manage**.
2. Select **Device Manager**.
3. Double click **Storage Controllers**, then double click **Silicon Image Sil... Controller** to display driver properties.
4. A message **This device is working properly** is displayed in the dialog box when the driver is correctly installed.

## 2-3.7 Windows XP 64bit/Server 2003 64bit Installation

### For New Windows XP 64bit/Server 2003 64bit Installation

A new installation of Windows XP 64bit / Server 2003 64bit 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 XP 64bit / Server 2003 64bit 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 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 Windows XP/Server 2003 installation

### **For Existing Windows XP 64bit/Server 2003 64bit 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.

### **To Verify Windows XP 64bit and Server 2003 64bit installation**

1. Right click **My Computer** and click **Manage**.
2. Select **Device Manager**.
3. Double click **SCSI and RAID controllers**, then double click **Silicon Image SiI3512... Controller** to display driver properties. A message **This device is working properly** is displayed in the dialog box when the driver is correctly installed

## **2-3.8 Windows Vista 64bit Installation**

### **For New Windows Vista 64bit Installation**

1. Install the board and follow Microsoft procedures to install Windows Vista 64bit accordingly.
2. At the **Where do you want to install Windows?** screen, click **Load Driver**.
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 64bit extended processors) or **IA64** (for 64bit Intel Itanium processors), then click **OK**.
6. Select **Silicon Image... SATALink Controller**, then press **Next**.

7. Follow the on-screen instructions to complete the Windows Vista 64bit installation

### **For Existing Windows Vista 64bit Installation**

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

### **To Verify Windows Vista 64bit Installation**

1. Right click **My Computer** and click **Manage**.
2. Click **Continue**, click **Device Manager**.
3. Double click **Storage Controllers**, then double click **Silicon Image SiI... Controller** to display driver properties. A message **This device is working properly** is displayed in the dialog box when the driver is correctly installed.

### **BIOS Configuration**

The *SATA 2-channel PCI BIOS* will appear every time 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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