

Serial ATA 2 Ports PCI Host

This Manual is for the various Model of 2ports SATA HBA:

Model A: Low Profile Serial ATA Internal 2 Ports

Model B: Low Profile External 1 Port + Internal 1 Port

Model C: Low Profile Internal 1 Port + External 1 Port + Bracket Power

Model D: External 2 Ports + Bracket Power

1. Introduction

The Serial ATA 2 ports PCI Host Adapter is a PCI to dual Serial ATA host controller board which can support Low profile PCI and regular size PCI both. It provides a 32bit, 33/66 MHz PCI interface on the host side and dual, fully compliant Serial ATA ports on the device side to access SATA storage media such as hard disk drive, ZIP drive, CD-ROM, CD-RW, DVD-ROM.

The board supports a 32-bit 33/66 MHz PCI bus revision 2.2 and the Serial ATA Generation 1 transfer rate of 1.5 Gb/s (150 MB/s).

It comes completely with drivers for Windows Vista, 2000, 2003 and XP.

1.1. Features

1.1.1. PCI Interface

- Compliant with PCI Specification, revision 2.2
- Integrated PCI DMA engines
- 32 bit, 33/66MHz fully compliant PCI host interface

1.1.2. High Speed Serial ATA Interface

- Dual high speed Serial ATA interface Channels, each supporting 1st generation Serial ATA data rates (1.5Gb/s)
- Fully compliant with Serial ATA 1.0 specifications
- Supports Spread Spectrum in receiver

- Independent 256-byte FIFOs (32 bit * 64 deep) per Serial ATA channel for host reads and writes

1.1.3. The Individual features for different Models

1.1.3.1. Model A: Serial ATA Internal 2 Ports

- Supports Independent two Internal Ports

1.1.3.2. Model B: External 1 Port + Internal 1 Port

- Supports one External Port and one Internal Port

● One Special Shell SATA connector on External Port to support Mobile HDD, Mobile CD-ROM, Mobile DVD and Mobile CD-RW

1.1.3.3. Model C: Internal 1 Port + External 1 Port + Bracket Power

- Independent one Internal SATA Ports

- One External Port and one Internal Port sharing one SATA Channel

● One Special Shell SATA connector on External Port to support Mobile HDD, Mobile CD-ROM, Mobile DVD and Mobile CD-RW

● One USB-like Connector on board to provide 2A / 5V DC power output for Mobile Storage Devices using

1.1.3.4. Model D: External 2 Ports + Bracket Power

- Independent two External SATA Ports

● Two Special Shell SATA connector on External Port to support Mobile HDD, Mobile CD-ROM, Mobile DVD and Mobile CD-RW

● One USB-like Connector on board to provide 2A / 5V DC power output for Mobile Storage Devices using

1.2. Package Contents

- SATA 2Ports PCI Host Adapter
- Users Manual
- Driver CD
- Low Profile Size PCI Bracket (Not included on Model D)

2. Software Installation

2.1. Windows 2000/XP/ Server 2003 Fresh

Installation

Follow the instructions in this section if you are performing a new installation of Windows 2000/XP or Windows Server 2003, and you wish to boot from a device attached to the SiI 3x12 SATALink controller.

NOTE: If installing Windows 2000, you must first edit the txtsetup.oem file on the driver installation disk and delete the line from the [Config.Si3112] section that reads:

```
value = Parameters\PnpInterface, "5", REG_DWORD, 1
```

1. Power off the system. Insert the SiI 3x12 SATALink controller into an available PCI slot. Connect serial ATA cable(s) between the SiI 3x12 controller and the serial ATA device(s). Power up the system.
2. Put your Windows Win2k/XP or Windows Server 2003 CD into the CD/DVD-ROM drive, or the Win2k boot diskette #1 in the floppy drive if your system cannot boot from the CD.
3. Press F6 for third party SCSI or driver installation at the beginning of text mode installation. Press 's' when setup asks if you want to specify an additional device, and insert the driver CD then press 'Enter'. From the menu presented next, select the controller installation process that corresponds to the version of Windows being installed and press 'Enter'.
4. Press 'Enter' again when prompted to continue on with text mode setup.
5. Follow the setup instructions to select your choice for partition and file system.
6. 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 to finish the installation.
7. Once the operating system installation has completed you can follow the instructions in Verifying Controller Installation to verify controller was installed correctly.

2.2. Windows Vista Fresh Installation

1. Power off the system. Insert the SiI 3x12 SATALink controller into

an available PCI slot. Connect serial ATA cable(s) between the SiI 3x12 controller and the serial ATA device(s). Power up the system.

2. Put your Windows Vista DVD into the DVD-ROM drive.
3. When Vista starts from the DVD, change the displayed language and keyboard preferences if necessary and click 'Next', then click 'Install now' from the following screen.
4. Enter your product key and click next.
5. Check the box 'I accept the license terms' and click 'Next'.
6. Click the box labeled 'Custom (advanced)'.
7. Click the icon labeled 'Load Driver', then on the 'Load Driver' dialog that pops up, click 'OK'.
8. On the 'Select the driver to be installed' screen, insert the driver CD then select the item labeled 'Silicon Image SiI 3x12 SATALink Controller' and click 'Next'. Windows will now load the driver.
9. You should now see the drive you installed in step 1 displayed on the screen. Click 'Drive options (advanced)'.
10. Ensure that the unallocated space of the drive you installed in step 1 is highlighted and then click 'New'. From the size box that appears specify the size of the partition to be created to contain the Vista OS installation, and then click 'Apply'.
11. Ensure that the partition created in the previous step is selected and click 'Next'.
12. Follow the on screen prompts to complete the installation of Vista. Once the operating system installation has completed you can follow the instructions in Verifying Controller Installation to verify the controller was installed correctly.

2.3. Adding the controller to an existing Windows

2000/XP/Server 2003 installation

1. Power off the system. Insert the SiI 3x12 SATALink controller into an available PCI slot. Connect serial ATA cable(s) between the SiI 3x12 controller and the serial ATA device(s). Power up the system.
2. During OS boot up, Windows will display 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 and click 'Next'.
5. When the wizard indicates that it found a driver for the device click 'Next'.
6. If the 'Digital Signature Not Found' dialog appears, click 'Yes' to continue installing the driver.
7. The wizard will now copy the required files to the system and start the driver. After starting the driver the wizard will display a completion dialog, click 'Finish' to exit the wizard.
8. See instructions in Verifying Controller Installation to verify controller was installed correctly.

2.4. Adding the controller to an existing Windows

Vista installation

1. Power off the system. Insert the SiI 3x12 SATALink controller into an available PCI slot. Connect serial ATA cable(s) between the SiI 3x12 controller and the serial ATA device(s). Power up the system.
2. During OS boot up, Windows will display the 'Found New Hardware' dialog. Click the box labeled 'Locate and install driver software (recommended)'. If presented with the 'User Account Control' dialog, click the button labeled 'Continue'.
3. From the next screen select 'Don't search online'.
4. Insert the driver CD and click the button labeled 'Next'.
5. Windows will now begin to install the driver software. If presented with 'Windows can't verify the publisher of this driver software' dialog, click the box labeled 'Install this driver software anyway'.
6. After the driver installation finishes, see the instructions in Verifying Controller Installation to verify the controller was installed correctly.

2.5. Update the driver on Windows 2000

1. Right click on 'My Computer' and select 'Properties'. Under the 'System Properties' section, click on 'Hardware' tab, and then on 'Device Manager' click 'SCSI and RAID Controllers' and right click 'Silicon Image SiI 3x12 SATALink Controller' then select 'Properties' from the context menu.
2. Click 'Update Driver' button on the 'Driver' tab and select 'Display a list of the known drivers for this device so that I can choose a specific driver'.

Insert the driver CD. Click 'Next'.

3. Click 'Have Disk'. On the 'Install from Disk' dialog, ensure that the correct floppy drive is specified and click 'OK'.
4. Click 'Next' until the installation process begins. If presented with a dialog warning about an unsigned driver click 'Yes' to accept it.
5. If at the end of the installation process you are prompted to reboot the system click 'Yes'.
6. See instructions in Verifying Controller Installation to verify controller was installed correctly.

2.6. Update the driver on Windows XP or Server 2003

1. Right click on 'My Computer' and select 'Properties'. Under the 'System Properties' section, click on 'Hardware' tab, and then on 'Device Manager' click 'SCSI and RAID Controllers' and right click 'Silicon Image Sil 3x12 SATALink Controller' then select 'Properties' from the context menu.
2. Select the 'Driver' tab, and then click the 'Update Driver' button.
3. Select 'Install from a list or specific location (Advanced)' and click 'Next'.
4. Make sure 'Search for the best driver in these locations' and 'Search removable media (floppy, CD-ROM...)' are both selected and then click 'Next'.
5. As the installation process begins you may be presented with a dialog warning about a non-logo'd driver, click 'Continue Anyway' to continue the installation.
6. If at the end of the installation process you are prompted to reboot the system click 'Yes'.
7. See instructions in Verifying Controller Installation to verify controller was installed correctly.

2.7. Update the driver on Windows Vista

1. Click the Start icon then right click on 'Computer' and select 'Manage' from the context menu. If presented with a User Account Control dialog, select 'Continue'.
2. Select 'Device Manager' in the left pane, and then double click on 'Storage Controllers' in the right pane.
3. Under the Storage Controllers category, right click on the item 'Silicon Image Sil 3x12 SATALink Controller' and select 'Properties' from the

context menu.

4. On the properties dialog select the 'Driver' tab and then click the button labeled 'Update Driver...'.
5. Click the box labeled 'Browse my computer for driver software'.
6. Click the box labeled 'Let me pick from a list of device drivers on my computer'.
7. Click the button labeled 'Have Disk...'.
8. On the 'Install From Disk' dialog either click the 'Browse' button or specify the path to where the updated driver package resides on the system (example E:\), and then click the 'OK' button.
9. Click the 'Next' button. Windows will begin installing the updated driver software. If presented with a dialog indicating that Windows can't verify the publisher of the driver software click the box labeled 'Install this driver software anyway'.
10. If at the end of the installation process you are prompted to reboot the system click 'Yes'.
11. See instructions in Verifying Controller Installation to verify that the driver was updated correctly.

2.8. Verifying controller installation

For Windows 2000/XP and Windows Server 2003

1. Right click on 'My Computer' icon, select 'Properties', left click on 'Hardware' tab, and then on 'Device Manager' button.
2. Double click on 'SCSI and RAID Controllers', If there is no yellow '!' or '?' in front of 'Silicon Image SiI 3x12 SATALink Controller' the driver has started correctly.
3. To view information about the devices attached to the controller, right click the 'Silicon Image SiI 3x12 SATALink Controller' and select Properties from the context menu, then select the tab labeled 'Device Info'.

For Windows Vista

1. Click the Start icon then right click on 'Computer' and select 'Manage' from the context menu. If presented with a User Account Control dialog, select 'Continue'.
2. Select 'Device Manager' in the left pane, and then double click on 'Storage Controllers' in the right pane.
3. If under the Storage Controllers category you see the item 'Silicon

Image Sil 3x12 SATALink Controller' and there is no yellow '!' or '?' in front of it, the driver has been installed correctly.

4. To view information about the devices attached to the controller, right click the 'Silicon Image Sil 3x12 SATALink Controller' and select Properties from the context menu, then select the tab labeled 'Device Info'.

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