

Serial ATA 2 Port CardBus Adapter

1. Introduction

This Serial ATA 2 Port CardBus Host Adapter is a 32bit PC Card (CardBus) with dual, fully compliant Serial ATA ports. The SATA port can access SATA storage media such as hard disk drive, floppy disk drive, CD-ROM, CD-RW, DVD-ROM, DVD-RAM.

This adapter can be used to upgrade your notebook computer to have dual Serial ATA Channels. It accepts host commands through the CardBus, processes them and transfers data between the host and Serial ATA devices. PC Card should be connected to SATA target device and will take the data, serialize it and output it for transmission over the SATA interface. SATA PC Card can control two independent Serial ATA channels. Each channel has its own Serial ATA bus and will support one Serial ATA device.

The board supports a 32-bit PC Card interface and the Serial ATA Generation 1 transfer rate of 1.5 Gb/s (150 MB/s).

It comes completely with drivers for Windows 98, Windows Millennium, Windows NT 4.0, Windows 2000 and XP.

1.1. Features

1.1.1. PC Card Interface

- Integrated DMA engines.
- 32 bit CardBus fully compliant.

1.1.2. High Speed Serial ATA Interface

- Dual high speed Serial ATA interface ports, 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.

1.2. Package Contents

- Serial ATA 2 Port CardBus Host Adapter
- This User's Manual
- Driver Diskette

2. Software Installation

To use this CardBus adapter, the host computer must be equipped with one free PCMCIA Card Type II or Type III slot. This section provides the information on how to install the drivers of Serial ATA 2 Port CardBus Host Adapter for the Windows operating systems:

2.1. Windows NT installation

1. Power off the system. Insert Serial ATA 2 Port CardBus into an available CardBus slot. Connect serial ATA cable(s) between the Serial ATA 2 Port CardBus and the serial ATA device(s). Power up the system.
2. After OS boots up, click '**Start**'.
3. Under '**Settings**', click '**Control Panel**'.
4. Select '**SCSI Adapters**' from the Control Panel.
5. Select the '**Drivers**' tab and click '**Add**'.
6. Click '**Have Disk**'.
7. Insert the diskette Driver into A: and press '**Enter**'.
8. Choose '**Silicon Image SiI 3112 SATALink Controller**' and click '**OK**'.
9. After the driver installation has completed you can follow the instructions in section 2.3 to verify controller was installed correctly.

2.2. Windows 2000/XP installation

1. Power off the system. Insert Serial ATA 2 Port CardBus into an available CardBus slot. Connect serial ATA cable(s) between the Serial ATA 2 Port CardBus 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. Under **'Optional search locations'** insure that **'Floppy disk drives'** is checked.
5. Insert the diskette Driver into A: and click **'Next'**.
6. When the wizard indicates that it found a driver for the device click **'Next'**.
7. If the **'Digital Signature Not Found'** dialog appears, click **'Yes'** to continue installing the driver.
8. 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.
9. See instructions in section 2.3 to verify controller was installed correctly.

2.3. Verifying the installation under Windows NT, 2000 and XP

Follow the instructions in this section to verify that the controller was installed correctly.

For Windows 2000/XP

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 3112 SATA Link Controller'** the driver has started correctly.
3. To view information about the devices attached to the controller, right click the **'Silicon Image SiI 3112 SATA Link Controller'** and select **Properties** from the context menu, then select the tab labeled **'Device Info'**.

For Windows NT 4.0

1. Double click on **'My Computer'** icon, select **'Control Panel'**, click on the **'SCSI Adapters'** icon, **'Silicon Image SiI 3112 SATA Link Controller'** should be displayed correctly under **'Device'** and **'Driver'** tab.
2. To view information about the devices attached to the controller, double click on the **'Silicon Image ATA Controllers'** control panel applet. Select a controller from the list at the top of the dialog. Then select a device from the **'Device Location'** drop down list to view its information.

2.4.Update driver on Windows NT 4.0

1. After OS boots up, click '**Start**'.
2. Under '**Settings**', click '**Control Panel**'.
3. Select '**SCSI Adapters**' from the Control Panel.
4. Select the '**Drivers**' tab and click '**Add**'.
5. Click '**Have Disk**'.
6. Insert the diskette Driver into A: and press '**Enter**'.
7. Choose '**Silicon Image SiI 3112 SATALink Controller**' and click '**OK**'.
8. Refer to instructions in section 4 to verify controller was installed correctly.

2.5.Update driver on Windows 2000

With the Serial ATA 2 Port CardBus already plugged in and the driver already installed. Follow the instructions below to update SiI 3112 SATALink driver.

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 3112 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 diskette Driver into the floppy drive. 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 section 4 to verify controller was installed correctly.

2.6.Update driver on Windows XP

Follow the instructions in this section to update the driver for the SiI 3112 SATALink controller on Windows XP.

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 3112 SATALink Controller**' then select '**Properties**' from the context menu.

2. Select the '**Driver**' tab, 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 section 2.3 to verify controller was installed correctly.

2.7. Windows 98SE/ME installation

1. Power off the system. Insert Serial ATA 2 Port CardBus into an available CardBus slot. Connect serial ATA cable(s) between the Serial ATA 2 Port CardBus and the serial ATA device(s). Power up the system.
2. During the system boot up, the Hardware Wizard will display that it found a '**PCI RAID Controller**', click '**Next**'. Select '**Search for the best driver for your device[Recommended]**' and click '**Next**'.
3. Make sure the '**Floppy disk drives**' checkbox is checked and insert the diskette Driver into the floppy drive. Click '**Next**'.
4. System will go through the enumeration process and install the driver. At the end of the process, click '**Finish**' to complete the installation. Reboot the system if your Windows 98SE/ME drive is connected on the SiI 3112 Controller.
5. See instructions in section 2.9 to verify controller was installed correctly.

2.8. Update driver on Windows 98SE/ME

With the Serial ATA 2 Port CardBus already plugged in and the driver already installed. Follow the instructions below to update SiI 3112 driver.

1. Right click on '**My Computer**' and select '**Properties**'. Under '**System Properties**', click '**SCSI Controllers**' then right click '**Silicon Image SiI 3112 SATALink Controller**' and select '**Properties**' from the context menu.
2. Click '**Driver**', '**Update Driver**' and select '**Automatic search for a better driver[Recommended]**'. Insert the diskette Driver into the floppy drive.

Click **Next** and complete the driver installation.

3. System will go through the enumeration process and install the driver. At the end of the process, click **Yes** to reboot your system.
4. See instructions in section 2.9 to verify controller was installed correctly.

2.9. Verifying the installation under Windows 98/SE/ME

Follow the instructions in this section to verify that the controller was installed correctly on Win98SE and Windows ME.

1. Right click on **My Computer** icon, select **Properties**. Click on **Device Manager** tab.
2. Double click on **SCSI Controllers**, If there is no yellow '!' or '?' in front of **Silicon Image SiI 3112 SATALink Controller**, the driver has started correctly.
3. To view information about the devices attached to the controller, double click on the **Silicon Image ATA Controllers** control panel applet under **Control Panel**. Select a controller from the list at the top of the dialog. Then select a device from the **Device Location** drop down list to view its information.