

Ultra ATA/133 Host Adapter

Quick Installation Guide

1. Introducing

1-1 Introducing the Ultra ATA/133 Host Adapter

This adapter is an ultra high-speed dual channel Ultra ATA/133 PCI Host Adapter for use in Pentium-class computers. It achieves burst data transfer rates up to 133MB/sec and supports drive capacities greater than 137 GB. It's enhanced BIOS auto-detect device types and fine tunes to the best performance for each connected hard drive.

1-1.1 Key Features and Benefits

- Compliant with UltraDMA6 ATA/133 specification
- Compliant with PCI v2.2 Plug-n-play
- Provides two independent Ultra ATA channels (built-in 256-byte FIFOs per channel) for faster data transfer
- Supports Ultra DMA 0-6 and Multi-word DMA 0-2
- Breaks the 137GB barrier! Supports hard drives larger than 137GB
- Co-exists with on-board IDE controller
- CRC (Cyclical Redundancy Check) error-checking provides data verification and achieves flawless data transfer
- Flash BIOS for easy upgrade
- Full ACPI power management support
- Works with various brands of Ultra ATA 133/100/66/33 hard disk drivers and ATAPI devices including CD-ROM, CD-R/RW, DVD-ROM, and zip drives

1-1.2 System Requirements

- Pentium-class computer with one available PCI slot
- Windows 98SE/ ME/ NT 4.0/ 2000/ XP /2003 and Vista

1-1.3 Board Layout

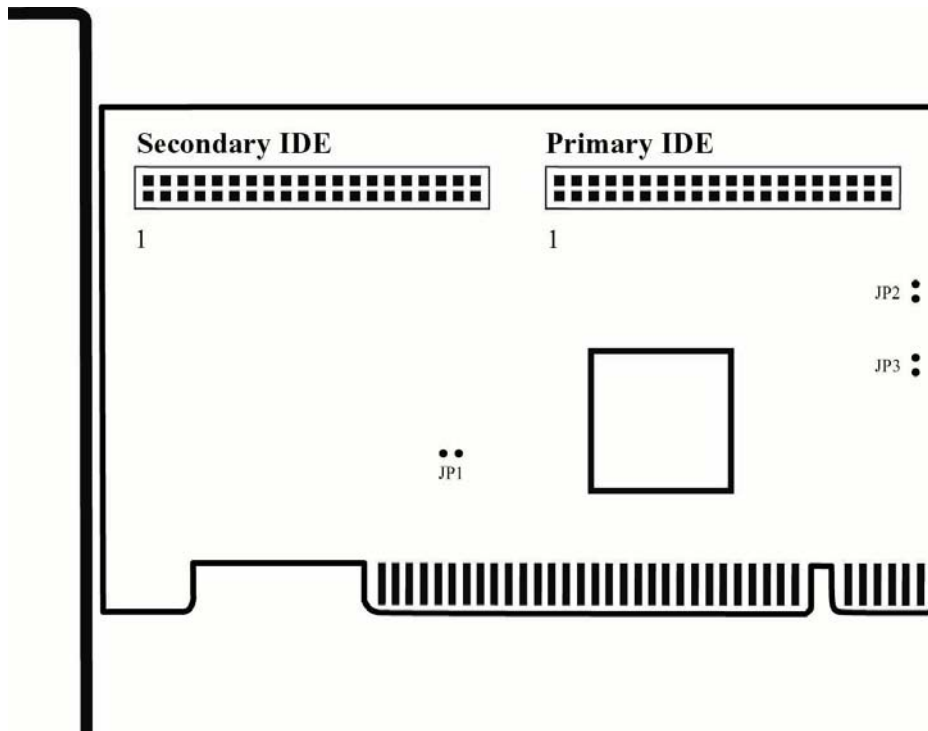


Figure 1-1 Ultra ATA/133 Host Adapter Board Layout

Note:

1. Connector JP2 and JP3 are for hard drive LED
2. Be sure that JP1 is open

1-2 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.

Note: Leave the product in its static-resistant bag until you are ready to install it.

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. Handle cards only by their external edges.

2. Installation

This chapter will guide you through the installation of *Ultra ATA/133 Host Adapter* in your computer.

2-1 Hardware Installation

General instructions for installing the board are given since the design of computer chassis varies. Refer to your computer reference manual for further information, if needed.

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. Handle cards only by their external edges.
1. Turn OFF the power to your computer and any other connected peripheral devices. Unplug the power cord from the back of the computer.
 2. Remove your computer's cover.
 3. Select an available PCI slot; remove the slot bracket by unscrewing the holding screw and sliding it out. Save this screw for securing the Ultra ATA/133 Host Adapter *after* it is installed.
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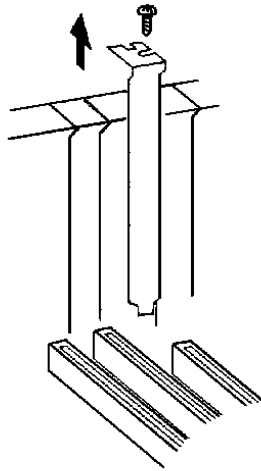


Figure 2-1: Remove the Slot Bracket

4. To install Ultra ATA/133 Host Adapter, carefully align the board's bus connector to the PCI slot on the motherboard. Push the board down firmly, but gently, until it is well seated.

Note: Hold the card by its external edges only. Try to avoid touching the components, connectors or pins.

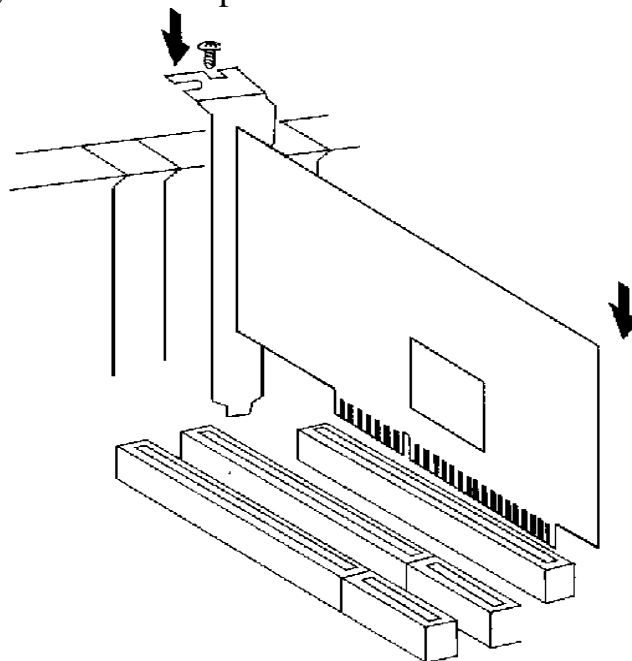


Figure 2-2: Installing the board

5. Secure the board to the rear slot panel. Continue to the next section for device connection.

2-2 Devices Connection

This Ultra ATA/133 Host Adapter is a dual channel Ultra ATA/133 controller that supports up to four IDE hard disk drives or ATAPI devices. If you plan to use the second IDE channel (**SECONDARY IDE**), you will need to purchase another 40-pin / 80-wire Ultra ATA ribbon cable.

Note: Only 40-pin/80-wire Ultra ATA cable can give hard disk UDMA 133 performance. Also, we suggest not to connect a fast hard drive with a slower IDE / EIDE device (such as CD-ROM or tape backup drive) on the same channel.

1. If you plan to install two hard disk drives on the **PRIMARY IDE** channel, make sure you configured the drives as a *Master and Slave*, according to the manufacture instructions. The same rule must be followed for connecting hard disk drives to the **SECONDARY IDE** channel.
2. Attach one end of the Ultra ATA cable that was included with this adapter to the **PRIMARY IDE** connector on the board. Make sure pin 1 on the cable (indicated by the colored stripe) matches pin 1 on the **PRIMARY IDE** connector.

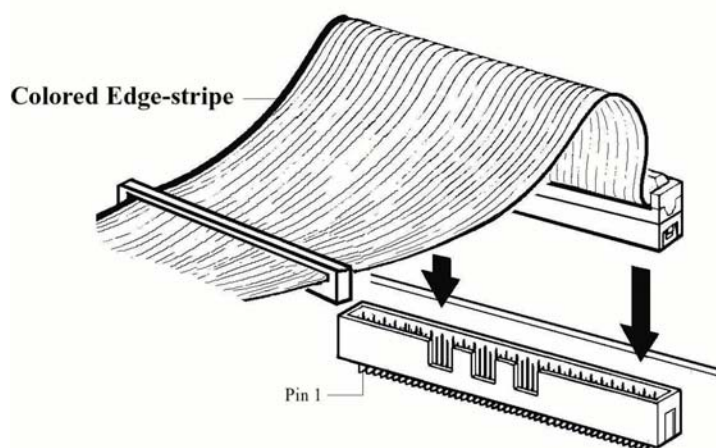


Figure 2-3 Connecting the Cable to On-Board Connector

3. Attach the other end of the Ultra ATA cable to the connector of a drive. Note that the ribbon cable has two connectors. If you have one hard disk drive, connect the end connector to the drive (*drive C*). If you have two drives, the middle connector attaches to *drive D*. Make certain that pin 1 on the cable (indicated by the colored stripe) matches pin 1 on the hard disk drive's connector when making the connections.

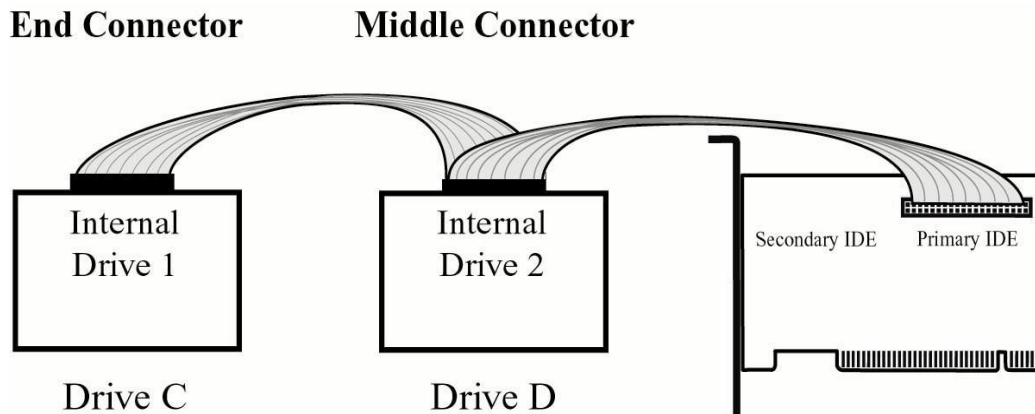


Figure 2-4: Connecting Internal Drives

4. The same procedure applies when making connection to SECONDARY IDE.
5. After making all your internal connections, replace the computer's cover and screws. Then reconnect the power cord and cables to the back of the computer.
6. You are now ready to install the software drivers.

2-3 Installing the Software Drivers

2-3.1 Windows 98SE Driver Installation

For New Windows 98SE system

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 Card** listed under **Other Devices**.
5. Select **Driver** tab, then click **Update Driver** button.
6. Insert the driver CD into your CD-ROM drive, then click **Next**.
7. Select **Search for a better driver than the one your device is using now [Recommended]**, then click **Next**.
8. Select **Specify a location:** then type **E:**, then click **Next** then **Finish**.
(Change “E”: to match your CD-ROM drive alphabet)
9. When **Silicon Image Sil 0680 ATA/133 Controller** appears, click **Next**, then click **Finish**.
10. Remove the driver CD and restart Windows to complete the driver installation.

For Existing Windows 98SE system

1. After installing the board and boot up your system.
2. When **Add New Hardware Wizard** displays **PCI Mass Storage Controller** then click **Next**.
3. Insert the driver CD into your CD-ROM drive.
4. Check **Search for the best driver for your device (Recommended)**, then click **Next**.
5. Check CD-ROM drive then click **Next**.
6. When **Silicon Image Sil 0680 ATA/133 Controller** appears, click **Next**, then click **Finish**.
7. Remove the driver CD while to complete the installation.

2-3.2 Windows ME Driver Installation

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 installed, double click **My Computer/Control Panel/ System**, then Select **Device Manager** tab.
4. Double click **PCI Card** listed under **Other Devices**.
5. Select **Driver** tab and click **Update Driver** button.
6. Insert the driver CD into your CD-ROM drive, then click **Next**.
7. Select **Automatic search for a better driver [Recommended]**, click **Next**,
8. Select **Silicon Image Sil 0680 ATA/133 Controller**, click **OK**, then click **Finish**.
9. Remove the driver CD and restart Windows to complete the installation.

For Existing Windows ME installation

1. After installing the board and boot up your system.
2. When **Add New Hardware Wizard** displays **PCI Mass Storage Controller**, check **Automatic search for a better driver (Recommended)**.
3. Insert driver CD into your CD-ROM drive then click **Next**.
4. Select **Silicon Image Sil 0680 ATA/133 Controller location at E:\SI680.INF** , then click **OK**.
(Change “E”: to match your CD-ROM drive alphabet)
5. Click **Finish**, remove the driver CD while restart your system to complete the installation.

2-3.3 Windows NT4.0 Driver Installation

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 **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. Follow Microsoft Procedures to install Windows NT4.0 accordingly.
3. At the **Windows NT Setup** screen, press **F6** to specify and add the driver.
4. Press **S**, select **Other**, then press **Enter**.
5. Insert the driver diskette and press **Enter**.
6. Select **Silicon Image Sil 0680 ATA/133 Controller For Windows NT4.0** in the box, press **Enter**.
7. 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 you system.
2. Double click **My Computer/ Control Panel/ SCSI Adapters**, then click on the **Drivers** tab.
3. Click **Add...** then **Have Disk...**
4. Insert the driver CD into your CD-ROM drive, type in **E:** then click **OK**. (Change “E”: to match your CD-ROM drive alphabet)
5. Select **Silicon Image Sil 0680 ATA/133 Controller**, then click **OK**.
6. Remove the driver CD while restart your system to complete the installation.

2-3.4 Windows 2000 Driver Installation

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 boot up you system.
 2. Follow Microsoft procedures to install Windows 2000 accordingly.
 3. At the **Windows 2000 Setup** screen promptly press **F6**
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to install the driver.

4. Press **S** to specify Additional device.
5. Insert the driver diskette and press **Enter**.
6. Select **Silicon Image Sil 0680 ATA/133 Controller** in the box, press **Enter**.
7. Press **Enter** to continue and follow the on screen instructions to complete Windows 2000 installation.

For Existing Windows 2000 installation

1. After installing the board, boots up your system.
2. When **Found New Hardware Wizard** displays, click **Next**.
3. Insert driver CD into your CD-ROM drive.
4. When **Found New Hardware Wizard** displays **Mass Storage Controller**, check **Search for a suitable driver for my device [recommended]**, then click **Next**.
5. Select **CD-ROM drives**, then click **Next, Next**.
6. When **Silicon Image Sil 0680 ATA/133 Controller** appears, then **Finish**.
7. Remove the driver CD to complete the installation.

2-3.5 Windows XP/2003 Driver Installation

For New Windows XP/2003 installation

A new installation of Windows XP/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 boot up you system.
2. Follow Microsoft procedures to install Windows XP/2003 accordingly.

3. At the **Windows Setup** screen, press **F6** to install the driver.
4. Press **S** to specify the location of the driver.
5. Insert the driver diskette, then press **Enter**.
6. Select **Silicon Image Sil 0680 ATA/133 Controller** in the box, press **Enter**.
7. Press **Enter** to continue and follow on-screen instructions to complete Windows XP/2003 installation.

For Existing Windows XP/2003 installation

1. After installing the board, boots up your system.
2. When **Found New Hardware Wizard** appears check **No, not this time** then click **Next**.
3. When **Found New Hardware Wizard** display **Mass Storage Controller** check **Install the software automatically [Recommended]**.
4. Insert driver CD into your CD-ROM drive, then click **Next**.
5. When **Found New Hardware Wizard** displays **Silicon Image Sil 0680 ATA/133 Controller**, click **Finish**.
6. Remove the driver CD while restart your system and complete the installation.

2-3.5 Windows Vista Driver Installation

For New Windows Vista installation

1. Install the board and boot up you system.
2. Follow Microsoft procedures to install Windows Vista accordingly.
3. When **Install Windows** displays **Where do you want to install Windows?** insert the driver CD into your CD-ROM then click **Load Driver**.
4. Click **OK**, then select the driver to be installed then click **Next**.
5. Select the disk drivers to install Windows system for you want, then

click **Next**.

6. When **Install Windows- Insert Disc** appears, then remove the driver CD and insert the Windows Vista system CD to your CD-ROM then click **OK**.
7. Windows will auto install the Vista system to your disk drive.

For Existing Vista installation

1. When **Found New Hardware** appears then click **Locate and install driver software (recommended)**.
2. Click **Continue**.
3. When **Found New Hardware Wizard** display **Mass Storage Controller** click **Yes, always search online (Recommended)**.
4. When **Insert the disc that came with your Mass Storage Controller** appears then insert the driver CD into your CD-ROM drive and system will auto install.
5. When **The software for this device has been successfully installed** display **Silicon Image sil 0680 ATA/133 Controller**, then click **Close**.



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