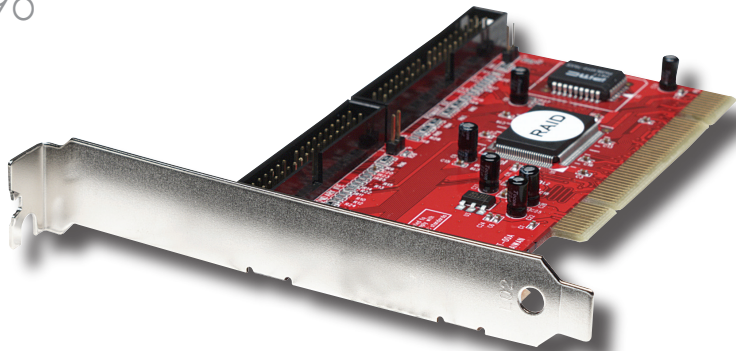


ULTRA ATA/133 CONTROLLER PCI CARD USER MANUAL

MODEL 168298



 **MANHATTAN**

MAN-168298-UM-0408-01

Thank you for purchasing the MANHATTAN® Ultra ATA/133 Controller PCI Card, Model 168298. Compliant with PCI Specification, rev. 2.2, this card supports two independent ATA channels and ATA/133, plus full-speed burst transfers on the ATA bus. It also features one 256-byte FIFO (32 bit x 64 deep) per channel for host reads and writes.

INTRODUCTION

This Ultra ATA/133 Controller PCI Card (also known as an ATA-133 RAID PCI adapter) is a controller board that supports both low-profile and regular-size PCI in one card.

The card can upgrade your desktop computer with dual ultra ATA-133 channels and the ability to support RAID 0, RAID 1 and RAID 0+1 features. It comes complete with drivers for Windows 98, Me, 2000 and XP.

RAID (redundant array of independent disks) greatly enhances two main areas of data storage: performance and data integrity. By using RAID 0, also known as "Striping," performance of sustained data transfer rates is greatly enhanced by simultaneously writing data to two, three or four drives. The second benefit of RAID is data redundancy. RAID 1 (Mirroring) writes identical data on two drives or sets of drives, thus protecting the data from a disk failure. If for any reason, one drive were to fail, your data is secure and available from the mirrored second drive.

FEATURES

- Compliant with PCI Specification, rev. 2.2
- Integrated PCI DMA engines
- 32-bit, 33 MHz fully compliant PCI host interface
- Supports two independent ATA channels
- Supports ATA 133
- Supports full-speed burst transfers on the ATA bus
- 256-byte FIFO (32 bit x 64 deep) per channel for host reads and writes
- ATA to PCI interrupt masking
- Command buffering from PCI to ATA
- Virtual DMA: Bus master transfer on the PCI bus and PIO transfer on the ATA bus
- Provides RAID 0 (Striping) to greatly increase the performance of data transfer by simultaneously writing data to two drives
- Provides RAID 1 (Mirroring) to protect the data from a disk failure by writing identical data on two drives
- RAID 0+1 (Mirrored-Striping) combines both striping and mirroring technologies to provide both the performance enhancements that come from striping and the data availability and integrity that comes from mirroring

WHAT IS RAID?

RAID (Redundant Array of Independent Disks)

RAID technology manages multiple disk drives to enhance I/O performance and provide redundancy in order to withstand the failure of any individual member, without the loss of data.

Disk Striping (RAID 0)

Striping is a performance-oriented, non-redundant data mapping technique. While striping is discussed as a RAID set type, it actually does not provide fault tolerance. With modern SATA bus-mastering technology, multiple I/O operations can be done in parallel, enhancing performance. Striping arrays use multiple disks to form a larger virtual disk.

Disk Mirroring (RAID 1)

Disk mirroring creates an identical twin for a selected disk by having the data simultaneously written to two disks. This redundancy provides instantaneous protection from a single disk failure. If a read failure occurs on one drive, the system reads the data from the other drive.

Mirrored-Striping (RAID 0+1, also known as RAID 10)

A mirrored-striping set does just what it says, combining both striping and mirroring technologies to provide both the performance enhancements that come from striping and the data availability and integrity that come from mirroring. When data is written to a mirrored-striped set, instead of creating just one virtual disk as striping would do, a second, mirrored virtual disk is created, as well.

RAID Setting (BIOS Setting)

Creating and deleting RAID sets is a function found in the BIOS. During boot-up, the RAID setting message will appear and pause to allow you to choose what to do. To set up your disk RAID, follow the steps on the driver CD (E:\ATA133 Raid\Ite8212\305iT_USER MANUAL V0.3).

WINDOWS 98/Me/XP/2000/2003 DRIVER INSTALLATION

1. Turn the computer system off. Insert the ATA 133 RAID PCI Express Card into an available PCI slot, then turn the system on.
2. During OS boot-up, Windows will display the Found New Hardware Wizard.
3. Select "Install from a list or specific location (Advanced)," click "Next," and make sure the driver CD is in your CD-ROM/DVD unit.
4. Select "Search for the best driver in these locations," and check "Include this location in the search." Uncheck the other boxes.
5. Type in E:\ (if your CD-ROM/DVD is E:\), then click "Browse."
6. Check a specific a location; e.g., E:\ATA133 Raid\Ite8212\OS of choice."
7. Click "Open," then "OK."
8. When the wizard indicates that it found a driver for the device, click "Next."
9. 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.



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