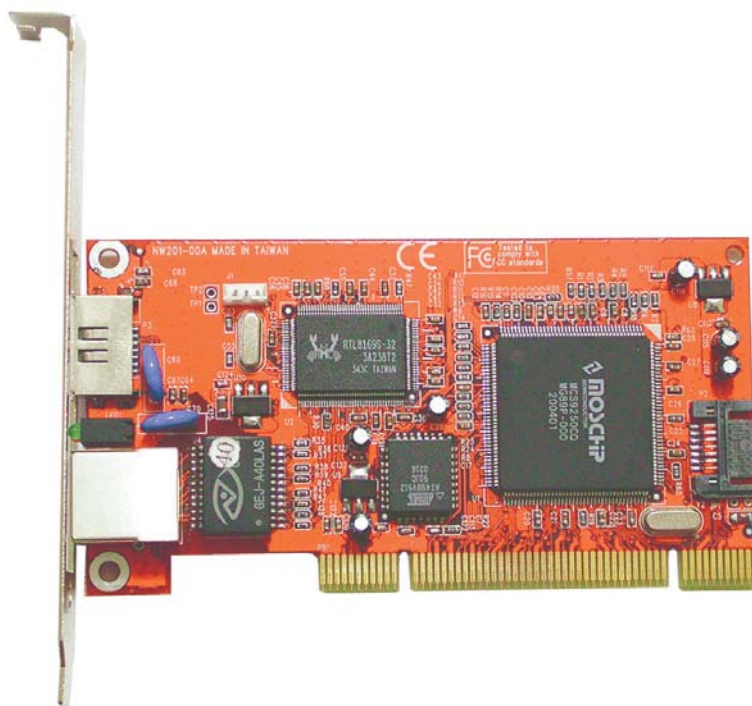


LINDY®

COMPUTER CONNECTION TECHNOLOGY

Low Profile SATA-150 +Gigabit LAN PCI Host

User Manual
English



LINDY No. 70570

www.LINDY.com



1. Introduction

This Low Profile PCI Host Adapter is a PCI controller board to support Low profile PCI and regular size PCI both in one card. The card can upgrade your desktop computer to have 2 ports Serial ATA and Gigabit Ethernet (1000Mbps, 100 Mbps, 10 Mbps) ports.

The board supports a 32-bit 33 MHz PCI bus revision 2.2, Gigabit Ethernet 10/100/1000Base-T and Serial ATA Generation 1 transfer rate of 1.5 Gb/s (150 MB/s).

SATA port can access SATA storage media such as hard disk drive, Zip drive, CD-ROM, CD-RW, DVD-ROM, DVD-RAM.

It comes with drivers for Windows.

1.1. Features

1.1.1. PCI Interface

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

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.
- Independent 256-byte FIFOs (32 bit * 64 deep) per Serial ATA channel for host reads and writes.
- Supports Spread Spectrum in receiver.
- Features Serial ATA to PCI interrupt masking.
- Features Watch Dog Timer for fault resiliency.

1.1.3. 1000Base-T Gigabit Ethernet

- Fully compliant with IEEE 802.3 (10Base-T Ethernet), IEEE 802.3u (100Base-TX Fast Ethernet), IEEE 802.3z (1000Base-T Gigabit Ethernet)
- Supports Ethernet 10Mbps (half-duplex), Ethernet 20Mbps (full-duplex), Fast Ethernet 100Mbps (half-duplex), Fast Ethernet 200Mbps (full-duplex), Gigabit 1000Mbps (full-duplex) and Gigabit 2000Mbps (full-duplex)
- RJ-45 Port offer high speed transmission over CAT 5 UTP cable

- Green LED indicator for 10/100/1000 Link
- Red LED indicator for ACT (Tx / Rx)
- Auto-Negotiation with Next page capability
- Supports pair swap/polarity/skew correction
- Crossover Detection & Auto-Correction
- Wake-on-LAN and remote wake-up support
- Microsoft® NDIS5 Checksum Offload (IP, TCP, UDP) and largesend offload support
- Supports Full Duplex flow control (IEEE 802.3x)
- Supports IEEE 802.1Q VLAN tagging
- 8K Transmit FIFO and 64K Receive FIFO support
- Supports power down/link down power saving

1.2. Package Contents

- Low Profile PCI Combo Host Adapter
- This User's Manual
- Low Profile PCI Bracket
- Driver Diskette

2. Software Installation

2.1. Windows 2000 /XP Fresh OS installation

Follow the instructions in this section if you are performing a new installation of Windows 2000/XP, and you wish to boot from a device attached to the SATA port.

1. Power off the system. Insert Combo Card into an available PCI slot. Connect serial ATA cable(s) between the SATA port and serial ATA device(s). Power up the system.
2. Put your Windows 2000/XP CD into the CD-ROM/DVD drive, or the 2000 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 diskette. Press '**Enter**' and select '**Silicon Image Sil 3112 SATALink Controller**'.
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 section 2.4 to verify controller was installed correctly.

2.2. Windows 2000 installation

1. Power off the system. Insert Combo Card into an available PCI slot. Power up the system.
2. During OS boot up, Windows will display the '**Found New Hardware Wizard**'. '**Mass Storage controller**', click '**Next**'.
3. Select "**Search for a suitable driver for my device (Recommended)**" and Click "**Next**", and make sure the Driver CD in your CD-ROM/DVD
4. Under "**Specify a locations**" insure that is only checked, and click "**Next**"
5. Type in E:\ (If your CD-ROM/DVD is **E:**) and click "**Browse**"
6. Points specify a location, example
E:\SATA Non-RAID_2port\Sil3112\Win98_ME_2000_XP_nt4.0, and click "**OPEN**" then "**OK**"
7. When the wizard indicates that it found a driver for the device click '**Next**'.
8. If the '**Digital Signature Not Found**' dialog appears, click '**Yes**' to continue installing the driver.
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.
10. Windows will display the Found New Hardware Wizard, "**Ethernet controller**", Click "**Next**".
11. Select "**Search for a suitable driver for my device (Recommended)**" and Click "**Next**", and make sure the Driver CD in your CD-ROM/DVD.
12. Under "**Specify a locations**" insure that is only checked, and click "**Next**".
13. Type in E:\ (If your CD-ROM/DVD is **E:**) and click "**Browse**".
14. Points specify a location, example **E:\10_100_1000NIC\RTL8169 \WIN2K\NETRTL.inf**, and click "**OPEN**" then "**OK**".
15. When the wizard indicates that it found a driver for the device click "**Next**". Then click "**Finish**".

2.3. Windows XP installation

1. Power off the system. Insert Combo Card into an available PCI slot. Power up the system.
2. During OS boot up, Windows will display the '**Found New Hardware Wizard**'. '**Mass Storage controller**'.
3. Select "**Install from a list or specific location (Advanced)**", and click "**Next**", and make sure the Driver CD is in your CD-ROM/DVD
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. Points specify a location, example
E:\SATA Non-RAID_2port\Sil3112\Win98_ME_2000_XP_nt4.0, and click "**OPEN**" then "**OK**"
7. When the wizard indicates that it found a driver for the device click '**Next**'
8. If the '**Hardware Installation**' dialog appears, click '**Continue Anyway**'
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.
10. Windows will display the Found New Hardware Wizard, "**Ethernet controller**". Select "**Install from a list or specific location (Advanced)**", and click "**Next**", and make sure the Driver CD is in your CD-ROM/DVD.
11. Select "**Search for the best driver in these locations**", and check "**Include this location in the search:**" uncheck the other boxes.
12. Type in E:\ (If your CD-ROM/DVD is E:\) and click "**Browse**".
13. Points specify a location, example **E:\10_100_1000NIC\RTL8169\WIN2K\NETRTL.inf**, and click "**OPEN**" then "**OK**".
14. When the wizard indicates that it found a driver for the device click "**Next**". Then click "**Finish**".

2.4. Verifying The installation under Windows 2000 and XP

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

1. Right click on '**My Computer**' icon, select '**Properties**', left click on '**Hardware**' tab, and then on '**Device Manager**' button.
2. Double click on '**System devices**', then left click on '**PCI standard PCI-to-PCI bridge**'. If there is no yellow '!' or '?' in front of '**PCI standard PCI-to-PCI bridge**' the

driver has started correctly.

3. Double click on “**Network adapters**”, If there is no yellow “!” or “?” in front of “ **Realtek RTL8169/8110 Family Gigabit Ethernet NIC** “ the driver has started correctly.
4. Double click on '**SCSI and RAID Controllers**', if there is no yellow '!' or '?' in front of '**Silicon Image Sil 3112 SATALink Controller**' the driver has started correctly.
5. To view information about the devices attached to the controller, right click the '**Devices**' and select Properties from the context menu, then select the tab labeled '**General**'.

2.5. Windows 98 SE /ME Fresh OS installation

Follow the instructions in this section if you are performing a new installation of Windows 98SE/ME, and you wish to boot from a device attached to the SATA port.

You may start up the Windows 98SE/ME installation from CD. If either your Windows 98SE/ME CD or CD-ROM drive is not bootable, you can start up with floppy diskettes.

1. Power off the system. Insert Combo card into an available PCI slot. Connect serial ATA cable(s) between the SATA port and serial ATA device(s). Power up the system.
2. Put your Windows 98SE/ME CD into the CD-ROM/DVD drive, and the Windows 98SE/ME boot diskette in the floppy drive if your system cannot boot from the CD.
3. Follow the normal Windows 98SE/ME setup instructions to select your choice for partition and file system.
4. Wait until Windows 98SE/ME finishes installing devices, regional settings, networking settings, components, and final set of tasks, reboot the system.
5. After the system reboots, right click on '**My Computer**' and select '**Properties**'. From '**System Properties** ', select '**Device Manager**', right click on the '**?PCI Mass Storage controller**' and select '**Properties**' from the context menu.
6. Click '**Driver**', '**Update Driver**' and select '**Automatic search for a better driver [Recommended]** '. Insert the driver diskette into floppy drive. Click '**Next**' and complete the driver installation.
7. System will go through the enumeration process and install the driver. At the end of the process, click '**Yes**' to reboot your system.
8. See instructions in section 2.8 to verify controller was installed correctly.

2.6. Windows 98SE installation

1. Power off the system. Insert Combo Card into an available PCI slot. Power up the system.

2. During the system boot up, the Hardware Wizard will display that it found a '**PCI standard PCI-to-PCI bridge**', click '**Next**'. Select '**Search for the best driver for your device [Recommended]**' and click '**Next**'.
3. Select '**Floppy disk drives**' and click '**Next**'.
4. When the wizard indicates that it found a driver for the device click '**Next**'. Then click '**Finish**' to exit the wizard.
5. The Hardware wizard will display that it found "**PCI Ethernet Controller**", click "**Next**", select "**Search for the best driver for your device (Recommended)**", click "**Next**", Check "**Specify a location**", uncheck the other boxes,
6. Insert the "**Driver CD**" in your CD-ROM/DVD drive type in E:\ (If your CD-ROM/DVD is E:\) and click "**Browse**".
7. Points specify a location, example **E:\10_100_1000NIC\RTL8169 \WIN98se**, and click "**OK**" then "**Next**".
8. Click "**Next**" if display "**Insert Disk**" (please remove the Driver CD from your CD-ROM/DVD and insert the disk labeled windows 98 second Edition CD-ROM) and click "**OK**", then click "**Finish**".
9. The wizard will display "**do you want to restart your computer now?**" and click "**Yes**" Reboot the system
10. The Hardware Wizard will display that it found a '**PCI Mass Storage Controller**', click '**Next**'.
11. Select "**Search for a suitable driver for my device (Recommended)**" and Click "**Next**", and make sure the Driver CD in your CD-ROM/DVD
12. Under "**Specify a locations**" insure that is only checked, and click "**Next**"
13. Type in E:\ (If your CD-ROM/DVD is **E:**) and click "**Browse**"
14. Points specify a location, example **E:\SATA Non-RAID_2port\Sil3112\Win98_ME_2000_XP_nt4.0**, and click "**OPEN**" then "**OK**"
15. When the wizard indicates that it found a driver for the device click '**Next**'.
16. If the '**Digital Signature Not Found**' dialog appears, click '**Yes**' to continue installing the driver.
17. 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

2.7. Windows ME installation

1. Power off the system. Insert Combo Card into an available PCI slot. Power up the system.

2. During the system boot up, the Hardware Wizard will display that it found '**PCI standard PCI-to-PCI bridge**', select '**Automatic search for a better driver (Recommended)**', click '**Next**'. Then click '**Finish**' to exit the wizard.
3. The Hardware wizard will display that it found "**PCI Ethernet Controller**", click "**Next**", select "**Search for the best driver for your device (Recommended)**", click "**Next**", Check "**Specify a location**", uncheck the other boxes,
4. Insert the "**Driver CD**" in your CD-ROM/DVD drive type in E:\ (If your CD-ROM/DVD is E:\) and click "**Browse**".
5. Points specify a location, example **E:\10_100_1000NIC\RTL8169 \WIN98se**, and click "**OK**" then "**Next**".
6. Click "**Next**" if display "**Insert Disk**" (please remove the Driver CD from your CD-ROM/DVD and insert the disk labeled windows 98 second Edition CD-ROM) and click "**OK**", then click "**Finish**".
7. The wizard will display "**do you want to restart your computer now?**" and click "**Yes**" Reboot the system
8. The Hardware Wizard will display that it found a '**PCI Mass Storage Controller**', click '**Next**'.
9. Select "**Search for a suitable driver for my device (Recommended)**" and Click "**Next**", and make sure the Driver CD in your CD-ROM/DVD
10. Under "**Specify a locations**" insure that is only checked, and click "**Next**"
11. Type in E:\ (If your CD-ROM/DVD is E:\) and click "**Browse**"
12. Points specify a location, example
E:\SATA Non-RAID_2port\Sil3112\Win98_ME_2000_XP_nt4.0, and click "**OPEN**" then "**OK**"
13. When the wizard indicates that it found a driver for the device click '**Next**'.
14. If the '**Digital Signature Not Found**' dialog appears, click '**Yes**' to continue installing the driver.

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

2.8.Verifying The installation under Windows 98SE and ME

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

1. Right click on '**My Computer**' icon, select '**Properties**', left click on '**Device Manager**' tab.

2. Double click on '**System devices**', then left click on '**PCI standard PCI-to-PCI bridge**'. If there is no yellow '!' or '?' in front of '**PCI standard PCI-to-PCI bridge**' the driver has started correctly.
3. Double click on "**Network adapter**", If there is no yellow "!" or "?" in front of "**Realtek RTL8169/8110 Family Gigabit Ethernet NIC**" the driver has started correctly.
4. Double click on '**SCSI Controllers**', If there is no yellow '!' or '?' in front of '**Silicon Image Sil 3112 SATALink Controller**', the driver has started correctly.
5. To view information about the devices attached to the controller, right click the '**Devices**' and select Properties from the context menu, then select the tab labeled '**General**'.



This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) this device may not cause harmful interference,
and (2) this device must accept any interference received, including interference that may cause undesired operations.