LINDY®
COMPUTER CONNECTION TECHNOLOGY

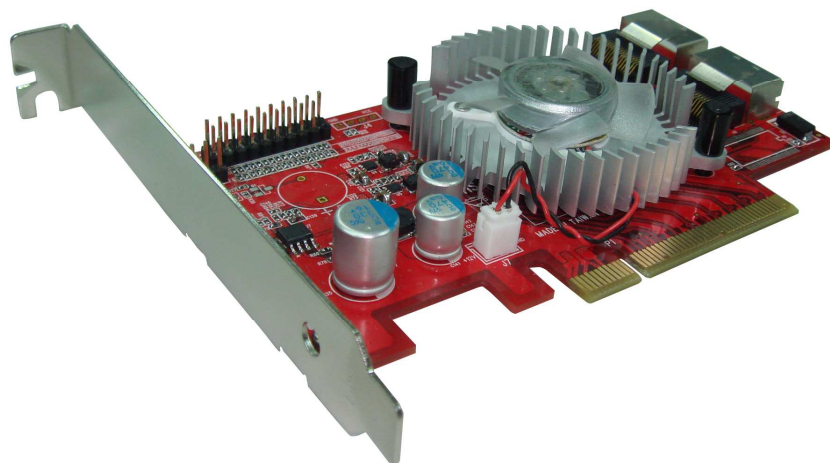# 6G SAS/SATA 8Ports PCIe 2.0 8 lane Host Adapter

User Manual   *English*

LINDY No. 51137

www.lindy.com

6G SATA/SAS 8Ports PCIe 2.0 8 lane Host Adapter

1. Introduction

Eight internal (or external) SAS/SATA ports with two SFF-8087(or SFF-8088) connectors in Low Profile PCI Express 2.0 x8 host adapter.

1.1. Features

o 40 Gbps transfer rate PCIe 2.0 8x interface card

o Eight internal (or external) SAS/SATA ports by two SFF-8087 (or SFF-8088) connectors.

o Compliant with PCI Express Specification, Revision 2.0

o Low Profile PCIe Form Factor

o Includes Low Profile and regular size PCIe two Brackets

o Supports main board PCI Express 2.0 x8, x16 host slot

o Serial Attached SCSI – 2.0 (SAS-2.0) specification compliant.

o Serial ATA Revision 3.0 (6 Gbps) specification compliant.

o Supports auto-detection of SAS or native SATA device.

o Supports PCIe Power Management: D0, D1, D3_cold, D3_hot.

o Supports 6 Gbps, 3 Gbps, & 1.5 Gbps SAS or SATA devices.

o Supports SAS Multiplexing.

o Supports SSC with independent control of each PHY.

o Supports wide SAS ports.

o Supports SAS Protocol (SSP), initiator and target mode.

o Supports SAS Management Protocol (SMP), initiator mode.

o Supports SATA Tunneling Protocol (STP), initiator mode including

> o Non-zero offset and non-sequential data delivery.
>
> o ATA and ATAPI commands
>
> o Native Commands Queuing (NCQ)

o Hot-plug capability.

o Fully RoHS compliant

1.2. Package Contents

Low Profile PCIe Host Adapter

Users Manual

Driver CD

2. Software Installation

2.1. Windows 7, Vista, XP Fresh OS installation

1. Power off the system. Insert SAS/SATA Card into an available x8 or x16 PCIe slot. Connect SATA HDD to one port of one SFF-8087 connector. Power up the system.
2. Put **Windows OS Setup CD** into the CD-ROM/DVD drive, and diskette including all directories and files under "**SAS\Marvell\M9485\Windows**" into the floppy drive 'A' of system. Go Step **3.** if OS is XP, but jump to Step **5.** if OS is Vista or Win7.
3. Press '**F6**' to initiate 'third party SCSI or RAID driver installation' at the beginning of XP text mode installation. Press **'S'** when screen message asks and '**Select**' & '**Enter**' to pick up '**Marvell 94XX SAS/SATA Controller 32bit (or 64bit) Drive**' for twice. Then you will see the driver files 'Marvell 94XX SAS/SATA RAID Controller' and 'Marvell RAID Virtual Device' will be extracted and copied to the system.
4. Then continue with the XP Text Mode Setup and go to Step **7.** after all the XP installation is finished.
5. Follow the instructions to load file by browsing '**Driver CD'** either from "**SAS\Marvell\M9485\Windows\amd64** or **i386**". Then select your choices of disk partition and other setup operations.
6. After setup examining disk, it will copy files from OS CD to the hard drive and restart the system. Then it will resume to finish the Win7/Vista installation.
7. Once the Fresh Installation has completed, go to Section **2.3.** to verify if the installation.

2.2. Adding the HBA to an existing Windows 7 / Vista / XP installation

1. Power off the system. Insert SAS/SATA Card into an available x8 or x16 PCIe slot. Power up the system.
2. During system boot-up, Windows will display the messages such as '**Found New Hardware Wizard**' (XP), '**Windows needs to install...**' (Vista), & '**Device driver software was not successfully installed**' (Win7).
3. '**Cancel**' and '**Right**' click '**My Computer**', select '**Manage**', then select '**Device Manager**'. Then go to '**SCSI and RAID Controller**'(XP) or '**Other Devices/RAID Controller**' (Vista & Win7) to start the manual driver installation by starting with 'Found New Hardware Wizard' then go to 'Hardware Update Wizard'.
4. Depending on system OS (32bit or 64bit), with 'Hardware Update Wizard', '**browse**' and '**select**' either one directory '**i386**' or '**amd64**' on '**Driver CD**' under the path '**\SAS\Marvell\M9485\Windows**' for installation.
5. Windows will display message to ask your "**Next**" or '**Install**' "**Marvell 94XX SAS/SATA RAID Controller**" & "**Marvell RAID Virtual Device**" (XP), or "**Marvell Storage Controller**" & "**Marvell 94XX SAS/SATA RAID Controller**" (Vista &

Win7). For **Win7**, please "**Restart System**" after "**Marvell Storage Controller**" installation.
6. Follow the instructions until '**Finish**'.
7. Once the Adding Installation has completed, go to Section **2.3.** to verify if it is correct or not.

2.3. Verifying The installation Windows 7 / Vista /XP

1. 'Right' click '**My Computer**', select '**Manage**', then select '**Device Manager**'.
2. Double click '**SCSI and RAID Controllers**' to check if any '**!**' or '**?**' marks in front of **'Marvell 94XX SAS/SATA RAID Controller**'.
3. If yes, please repeat steps 4 and 7 of section **2.2**. If no, installation is done.

3. J3, J6 & J7 Definition

J3 I2C pin header:
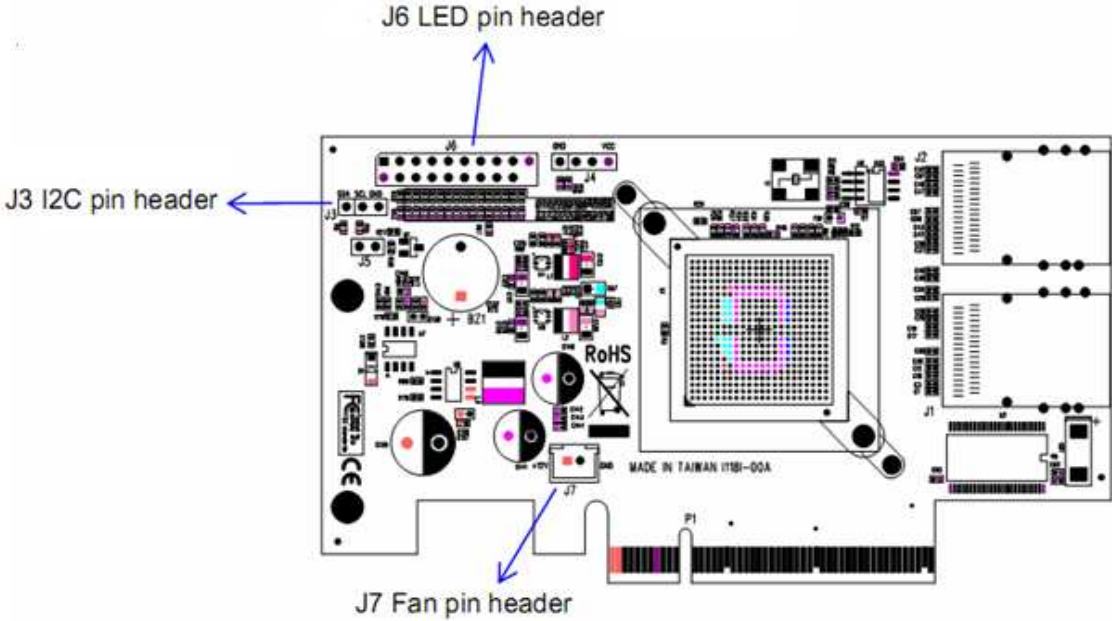
SDA	SCL	GND

J6 LED pin header:

GND	Port1 ACT	Port2 ACT	Port3 ACT	Port4 ACT	Port1 Fault	Port2 Fault	Port3 Fault	Port4 Fault	3.3V
3.3V	Port5 ACT	Port6 ACT	Port7 ACT	Port8 ACT	Port5 Fault	Port6 Fault	Port7 Fault	Port8 Fault	

J7 Fan pin header:

+12V	GND

Internal mini-SAS SFF-8087 x2 PCBA Location:

J6 LED pin header

J3 I2C pin header

J7 Fan pin header

External mini-SAS SFF-8088 x2 PCBA Location:

J6 LED pin header   J3 I2C pin header
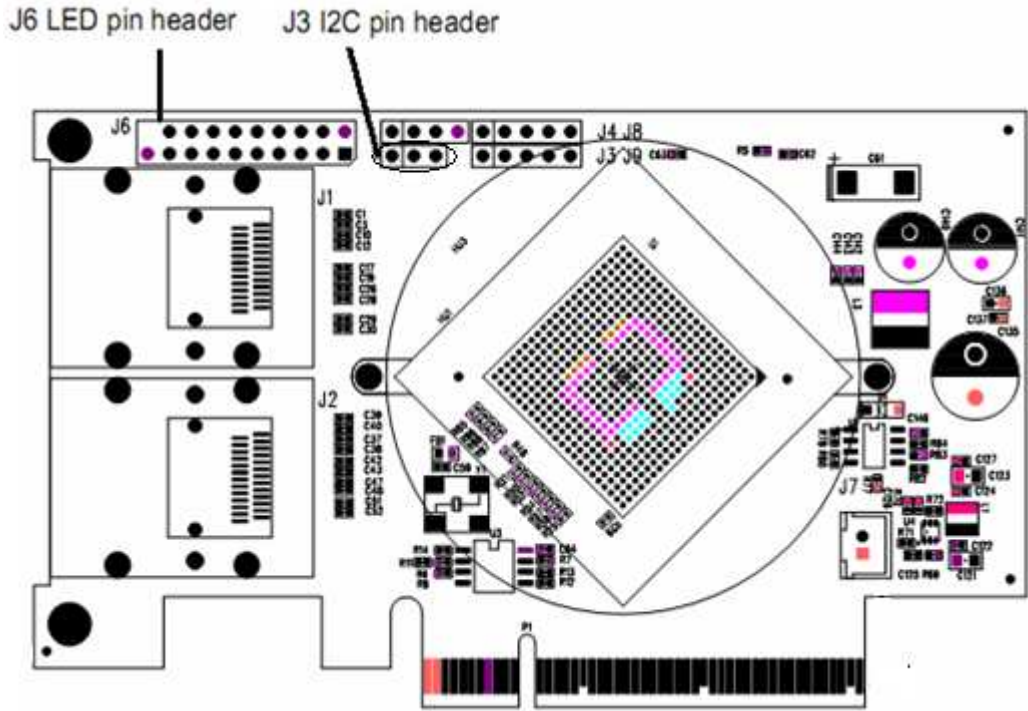
WEEE (Waste of Electrical and Electronic Equipment), Recycling of Electronic Products

United Kingdom

In 2006 the European Union introduced regulations (WEEE) for the collection and recycling of all waste electrical and electronic equipment. It is no longer allowable to simply throw away electrical and electronic equipment. Instead, these products must enter the recycling process.

Each individual EU member state has implemented the WEEE regulations into national law in slightly different ways. Please follow your national law when you want to dispose of any electrical or electronic products.

More details can be obtained from your national WEEE recycling agency.

Germany / Deutschland

Die Europäische Union hat mit der WEEE Direktive umfassende Regelungen für die Verschrottung und das Recycling von Elektro- und Elektronikprodukten geschaffen. Diese wurden von der Bundesregierung im Elektro- und Elektronikgerätegesetz – ElektroG in deutsches Recht umgesetzt.

Dieses Gesetz verbietet vom 24.März 2006 an das Entsorgen von entsprechenden, auch alten, Elektro- und Elektronikgeräten über die Hausmülltonne! Diese Geräte müssen den lokalen Sammelsystemen bzw. örtlichen Sammelstellen zugeführt werden! Dort werden sie kostenlos entgegen genommen. Die Kosten für den weiteren Recyclingprozess übernimmt die Gesamtheit der Gerätehersteller.

France

En 2006, l'union Européenne a introduit la nouvelle réglementation (WEEE) pour le recyclage de tout équipement électrique et électronique.

Chaque Etat membre de l' Union Européenne a mis en application la nouvelle réglementation WEEE de manières légèrement différentes. Veuillez suivre le décret d'application correspondant à l'élimination des déchets électriques ou électroniques de votre pays.

Italy

Nel 2006 l'unione europea ha introdotto regolamentazioni (WEEE) per la raccolta e il riciclo di apparecchi elettrici ed elettronici. Non è più consentito semplicemente gettare queste apparecchiature, devono essere riciclate.

Ogni stato membro dell' EU ha tramutato le direttive WEEE in leggi statali in varie misure. Fare riferimento alle leggi del proprio Stato quando si dispone di un apparecchio elettrico o elettronico.

Per ulteriori dettagli fare riferimento alla direttiva WEEE sul riciclaggio del proprio Stato.

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.