

# LSISAS9212-4i4e PCI Express to 6Gb/s SAS Host Bus Adapter

## QUICK HBA INSTALLATION

To install the LSISAS9212-4i4e, follow these steps:

1. **Unpack the HBA and inspect it for damage.** Unpack the HBA in a static-free environment. Remove the HBA from the antistatic bag and carefully inspect the device for damage. If you notice any damage, or if any component is missing, contact LSI or your reseller support representative.

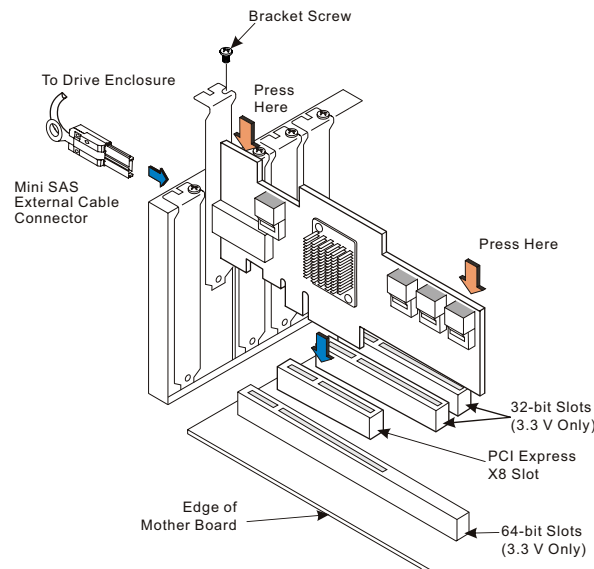


**Make a backup of your data before changing your system configuration.**

2. **Prepare the computer.** Turn off the computer and remove the power cord from the back of the power supply. Remove the cover from the chassis.

**WARNING:** Be certain to disconnect the computer from the power supply and from any networks before installing the controller card.

3. **Insert the LSISAS9212-4i4e in an available PCI Express slot.** Locate an empty PCI Express slot. Remove the blank bracket panel on the back of the computer that aligns with the empty PCI Express slot. Save the bracket screw, if applicable. Align the HBA to a PCI Express slot. Press down gently but firmly to properly seat the HBA in the slot. The following figure illustrates how to insert the HBA in a PCI Express slot.



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**NOTE:** The host adapter shape, size, and locations of components may vary from this illustration.

4. **Secure the bracket to the system's chassis.** Install the bracket screw, if applicable, or engage the system retention mechanism to secure the HBA to the system's chassis.
5. **Connect the serial cable(s) between the HBA and the serial hard disk drive(s) (HDD).** The LSISAS9212-4i4e has one external X4 mini-SAS connector and four internal 7-pin SATA connectors. For external connections, use a cable with an external mini-SAS connector (SFF-8088) on one end (to connect to the HBA) and the appropriate connector to attach to the SAS or SATA devices on the other end. For internal connections, use a cable with a 7-pin SATA connector on one end (to connect to the HBA) and the appropriate connector to attach to the SAS or SATA device on the other end. The previous figure illustrates the connector locations on the LSISAS9212-4i4e.



**Thank you for purchasing the LSISAS9212-4i4e PCI Express to 6Gb/s Serial Attached SCSI (SAS) Host Bus Adapter (HBA). Please take a few minutes to read this quick installation guide before you install the LSISAS9212-4i4e.**

**For more information about any topic covered in this guide, refer to the documents on the accompanying LSI 6Gb/s SAS/SATA Drivers, Utilities, and Documentation CD.**

The LSI HBA CD contains utility programs, device drivers for various operating systems, and the following LSI documentation:

- PCI Express to 6Gb/s Serial Attached SCSI (SAS) Host Bus Adapters User Guide
- Fusion-MPT™ Device Management User Guide
- LSI HBA technical product briefs



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- 6. Replace the cover, the power cord(s), and power up the system.** Replace the system's cover, reconnect the power cord(s), and any network cables. Turn on the power.

The LSISAS9212-4i4e hardware installation is complete. The next procedure is to install the appropriate operating system drivers.

## WINDOWS DRIVER INSTALLATION

Use the LSI\_GEN2.SYS driver for Windows® XP x86, or the LSI\_SAS2.SYS driver for Windows XP x64, Windows Server 2003 (x86, x64 or A64), Windows Server 2008 (x86, x64 or IA64), Windows Vista® (x86 or x64), Windows 7 or Windows Server 2008 R2.

To load the LSI\_SAS2.SYS or LSI\_GEN2.SYS miniport driver during a new Windows system installation, you can boot directly from the Microsoft installation CD-ROM. The Windows drivers are not interchangeable; however, the instructions are similar.

To install a new Windows operating system and its appropriate device driver, follow these steps:

1. Using another computer, copy the appropriate driver files supplied on the LSI Device Drivers & Utilities CD onto a disk. This disk is needed in Step 6. To create the driver disk, open the driver folder on the CD, and then open the folder for the version of the Windows operating system to be installed on the new system. Next, select all folders and files within the directory and copy them to the root directory of a blank disk.
2. Boot the computer from the Windows CD.
3. Press F6 when you see the message *Setup is inspecting your computer's hardware configuration* or when the Windows operating system prompts you for unsupported drivers.

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**NOTE:** You must press F6 for the new driver to be recognized. Otherwise, the system does not recognize the devices controlled by the driver during the Windows setup.

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4. Follow the instructions until a window appears displaying the message *Setup could not determine the type of one or more mass storage device...*
5. Select S to specify additional devices.
6. Follow the prompts. At the prompt to insert the hardware support disk, insert the Windows driver disk. Select the driver version appropriate for your system.
7. Follow the Windows installation procedure to complete the installation. Microsoft provides documentation with its installation CD.

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**NOTE:** Refer to the *Fusion-MPT Device Management User's Guide* for detailed configuration and installation instructions for all firmware and drivers.

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## LINUX™ DRIVER INSTALLATION

Consult the Linux ReadMe .txt file on the LSI Device Drivers & Utilities CD. LSI provides Open Source Drivers that you can implement in the following ways:

- Adding precompiled binaries to an existing installation using driver update disks or RPMs for selected distributions.
- Adding or updating the Fusion-MPT source in the Linux kernel for any distribution.

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## TECHNICAL SUPPORT

For assistance installing, configuring, or running the LSISAS9212-4i4e, contact LSI Technical Support:

**E-mail:** support@lsi.com

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+44.1344.413.115 (Europe)

**Web Site:** [www.lsi.com/support/](http://www.lsi.com/support/)

