

[Quick Start Guide]



QUICK START GUIDE

iSCSI HBA INSTALLATION



QLA®4050/4050C/4052C

QLE4060C/4062C

Purchasers of OEM products should consult with the OEM for support.

Support Headquarters

QLogic Corporation
12984 Valley View Road
Eden Prairie, MN 55344-3657

QLogic Web Site

www.qlogic.com

Technical Support Web Site

support.qlogic.com

Technical Support Email

support@qlogic.com

Technical Training Email

tech.training@qlogic.com

North American Region

Email

support@qlogic.com

Phone

+1 952-932-4040

Fax

+1 952-932-4018

Europe, Middle East, and Africa Region

Email

emeasupport@qlogic.com

Phone Numbers by Language

+353 1 6924960 — English
+353 1 6924961 — Français
+353 1 6924962 — Deutsch
+353 1 6924963 — Español
+353 1 6924964 — Português
+353 1 6924965 — Italiano

Asia Pacific Region

Email

apacsupport@qlogic.com

Phone Numbers by Language

+63-2-885-6712 — English
+63-2-885-6713 — Mandarin
+63-2-885-6714 — Japanese
+63-2-885-6715 — Korean

Latin and South America Region

Email

calasupport@qlogic.com

Phone Numbers by Language

+52 55 5278 7016 — English
+52 55 5278 7017 — Español
+52 55 5278 7015 — Português

Quick Start Guide

Installation Instructions

This Quick Start Guide describes how to install and configure your new QLogic SANblade[®] host bus adapter (HBA) and SANsurfer iSCSI HBA Manager application in four simple steps:

- Step 1. Verify the package contents.
- Step 2. Install the HBA hardware.
- Step 3. Install the HBA driver.
- Step 4. Install the SANsurfer iSCSI HBA Manager application.



Keep the HBA in the antistatic bag until installation. The HBA contains parts that can be damaged by electrostatic discharge (ESD). Before handling the HBA, use standard methods to discharge static electricity. Place the HBA on the bag when examining it. Retain the bag for future use.

System Requirements

Your system must have the functionality described in the following sections to support the QLogic SANblade HBA.

Minimum Software Requirements

- Windows[®] 2000: Service Pack (SP) 4 or later (QLA405x HBAs)
- Windows[®] Server[™] 2003 SP 1 or SP 2
- Windows XP Pro SP 1 or SP 2
- Windows PE 2.0, 2004, 2005
- Windows Vista (Business and Enterprise)
- Linux[™] Red Hat[®] Enterprise Linux 3.0 Update 7 or later (QLA405x HBAs), Linux Red Hat Enterprise Linux 4.0 Update 3 or later (QLA405x and QLE406xC HBAs)
- Novell SUSE Linux: SLES 8 Update 3 or later (QLA405x HBAs), SLES 9 Update 2 or later (QLA405x and QLE406xC HBAs), SLES 10 (QLA405x and QLE406xC HBAs)
- Solaris: Solaris 9 or later for Solaris SPARC and x86 (IA32 and x64)
- VMware[®] 3.0.1 (QLA405x HBAs)

NOTE: The operating systems listed above are applicable to all HBA models unless otherwise noted.

Minimum Hardware Requirements

- Empty PCI-X 32-bit or PCI-X 64-bit slot (QLA405x HBAs), 2.5-GHz PCI Express x4 slot (QLE406xC HBAs)
- PCI-X: 3.3-volt signaling (QLA4050 HBAs); 3.3V or 5-volt signaling (QLA4050/4052C HBAs)
- The correct media:
 - QLA4050: 62.5/125- μ M multimode fiber
 - QLA4050C/4052C, QLE4060C/4062C: UTP copper (Cat5E or Cat6)
- The correct connectors:
 - QLA4050: LC duplex
 - QLA4050C/4052C, QLE4060C/4062C: RJ45

Step 1. Verify the Package Contents

The QLogic HBA is shipped with the following items:

- QLogic SANblade HBA
- Low-profile bracket (not available in all models)
- Quick Start Guide (this document)
- SANsurfer[®] for SANblade iSCSI HBAs CD(s)








Step 2. Install the HBA Hardware

NOTE: When installing the QLogic HBA and driver in a Solaris system that does not already have QLogic HBAs or drivers installed, please install the QLogic Solaris driver before you install the QLogic HBA hardware. This allows Solaris to correctly bind the QLogic Solaris driver to the QLogic HBA. Failure to do so will require an additional system reboot after the driver is loaded.

To install the HBA hardware, you need to open the computer and locate the appropriate bus slot. If necessary, consult your computer system manual for instructions to remove the computer cover.

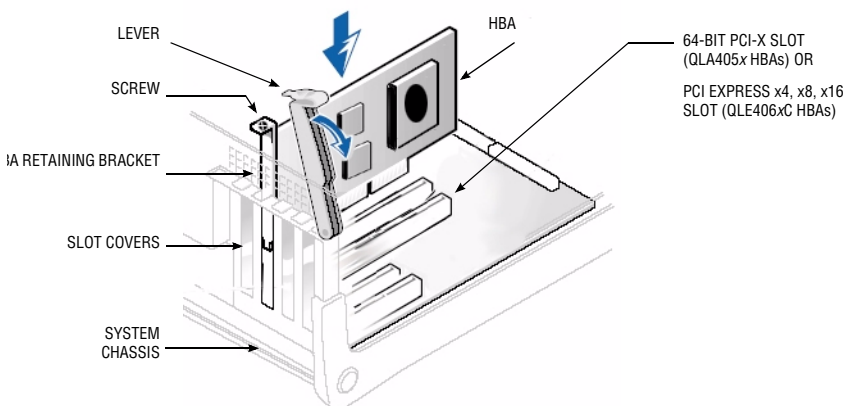
Depending on the HBA you are installing, the bus connector will look like one of the following samples:

	PCI-X	PCI Express
Optical	QLA4050 	N/A
	QLA4050C 	QLE4060C 
Copper	QLA4052C 	QLE4062C 

Follow these steps to install the HBA hardware:

1. Power off the computer, then disconnect the power cable.
2. Remove the computer cover and find an empty bus slot.

3. Pull out the slot cover (if any) by removing the screw or releasing the lever.
4. Grasp the HBA by the top edge and seat it firmly into the slot.
5. Refasten the HBA's retaining bracket using the existing screw or lever.
6. Close the computer cover.
7. Plug in the power cable and turn on the computer.



Sample motherboard and slots

Step 3. Install the HBA Driver

After you have completed the hardware installation and turned on the computer, insert the applicable **SANsurfer for SANblade iSCSI HBAs** CD into the CD-ROM drive, based on your operating system. Follow the instructions below for your operating system.

The latest drivers and documentation can be found on the QLogic Web site, www.qlogic.com.

Windows 2000 (QLA405x HBAs only)

NOTE: If an earlier version of the Windows 2000 driver is already installed, see the readme file for information about updating the existing driver.

Perform the following steps to install the HBA driver for Windows 2000:

1. Log onto the computer as Administrator.
2. Download and save the HBA driver to your hard drive:
 - a. Type or browse the path to the QLogic driver directory on the applicable **SANsurfer for SANblade iSCSI HBAs** CD. For example:


```
<CD-ROM Drive Letter>:\autoplay\iSCSI_HBA_drivers\Windows
```
 - b. Locate and launch (double-click) the executable (.exe) file containing the driver.
 - c. When prompted, type or browse to a location on your hard drive to store the driver files. Click **OK**.
3. Windows detects the newly installed device, then displays the **Found New Hardware with Ethernet Controller** message. Click **Next**.

4. In the **Install Hardware Device Drivers** dialog box, select **Search for a suitable driver for my device (recommended)**. Click **Next**.
5. In the **Locate Driver Files** dialog box, select **Specify a Location**. Click **Next**.
6. In the **Copy manufacture's files from:** dialog box, type or browse the path to the directory where you stored the driver files (see step 2). Click **OK**.
7. In the **Driver Files Search Results** dialog box, click **Next**.
8. In the **Completing the Found New Hardware Wizard** dialog box, click **Finish**.
9. The **Found New Hardware - Network Controller** message displays. The Found New Hardware Wizard program is launched to begin installing the driver for the *QLogic iSCSI HBA*. Click **Next**.
10. In the **Install Hardware Device Drives** dialog box, select **Search for a suitable driver for my device (recommended)**. Click **Next**.
11. Select **specify a location**. Click **Next**.
12. In the **Copy manufacture's files from:** field, type or browse the path to the to the directory where you stored the driver files (see step 2).
13. In the **Driver Files Search Results** dialog box, click **Next**.
14. When the **Digital Signature Not Found** dialog box displays, click **Yes**.
15. In the **Completing the Found New Hardware Wizard** dialog box, click **Finish**.
16. If following message displays, click **Yes**:

Your hardware settings have changed. You must restart your computer for these changes to take effect. Do you want to restart your computer now?

NOTE: If you are installing a dual-port QLA4052C HBA, steps 3–16 must be repeated for the second port.

Windows Server 2003

NOTE: If an earlier version of the Windows Server 2003 driver is already installed, see the readme file for information about updating the existing driver.

Perform the following steps to install the HBA driver for Windows Server 2003:

1. Log onto the computer as Administrator.
2. Download and save the HBA driver to your hard drive:
 - a. Type or browse the path to the QLogic driver directory on the applicable **SANsurfer for SANblade iSCSI HBAs** CD. For example:
`<CD-ROM Drive Letter>:\autoplay\iSCSI_HBA_drivers\Windows`
 - b. Locate and launch (double-click) the executable (.exe) file containing the driver.
 - c. When prompted, type or browse to a location on your hard drive to store the driver files. Click **OK**.
3. Windows detects the newly installed device, then displays the **Found New Hardware with Ethernet Controller** message.
4. Select **Install from a list or specific location (Advanced)**, then click **Next**.
5. Select the **Search for the best driver in these locations** option. Type or browse the path to the directory where you stored the driver files (see step 2), then click **Next**.
6. In the **Security Alert - Driver Installation** dialog box, click **Yes**.
7. In the **Completing the Found New Hardware Wizard** dialog box, click **Finish**.
8. The **Found New Hardware Wizard with Network Controller** message displays. The Found New Hardware Wizard program is launched to begin installing the iSCSI driver for the *QLogic iSCSI HBA*.
9. Select **Install from a list or specific location (Advanced)**. Click **Next**.
10. Select the **Search for the best driver in these locations** option. Type or browse the path to the directory where you stored the driver files (see step 2).

-
11. In the **Hardware Installation - Windows Logo** dialog box, click **Continue Anyway**.
 12. In the **Completing the Found New Hardware Wizard** dialog box, click **Finish**.

Windows Vista

Initial Operating System Installation with the HBA Driver as Boot or as an Add-On

Perform the following steps to install the Windows Vista operating system and the HBA driver (as boot as or as an add-on):

1. Start the Windows installation procedure using the Setup CD.
2. The following message displays:
Which type of installation do you want?
Select **Custom (Advanced)**.
3. The following message displays:
Where do you want to install Windows?
Select **Load Driver**.
4. Download and save the HBA driver to your hard drive:
 - a. Type or browse the path to the QLogic driver directory on the applicable **SANsurfer for SANblade iSCSI HBAs** CD. For example:
`<CD-ROM Drive Letter>:\autoplay\iSCSI_HBA_drivers\Windows`
 - b. Locate and launch (double-click) the executable (.exe) file containing the driver.
 - c. When prompted, type or browse to a location on your hard drive to store the driver files. Click **OK**.
5. At the Load Driver screen, type or browse the path to the directory where you stored the driver files (see step 4), then click **OK**.
6. Click **Next** to continue with the standard installation procedure.

Adding the HBA Driver to an Existing Operating System

Perform the following steps to add the HBA driver to an existing operating system:

1. After installing the iSCSI HBA and restarting your computer, download and save the HBA driver to your hard drive:
 - a. Type or browse the path to the QLogic driver directory on the applicable **SANsurfer for SANblade iSCSI HBAs** CD. For example:
`<CD-ROM Drive Letter>:\autoplay\iSCSI_HBA_drivers\Windows`
 - b. Locate and launch (double-click) the executable (.exe) file containing the driver.
 - c. When prompted, type or browse to a location on your hard drive to store the driver files. Click **OK**.
2. Windows detects the newly installed device and displays the **Found New Hardware** message. The Hardware Update Wizard program starts installing a device driver for the newly installed device.
3. Select the **Driver** tab, then click **Update Driver** to start the Hardware Update Wizard.
4. Select **Browse my computer for driver software**, then click **Next**.
5. Select **Let me pick from a list of device drivers on my computer**, then click **Next**.
6. Click **Have Disk**.
7. On the Install from Disk screen, select the directory where you stored the driver files (see step 1), then click **OK**.
8. When the Update Driver Software Wizard/Select QLogic iSCSI Adapter window displays, click **Next**.
9. Click **Close** on the Update Driver Software Wizard window.

Linux (Driver and RAMDisk Image)

The following installation instructions are applicable to SLES 9 (or later) or Red Hat Enterprise Linux 4.0 (or later). For more information and driver installation instructions for other Linux operating system versions, see the README.txt file associated with the driver.

1. Download the latest driver file `qla4xxx-vx.yy.zz.tar.gz` from the **SANsurfer for SANblade iSCSI HBAs** CD. The driver is located in the following directory: `autoplay\iscsi_HBA_drivers\Linux`
2. Type the following to uncompress the tar file:

```
# tar -xvzf *.gz
```
3. Type the following to compile the driver:

```
# cd x.yy.zz  
# ./extras/build.sh install
```
4. Type the following to load the driver:

```
# modprobe -v qla4xxx
```
5. Optionally, type the following to compile the driver and create a RAMDisk image that will automatically load the driver when the system is rebooted:

```
# ./extras/build.sh initrd
```

To unload the driver, type the following:

```
# modprobe -r qla4xxx
```

Solaris

NOTE: If an earlier version of the Solaris driver is already installed, you must un-install this driver before installing the latest driver. For more information, see the section in the README.txt file about removing the driver.

1. Login to the Solaris system as root.
2. Type the following command to uncompress the package:

```
uncompress <directory containing package file>/qla4xxx.Z
```
3. Type the following command to start the package installation:

```
pkgadd -d <directory containing package file>/qla4xxx
```
4. Follow and answer the prompts displayed to finish the installation.
 - a. When the **package selection** prompt displays, enter the number corresponding to the driver package applicable to the Solaris version installed on the target system.
 - b. At the **driver destination** prompt, press ENTER to place the driver in the default directory, which is usually `/kernel/drv`.
 - c. When prompted to **continue and to complete the QLogic driver installation procedure**, press Y.

For more help, see the Solaris man page on `pkgadd`.
5. After the `pkgadd` program completes, type the following command to reboot the system:

```
reboot -- -r
```

NOTE: Modify the system `sd.conf` file (`/kernel/drv/sd.conf`) for the operating system to recognize new targets. QLogic recommends adding up to 255 targets. The QLogic SANblade HBA supports up to 128 devices.

To unload the driver, perform the following steps:

1. Login to the Solaris system as root.
2. Type the following command:

```
pkgrm QLA4xxx-0
```
3. Type the following command to reboot the system:

```
reboot -- -r
```

Step 4. Install the SANsurfer iSCSI HBA Manager Application

To install the SANsurfer iSCSI HBA Manager application:

1. Insert the applicable **SANsurfer for SANblade iSCSI HBAs CD** into your CD-ROM drive (if the auto-run screen does not appear, open the **start_here** html page with your browser.)
2. Select your operating system.
3. Click **I Accept** on the License Agreement.
4. Click to select the specific version of your operating system.
5. Select the SANsurfer iSCSI HBA Manager install file.
6. Follow the on-screen directions and installation prompts.

Congratulations! You have successfully installed your QLogic HBA and management application!

- To obtain the most current drivers, management applications, user instructions, and documentation, please visit the QLogic website at www.qlogic.com/support and download the latest versions.
- The following section contains additional information about the SANblade QLogic HBA, including the LED scheme, troubleshooting, warranty, technical support and certification information.

HBA LEDs

Table 1 lists the LED configuration for the QLogic QLA4050 HBA.

Table 1. QLogic QLA4050 HBA LED Scheme

Green LED	Activity
●	Link established

Table 2 lists the LED configuration for the QLogic QLA4050C/4052C and QLE4060C/4062C HBAs.

Table 2. QLogic QLA4050C/4052C and QLE4060C/4062C HBA LED Scheme

Green LED	Activity
●	Link established
Flashing	Receive/transmit activity

Troubleshooting and Technical Support

The QLogic knowledge database contains troubleshooting information and documentation for the QLogic SANblade HBAs. The knowledge base is available to all users at <http://support.qlogic.com>.

For technical support, visit our web site support.qlogic.com, email us at support@qlogic.com, or call at 952-932-4040.

Warranty

The QLogic SANblade HBA comes with a standard three year QLogic warranty. Please check the QLogic Web site at <http://support.qlogic.com/support/warranty.asp> for warranty details.

Laser Safety

FDA Notice

This product complies with DHHS Rules 21CFR Chapter I, Subchapter J. This product has been designed and manufactured according to IEC60825-1 on the safety label of laser product.

Class 1 Laser Product
Appareil laser de classe 1
Produkt der Laser Klasse 1
Luokan 1 Laserlaitte

Caution—Class 1 laser radiation when open
Do not view directly with optical instruments

Attention—Radiation laser de classe 1
Ne pas regarder directement avec des instruments optiques

Vorsicht—Laserstrahlung der Klasse 1 bei geöffneter
Abdeckung

Direktes Ansehen mit optischen Instrumenten vermeiden

CLASS I LASER PRODUCT

Agency Certification QLogic SANblade HBAs

The following sections contain a summary of EMC/EMI test specifications performed on the following QLogic SANblade HBAs to comply with radiated emission, radiated immunity, and product safety standards:

- QLA4050 (IS0710404)
- QLA4050C (IS0710407)
- QLA4052C (IS0710403)
- QLE4060C/QLE4062C (IX4010402)

EMI and EMC Requirements

FCC Part 15 compliance: Class B

FCC compliance information statement: 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 operation.

ICES-003 compliance: Class B

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

CE Mark 89/336/EEC EMC Directive compliance:

EN55022:1998/CISPR22:1997—Class B

EN55024:1998

Immunity Standards

- IEC61000-4-2 : ESD
- IEC61000-4-3 : RF Electro Magnetic Field
- IEC61000-4-4 : Fast Transient/Burst
- IEC61000-4-5 : Fast Surge Common/ Differential
- IEC61000-4-6 : RF Conducted Susceptibility
- IEC61000-4-8 : Power Frequency Magnetic Field
- IEC61000-4-11 : Voltage Dips and Interrupt
- IEC61000-3-2 : Harmonic Current Emission
- IEC61000-3-3 : Voltage Fluctuation and Flicker

VCCI compliance: Class B

AS/NZS CISPR22 compliance: Class B

CNS 13438 compliance: Class B

MIC compliance: Class B

- Korea MIC Class B Certified



Product Name/Model
Certification holder
Manufactured date
Manufacturer/Country of origin

iSCSI HBA
QLogic Corporation
Refer to date code listed on product
QLogic Corporation/USA

B class equipment (Household purpose info/telecommunications equipment)	As this equipment has undergone EMC registration for household purpose, this product can be used in any area including residential area.
---	--

- Korean Language Format— Class B

B급 기기 (가정용 정보통신기기)

이 기기는 가정용으로 전자파적합등록을 한 기기로서
주거지역에서는 물론 모든지역에서 사용할 수 있습니다.

Product Safety Compliance

UL, cUL product safety compliance:

UL60950

CSA C22.2 No.60950

Class 1 Laser Product per DHHS 21CFR (J)

73/23/ECC low voltage directive:

TUV:

-EN60950-1:2001

-EN60825-1

-EN60825-2

© 2005–2007 QLogic Corporation. QLogic, the QLogic logo, the Powered by QLogic logo, SANbox, SANsurfer, and SANsurfer Management Suite are registered trademarks or trademarks of QLogic Corporation. All other brands and product names are trademarks or registered trademarks of their respective owners. Information supplied by QLogic is believed to be accurate and reliable. QLogic Corporation assumes no responsibility for any errors in this brochure. QLogic Corporation reserves the right, without notice, to make changes in product design or specifications.



QLogic Corporation
949.389.6000

26650 Aliso Viejo Parkway
www.qlogic.com

Aliso Viejo, CA 92656

IS0054501-00 C