



Sun StorageTek™ PCI Express Enterprise 4 Gb FC Host Bus Adapters Emulex Release Notes

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Sun StorageTek PCI Express Enterprise 4 Gb FC Host Bus Adapters Emulex Release Notes

This document contains the latest supplementary information for the Sun StorageTek™ PCI Express Enterprise 4 Gb Fibre Channel (FC) Single and Dual Port Host Bus Adapter (HBA) (SG-XPCIE1FC-EM4, SG-XPCIE2FC-EM4). Use it with the latest version of the *Sun StorageTek PCI Express Enterprise 4 Gb FC Host Bus Adapters Emulex Installation Guide* (part number 819-4810-10 or later).

It contains the following sections:

- [“Features in This Release” on page 2](#)
- [“Solaris 10 Operating Systems” on page 2](#)
- [“Red Hat Enterprise Linux and SuSE Linux Enterprise Server Systems” on page 5](#)
- [“Windows 2000 and Windows Server 2003 Systems” on page 6](#)

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Features in This Release

This HBA consists of a single-slot PCI Express bus expansion board that connects a 4-lane PCI Express bus to either one or two optical ports. For dual port adapters, the two channels operate independently; each supports a separate FC bus operating at 4 Gbits/sec. Each channel is also backward-compatible with 2.125 Gbits/sec and 1.0625 Gbits/sec FC ports.

Small-Form Factor (SFF) LC-duplex connectors are used to connect to the external FC ports. The FC bus operates in short-wave, multi-mode. One Emulex Zephyr ASIC is used to support the one or two independent FC ports.

Supported Operating Systems

You can use the Sun StorageTek PCI Express Enterprise 4 Gb FC Single and Dual Port HBA with the following operating systems (OSs):

- Solaris 10

To use the adapter with this OS, you must use the Sun driver as described in [“Solaris 10 Operating Systems” on page 2](#).

- Red Hat Enterprise Linux and SuSE Linux Enterprise Server OSs

To use the adapter with these OSs, you must use the Emulex driver as described in [“Red Hat Enterprise Linux and SuSE Linux Enterprise Server Systems” on page 5](#)

- Windows 2000 and Windows Server 2003

To use the adapter with this OS, you must use the Emulex driver as described in [“Windows 2000 and Windows Server 2003 Systems” on page 6](#).

Solaris 10 Operating Systems

This section contains the following information about using the Sun StorageTek PCI Express 4 Gb FC Single and Dual Port HBA with the Solaris OS:

- [“System Requirements” on page 3](#)
- [“Known Issues and Bugs” on page 4](#)

System Requirements

The following hardware and software are qualified with the Solaris 10 OS.

Minimum OS Levels

- Solaris 10 for SPARC and x64/x86 OS with the Solaris 10 recommended patch cluster.

For required packages and patches, consult the Installation Guide 819-4810-xx

Host Platform Support

- Sun Fire T1000/T2000
- Sun Fire X2100 server (x64)

Storage System Support

- Sun StorEdge™ 3510 and 3511 FC Arrays
- Sun StorEdge™ 6020, 6120, and 6320 Arrays
- Sun StorEdge™ 6130 Array
- Sun StorEdge 6920 system
- Sun StorEdge C4 tape library
- Sun StorEdge L25, L100 tape libraries
- Sun StorEdge L500 tape library
- Sun StorEdge L180, L700 tape libraries
- Sun StorEdge L5500, L8500 tape libraries

Fibre Channel Switch Support

FC switch support is shown in [TABLE 1](#).

TABLE 1 Fibre Channel Switch Support

Switch	Minimum Firmware Version
QLogic SANbox 5200 2 Gb switch	4.2.05
Sun StorEdge Network 2 Gb switch	4.2.05
Sun StorEdge Network 2 Gb Brocade SilkWorm 3200 and 3800 switches	3.2.0a

TABLE 1 Fibre Channel Switch Support (*Continued*)

Switch	Minimum Firmware Version
Sun StorEdge Network 2 Gb Brocade SilkWorm 3250 and 3850 switches	4.4.0e
Sun StorEdge Network 2 Gb Brocade SilkWorm 3900 switch	4.4.0e
Sun StorEdge Network 2 Gb Brocade SilkWorm 12000 and 24000 Core Fabric switches	4.4.0e
Sun StorEdge Network 4 Gb Brocade SilkWorm 4100 switch	5.0.3
Sun StorEdge Network 4 Gb Brocade SilkWorm 48000 and 200E	5.0.3
Sun StorEdge Network 2 Gb McDATA Sphereon 4300 switch	7.01
Sun StorEdge Network 2 Gb McDATA Sphereon 4500 switch	7.01
Sun StorEdge Network 2 Gb McDATA Intrepid 6064 director	7.01
Sun StorEdge Network 2 Gb McDATA Intrepid 6140 director	7.01

Known Issues and Bugs

The following issues and bugs have not been resolved in this release.

Known Issues

The following issue has been identified in this release and will be fixed in the next Solaris 10 Update release:

None.

Known Bugs

The following bugs are under investigation at the time of the release:

- **CR 6352189:** OBP>probe gives unexpected output for unmapped channel/SE35xx

Description: OBP> probe-scsi-all gives the unexpected output to the unmapped channel of SE3511 (m31).

This channel 0 of SE3511 is connected directly (DAS) to a port of Summit-E HBA (FCcode 5.01a9) without switch and no LUN is mapped to this channel 0 yet.

Workaround: Send the probe-scsi-all command a second time (without an intervening reset). A valid list of attached devices will be displayed.

Red Hat Enterprise Linux and SuSE Linux Enterprise Server Systems

The Linux drivers and HBA diagnostic and management utilities supporting the Sun StorageTek Enterprise PCI Express 4 Gb FC Single and Dual Port HBAs with the Linux OS are available for download at the Sun designated page at:

<http://emulex.com/ts/docoem/sun/summit.html>

Drivers that support the Linux 2.4 and 2.6 kernels are provided. The Linux 2.4 kernel is used in Red Hat Enterprise Linux (RHEL) 3. The Linux 2.6 kernel is used in RHEL 4 and SLES 9. Consult the Sun hardware platform documentation to verify which Linux releases are supported.

This section contains the following information about using the StorageTek Enterprise PCI Express 4 Gb FC Single and Dual Port HBAs in Red Hat Enterprise Linux and in SuSE Linux Enterprise operating systems:

- System Requirements below
- [“Known Issues and Bugs” on page 6](#)

System Requirements

The following hardware and software are qualified with the Red Hat Enterprise Linux and with the SuSE Linux Enterprise server systems:

Minimum OS Levels

- Red Hat Enterprise Linux (RHEL) 3
- Red Hat Enterprise Linux (RHEL) 4
- SuSE Linux Enterprise Server (SLES) 9

Host Platform Support

- Sun Fire X2100 server (x64)

Storage System Support

The storage systems supported for Red Hat Enterprise Linux and SuSE Linux Enterprise Server Systems are the same as those listed for [“Solaris 10 Operating Systems”](#) on page 2.

Fibre Channel Switch Support

FC switch support is shown in [TABLE 1](#). It is the same as those listed for Solaris 10 Operating Systems on page [“Fibre Channel Switch Support”](#) on page 3.

Known Issues and Bugs

There are no known HBA issues or bugs for Linux operating systems at this time.

Windows 2000 and Windows Server 2003 Systems

The host adapter device driver for running the Windows 2000 and Windows Server 2003 OS is available for download at the Emulex website:

<http://emulex.com/ts/docoem/sun/summit.html>

This section contains the following information about using the StorageTek Enterprise PCI Express PCI Express 4 Gb FC Single and Dual Port HBAs in Windows 2000 and Windows Server 2003 operating systems:

- [“System Requirements”](#) on page 7
- [“Known Issues and Bugs”](#) on page 7

System Requirements

The following hardware and software are qualified with the Windows 2000 and Windows Server 2003 OSs:

Host Platform Support

- Sun Fire X2100 server (x64)

Storage Systems Support

The storage systems supported for the Windows 2000 and the Windows Server 2003 operating systems are the same as those listed for [“Solaris 10 Operating Systems” on page 2.](#)

Fibre Channel Switch Support

The FC switches supported for the Windows 2000 and Windows Server 2003 operating systems are the same as those listed for Solaris 10 Operating Systems on page [“Fibre Channel Switch Support” on page 3.](#)

Known Issues and Bugs

There are no known HBA issues or bugs for the Windows 2000 and Windows Server 2003 operating systems at this time.

Service Contact Information

If you need help installing or using this product in the United States, call 1-800-USA-4SUN, or go to:

<http://www.sun.com/service/contacting/index.html>