

release notes

hp StorageWorks DS-KGPSA-CB, FCA2101, and FCA2355 host bus adapters

Second Edition (April 2003)

Part Number: AV-RTJXB-TE

This document contains late-breaking and supplemental information for the DS-KGPSA-CB and FCA2101 64-bit PCI to Fibre Channel host bus adapters, and the FCA2355 dual channel PCI host bus adapter for Windows Server 2003, Windows 2000, Windows NT.

For the latest version of these Release Notes and other host bus adapter documentation, access the HP storage website at: <http://www.hp.com/country/us/eng/prodserv/storage.html>.



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DS-KGPSA-CB, FCA2101, and FCA2355 Host Bus Adapters Release Notes
Second Edition (April 2003)
Part Number: AV-RTJXB-TE

Release Notes Contents

These release notes contain information for the:

- DS-KGPSA-CB, 64-bit PCI to Fibre Channel Host Bus Adapter (HBA)
- FCA2101 64-bit PCI to Fibre Channel HBA
- FCA2355 dual channel PCI HBA

These HBAs are high-performance PCI option modules that connect to devices attached through either a hub-based optical Fibre Channel arbitrated loop or a switch based optical Fibre Channel fabric. These HBAs support only short wave multi-mode connections.

These release notes include all known issues or restrictions for using the HBAs within a system configuration. These release notes cover the following major topics:

- [Supported Systems and Requirements](#), page 4
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- [Configuration Information](#), page 6
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Supported Systems and Requirements

These HBAs are supported on HP Proliant ML, Proliant DL, and Proliant BL server platforms that:

- Meet the voltage and minimum PCI slot requirements listed in [Table 1](#).
- Passed Windows Server 2003, Windows 2000 SP2 and SP3, and Windows NT SP 6A compatibility testing with the HBAs as of the date on these release notes.

For other supported servers, refer to the storage website at:

<http://www.hp.com/country/us/eng/prodserv/storage.html>.

See the [Restrictions](#) section in these release notes for known device restrictions.

[Table 1](#) describes the voltage and minimum PCI slot requirements for the HBAs and for Windows platforms.

Note: Refer to your HP Proliant server PCI slot specifications to determine whether your server and the HBA are compatible.

Table 1: Voltage and Minimum PCI Slot Requirements

HBA Part Number	HBA Voltage Requirement	HBA PCI Signaling Voltage	PCI Slot Type
FCA2355 308540-B21	3.3 VDC	3.3 volt, 5 volt Tolerant	Universal PCI connector
FCA2101 245299-B21	3.3 VDC	3.3 volt, 5 volt Tolerant	Universal PCI connector
DS-KGPSA-CB 176479-B21	5 VDC	3.3 volt, 5 volt Tolerant	Universal PCI connector

Supported Firmware and Drivers

Table 2 describes the associated components and their firmware and driver revisions that are qualified with the HBA.

Table 2: Supported Storage and Interconnect Devices

Component	Firmware/Driver Versions
FCA2355 HBA 308540-B21	cdb3.82a1-1.61a2.dwc
FCA2101 HBA 245299-B21	rcb382a1-1.61a2.dwc
64-bit PCI to Fibre Channel HBA DS-KGPSA-CB 176479-B21	ddb382a1-1.61a2.dwc
Windows Server 2003 Driver	driver 5-4.82a14
Windows 2000 Driver	driver 5-4.82a14
Windows NT Driver	driver 4-4.82a14
FW Upgrade Util X86DNLD.exe	8.7a

Fibre Channel Configurations

For the latest device drivers and firmware information for switches, cables, and hubs, please check the HP website at:

<http://www.hp.com/country/us/eng/prodserv/networking.html>.

Or, refer to the *HP StorageWorks SAN Design Reference Guide*. This document is available on the HP website at:

<http://h18006.www1.hp.com/products/storageworks/san/documentation.htm>.

Configuration Information

- Supports the KGPSA-CB (176479-B21), the FCA2101 (245299-B21), and the FCA2355 (308540-B21) on the same host
- For Fibre Channel device configuration information, refer to the *HP StorageWorks SAN Design Reference Guide*. This document is available on the HP website at:

<http://h18006.www1.hp.com/products/storageworks/san/documentation.html>.

Choose **SAN Design Reference guide**.

Restrictions

The remainder of this document contains the restrictions for the HBA.

Windows Server 2003, Windows 2000, and Windows NT Restrictions

The following restrictions apply:

- These HBAs are not supported on Alpha platforms running Windows Server 2003, Windows 2000, and Windows NT 4.0 platforms.
- These HBAs support boot functionality as specified in SAN Design Reference Guide, available on the HP website at:

<http://h18006.www1.hp.com/products/storageworks/san/documentation.html>.

Registry Settings

Table 3 lists the Windows NT 4.0, Windows 2000, and Windows Server 2003 registry settings, from the *OEMSetup.inf* file that is shipped with the HBA kit.

Additional registry settings are required as a function of the configuration in which the HBA is installed. The additional registry parameter settings are automatically added when the Software Solution kits are installed and also when your specific application, such as Secure Path or Enterprise Backup Solution (EBS), is installed. Consult your Software Solution kit for this information.

Table 3: Registry Parameters

Parameter	Setting	Comments
EnableDPC	1	
ElsRetryCount	6	
NodeTimeout	60	Standard for transparent failover mode
ScanDown	1	Valid for Arbitrated Loop Configurations
Simulate Device	1	
Topology	2	FC-AL first, then attempt PT-PT
Emulex Option	0xAA00	
ErrRetryMax	0	
CrfIntrpt	1	
CrfMsCnt	1	
CrfRspCnt	8	
Number of Requests	Dec. Value = 50	
Maximum SG List	Dec. Value = 33	
Reset_TPRLO	1	

Known Issues

FCA2355 and MSA1000

The FCA2355 HBA is not supported on the Modular SAN Array 1000 (MSA1000).

Incorrect PCI Address Information

The 5-4.82a14 version of the *cpqkgpsa.sys* driver returns incorrect PCI address information. The device number is always returned as 0 instead of the correct value. The storage agents use the PCI information to look up the slot number. If the PCI information is incorrect, the agents will report a slot of 255. In addition, you cannot shutdown the slot using the PCI Hot Plug utility, since the agent does not know to let go of the driver.

For a controller in slot 4, the PCI address is returned as bus = 5, device = 0 and function = 0. The correct values should be bus = 5, device = 4 and function = 0. This problem does not occur with the 5-4.82a9 version of the driver.

PCI Hot Plug Function Problems

The PCI Hot Plug utility reports that the device is still in use and cannot be hot-plugged.

The **TotalSenseDataBytes** registry key was added to the 4.82a14 version of the driver. Updating the driver to 4.82a14 causes the device information to be false. The problem only occurs when the driver is updated.

To fix this problem, uninstall the currently installed driver. When the 4.82a14 driver is installed, the return of the function call works as expected and the problems do not occur.

However, by uninstalling and then installing the driver, all the registry parameters that have been altered or added by a Software Solution kit or by Secure Path (if installed) are deleted from the registry parameter.

Therefore, after uninstalling and installing the driver, you must run the Software Solution kit and the Secure Path installations again.

FCA2355 Dual Channel PCI Host Bus Adapter Installation Guide Correction

On page 5-10 of the *HP StorageWorks FCA2355 Dual Channel PCI Host Bus Adapter Installation Guide*, part number AA-RTJWA-TE, in the Drive Parameters table on page 5-10, the correct values for **Topology=n** are as follows:

Value 0 through 3. Default = 2.

0 = FC_AL (loop), 1 = PT-PT Fabric, 2=FC-AL first, then attempt PT-PT, 3=PT-PT first, then attempt FC-AL. When set to 1, FLOGI, SCR/RSCN and NameServer queries are employed.