

### Overview

The HP 4Gb PCI-Express Fibre Channel Host Bus Adapters (HBAs) support customers using HP ProLiant servers with PCIe I/O slots running a broad range of operating systems. These Fibre Channel HBAs are second generation products that support this new higher speed I/O bus architecture and provide customers the ability to use it to connect to their HP arrays.

For supported Fibre Channel SAN Switches, please consult the SAN Design Reference Guide at the following URL:  
<http://h18006.www1.hp.com/products/storageworks/san/documentation.html>

### Models

		Part Number
<b>Brocade</b>	HP 41B 4Gb PCIe FC HBA HP Single Channel 4Gb PCIe Fibre Channel Host Bus Adapter	AP767B
	HP 42B 4Gb Dual-Port PCIe FC HBA HP Dual Channel 4Gb PCIe Fibre Channel Host Bus Adapter	AP768B
<b>Emulex</b>	HP FC2142SR HP 42B 4Gb Dual-Port PCIe FC HBA	A8002B
	HP FC2242SR Dual Channel 4Gb PCIe HBA HP Dual Channel 4Gb PCIe Fibre Channel Host Bus Adapter	A8003B
	HP FC1142SR 4Gb PCIe HBA HP Single Channel 4Gb PCIe Fibre Channel Host Bus Adapter	AE311A
<b>QLogic</b>	HP FC1242SR Dual Channel 4Gb PCIe HBA HP Dual Channel 4Gb PCIe Fibre Channel Host Bus Adapter	AE312A

### What's New

- New RoHS compliant HP 4Gb Fibre Channel HBAs

**NOTE:** Restriction of Hazardous Substances Directive or RoHS is a directive adopted by the European Union that restricts the use of certain hazardous materials in the manufacture of various types of electronic and electrical equipment. The RoHS compliant products with new part numbers listed in this document are functionally equivalent to the corresponding products with old part numbers and are fully interchangeable.

### Overview

#### At A Glance

Industry leading PCI-Express based solutions for Fibre Channel

- **Agility:** Adds 4Gb PCI Express single and dual channel I/O connectivity to HP storage arrays.
  - **Throughput:** 4 Gbps FC increases aggregate throughput rate to 800 MBps per channel in full-duplex mode.
  - **Performance:** PCI-Express host bus interface for high throughput applications.
  - **High Transfer Rate:** Minimum 150,000 IOPS per channel delivers high I/O transfer rates for storage applications.
  - **Management:** Enterprise wide management capabilities.
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#### Warranty

3-0-0 Three-year parts exchange warranty. Additional warranty protection can be purchased.

HP Global Services provides a three-year, limited warranty, fully supported by a worldwide network of resellers and service providers toll-free 7 x 24 hardware technical phone support for the duration of the warranty. In addition, available service offerings include a full range of HP Care Pack packaged hardware and software services.

**NOTE:** Certain restrictions and exclusions apply. Consult the [HP Customer Support Center](#) for details.

### Service and Support, HP Care Pack, and Warranty Information

#### Service and Support

##### **Technology Services for increased uptime, productivity and ROI**

TRUST HP storage technology experts for every level of service and support. Our integrated portfolio of Services for storage help customers reduce costs, optimize data, streamline storage management, and improve backup and recovery. Capitalizing on HP Storage Systems' capabilities requires a service partner who understands your increasingly complex environment. Team with the people who know HP infrastructure hardware and software best—the experienced professionals at HP Services.

##### **Protect your business beyond warranty**

Warranty protects against manufacturer defects, however warranty uplifts, such as HP Care Pack Services protect the business—by reducing downtime risks and providing operational consistency for mission-critical and standard business computing.

##### **What HP Storage Technology Services can do for you**

HP Storage Technology Services can help you design, deploy, test, integrate, support, and manage IT and infrastructure solutions. HP storage lifecycle support services offers a full spectrum of customer care—from technology support to complex migrations to complete managed services.

##### **Choose the right level of support, deployment and integration services**

Leverage the full strength of HP Technology Services - customers can trust the services professionals at HP to work collaboratively with them, putting our strategic and technical know-how to work across their entire infrastructure.

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#### Support

- HP Host Bus Adapters (HBA) take on the support level of the HP server in which it is installed.
- For HBA s installed outside of an HP environment, 3-Year HP Support Plus 24 is recommended
- For a higher return on your storage investment, HP Support Plus 24 provides integrated hardware and software support services designed specifically for your technology.
- Available 24x7, this 3-year combined reactive support option delivers onsite hardware support and over-the-phone software support around-the-clock.
- Improve uptime with responsive hardware and software services
- Enjoy consistent service coverage across geographically dispersed sites
- Update HP software at a predictable cost
- Increase customer satisfaction—with no interoperability gaps

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#### Installations

- HP Installation is included with the HP Server install if purchased together. If Host Bus Adapters (HBA) is ordered as an add-on to an existing HP Server or for installation into a non-HP Server, HP Installation Service is recommended. HP Hardware Installation provides basic installation of your product into your technology environment (System configuration is not included).
- Allows your IT resources to stay focused on their core tasks and priorities
- Reduces implementation time, impact and risk to your storage environment

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#### Remote Support Tools

**HP Insight Remote Support-** Available at no additional cost to all warranty, HP Care Pack Service and service agreement customers, uses proven technology to deliver secure, reliable 24x7 remote monitoring, diagnosis and problem resolution.

<http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA2-4676ENW.pdf>

### Service and Support, HP Care Pack, and Warranty Information

**For more information** [www.hp.com/services/storage](http://www.hp.com/services/storage)

To learn more on HP Storage Services, please contact your HP sales representative or HP Authorized Channel Partner

HP Care Pack Services are sold by HP and HP Authorized Service Partners:

- Services for customers purchasing from HP or an enterprise reseller are quoted using HP order configuration tools.
- Customers purchasing from a commercial reseller can find HP Care Pack Services at [www.hp.com/go/lookuptool](http://www.hp.com/go/lookuptool)

### Technical Specifications

#### Family Comparison Table

	41B/AP767B	42B/AP768B	FC2142SR / A8002B	FC2242SR / A8003B	FC1142SR / AE311A	FC1242SR / AE312A
<b>Number of channels</b>	Single	Dual	Single	Dual	Single	Dual
<b>Port Speed</b>	4 Gbps	4 Gbps	4 Gbps	4 Gbps	4 Gbps	4 Gbps
<b>Slot type supported</b>	PCI Express to Fibre Channel	PCI Express to Fibre Channel	PCI Express to Fibre Channel	PCI Express to Fibre Channel	PCI Express to Fibre Channel	PCI Express to Fibre Channel

#### OS Supported

**NOTE:** Always refer to the HP Single Point of Connectivity Knowledge for HP Storage Products at: [www.hp.com/storage/spock](http://www.hp.com/storage/spock) for specific product support information.

Windows Server 2003	x86, x64, R2	x86, x64, R2	x86, x64, IA64, R2	x86, x64, IA64, R2	x86, x64, R2	x86, x64, IA64, R2
Windows Server 2008	x86, x64, R2	x86, x64, R2	x86, x64, IA64, R2	x86, x64, IA64, R2	x86, x64, R2	x86, x64, IA64, R2
VMware 3.5	U4/U5	U4/U5	U4/U5	U4/U5	U4/U5	U4/U5
VMware 4.0	YES	YES	YES	YES	YES	YES
VMware 4.1	YES	YES	YES	YES	YES	YES
RHEL 4	N/A	N/A	x86, x64, IA64	x86, x64, IA64	x86, x64	x86, x64, IA64
RHEL 5	x86, x64	x86, x64	x86, x64, IA64	x86, x64, IA64	x86, x64	x86, x64, IA64
SLES 10	x86, x64	x86, x64	x86, x64, IA64	x86, x64, IA64	x86, x64	x86, x64, IA64
SLES 11	x86, x64	x86, x64	x86, x64, IA64	x86, x64, IA64	x86, x64	x86, x64, IA64
Solaris 10 x86	N/A	N/A	x86	x86	x86	x86

Always refer to the HP Single Point of Connectivity Knowledge for HP Storage Products at: [www.hp.com/storage/spock](http://www.hp.com/storage/spock) for specific product support information.

#### Servers Supported

Select HP ProLiant G7, G6, and G5/G5p servers

**NOTE:** Refer to server QuickSpecs for details regarding supported options.

#### Array Platforms Supported

Refer to [www.hp.com/storage/spock](http://www.hp.com/storage/spock) for specific product support information

<b>Environmental - Operating Temperature</b>	32° to 122° F (0° to 50° C) (dry bulb)	32° to 122° F (0° to 50° C) (dry bulb)	32° to 113° F (0° to 45° C)	32° to 113° F (0° to 45° C)	32° to 131° F (0° to 55° C)	32° to 131° F (0° to 55° C)
<b>Environmental - Storage Temperature</b>	-40° F to 163° F (-43° to 73° C) (dry bulb)	-40° F to 163° F (-43° to 73° C) (dry bulb)	-4° to 158° F (-20° to 70° C)	-4° to 158° F (-20° to 70° C)	-20° to 158° F (-4° to 70° C)	-20° to 158° F (-4° to 70° C)
<b>Environmental - Relative Humidity - Operating</b>	5% to 93% (relative, non-condensing)	5% to 93% (relative, non-condensing)	5% to 95% non-condensing	5% to 95% non-condensing	5% to 95% non-condensing	10% to 90% non-condensing
<b>Product Dimensions (HxW)</b>	1.63 x 6.5 in (43 x 165 mm)	1.63 x 6.5 in (43 x 165 mm)	6.60 x 2.54 in (167.64mm x 64.4 mm)	6.60 x 2.54 in (167.64mm x 64.4 mm)	6.60 x 2.54 in (167.64 x 64.4 mm)	6.60 x 2.54 in (167.64 x 64.4 mm)
<b>Media</b>	Multi-mode Optic	Multi-mode Optic	Multi-mode Optic	Multi-mode Optic	Multi-mode Optic	Multi-mode Optic

### Technical Specifications

<b>Connector</b>	Short wave laser with LC type connector	Short wave laser with LC type connector	Short wave laser with LC type connector	Short wave laser with LC type connector	Short wave laser with LC type connector	Short wave laser with LC type connector
<b>Brackets</b>	Shipped with both ½ height and full-height brackets	Shipped with both ½ height and full-height brackets	Shipped with both ½ height and full-height brackets	Shipped with both ½ height and full-height brackets	Shipped with both ½ height and full-height brackets	Shipped with both ½ height and full-height brackets

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