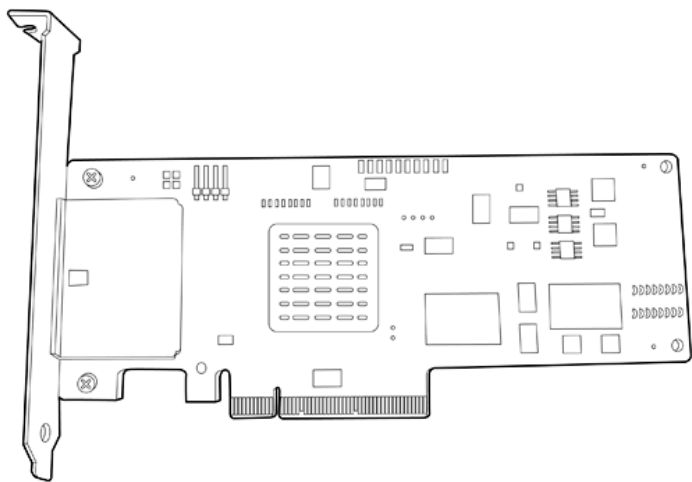# QuickSpecs

Overview

The HP SC08e Host Bus Adapter (HBA) is a 2 x4 External Port SAS HBA that provides customers with the flexibility and speed they have come to expect from HP. The SC08e HBA has been optimized for connection to the new SAS based HP StorageWorks P2000 G3 SAS Modular Smart Array and provides support for both 6Gb SAS and 3Gb SAS/SATA Hard disk drives. This SAS HBA, doubles the performance of previous 3G SAS HBAs and is ideal for driving cost-effective and reliable scalability in today's data centers. HP's SC08e HBA has been thoroughly tested and integrated into many of the HP ProLiant servers.

Model

Serial Attached SCSI (SAS)	HP SC08e 6Gb 2-ports Ext PCIe SAS HBA	614988-B21
HBA	NOTE: This is a 2 x4 External Port HBA	

Standard Features

Performance	Designed to be as flexible as HP servers, HP SC08e Host Bus Adapter provides support for the HP StorageWorks P2000 G3 SAS Modular Smart Array. The HP adapter delivers exceptional system performance, with eight 6 Gbps SAS ports providing up to 48 Gb/s total storage bandwidth.
HP Server Integration	Fully integrated and tested with most ProLiant servers and management software.

Key Features

- SAS technology delivers high performance and data bandwidth up to 6 Gbps per physical link
- Mix-and-match SAS and SATA hard drives; deploy drive technology as needed
- PCIe x8 (2.5 GB/s bandwidth)
- PCI Express 2.0 x8 capable

Ports

Eight (8) SAS physical links distributed across 2 x4 external SFF8088 Mini-SAS connectors

Performance

HP's High Performance Architecture sets new boundaries for industry performance expectations!

- 6 Gbps SAS (bandwidth per physical link)
- 48 Gbps total available bandwidth (8 physical links x 6Gbps)
- PCI Express 2.0 host interface x8 (5 GT/s bandwidth)

Capacity

Fulfilling the need for high performance and capacity expansion, the HP SC08Ge SAS HBA offers:

- Eight 6 Gbps SAS physical links supporting up to 2 simultaneous x4 Wide SAS Ports
- Capacity up to 57 TB of SAS or 192 TB SATA

Form Factor

- Either high-profile or low-profile PCI Express 2.0 slots. (parts included with option)

Supported Servers

ProLiant DL (rack-optimized):

- HP ProLiant DL160 G6
- HP ProLiant DL160se G6
- HP ProLiant DL165 G6
- HP ProLiant DL165 G7
- HP ProLiant DL180 G6
- HP ProLiant DL320 G6
- HP ProLiant DL360 G6
- HP ProLiant DL360 G7
- HP ProLiant DL370 G6
- HP ProLiant DL380 G6
- HP ProLiant DL380 G7
- HP ProLiant DL385 G6
- HP ProLiant DL385 G7
- HP ProLiant DL580 G7
- HP ProLiant DL585 G6
- HP ProLiant DL585 G7
- HP ProLiant DL785 G6

Standard Features

ProLiant ML (expansion-optimized):

- HP ProLiant ML330 G6
- HP ProLiant ML350 G6
- HP ProLiant ML370 G6

NOTE: This is a list of supported servers. Some may be discontinued.

Supported Enclosures

- HP StorageWorks P2000 G3 SAS MSA Dual Controller LFF Array System (Two AW592A G3 SAS controllers, one AP838A LFF 12-drive bay chassis)
- HP StorageWorks P2000 G3 SAS G2 Modular Smart Array Controller

Operating Systems

Microsoft Windows 2003 Standard 32 Bit

Microsoft Windows 2003 Enterprise 32 Bit

Microsoft Windows 2003 Standard x64

Microsoft Windows 2003 Enterprise x64

Microsoft Windows Server 2008

Microsoft Windows Server 2008 R2

Red Hat Enterprise Linux 5

SUSE Linux Enterprise Server 10

VMware ESX (32/64) 4.0

NOTE: For more Linux OS support & certification information, please visit our the ProLiant & BladeSystem Server Linux matrix: http://h18004.www1.hp.com/products/servers/linux/hplinuxcert.html

LSI Off Line

LSI Off Line option ROM Utility

Service and Support, HP Care Pack, and Warranty Information

Warranty	The warranty for this device is 1 year parts only.

Software Product Services	Standalone telephone support Rights to new license version Media and documentation updates

Hardware Product Services	Installation services On-site maintenance (includes warranty support) Response time upgrades during the warranty period Post-warranty coverage NOTE: For additional hardware installation and maintenance information, please refer to the URL: http://www.hp.com/hps/hardware/

Warranty Upgrade Options	Response - Upgrade on-site response from next business day to same day 4 hours Coverage - Extend hours of coverage from 9 hours x 5 days to 24 hours x 7 days Duration - Select duration of coverage for a period of 1, 3, or 5 years Warranty upgrade options can come in the form of Care Packs, which are sold at the HP System level this product attaches too.

HP Care Pack Information	HP Care Pack is defined as an upgrade to the product warranty attribute, available for a specific duration and hours of coverage. Care Packs for this option are sold at the system level this option attaches too. HP Care Pack is not available for less than the product's warranty duration. HP Care Pack is available for sale anytime during the warranty period for most products, but the commencement date will be the same as the Warranty Start Date (delivery date to end user customer). Proof of purchase may be required. HP Care Pack services are prepaid. NOTE: For additional HP Care Pack (hardware & software) information, as well as orderable part numbers, please refer to the URL: http://www.hp.com/hps

Related Options

NOTE: This is a list of supported options. Some may be discontinued.

HP Disk Storage Systems	HP StorageWorks P2000 G3 Modular Smart Array Systems	
	P2000 G3 SAS Controller	
	HP StorageWorks P2000 G3 SAS MSA Array System Controller	AW592A
	P2000 Controller-less Chassis (AC-powered)	
	HP StorageWorks P2000 Modular Smart Array 3.5-in Drive Bay Chassis (LFF)	AP838A
	HP StorageWorks P2000 Modular Smart Array 2.5-in Drive Bay Chassis (SFF)	AP839A
	Configured Units, 6 Gb SAS Systems	
	HP StorageWorks P2000 G3 SAS MSA Dual Controller LFF Array System	AW593A
	HP StorageWorks P2000 G3 SAS MSA Dual Controller SFF Array System	AW594A

NOTE: Please see the QuickSpecs for additional part numbers and information at:
http://h18000.www1.hp.com/products/quickspecs/13551_na/13551_na.html

Technical Specifications

Dimensions (excluding bracket)	6.6 x 2.7 x 0.6 in (16.8 x 6.86 x 1.6 cm)
Disk Drive and Enclosure Protocol Support	6 Gbps SAS (Serial Attached SCSI) 3 Gbps SATA (Serial Advanced Technology Attachment)
Architecture	Serial Attached SCSI (SAS) Serial Advanced Technology Attachment (SATA) PCI-Express 2.0 x8
SAS Connectors	2x4 external SFF-8088 (Mini-SAS)
Data Transfer Method	600 MB/s bandwidth (1200 MB/s, full duplex) per port for combined throughput of up to 48 Gb/s
PCIe Bus Speed	PCI Express 2.0 x8 (5 GT/s maximum bandwidth)
Simultaneous Connection Transfer Ports	2 x 4 Wide SAS Connectors
Port Transfer Rate	24 Gb/s per x4 Wide SAS Port (4 x 6 Gb/s)
Software upgradeable Firmware	Yes
Maximum Capacity	57 TB SAS, 192 TB SATA
Memory Addressing	64-bit, supporting servers memory greater than 4 GB
Upgradeable Firmware	4-MB flashable ROM
Disk Drive and Enclosure Protocol Support	6 Gb/s SAS / 3 SATA

Environment-friendly Products and Approach	**End-of-life Management and Recycling**	Hewlett-Packard offers end-of-life HP product return, trade-in, and recycling programs in many geographic areas. For trade-in information, please go to: http://www.hp.com/go/green. To recycle your product, please go to: http://www.hp.com/go/green or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner. The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: http://www.hp.com/go/green. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.