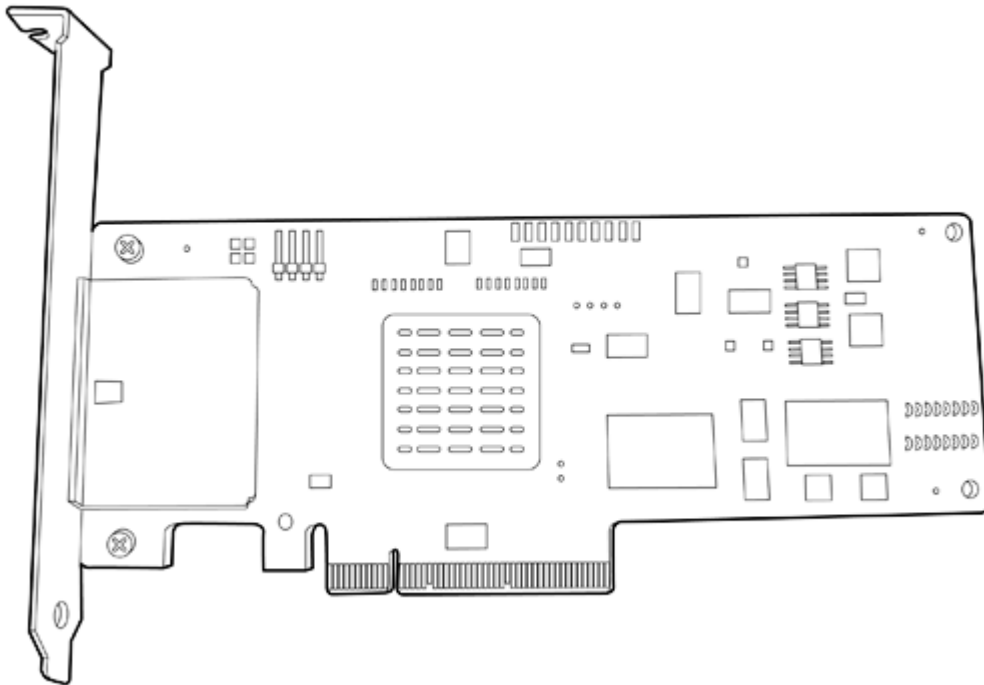


### Overview

The HP SC08Ge 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 SC08Ge HBA has been optimized for connection to the new SAS based HP StorageWorks 2000sa and 2000sa G2 Modular Smart Array and provides support for both 3Gb SAS and 1.5Gb SATA devices. Providing up to 2.4GB/s maximum bandwidth with nearly four times the speed of dual channel U320 SCSI adapters. HP's SC08Ge HBA has been thoroughly tested and integrated into many of the HP ProLiant servers.



### Model

Serial Attached SCSI (SAS) HP SC08Ge Host Bus Adapter

488765-B21

HBA

**NOTE:** This is a 2 x4 External Port HBA.

### Standard Features

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**Performance**      Designed to be as flexible as HP servers, HP SC08Ge Host Bus Adapter provides support for the HP StorageWorks 2000sa and 2000sa G2 Modular Smart Array (HP MSA2000sa and MSA2300sa G2 Controllers). The HP adapter delivers exceptional system performance, with eight 3 Gbps SAS ports providing up to 24 Gb/s total storage bandwidth.

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**HP Server Integration**      Fully integrated and tested with most ProLiant servers and management software.

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**Key Features**

- SAS technology delivers high performance and data bandwidth up to 3 Gbps per physical link
- Mix-and-match SAS and SATA hard drives, lets you deploy drive technology as needed to fit your computing environment
- Support for SAS tape products
- PCIe x8 (2.5 GB/s bandwidth)
- PCI Express x8 capable

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**Ports**

- Eight (8) SAS physical links distributed across 2 x4 external SFF-8088 connectors
  - Provides the ability to support the HP MSA2000sa Controller.
  - Provides the ability to support the HP MSA2300sa G2 Controller.

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

- 3 Gbps SAS (bandwidth per physical link)
- 24 Gbps total available bandwidth (8 physical links x 3Gbps)
- PCIe x8 (2.5 GB/s bandwidth)

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**Capacity**      Given the increasing need for high performance and rapid capacity expansion, the HP SC08Ge SAS HBA offers:

- Eight 3 Gbps SAS physical links supporting up to 2 simultaneous x4 Wide SAS Ports
- Up to 60 TB of storage per PCI slot

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**Form Factor**      ● This product ships with the parts necessary to convert between high-profile and low-profile PCIe slots.

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### Standard Features

#### Supported Servers

##### ProLiant DL (rack-optimized):

- HP ProLiant DL160 G6
- HP ProLiant DL160se G6
- HP ProLiant DL165 G6
- HP ProLiant DL180 G6
- HP ProLiant DL320 G5p
- HP ProLiant DL320 G6
- HP ProLiant DL320s
- HP ProLiant DL360 G5
- HP ProLiant DL360 G6
- HP ProLiant DL365 G5
- HP ProLiant DL370 G6
- HP ProLiant DL380 G5
- HP ProLiant DL380 G6
- HP ProLiant DL385 G5
- HP ProLiant DL385 G5p
- HP ProLiant DL580 G5
- HP ProLiant DL585 G5
- HP ProLiant DL785 G5
- HP ProLiant DL785 G6

##### ProLiant ML (expansion-optimized):

- HP ProLiant ML310 G5
- HP ProLiant ML310 G5p
- HP ProLiant ML330 G6
- HP ProLiant ML350 G5
- HP ProLiant ML350 G6
- HP ProLiant ML370 G5
- HP ProLiant ML370 G6

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

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#### Supported Enclosures

- HP StorageWorks 2300sa G2 Modular Smart Array Controller
    - Supports one HP MSA2300sa G2 Controller - additional tiered enclosures are not supported
  - HP StorageWorks 2000sa Modular Smart Array Controller
    - Supports one HP MSA2000sa Controller - additional tiered enclosures are not supported
-

### Standard Features

#### 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  
Red Hat Enterprise Linux 5  
SUSE Linux Enterprise Server 10  
VMware ESX 3.5 (32/64)

**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>

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#### LSI Off Line

LSI Off Line option ROM Utility

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

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

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

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**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/>

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**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.

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**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/carepack/>

### Related Options

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

Modular Smart Arrays	<b>HP StorageWorks 2000sa G2 Modular Smart Array</b>	
	HP StorageWorks 2012 Modular Smart Array 3.5-in Drive Bay Chassis (LFF)	AJ948A
	HP StorageWorks 2024 Modular Smart Array 2.5-in Drive Bay Chassis (SFF)	AJ949A
	HP StorageWorks 2300sa G2 Modular Smart Array Controller	AJ808A
	<b>NOTE:</b> Please see the QuickSpecs for additional part numbers and information at: <a href="http://h18000.www1.hp.com/products/quickspecs/13331_div/13331_div.html">http://h18000.www1.hp.com/products/quickspecs/13331_div/13331_div.html</a>	
	<b>HP StorageWorks MSA2000sa Modular Smart Array</b>	
	HP StorageWorks 2012sa Single Controller Modular Smart Array	AJ752A
	HP StorageWorks 2012sa Dual Controller Modular Smart Array	AJ753A
	HP StorageWorks 2000sa Modular Smart Array Controller	AJ754A
	<b>NOTE:</b> Please see the QuickSpecs for additional part numbers and information at: <a href="http://h18000.www1.hp.com/products/quickspecs/13045_div/13045_div.html">http://h18000.www1.hp.com/products/quickspecs/13045_div/13045_div.html</a>	

### Technical Specifications

<b>Dimensions</b> (excluding bracket)	6.6 x 2.5 x 0.6 in (16.8 x 6.4 x 1.6 cm)
<b>Disk Drive and Enclosure Protocol Support</b>	3 Gbps SAS (Serial Attached SCSI) 1.5 Gbps SATA (Serial Advanced Technology Attachment)
<b>Architecture</b>	Serial Attached SCSI (SAS) Serial Advanced Technology Attachment (SATA) PCI-Express x8
<b>SAS Connectors</b>	2x4 external SFF-8088 (Mini-SAS)
<b>Data Transfer Method</b>	300 MB/s bandwidth (600 MB/s, full duplex) on each port for combined throughput of up to 2 Gb/s
<b>PCIe Bus Speed</b>	PCIe x8 (2.5 GB/s maximum bandwidth)
<b>Simultaneous Connection Transfer Ports</b>	2 x 4 Wide SAS Connectors
<b>Port Transfer Rate</b>	12 Gb/s per x4 Wide SAS Port (4 x 3 Gb/s)
<b>Software upgradeable Firmware</b>	Yes
<b>Maximum Capacity</b>	60 TB
<b>Memory Addressing</b>	64-bit, supporting servers memory greater than 4 GB
<b>Upgradeable Firmware</b>	4-MB flashable ROM
<b>Disk Drive and Enclosure Protocol Support</b>	3 Gb/s SAS and 1.5 Gb/s SATA

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<b>Environment-friendly Products and Approach</b>	<b>End-of-life Management and Recycling</b>	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: <a href="http://www.hp.com/go/green">http://www.hp.com/go/green</a> . To recycle your product, please go to: <a href="http://www.hp.com/go/green">http://www.hp.com/go/green</a> or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.
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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.

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For hard drives, 1GB = 1 billion bytes. Actual formatted capacity is less.