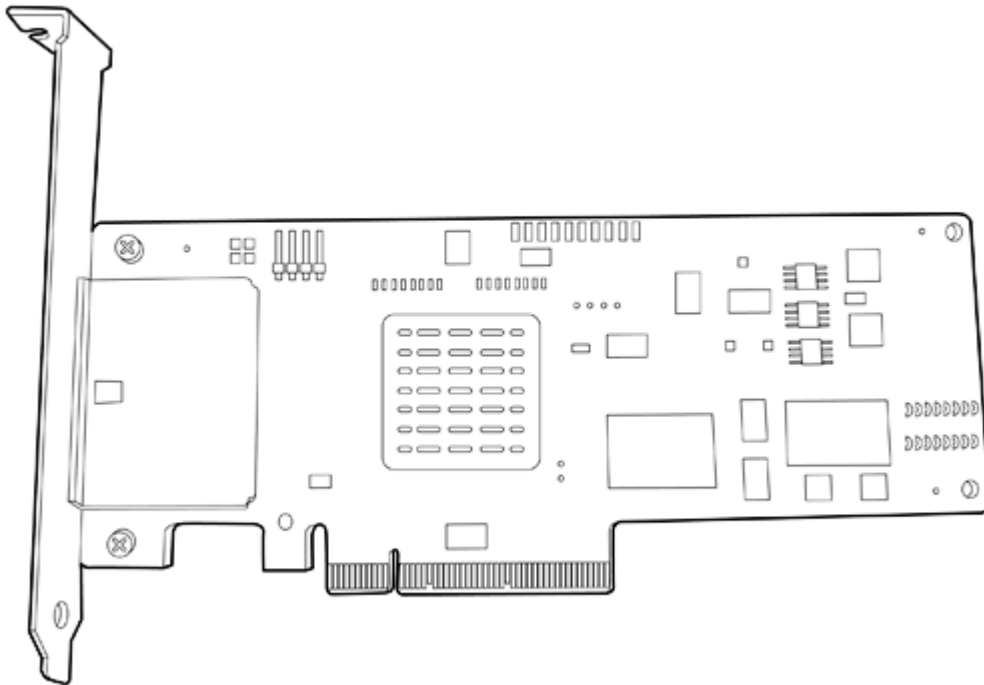


### Overview

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. The HP SC08Ge HBA has been thoroughly tested with many of the HP ProLiant servers.



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### Model

Serial Attached SCSI (SAS) HP SC08Ge Host Bus Adapter  
HBA

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

488765-B21

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### Overview

### Compatibility

#### Supported Servers

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

- HP ProLiant DL160 G6
- HP ProLiant DL160se G6
- HP ProLiant DL165 G6
- HP ProLiant DL165 G7
- HP ProLiant DL170h 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 DL360 G7
- HP ProLiant DL365 G5
- HP ProLiant DL370 G6
- HP ProLiant DL380 G5
- HP ProLiant DL380 G6
- HP ProLiant DL380 G7
- HP ProLiant DL385 G5
- HP ProLiant DL385 G5p
- HP ProLiant DL385 G6
- HP ProLiant DL580 G5
- HP ProLiant DL580 G7
- HP ProLiant DL585 G5
- HP ProLiant DL785 G5
- HP ProLiant DL785 G6
- HP ProLiant DL980 G7

#### 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.



### 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 Gb/s 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**      With the increasing need for performance and 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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**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

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### 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

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#### Warranty

The warranty for this device is 1 year parts only.

#### 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



### Service and Support

#### Service and Support

#### **HP Care Pack Services: Packaged server and storage services for increased uptime, productivity and ROI**

When you buy HP server and storage products and solutions, it's also a good time to think about what levels of support you may need. Our portfolio of service options reduce deployment and management worries while helping you get the most out of your server and storage investments. We take a holistic approach to your environment, bridging servers, blades, storage, software and network infrastructures with our packaged HP Care Pack Services for servers and storage.

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

When it comes to robustness and reliability, standard computing equipment warranties have matured along with technology. Good news that can also create problems stemming from depending on standard warranties designed to only protect against product defects and some downtime causes. Using a standard approach to warranty uplifts, such as HP Care Pack Services, helps reduce downtime risks and provides operational consistency for mission-critical and standard business computing.

#### **HP Care Pack Services: Upgrading or extending standard server and storage warranties cost effectively**

HP Care Pack Services offer a standard reactive hardware and software support services suite sold separately, or combined with our Support Plus and Support Plus 24 services. The portfolio also provides a combination of integrated proactive and reactive services, such as Proactive 24 Service and Critical Service. In addition with HP Proactive Select, you can acquire the specific proactive constancy and technical services. HP Proactive Select menu offers a broad set of service options that you can mix and match depending on your specific requirements. Proactive service options include offers for server, storage, network, SAN device, software, environment and education services.

HP server and storage lifecycle support services offers a full spectrum of customer care-from technology support to complex migrations to complete managed services. HP Factory Express provides customization, integration and deployment services for turnkey solutions. HP Education Services offer flexible, comprehensive training on to help your IT staff get the most out of your server and storage investments. HP Financial solutions extend innovative financing and cost-effective asset management programs-from purchase to equipment retirement.

Learn more: [www.hp.com/services/servers](http://www.hp.com/services/servers) and [www.hp.com/services/storage](http://www.hp.com/services/storage)

**NOTE:** Care Pack Services availability may vary by product and country.

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 <http://www.hp.com/go/lookuptool>



### Service and Support

#### Recommended HP Care Pack Services for optimal satisfaction with your HP product

##### Recommended Services **Hardware Options Support**

HP Care Packs provide support for all HP-branded hardware options qualified for inclusion in your server or storage solution. Any additional HP-qualified options installed within the server are covered at the same service level and for the same period as the server and no additional cost.

- Help improve or maintain system uptime
- Convenient onsite support
- Committed response time

<http://h20195.www2.hp.com/V2/GetPDF.aspx/5982-6547EEE>

##### **3-Year HP Hardware Support Onsite Service, 4-hour response, 24x7**

Provides you with rapid remote support and if required an HP authorized representative who will arrive on site any time and day of the year to begin hardware maintenance service within 4 hours of the service request being logged.

This service provides a trained HP service specialist to perform an installation that meets HP quality standards, for:

- Help improve or maintain system uptime
- Convenient onsite support
- Committed response time

<http://h20195.www2.hp.com/V2/GetPDF.aspx/5982-6547EEE>

##### **HP Installation and Startup of HP ProLiant Servers**

Provides for the installation of your new HP ProLiant server and operating system to assist you in bringing your new HP ProLiant server and operating system into operation in a timely and professional manner.

This service provides a trained HP service specialist to perform an installation that meets HP quality standards, for:

- Delivery of the service at a mutually scheduled time convenient to your organization
- Availability of an HP service specialist to answer basic questions during the onsite delivery of this service
- Custom installation as detailed in "Delivery specifications" or in a Statement of Work (SOW)
- Verification prior to installation that all service prerequisites are met

<http://h20195.www2.hp.com/V2/GetPDF.aspx/5982?7572ENN>



### Service and Support

#### Optional HP Care Pack Services that will enhance your HP product experience

##### Optional Services

##### 3-Year HP Hardware Support Onsite Call-to-Repair (CTR) Service, 6- or 24-hour

As an alternative to our recommended support level, for customers who need committed call-to-repair for server hardware.

Provides your IT manager with a team of support specialists who will quickly begin troubleshooting the system to help return the hardware to operating condition within 6 or 24 hours of the initial service request to the HP Global Solution Center.

<http://h20195.www2.hp.com/V2/GetPDF.aspx/5981-6636ENN>

##### 3-Year HP Support Plus 24

As an alternative to our recommended support level, for customers who need access to responsive 24x7 hardware and software support plus software updates on HP and selected third party products:

For a higher return on your server and storage technology, our 3-year combined reactive support service delivers integrated onsite hardware/software support services available 24x7x365, including access to HP technical resources, 4-hour response onsite hardware support and software updates.

<http://h20195.www2.hp.com/V2/GetPDF.aspx/5981-6638EEE>

##### HP Proactive Select Service

Customer needs on demand access to consulting, technical proactive services and education courses

Provides a flexible way to purchase HP best-in-class consultancy and technical services. You can buy Proactive Select Service Credits when you purchase your hardware and then use the credits over the next 12 months.

<http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA2-3842ENN>

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#### eSupport

HP eSupport is a portfolio of technology-based services that assist you with managing your business environment - from the desktop to the data center.

##### Support Portal

The HP support portal provides one-stop access to the information, tools and services you need to manage the daily operations of your IT environment.

##### Features include:

- Access to self-solve tools (including search technical knowledge base)
- Efficient logging and tracking of support cases
- Collaboration with other business and IT professionals
- Download of patches and drivers
- Access to diagnostic tools
- Proactive notification of relevant information

Access to certain features of the support portal requires an HP service agreement. To access the support portal, visit: <http://www.hp.com/support>

HP Insight Remote Support software delivers secure remote support for your HP Servers and Storage, 24



### Service and Support

X 7, so you can spend less time solving problems and more time focused on your business. You can have your systems remotely monitored for hardware failure using secure technology that's been proven at thousands of companies around the world. In many cases, you can avoid problems before they occur.

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### Customer Technical Training

In today's cost-conscious business environment, IT professionals, developers, consultants and users face an interesting challenge: how to keep up with the latest technologies and expand important skills while delivering profitable results on current projects. To help address this challenge, HP offers innovative training solutions that help keep you up-to-date on virtualization, server, storage, Insight Control, Citrix, Microsoft® and open source/Linux-related topics-while spending less time away from business-critical activities.

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### HP Services Awards

HP Technology Services continues to be recognized for service and support excellence by customers, partners, industry organizations and publications around the world. Recent honors and award reflect our services team's dedications, technical expertise, professionalism and uncompromising commitment to customer satisfaction.

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### Additional Services Information

To learn more on HP ProLiant servers, HP BladeSystem servers and HP StorageWorks storage products, please contact your HP sales representative or HP Authorized Channel Partner. Or visit: [www.hp.com/services/proliant](http://www.hp.com/services/proliant) or [www.hp.com/services/bladesystem](http://www.hp.com/services/bladesystem) or <http://www.hp.com/hps/storage>





## Related Options

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

### HP Disk Storage Systems MSA SAN Storage Arrays

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

**NOTE:** Please see the QuickSpecs for additional part numbers and information at:

[http://h18000.www1.hp.com/products/quickspecs/13331\\_div/13331\\_div.html](http://h18000.www1.hp.com/products/quickspecs/13331_div/13331_div.html)

### HP StorageWorks MSA2000sa Modular Smart Array

HP StorageWorks 2012sa Single Controller Modular Smart Array AJ752A

HP StorageWorks 2000sa Modular Smart Array Controller AJ754A

**NOTE:** Please see the QuickSpecs for additional part numbers and information at:

[http://h18000.www1.hp.com/products/quickspecs/13045\\_div/13045\\_div.html](http://h18000.www1.hp.com/products/quickspecs/13045_div/13045_div.html)



### 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.

