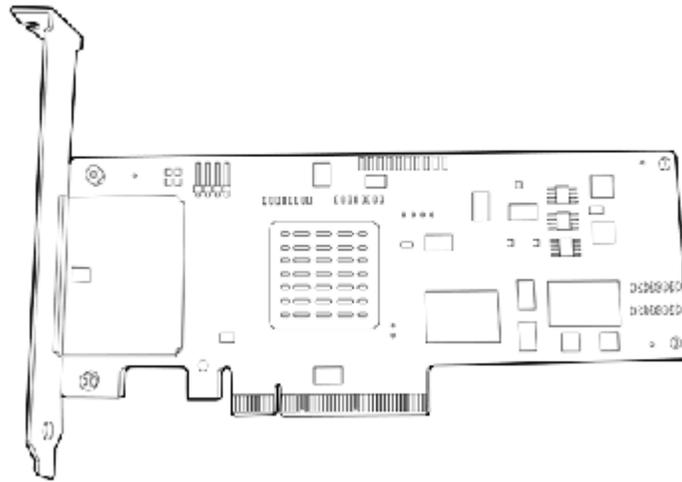


Overview

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
HBA

614988-B21

NOTE: This is a 2 x4 External Port HBA

Compatibility

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

Overview

- HP ProLiant DL585 G7
- HP ProLiant DL785 G6
- HP ProLiant DL980 G7

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.

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
- Up to 384TB of external storage per controller with 8 x HP P2000 G3 MSA and 96 x 4TB LFF SAS or SATA hard drives
- Up to 179TB of external storage per controller with 1 x HP P2000 G3 MSA SFF plus 5 x HP D2700 Disk Enclosures and 149 x 1.2TB SFF SAS hard drives
- Up to 48TB of external storage per controller with 1 x HP MSA2040 SAN Storage and 12 x 4TB LFF SAS hard drives
- Up to 24TB of external storage per controller with 1 x HP MSA2040 SAN Storage and 24 x 1TB SFF SAS hard drives

NOTE: Please check the [website of the supported Disk Storage System](#) to get the most recent information on maximum capacity.

Form Factor

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

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 Modular Smart Array Controller
- HP MSA 2040 SAS Storage

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
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

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 and 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/5982-6547EN.pdf>

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>

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>

Service and Support

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

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.

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.

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 or www.hp.com/services/bladesystem or <http://www.hp.com/services/storage>

Related Options

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

HP Disk Storage Systems **MSA 2040 Storage**

HP MSA 2040 SAS Dual Controller LFF Storage C8S54A

HP MSA 2040 SAS Dual Controller SFF Storage C8S55A

NOTE: Please see the supported MSA 2040 QuickSpecs for a list of compatible hard drives: http://h18004.www1.hp.com/products/quickspecs/14603_div/14603_div.html

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_div/13551_div.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 Architecture	6 Gbps SAS (Serial Attached SCSI) 3 Gbps SATA (Serial Advanced Technology Attachment) 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
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.
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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.