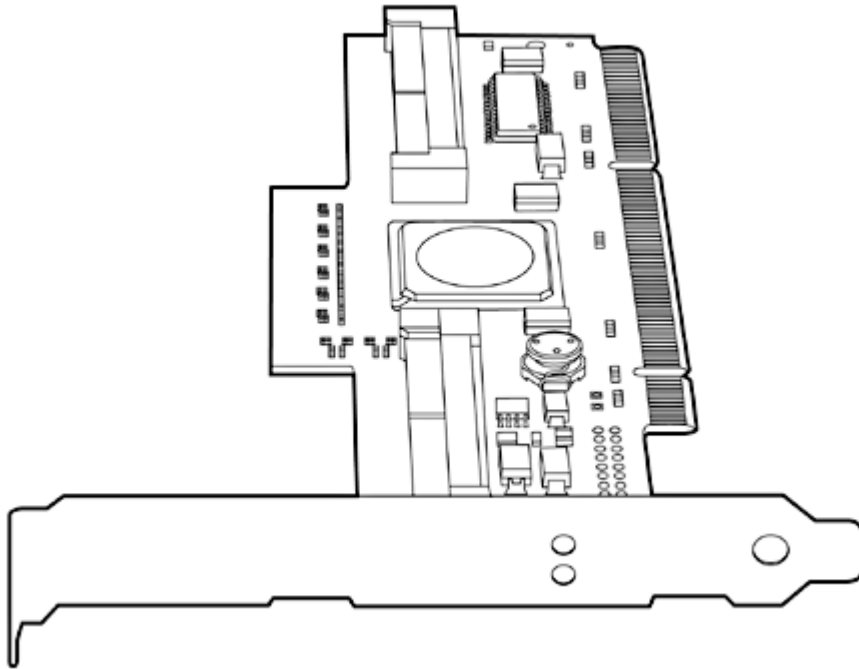


### Overview

The HP 8 Internal Port SAS HBA with RAID provides customers with the flexibility and speed they have come to expect from HP. The HP 8 Internal Port SAS HBA with RAID is ideal for small RAID and larger non-RAID storage applications. This adapter supports both 3 Gbps SAS and 1.5 Gbps SATA devices as well as HP StorageWorks SAS tape products. It is the basic building block for both RAID and non-RAID SCSI storage solutions, providing up to 2.4GB/s maximum bandwidth, nearly four times the speed of dual channel U320 SCSI adapters. The HP 8 Internal Port SAS HBA with RAID has been thoroughly tested and integrated into many of the HP ProLiant servers.



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### Model

Serial Attached SCSI  
(SAS) HBA

HP 64/133 2-ports Int PCI-X SAS Host Bus Adapter

347786-B21

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### Overview

### Compatibility

#### Servers

The following SAS Model HP ProLiant servers are supported:

- **ProLiant DL (rack-optimized):**
  - HP ProLiant DL140 G2
  - HP ProLiant DL140 G3
  - HP ProLiant DL145 G2
  - HP ProLiant DL145 G3
  - HP ProLiant DL160 G5
  - HP ProLiant DL165 G5
  - HP ProLiant DL180
  - HP ProLiant DL320 G3
  - HP ProLiant DL320 G4
  - HP ProLiant DL320 G5
  - HP ProLiant DL320 G5p
  - HP ProLiant DL360 G4
  - HP ProLiant DL360 G4p
  - HP ProLiant DL360 G5
  - HP ProLiant DL365
  - HP ProLiant DL365 G5
  - HP ProLiant DL380 G4
  - HP ProLiant DL380 G5
  - HP ProLiant DL385
  - HP ProLiant DL385 G2
  - HP ProLiant DL385 G5
  - HP ProLiant DL580 G3
  - HP ProLiant DL580 G4
  - HP ProLiant DL580 G5
  - HP ProLiant DL585
  - HP ProLiant DL585 G2
  - HP ProLiant DL585 G5
- **ProLiant ML (expansion-optimized):**
  - HP ProLiant ML110 G4
  - HP ProLiant ML115
  - HP ProLiant ML150 G3
  - HP ProLiant ML310 G2
  - HP ProLiant ML310 G3
  - HP ProLiant ML310 G4
  - HP ProLiant ML310 G5
  - HP ProLiant ML310 G5p
  - HP ProLiant ML350 G4
  - HP ProLiant ML350 G4p
  - HP ProLiant ML350 G5
  - HP ProLiant ML370 G4
  - HP ProLiant ML370 G5
  - HP ProLiant ML570 G4

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



### Standard Features

**Performance** Designed to be as flexible as HP servers, HP 8 Internal Port SAS HBA with RAID provides support for up to 8 SAS or SATA hard drives. 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.
- 64-bit, PCIX 133-MHz interface provides 1 GB/s maximum bandwidth during burst transfers.
- Support for HP StorageWorks SAS tape products.

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**Ports**

- Eight (8) SAS physical links distributed across 2 internal x4 wide connectors
  - Provides the ability to support up to 8 drives or 2.4GB of SAS storage

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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)
- 64-bit, PCIX 133-MHz bus (1 GB/s bandwidth)

**NOTE:** When using the SC08Ge with SATA Hard Drives, 1.5G SATA Hard Drives are required.

**NOTE:** Transfer rate: 1.5 Gb/s SATA, 3Gb/s SAS

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**Capacity** Given the increasing need for high performance and rapid capacity expansion, the HP 8 Internal Port SAS HBA with RAID offers:

- Eight 3 Gbps SAS physical links supporting up to 2 simultaneous x4 Wide SAS Ports
  - Up to 2.4TB of SAS storage per PCI slot
- 

**Fault Tolerance** Keeps data available and server running while a failed drive is being replaced

- Drive Mirroring (RAID 1): This allocates half of the drive array to data and the other half to mirrored data, providing two copies of every file.
- 



### Standard Features

#### Operating Systems

Microsoft® Windows® 2000 (Server/Adv Server) 32 Bit  
Microsoft Windows 2003 Standard 32 Bit  
Microsoft Windows 2003 Enterprise 32 Bit  
Microsoft Windows 2003 Web  
Microsoft Windows 2003 SBS  
Microsoft Windows 2003 Standard x64  
Microsoft Windows 2003 Enterprise x64  
Microsoft Windows Server 2008  
Red Hat Enterprise Linux  
SUSE Linux Enterprise Server  
Novell NetWare  
SCO Unix

**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.

Pre-Failure Warranty: SAS drives attached to the Smart Array Controller and monitored under Systems Insight Manger are supported by a Pre-Failure (replacement) Warranty. For complete details, consult the HP Support Center or refer to your HP Server Documentation.



### 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>

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### 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>



### 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.

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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.

#### Hard Drives

**NOTE:** The components of a storage subsystem (e.g. the drive, the HBA/controller, firmware, and the server backplane) should operate at the same data transfer rate or the system bandwidth will be negotiated down to an acceptable level for all components.

**NOTE:** Hard drives have either a one year or three year warranty; refer to the specific hard drive QuickSpecs for details.

#### SAS Hot Plug SFF (2.5-inch) Enterprise (ENT) Drives

HP 600GB 6G SAS 10K rpm SFF (2.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	581286-B21
HP 450GB 6G SAS 10K rpm SFF (2.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	581284-B21
HP 300GB 6G SAS 10K rpm SFF (2.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	507127-B21
HP 146GB 6G SAS 15K rpm SFF (2.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	512547-B21
HP 146GB 6G SAS 10K rpm SFF (2.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	507125-B21
HP 146GB 3G SAS 10K rpm SFF (2.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	418367-B21
HP 146GB 3G SAS 15K rpm SFF (2.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	504062-B21
HP 300GB 3G SAS 10K rpm SFF (2.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	492620-B21
HP 72GB 6G SAS 15K rpm SFF (2.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	512545-B21
HP 72GB 10K rpm Hot Plug SAS 2.5 Dual Port Hard Drive	384842-B21
HP 72GB 3G SAS 15K rpm SFF (2.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	418371-B21
HP 146GB 10K rpm Hot Plug SAS 2.5 Single Port Hard Drive	431958-B21
HP 72GB 15K rpm Hot Plug SAS 2.5 Single Port Hard Drive	431935-B21
HP 72GB 10K rpm Hot Plug SAS 2.5 Hard Drive	375861-B21
HP 36GB 15K rpm Hot Plug SAS 2.5 Dual Port Hard Drive	418369-B21
HP 36GB 15K rpm Hot Plug SAS 2.5 Single Port Hard Drive	431933-B21

#### SAS Non-Hot Plug SFF (2.5-inch) Enterprise (ENT) Drives

HP 600GB 6G SAS 10K rpm SFF (2.5-inch) Non-hot Plug Dual Port Enterprise 3yr Warranty Hard Drive	590698-B21
HP 300GB 6G SAS 10K rpm SFF (2.5-inch) Non-hot Plug Dual Port Enterprise 3yr Warranty Hard Drive	537809-B21
HP 146GB 6G SAS 10K rpm SFF (2.5-inch) Non-hot Plug Dual Port Enterprise 3yr Warranty Hard Drive	537807-B21
HP 72GB 6G SAS 15K rpm SFF (2.5-inch) Non-hot Plug Dual Port Enterprise 3yr Warranty Hard Drive	537805-B21

#### SAS Hot Plug LFF (3.5-inch) Enterprise (ENT) Drives



### Related Options

HP 600GB 6G SAS 15K rpm LFF (3.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	516828-B21
HP 450GB 6G SAS 15K rpm LFF (3.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	516816-B21
HP 450GB 3G SAS 15K rpm LFF (3.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	454232-B21
HP 400GB 10K rpm Hot Plug SAS 3.5 Dual Port Enterprise Hard Drive	459508-B21
HP 300GB 6G SAS 15K rpm LFF (3.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	516814-B21
HP 300GB 3G SAS 15K rpm LFF (3.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	416127-B21
HP 146GB 3G SAS 15K rpm LFF (3.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	384854-B21
HP 300GB 15K rpm Hot Plug SAS 3.5 Single Port Hard Drive	431944-B21
HP 146GB 15K rpm Hot Plug SAS 3.5 Single Port Hard Drive	375872-B21
HP 72GB 15K rpm Hot Plug SAS 3.5 Single Port Hard Drive	375870-B21
HP 72GB 15K rpm Hot Plug SAS 3.5 Dual Port Hard Drive	384852-B21
<b>SAS Non-Hot Plug LFF (3.5-inch) Enterprise (ENT) Drives</b>	
HP 600GB 6G SAS 15K rpm LFF (3.5-inch) Non-hot Plug Dual Port Enterprise 3yr Warranty Hard Drive	516830-B21
HP 450GB 6G SAS 15K rpm LFF (3.5-inch) Non-hot Plug Dual Port Enterprise 3yr Warranty Hard Drive	516826-B21
HP 450GB 3G SAS 15K rpm LFF (3.5-inch) Non-hot Plug Dual Port Enterprise 3yr Warranty Hard Drive	454234-B21
HP 400GB 10K rpm Non Hot Plug SAS 3.5 Dual Port Enterprise Hard Drive	508232-B21
HP 300GB 6G SAS 15K rpm LFF (3.5-inch) Non-hot Plug Dual Port Enterprise 3yr Warranty Hard Drive	516824-B21
HP 300GB 3G SAS 15K rpm LFF (3.5-inch) Non-hot Plug Dual Port Enterprise 3yr Warranty Hard Drive	417950-B21
HP 146GB 3G SAS 15K rpm LFF (3.5-inch) Non-hot Plug Dual Port Enterprise 3yr Warranty Hard Drive	417855-B21
HP 300GB 15K rpm Non Hot Plug SAS 3.5 Single Port Hard Drive	431950-B21
HP 146GB 15K rpm Non Hot Plug SAS 3.5 Single Port Hard Drive	432093-B21
HP 72GB 15K rpm Non Hot Plug SAS 3.5 Single Port Hard Drive	432095-B21
<b>SAS Hot Plug SFF (2.5-inch) Midline (MDL) Drives</b>	
HP 500GB 6G SAS 7.2K rpm SFF (2.5-inch) Dual Port Midline 1yr Warranty Hard Drive	507610-B21
<b>SAS Hot Plug LFF (3.5-inch) Midline (MDL) Drives</b>	
HP 2TB 6G SAS 7.2K rpm LFF (3.5-inch) Dual Port Midline 1yr Warranty Hard Drive	507616-B21
HP 1TB 6G SAS 7.2K rpm LFF (3.5-inch) Dual Port Midline 1yr Warranty Hard Drive	507614-B21
HP 1TB 3G SAS 7.2K rpm LFF (3.5-inch) Dual Port Midline 1yr Warranty Hard Drive	461137-B21
HP 750GB 3G SAS 7.2K rpm LFF (3.5-inch) Dual Port Midline 1yr Warranty Hard Drive	461135-B21
<b>SATA Hot Plug SFF (2.5-inch) Entry (ETY) Drives</b>	



### Related Options

HP 250GB 3G SATA 5.4K rpm SFF (2.5-inch) Entry 1yr Warranty Hard Drive	460355-B21
HP 120GB 1.5G SATA 5.4K rpm SFF (2.5-inch) Entry 1yr Warranty Hard Drive	458924-B21
<b>SATA Non-Hot Plug SFF (2.5-inch) Entry (ETY) Drives</b>	
HP 250GB 3G SATA 5.4K rpm SFF (2.5-inch) Non-hot Plug Entry 1yr Warranty Hard Drive	460357-B21
HP 120GB 1.5G SATA 5.4K rpm SFF (2.5-inch) Non-hot Plug Entry 1yr Warranty Hard Drive	459357-B21
<b>SFF SATA Hot Plug Drives</b>	
HP 60GB 5.4K rpm Hot Plug SFF SATA 1yr Warranty Hard Drive	379306-B21
<b>3.5" SATA Hot Plug Drives</b>	
HP 80GB 7.2K rpm Hot Plug SATA 1yr Warranty Hard Drive	349237-B21
<b>3.5" SATA Non-Hot Plug Drives</b>	
HP 80GB 7.2K rpm Non Hot Plug SATA 1yr Warranty Hard Drive	383410-B21
<b>NOTE:</b> Go to the <a href="http://www.hp.com/products/harddiskdrives">HP Hard Drive Compatibility table</a> for complete drive compatibility information ( <a href="http://www.hp.com/products/harddiskdrives">http://www.hp.com/products/harddiskdrives</a> ). Using hard drives in unsupported configurations will result in voiding the warranty and could result in damage to the drive and/or loss of data.	
<b>NOTE:</b> SATA Drive Write Cache is disabled by default to minimize the risk of data loss in case of power loss and cannot be enabled for SATA drives attached to all HP Smart Array controllers and HP 8 Port internal SAS/SATA HBA with RAID.	

### Tape Drives

#### SAS Tape Drives

HP StorageWorks Ultrium 448 SAS Internal Tape Drive	DW085A
HP StorageWorks Ultrium 448 SAS External Tape Drive	DW086A
HP StorageWorks Ultrium 920 SAS Internal Tape Drive	EH847A
HP StorageWorks Ultrium 920 SAS External Tape Drive	EH848A
<b>SAS Rack-Mount Tape Drive Enclosures</b>	
HP StorageWorks 1U SAS Rack-Mount Kit	AE459A
<b>NOTE:</b> The 1U SAS Rack-Mount Kit can support up to (2) half-height tape drives and is compatible with the Ultrium 448 SAS and Ultrium 920 SAS tape drives.	



### Technical Specifications

Dimensions (excluding bracket)	6.6 x 2.5 x 0.6 in (16.8 x 6.4 x 1.6 cm)
Disk Drive and Enclosure Protocol Support	3 Gbps SAS (Serial Attached SCSI) 1.5 Gbps SATA (Serial Advanced Technology Attachment)
Architecture	64-bit
SAS Connectors	2 internal SFF8484 x4 Wide SAS Connectors 12 Gbps per x4 Wide SAS Port (4 x 3 Gbps)
Data Transfer Method	64-bit wide, PCI-X 133 MHz (1 GB/s maximum bandwidth)
PCI Bus Speed	PCI-X-133 and 3.3 volt PCI compatibility only
PCI	PCI-X and 3.3 volt PCI compatibility only
Simultaneous Drive Transfer Ports	2 x4 Wide SAS Connectors
Port Transfer Rate	12 Gb/s per x4 Wide SAS Port (4 x 3 Gb/s)
Software upgradeable Firmware	Yes
Maximum Capacity	2.4TB (8 x 300GB SAS Drives)
Memory Addressing	64-bit, supporting servers memory greater than 4 GB
Logical Drives Supported	Up to 2 Logical Volumes Up to 10 drives total in all RAID volumes Up to 2 Drives per RAID 1 Up to 8 Drives per RAID 0
RAID Support	RAID 1 (Mirroring) RAID 0 (Striping)
Upgradeable Firmware	4-MB flashable ROM
Disk Drive and Enclosure Protocol Support	3Gbps SAS and 1.5Gbps SATA

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Environment-friendly Products and Approach	<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.



### *Technical Specifications*

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

