QuickSpecs

Overview

HP StoreEasy 1000 Storage is a new breed of efficient, secure, and highly available storage to simply address the file and application storage challenges of small to medium business, branch office, and workgroup environments. StoreEasy 1000 Storage, built on industry leading ProLiant DNA and Microsoft Windows Storage Server, integrates easily into new and existing environments with a straightforward, consistent management experience for IT generalists.

What's New

- New StoreEasy 1630 with 2 SFF rear drives with pre-installed OS. 12 LFF slots open for data drives

Models

HP StoreEasy 1430 Storage

HP StoreEasy 1430 Storage products are storage solutions that deliver multi-protocol file serving and application storage in a compact and affordable 1U rack-mount form factor. They're easy to install and manage, making them perfect for a small workgroup, small business or remote office. The StoreEasy 1430 is built on a HP ProLiant DL320e Gen 8 server.

HP StoreEasy 1430 Storage	B7D88A

(no drives pre-configured - at least four drives of the same type/capacity, 450GB or greater, must be ordered for pre-installation of OS in the factory. The OS is not a field installable option.)
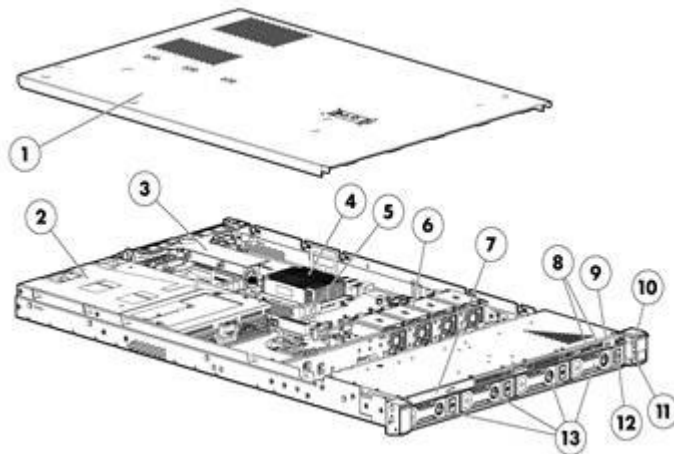
HP StoreEasy 1430 8TB SATA Storage	B7D89A

(4 x 2TB SATA LFF HDDs)

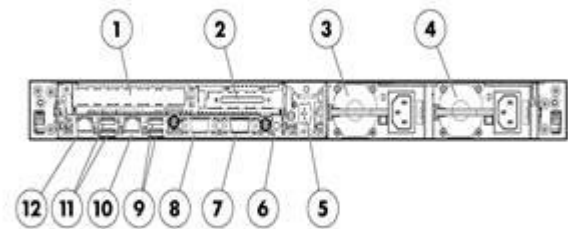|	
HP StoreEasy 1430 12TB SATA Storage	B7D90A

(4 x 3TB SATA LFF HDDs)

Front View:

1. Access Panel
2. Power Supply
3. PCI Riser Cage
4. Processor
5. Four DIMM slots
6. Fans

Rear View:

1. Expansion slot 2, PCIe x16
2. Expansion slot 1, PCIe x8 (P222)
3. Power Supply 2
4. Power Supply 1
5. iLO connector
6. UID LED button

Overview

7. Optical drive (optional)
8. 2 USB Connectors
9. UID LED button
10. Health LED
11. NIC status LED
12. Power On/Standby button and LED
13. 4 LFF Hot plug SATA/SAS HDD Cage

7. Serial Connector
8. Video Connector
9. USB Connectors
10. NIC Connector 1
11. USB Connectors
12. NIC Connector 2

HP StoreEasy 1530 Storage

HP StoreEasy 1530 Storage products are storage solutions that deliver multi-protocol file serving and application storage in a compact and affordable tower form factor package. They're easy to install and manage, making them perfect for a small workgroup, small business or remote office. The StoreEasy 1530 is built on an HP ProLiant ML310e Gen 8 Server.

NOTE: A country specific power cord option must be ordered with the StoreEasy 1530. See power cord options section.

HP StoreEasy 1530 Storage	B7D91A

(no drives pre-configured - at least four drives of the same type and capacity, 450GB or greater, must be ordered for pre-installation of OS in the factory. The OS is not a field installable option.)
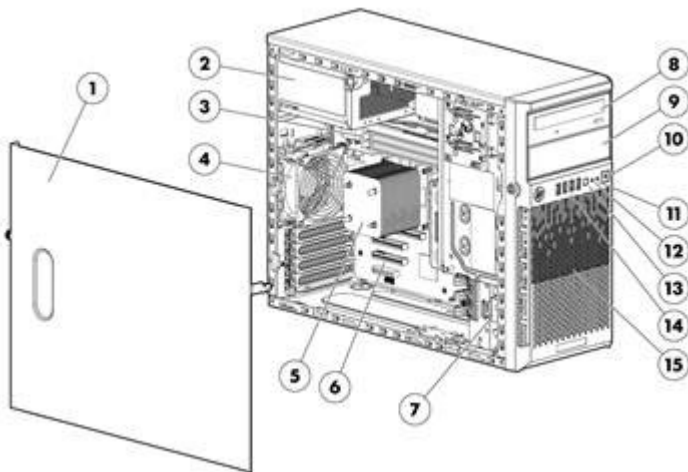
HP StoreEasy 1530 8TB SATA Storage	B7D92A

(4 x 2TB SATA LFF HDDs)

HP StoreEasy 1530 12TB SATA Storage	B7D93A

(4 x 3TB SATA LFF HDDs)

Front View:

1. Quick removal access panel
2. Power Supply
3. Four DIMM slots
4. System fan
5. Processor Heatsink
6. Four (4) PCIe expansion slots
7. PCI Fan
8. Half Height SATA DVD-ROM or DVD RW Optical Drive (optional)
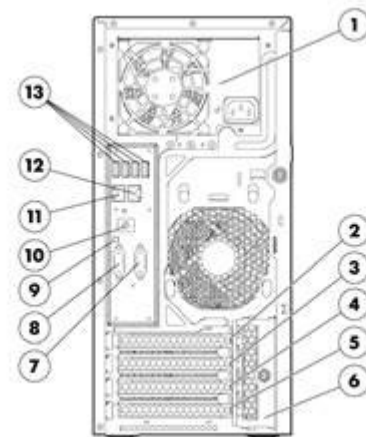
Rear View

1. Power supply
2. Slot 4 PCIex16
3. Slot 3 PCIex8 (P222)
4. Slot 2 PCIex8
5. Slot 1 PCIex4
6. PCIe card bracket
7. Serial Connector
8. Video Connector

Overview

9. Media Drive Blank
10. Power Button
11. NIC Activity LED
12. System Health
13. UID LED button
14. Four (4) USB connectors
15. Four (4) LFF or Eight (8) SFF SAS/SATA HDD cage

9. UID LED Button
10. iLO connector
11. NIC Connector 1 (shared management)
12. NIC Connector 2
13. Four (4) USB Connectors

HP StoreEasy 1630 Storage

HP StoreEasy 1630 Storage products deliver high capacity and drives down your cost per GB. Quad-Core processing, up to 56TB internal storage capacity, and ready for external expandability enhance this ultra-dense 2U shared storage solution for small, medium, or large IT environments. The StoreEasy 1630 is built on a HP ProLiant DL380e Gen 8 Server

HP StoreEasy 1630 Storage   B7D94A
(14 open LFF HDD slots, 12 in front and 2 in rear, a minimum of 8 LFF drives of the same type and capacity must be ordered with system for factory installation)

HP StoreEasy 1630 900GB SAS Storage   H6Z28A
(12 open LFF HDD slots in front and 2 x 450GB 6G SAS 10K RPM SFF (2.5") HDDs in rear configured as RAID 1 with pre-installed OS)

HP StoreEasy 1630 28TB SAS Storage   B7D95A
(14 x 2TB SAS LFF HDDs)

HP StoreEasy 1630 42TB SAS Storage   B7D96A
(14 x 3TB SAS LFF HDDs)
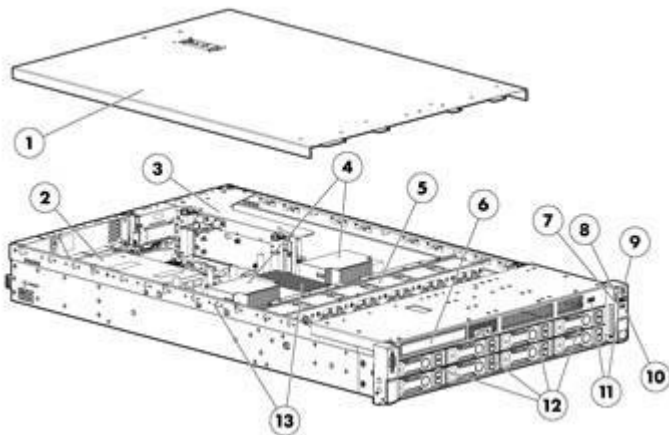
Front View:

1. Quick removal access panel
2. Redundant Hot Plug Power Supplies(upgradeable option)
3. Removable Riser Cage assembly
4. Up to 2 Intel E5-2400 Series Processors
5. Removable Hot Plug Fans modules, (optional, full N+1 redundancy)
6. N/A
7. Health LED
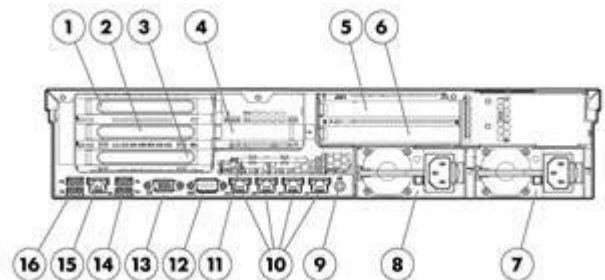
Rear View

1. Slot1 PCIe3 x8 (4, 1)
2. Slot2 PCIe3 x16 (8, 4, 1) (P822)
3. Slot3 PCIe3 x8 (8, 4, 1)
4. Slot4 PCIe2 x8 (4, 1)
5. Rear Drive Bay
6. Rear Drive Bay
7. Power Supply bay1

Overview

8. Network activity LED
9. Power On /Standby button and system power LED button
10. Unit ID LED
11. USB connectors
12. 12 LFF Hot plug Hard Drive bays
13. 12 DIMM slots

8. Power Supply bay 2
9. Unit ID LED/Button
10. HP Ethernet 1Gb 4-port 366i Adapter (4 x 1GbE)
11. Service tool
12. Serial connector
13. Video connector
14. USB connectors (2)
15. iLO connector
16. USB connectors (2)

HP StoreEasy 1830 Storage

HP StoreEasy 1830 Storage products deliver Enterprise-class performance, expandability, and flexibility. Up to two quad-core processors,2 PCIe slots (5 with 2nd processor), and with the included Smart Array P822 Storage Controller make it the file serving and application storage choice for medium business or datacenter class IT environments. The StoreEasy 1830 is built on a HP ProLiant DL380 Gen 8 server.

HP StoreEasy 1830 Storage	B7D97A
(2x450GB SAS SFF HDDs for pre-installed OS and 23 open SFF slots)	
HP StoreEasy 1830 12.6TB SAS Storage	B7D98A
(2x450GB SAS SFF HDDs for pre-installed OS, 14x900GB SAS SFF HDDs and 9 open SFF slots)	
HP StoreEasy 1830 20.7TB SAS Storage	B7D99A
(2x450GB SAS SFF HDDs for pre-installed OS, 23x900GB SAS SFF HDDs)	
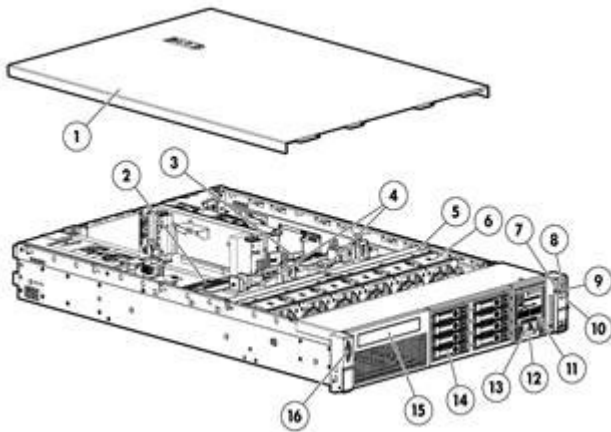
Front View:

1. Quick removal access panel
2. Second Intel Processor
3. First Intel Processor
4. 24 DIMM slots
5. Air Baffle
6. Hot-plug fans, full N+1 redundancy
7. Health LED
8. Power On /Standby button and system power LED button
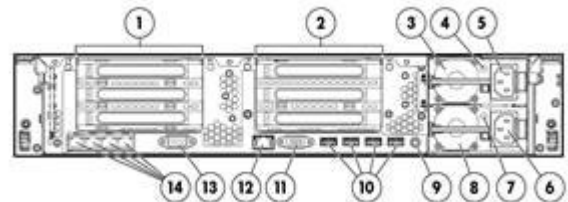
Rear View

1. PCIe 3.0 Slots 1, 2, 3-PCIe 2.0 top to bottom
2. PCIe 3.0 Slots 4-6 top to bottom (required 2nd processor)
3. Power supply 1
4. Power supply 1 Power LED
5. Power supply 1 Power connection (with Intelligent PDU communication)
6. Power supply 2 Power connection (with Intelligent PDU communication)
7. Power supply 2 Power LED
8. Power supply 2

Overview

9.	USB connector	9.	Unit ID LED/Button	
10.	Unit ID LED	10.	USB connectors (4)	
11.	Systems Insight Display	11.	Video connector	
12.	Asset Tag	12.	iLO connector	
13.	USB connector	13.	Serial connector	
14.	25 SFF Hot plug Drive Bays	14.	FlexibleLOM ports (Shown: 4 ports 1Gb each /Optional: 2 ports 10Gb each)	
15.	Optional Slim Optical Bay (SATA DVD-RW /ROM Optical Drive)			
16.	Video connector			

Features and Benefits

Efficiently Save money and time	The HP StoreEasy 1000 Storage systems support large numbers of users concurrently accessing their files thanks to a high performance file serving controller and a range of drive media including SSDs.

Increase capacity use with non-intrusive variable chunk de-duplication delivers an average 50-60% space savings.

Improve management efficiency with straightforward and consistent management experience that is optimized for IT generalists, including the ability to remotely deploy and configure via Integrated Lights-Out.

Consolidate multiple workloads and roles in a single platform with included support for a broad range of file access protocols, VMWare, Microsoft Hyper-V, and SQL Server application storage, iSCSI block access, and support for services such as print, DNS, and DHCP.

Reduce branch office WAN usage by automatically caching frequently accessed corporate data center files with Hosted BranchCache.

Integrate seamlessly into Windows IT infrastructure.

Secure: Protect your data and organization always

Protect data while at rest with file system encryption and BitLocker Drive Encryption, and while it is being transferred with SMB 3.0 encryption and signing.

File Classification Infrastructure facilitates sophisticated access controls and support for Active Directory Rights Management Services protects files no matter where they go.

Install and run endpoint protection such as antivirus on the system itself - eliminating the cost and complexity of connecting an external endpoint protection server.

Online snapshots enable users to directly recover files and prior file versions.
Broad support for agent-based data protection enhances the ability to meet backup and recovery SLAs.

Leverage optional HP Autonomy LiveVault and HP Data Protector software for highly secure and efficient policy driven offsite cloud and hybrid cloud backup.

Highly Available, Prevent User and Organization disruption

Increase uptime with such standard features as HP Active Health System, mirrored operating system disks RAID for data disks, redundant fans and power, and advanced memory protection maximize uptime.

Confidently deploy large volumes leveraging improved file system self-healing, file system online analysis, and greatly reduced downtime for corruption correction.

Three year onsite parts and labor warranty for the system, and one year of software telephone support

Standard Features

Operating System	Microsoft Windows Storage Server 2012, Standard Edition

- Windows Storage Server 2012 (WSS2012) includes a robust range of file serving and storage capabilities. It addresses heterogeneous environments and it enables more efficient storage utilization. WSS2012 delivers a similar level of performance and reliability as more expensive storage solutions and it offers support for both file (SMB and NFS) and block (iSCSI) protocols, allows for a flexible mix of configurations and includes advanced data management tools. WSS2012 leverages your Windows Server management skill sets and tools including Active Directory, PowerShell and System Center.
- Extensive protocol support: SMB (2.0, 2.1, 3.0), NFS (v2, v3, v4.1), WebDAV, HTTP/HTTPS, FTP/FTPS, ISCSI
- SMB 3.0: Leverage high performance continually available file shares to deliver feature-rich storage for business-critical applications and virtual servers using advanced new functionality.
- New VHDX Standard: Deploy larger capacity virtual storage that can grow to 16 terabytes, is more resilient against corruption, and provides more efficient usage of new 4 KB sector hard disks with the new VHDX virtual storage standard.
- Live Storage Migration: Maintain maximized service-level availability even while moving virtual machine storage between host servers independent of the actual virtual machine.
- SMB Multi-channel: Enable aggregation of network bandwidth and network fault tolerance when multiple paths are available between SMB clients and file servers.
- NFS v4.1: For Windows Storage Server 2012, Server for NFS has been updated to support continuous availability. These improvements make it possible to reliably store and run VMware ESX on a virtual machine that is running Windows Server 2012 by using the NFS protocol to share files. Additional improvements in failover clustering take advantage of better resilience to hardware and software outages that may afflict individual cluster nodes. At the same time, failover clustering isolates VMware ESX hypervisor hosts from intermittent glitches during failovers.
- iSCSI: Some applications require block storage. iSCSI Target Server can provide these applications with continuously available block storage. Since the storage is remotely accessible it can also consolidate block storage for central or branch office locations. By using boot-capable NICs or a software loader, you can deploy hundreds of diskless servers. This is ideal for large deployments of identical operating system images, such as a Hyper-V server farm or High Performance Computing (HPC) clusters.
- Data Deduplication: Data deduplication enables Windows Storage Server 2012 to store more data in less physical space and achieve storage efficiency that is significantly higher than was possible in previous releases of Windows Storage Server that used Single Instance Storage (SIS) or NTFS file system compression. Data deduplication uses variable size chunking and compression, which deliver optimization ratios of 2:1 for general file servers and up to 20:1 for virtualization data. Evaluate your deduplication savings with the included deduplication evaluation tool - When the deduplication feature is installed, the Deduplication Evaluation Tool (DDPEval.exe) is automatically installed to the \Windows\System32\ directory. This tool can be copied from any Windows Server 2012 installation to systems running Windows Server 2012, Windows Server 2008 R2, or Windows 7 . You can use it to determine the expected savings that you would get if deduplication is enabled on a particular volume. DDPEval.exe supports local drives, and it supports evaluating mapped or unmapped remote shares.
- Volume Shadow Copy Service Creates point-in-time copies (snapshots) of files and folders at predetermined time intervals, that can then be accessed from client computers.
- VSS for Remote SMB File Shares: Leverage proven Volume Shadow Copy Service (VSS) to offload snapshot and backup operations to remote storage from VSS hardware providers within Hyper-V virtual machines.
- Hosted Branch Cache :Using client/server architecture, Windows 7/8 client computers can cache

Standard Features

content on the local network via the Hosted Cache running on the StoreEasy 1000 Storage. Other clients who need the same content retrieve it directly from the Hosted Cache.

- DFS Namespaces: Enables you to group shared folders that are located on different servers into one or more logically structured namespaces. Each namespace appears to users as a single shared folder with a series of subfolders. However, the underlying structure of the namespace can consist of numerous file shares that are located on different servers and in multiple sites.
- Distributed File System Replication (DFS-R): Enables you to efficiently replicate folders (including those referred to by a DFS namespace path) across multiple servers and sites. DFS Replication uses a compression algorithm known as remote differential compression (RDC). RDC detects changes to the data in a file, and it enables DFS Replication to replicate only the changed file blocks instead of the entire file.
- File Server Resource Manager (FSRM): File Server Resource Manager is a set of features that allow you to manage and classify data that is stored on file servers. File Server Resource Manager includes the following features:
  - Storage reports: Storage reports are used to help you identify trends in disk usage and how your data is classified. You can also monitor a selected group of users for attempts to save unauthorized files.
  - File Classification Infrastructure: File Classification Infrastructure provides insight into your data by automating classification processes so that you can manage your data more effectively. You can classify files and apply policies based on this classification. Example policies include dynamic access control for restricting access to files, file encryption, and file expiration. Files can be classified automatically by using file classification rules or manually by modifying the properties of a selected file or folder.
  - File Management Tasks: File Management Tasks enables you to apply a conditional policy or action to files based on their classification. The conditions of a file management task include the file location, the classification properties, the date the file was created, the last modified date of the file, or the last time the file was accessed. The actions that a file management task can take include the ability to expire files, encrypt files, or run a custom command.
  - Quota management: Quotas allow you to limit the space that is allowed for a volume or folder, and they can be automatically applied to new folders that are created on a volume. You can also define quota templates that can be applied to new volumes or folders.
  - File screening management: File screens help you control the types of files that user can store on a file server. You can limit the extension that can be stored on your shared files. For example, you can create a file screen that does not allow files with an MP3 extension to be stored in personal shared folders on a file server.
- Initial Configuration Tasks Wizard: Simplifies and accelerates new device deployment by presenting basic system settings on your first boot.
- Server Manager
- Print Management Console: Manage multiple printers (license for unlimited printer support) from a single console, whether locally or over the WAN
- Unlimited Client Access Licenses (CALs) included

NOTE: Windows Storage Server 2012 and Windows Server 2012 are built on the same code base. Applications certified for Windows Server are expected to have the same application compatibility profile on Windows Storage Server. Windows Storage Server 2012 and Windows Server 2012 have the same application frameworks, services and plumbing to support running the full breadth of Window-compatible applications. Applications that rely upon certain roles that are removed from Windows Storage Server 2012, such as fax server, active directory domain controller or terminal services will not be able to leverage those roles. Independent Software Vendors (ISVs) ultimately decide what versions and editions of Windows are supported by their products and users should review ISV compatibility and support information before purchasing. HP StoreEasy customers should review the End User License Agreement

Standard Features

(EULA) to see the types of applications that are permitted for installation.All versions of Windows Storage Server can join Active Directory domains, but cannot be a domain controller.

More information on Windows Storage Server 2012 Standard Edition can be found here: http://technet.microsoft.com/en-us/library/jj643303

Processor / Cache Memory	StoreEasy 1430	StoreEasy 1530	StoreEasy 1630	StoreEasy 1830
	Intel® Core® i3-3220T (2.8GHz/2-core/3MB/45W, HT) Processor	Intel® Core™ i3-3220 (3.3GHz/2-core/3MB/65W, HT) Processor	Intel® Xeon® E5-2407 (2.2GHz/4-core/10MB/6.4GT-s QPI/80W, DDR3-1066, HT)	Intel® Xeon® E5-2609 (2.4GHz/4-core/10MB/6.4GT-s QPI/80W)

Memory					
	Type	Unbuffered (UDIMM) or Registered (RDIMM) depending on model			
	Maximum (by O/S license)	2TB			
		StoreEasy 1430	**Store1530**	**StoreEasy 1630**	**StoreEasy 1830**
	Standard	8GB (2 x 4GB)	GB (2x 4GB)	12GB (3 x 4GB)	16GB (4 x GB)
	DIMM Sockets	4	4	12	24

Network Controller		StoreEasy 1430	StoreEasy 1530	StoreEasy 1630	StoreEasy 1830
	NIC Ports	2	2	4	4
	Controller	HP Ethernet 1Gb 2-port 330i Adapter	HP Ethernet 1Gb 2-port 330i Adapter	HP Ethernet 1Gb 4-port 366i Adapter	HP Ethernet 1Gb 4-port 331FLR Adapter

Expansion Slots		Expansion Slots	Technology	Bus Width**	Connector Width	Form Factor	Notes
	StoreEasy 1430	1	PCIe 2.0	x4	x8	Low Profile Slot	SA P222 installed
		2	PCIe 3.0	x16	X16	Half length, full-height slot	

*Indicates the number of physical electrical lanes running to the connector.

		Expansion Slots #	Technology	Bus Width**	Connector Width	Form Factor	Notes
	StoreEasy 1530	1	PCIe 2.0	X1	X4	Half Length/Full Height	
		2	PCIe 2.0	X4	x8	Full Length/Full Height	
		3	PCIe 3.0	X8	X8	Full Length/Full Height	SA P222 installed

Standard Features

4	PCIe 3.0	X8	X16	Full Length/Full Height	

*Indicates the number of physical electrical lanes running to the connector.
NOTE: No additional Smart Array Controllers can be added to the StoreEasy 1530

	Expansion Slots #	Technology	Bus Width**	Connector Width	Form Factor	Notes
StoreEasy 1630	1	PCIe Gen3.0	X4	X8	Full Length, Full Height Slot	
	2	PCIe Gen3.0	X8	X16	Half Length, Full Height Slot	SA P822 installed
	3	PCIe Gen3.0	X8	X8	Half Length, Full Height Slot	
	4	PCIe Gen2.0	X4	X8	Low Profile	

** Indicates the number of physical electrical lanes running to the connector.

StoreEasy 1830

Primary Riser (Standard)	Expansion Slots #	Technology	Bus Width**	Connector Width	Bus Number*	Form Factor	Notes
	1	PCIe 3.0	X16	X16	7	Full Length, Full Height Slot	Proc 1
	2	PCIe 3.0	X8	X8	10	Half Length, Full Height Slot	SA P822 installed
	3	PCIe 2.0	X4	X8	13	Half Length, Full Height Slot	

* Default bus assignment (in decimal). Inserting cards with PCI bridges may alter the actual bus assignment number
** Indicates the number of physical electrical lanes running to the connector.
NOTE: When populating the second optional riser slot, the second processor must be installed.
NOTE: All slots support up to 150w PCIe cards, but an additional Power Cord Option is required (PN 669777-B21). See Option Section below for offering.

StoreEasy 1830

PCIe Riser (Optional 3-slot)	Expansion Slots #	Technology	Bus Width**	Connector Width	Bus Number*	Form Factor	Notes
	4	PCIe 3.0	X16	X16	16	Full Length, Full Height Slot	Proc 2
	5	PCIe 3.0	X8	X8	20	Half Length, Full Height Slot	Proc 2
	6	PCIe 3.0	X4	X8	23	Half Length, Full Height Slot	Proc 2

Standard Features

* Default bus assignment (in decimal). Inserting cards with PCI bridges may alter the actual bus assignment number
** Indicates the number of physical electrical lanes running to the connector.
NOTE: When populating the second optional riser slot, the second processor must be installed.
NOTE: All slots support up to 150w PCIe cards, but an additional Power Cord Option is required (669777-B21). See Option Section below for offering

StoreEasy 1830

PCIe Riser (Optional 2-slot)	Expansion Slots #	Technology	Bus Width**	Connector Width	Bus Number*	Form Factor	Notes
	4	PCIe 3.0	X16	X16	16	Full Length, Full Height	Proc 2
	5	PCIe 3.0	X16	X8	16	Half Length, Full Height	Proc 2

* Default bus assignment (in decimal). Inserting cards with PCI bridges may alter the actual bus assignment number
** Indicates the number of physical electrical lanes running to the connector.

Storage Controller		StoreEasy 1430	StoreEasy 1530	StoreEasy 1630	StoreEasy 1830
	Controller(s)	HP Smart Array P222/512 FBWC 6Gb 1-port Int/1-port Ext SAS Controller	HP Smart Array P222/512 FBWC 6Gb 1-port Int/1-port Ext SAS Controller	HP Smart Array P822/2GB FBWC 2-ports Int/4-ports Ext SAS Controller	HP Smart Array P822/2GB FBWC 2-ports Int/4-ports Ext SAS Controller 0/1/1+0/5/5+0 6/6+0
	RAID	0/1/1+0/5/5+0 6/6+0	0/1/1+0/5/5+0 6/6+0	0/1/1+0/5/5+0 6/6+0	
	Internal SAS connectors	1	1	2	2
	External SAS connectors	1	1	4	4

NOTE: RAID 6, 6+0 can be enabled with 512 MB FBWC and Smart Array Advanced Pack 2.0 License key included with all StoreEasy models

Standard Features

Storage	Hard Drives				
		StoreEasy 1430	**StoreEasy 1530**	**StoreEasy 1630**	**StoreEasy 1830**
	Internal	(4) Four 3.5" (Large Form Factor) hot-plug bays	(4) Four 3.5"(Large Form Factor) hot-plug bays	(12) Twelve 3.5" (Large Form Factor) hot-plug bays in front and (2) two 3.5" (Large Form Factor) or 2.5" hot-plugs bays in rear	(25) 2.5" (Small Form Factor) hot-plug bays
	External	Support for D2000	Support for D2000	Support for D2000, D6000	Support for D2000, D6000

Maximum Storage Capacity (raw)		**StoreEasy 1430**	**StoreEasy 1530**	**StoreEasy 1630**	**StoreEasy 1830**
	Internal SATA	16TB	16TB	56TB	23TB
	Internal SAS	16TB	16TB	56TB	27.6TB
	Internal plus External	400TB (Replace stock P222 with P822 allows for 100 drives x 4TB LFF , 4 internal and 8 D2600s)	216TB P222 allows for 54 drives x 4TB LFF, 4 internal and 4 D2600s)	824TB (add additional P822 allows for 206 drives x 4TB LFF, 14 internal and 16 D2600s)	795.6TB (add additional P822 allows for 215 drives, 23 internal x 1.2TB SFF and 16 D2600s x 4TB LFF)

Power Supply	**StoreEasy 1430**	**StoreEasy 1530**	**StoreEasy 1630**	**StoreEasy 1830**
	460 Watts, Hot Plug (optional redundant)	460 Watts, Hot Plug (optional redundant)	750 Watts, Hot Plug Redundant	750 Watts, Hot Plug Redundant

Power Cords	**StoreEasy 1430**	**StoreEasy 1530**	**StoreEasy 1630**	**StoreEasy 1830**
	One high voltage power cord (IEC C13 to C14) standard	Regional or country specific power cord required	Two high voltage power cords (IEC C13 to C14) standard	Two high voltage power cords (IEC C13 to C14) standard

NOTE: HP StoreEasy 1430, 1630 and 1830 no longer ship standard with a 12-foot NEMA 5-15P to C13 power cords (227099-001) that allow connection to 110V US wall outlets in a home or office. These products are primarily connected to PDU's in data center racks so they now ship standard with only a PDU 6-foot C-14 to C13 power cord (142258-001). If a user wishes to power a system using a110V receptacle (NEMA-15) use the 12-foot NEMA 5-15 to C13 power cord (227099-001). See Power Cords section for Worldwide Power Cord options.

NOTE: The HP StoreEasy 1530 Storage product is a tower server that ships standard with a 6' country specific NEMA power cord that allows connection to wall outlets in a home or office. If customers require additional local power cords, they can check the power cord matrix for the appropriate country specific sku. Please see the following power cord matrix: http://www.hp.com/go/powercordmatrix
To install the StoreEasy 1530 Storage product in a in a rack, the Tower to Rack Conversion kit (417705-B21) is required as well as a PDU power cord (416151-B21) to connect to a PDU in a data center rack.

QuickSpecs

Standard Features

System Fans	StoreEasy 1430	StoreEasy 1530	StoreEasy 1630	StoreEasy 1830
	4 fan modules ship standard, non-redundant	One (1) Non-redundant system fan ships standard One (1) Non-redundant PCIe fan ships standard	6 Hot-plug Redundant Fans ship standard	6 (N+1 redundancy standard)

Form Factor	StoreEasy 1430	StoreEasy 1530	StoreEasy 1630	StoreEasy 1830
	1U Rack form factor	Micro ATX Tower (4U)	2U Rack form factor	2U Rack form factor

Other Feature Specifications

See the corresponding ProLiant QuickSpecs for additional feature specifications.

StoreEasy 1430 (DL320e Gen 8):
http://h18000.www1.hp.com/products/quickspecs/14326_div/14326_div.pdf

StoreEasy 1530 (ML310e Gen 8):
http://h18000.www1.hp.com/products/quickspecs/14339_div/14339_div.pdf

StoreEasy 1630 (DL380e Gen 8):
http://h18000.www1.hp.com/products/quickspecs/14328_div/14328_div.pdf

StoreEasy 1830 (DL380p Gen 8):
http://h18004.www1.hp.com/products/quickspecs/14212_div/14212_div.html

Optional Software

HP Data Protector software

HP Data Protector Software is enterprise data protection and disaster recovery, ensuring recovery from any disruption. Data Protector integrates a variety of techniques to eliminate backup and recovery windows. The capabilities to eliminate planned downtime range from online backup and backup of open files to zero-downtime, zero-impact backup. The software provides industry-leading instant recovery as well as several disaster recovery alternatives to eliminate unplanned downtime, allowing recovery of entire data centers in minutes.

Data Protector is enabling organizations to reduce costs by automating routine tasks to maximize the effectiveness of the data protection staff. For the price of an entry-level product, it provides the enterprise functionality customers need. Data Protector scales from single server to distributed enterprise, covering an extensive range of heterogeneous applications, operating environments and storage configurations with a single solution.

For more information on HP Data Protector: http://www.hp.com/go/dataprotector

HP Autonomy LiveVault

HP Autonomy LiveVault enables organizations to protect their critical application data and manage their long-term retention needs in the cloud. The LiveVault agent that is installed on HP StoreEasy Storage encrypts all data before transferring it. All data remains encrypted at HP Autonomy's secure, offsite, underground data centers - as well as on the optional TurboRestore(TM) appliance which resides in the customer data center. To ensure the physical security and availability of stored data, the LiveVault service mirrors all data to a second, geographically dispersed data center for full failover and redundancy. Visit autonomy.com/StoreEasy for more information or for a 30-day free trial go to: http://www.remotedatabackups.com/storeeasylivevault/

Models (Pre-Configured)

These models come with factory-installed drives and the Microsoft Windows Storage Server 2012 Standard Edition operating system pre-installed

Choose a Pre-configured Model
NOTE: All options ship separately and are not factory integrated.
NOTE: Model names are based on raw storage capacity, not available user storage.

HP StoreEasy 1000 Storage products

Common Specifications	Operating System Licenses	Microsoft® Windows Storage Server 2012, Standard Edition Smart Array Advanced Pack 2.0 License key **NOTE:** for more information, visit: www.hp.com/go/smartarray
		HP iLO Advanced including 1yr 24x7 Technical Support and Updates Single Server License **NOTE:** For more information, visit: http://www.hp.com/go/ilo

StoreEasy 1430 Models

Common Specifications	Processor	(1) Intel® Core® i3-3220T (2.8GHz/2-core/3MB/45W, HT) Processor
	Memory	8GB (2 x 4GB Dual Rank x8 PC3-12800E (DDR3-1600) Unbuffered CAS-11 Memory)
	Storage Controller	HP Smart Array P222/512 FBWC 6Gb 1-port Int/1-port Ext SAS Controller
	Internal Drive Support	(4) Four 3.5" (Large Form Factor) hot-plug drive bays
	Network Ports	2 x Gigabit Ethernet
	Expansion Slots	2 x PCIe (one slot occupied by Smart Array P222)
	Power	1 x 460W Power Supply (optional redundant)
	Form Factor	1U Rack

HP StoreEasy 1430 8TB SATA Storage   B7D89A
Internal Storage: 4 x 2TB 6G SATA 7.2K rpm 3.5" Midline 1 year Warranty Hard Drive -Drives factory configured as RAID 6 with OS pre-installed

HP StoreEasy 1430 12TB SATA Storage   B7D90A
Internal Storage: 4 x 3TB 6G SATA 7.2K rpm 3.5" Midline 1 year Warranty Hard Drive -Drives factory configured as RAID 6 with OS pre-installed

StoreEasy 1530 Models

Common Specifications	Processor	(1) Intel® Core™ i3-3220 (3.3GHz/2-core/3MB/65W, HT) Processor
	Memory	8GB (2 x 4GB Dual Rank x8 PC3-12800E (DDR3-1600) Unbuffered CAS-11 Memory)
	Storage Controller	HP Smart Array P222/512 FBWC 6Gb 1-port Int/1-port Ext SAS Controller
	Internal Drive Support	(4) Four 3.5" (Large Form Factor) hot-plug drive bays

Models (Pre-Configured)

Network Ports	2 x Gigabit Ethernet
Expansion Slots	4 x PCIe (one slot occupied by Smart Array P222)
Power	1 x 460W Power Supply (optional redundant)
Form Factor	4U Micro ATX Tower

HP StoreEasy 1530 8TB SATA Storage   B7D92A
Internal Storage: 4 x 2TB 6G SATA 7.2K rpm 3.5" Midline 1 year Warranty Hard Drive -Drives factory configured as RAID 6 with OS pre-installed

HP StoreEasy 1530 12TB SATA Storage   B7D93A
Internal Storage: 4 x 3TB 6G SATA 7.2K rpm 3.5" Midline 1 year Warranty Hard Drive -Drives factory configured as RAID 6 with OS pre-installed

NOTE: A regional or country specific power cord option must be ordered with StoreEasy 1530. See power cord options section.

StoreEasy 1630 Models

Common Specifications	**Processor**	(1) Intel® Xeon® E5-2407 (2.2GHz/4-core/10MB/6.4GT-s QPI/80W, DDR3-1066, HT), 2 supported
	Memory	12GB (3 x 4GB Single Rank x4 PC3L-10600R (DDR3-1333) Registered CAS-9 Low Voltage Memory)
	Storage Controller	HP Smart Array P822/2GB FBWC 2-ports Int/4-ports Ext SAS Controller
	Internal Drive Support	(12) Twelve 3.5" Large Form Factor (LFF) hot-plug drive bays in front and (2) two LFF or SFF hot-plugs drive bays in rear
	Network Ports	4 x Gigabit Ethernet
	Expansion Slots	4 x PCIe (one slot occupied by Smart Array P822)
	Power	2 x 750W power supplies
	Form Factor	2U Rack

HP StoreEasy 1630 900GB SAS Storage   H6Z28A
Internal Storage: 2 x 450GB 6G SAS 10K RPM 2.5" Enterprise 3 year Warranty Hard Drive in rear - factory configured as RAID1 with OS pre-installed. 12 open LFF HDD slots in front

HP StoreEasy 1630 28TB SAS Storage   B7D95A
Internal Storage: 14 x 2TB 6G SAS 7.2K rpm 3.5" Midline 1 year Warranty Hard Drive - 7 Drives factory configured as RAID 6 with OS pre-installed and one hot spare

HP StoreEasy 1630 42TB SAS Storage   B7D96A
Internal Storage: 14 x 3TB 6G SAS 7.2K rpm 3.5" Midline 1 year Warranty Hard Drive - Drives factory configured as RAID 6 with OS pre-installed and one hot spare

StoreEasy 1830 Models

Common Specifications	**Processor**	(1) Intel® Xeon® E5-2609 (2.4GHz/4-core/10MB/6.4GT-s QPI/80W)
	Memory	16GB (4 x 4GB Single Rank x4 PC3L-10600R (DDR3-1333) Registered CAS-9 Low Voltage Memory Kit)

Models (Pre-Configured)

Storage Controller	HP Smart Array P822/2GB FBWC 2-ports Int/4-ports Ext SAS Controller
Internal Drive Support	(25) Twenty five 2.5" Small Form Factor (SFF) hot-plug drive bays
Network Ports	4 x Gigabit Ethernet
Expansion Slots	6 x PCIe (one slot occupied by Smart Array P822)
Power	2 x 750W power supplies
Form Factor	2U Rack

HP StoreEasy 1830 12. 6TB SAS Storage   B7D98A

Internal Storage: 2 x450GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive - Drives factory configured as RAID 1+0 with OS pre-installed
Internal Storage: 14 x 900GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive
NOTE: 9 Open SFF drive bays

HP StoreEasy 1830 20.7TB SAS Storage   B7D99A

Internal Storage: 2 x450GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive - Drives factory configured as RAID 1+0 with OS pre-installed
Internal Storage: 23 x 900GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive

Models (Drives Configure-to-Order)

The StoreEasy 1430, 1530, and 1630 models below have no and allow you to select drive quantity, type, and capacity to be integrated at the factory.

The StoreEasy 1830 comes with2 x450GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise drives factory configured as RAID 1 with OS pre-installed. This model allows you to select drive quantity, type, and capacity to be integrated at the factory.

Choose a Base Model, then Select Hard Drives

NOTE: You must select a minimum of 4 drives of the same type and capacity for the StoreEasy 1430 and 1530.

NOTE: You must select a minimum of 8 drives of the same type and capacity for the StoreEasy 1630.

NOTE: Options (other than drives selected as part of the configure-to-order process) ship separately and are not factory integrated.

HP StoreEasy 1000 Storage products (Base models)

Common Specifications	Operating System	Microsoft® Windows Storage Server 2012, Standard Edition
	Licenses	Smart Array Advanced Pack 2.0 License key
		NOTE:for more information, visit:
		www.hp.com/go/smartarray
		HP iLO Advanced including 1yr 24x7 Technical Support and Updates Single Server License
		NOTE: For more information, visit:
		http://www.hp.com/go/ilo

StoreEasy 1430 Models

B7D88A

NOTE: This model does not include pre-configured HDDs. A minimum of 4 HDDs of the same type and a capacity greater than 146GB (excluding SSD drives) must be ordered for factory integration. This system cannot be shipped with less than 4 HDDs. The four drives will be factory configured as RAID 6 with the OS pre-installed.

Specifications	Same as the StoreEasy 1430 pre-configured models listed above	
Drive Options	Minimum Number of Drives Required	4
	Maximum Number of Drives Allowed	4

StoreEasy 1530 Models

NOTE: This model does not include pre-configured HDDs. A minimum of 4 HDDs of the same type and a capacity greater than 146GB (excluding SSD drives) must be ordered for factory integration. This system cannot be shipped with less than 4 HDDs. The four drives will be factory configured as RAID 6 with the OS pre-installed.

B7D91A

NOTE: A country specific power cord option must be ordered with StoreEasy 1530. See power cord options section.

Specifications	Same as the StoreEasy 1530 pre-configured models listed above	
Drive Options	Minimum Number of Drives Required	4
	Maximum Number of Drives Allowed	4

StoreEasy 1630 Network Storage System (LFF)

B7D94A

Models (Drives Configure-to-Order)

NOTE: This model does not include pre-configured HDDs. A minimum of 8 HDDs of the same type and a capacity greater than 146GB (excluding SSD drives) must be ordered for factory integration. This system cannot be shipped with less than 8 HDDs. 7 of 8 drives will be factory configured as RAID 6 with the OS pre-installed and one drive available as a hot spare.

Specifications	Same as the StoreEasy 1630 pre-configured models listed above
Drive Options	Minimum Number of Drives Required 8
	Maximum Number of Drives Allowed 14

StoreEasy 1830 Storage   B7D97A

NOTE: This model includes (2) two 450GB 6G 10K rpm SFF HDDs factory configured as RAID 1+0 with the OS pre-installed.

Specifications	Same as the StoreEasy 1830 pre-configured models listed above
Drive Options	Minimum Number of Drives Required 0
	Maximum Number of Drives Allowed 23

Options

The following options are available for both StoreEasy Pre-configured and Base Models
NOTE: Options ship separately and are not factory integrated
NOTE: Carefully match options to your model to ensure compatibility

Add Another Processor

You can add a second processor to the StoreEasy 1630 and StoreEasy 1830 models
NOTE: StoreEasy 1430 and 1530 models support one processor only.

StoreEasy 1630	HP DL380e Gen8 Intel® Xeon® E5-2407 (2.2GHz/4-core/10MB/80W) Processor Kit	661132-B21
StoreEasy 1830	HP DL380p Gen8 Intel® Xeon® E5-2609 (2.40GHz/4-core/10MB/80W) Processor Kit	662252-B21

Add More Memory

NOTE: HP recommends that you add the same type memory to the product that is shipped standard with the product
NOTE: Number of available DIMM sockets varies by model. **NOTE:** HP memory from previous generation servers are not fully compatible with Smart Memory features in Gen8 Servers.

StoreEasy 1430 /	**Unbuffered with ECC DIMMs (UDIMMs)**	
StoreEasy 1530	HP 4GB (1x4GB) Dual Rank x8 PC3-12800E (DDR3-1600) Unbuffered CAS-11 Memory Kit	669322-B21
StoreEasy 1630 /	**Registered DIMMs (RDIMMs)**	
StoreEasy 1830	HP 4GB (1x4GB) Single Rank x4 PC3L-10600R (DDR3-1333) Registered CAS-9 Low Voltage Memory Kit	647893-B21
	NOTE: All DDR3 memory option kits consist of one DIMM per kit. **NOTE:** PC3L is a low voltage memory.	

Add Optical Drives

StoreEasy 1430	HP 9.5mm SATA DVD-ROM JackBlack Optical Drive	652238-B21
	HP 9.5mm SATA DVD-RW JackBlack Optical Drive	652241-B21
StoreEasy 1530	HP Half-Height SATA DVD ROM JackBlack Optical Drive	624189-B21
	HP Half-Height SATA DVD RW JackBlack Optical Drive	624192-B21

Add a Network Adapter

NOTE: Expansion slot availability varies by model.
NOTE: Multifunction Server Adapters support the installed Microsoft Windows Server Scalable Networking Pack, which enables TCP Chimney offload, Receive-side Scaling (RSS), and Network Direct Memory Access (NetDMA) features.

StoreEasy 1430/1530	**Gigabit Ethernet Adapters**	
	HP NC112T PCI Express Gigabit Server Adapter	503746-B21
	HP NC365T 4-port Ethernet Server Adapter	593722-B21
	HP Ethernet 1Gb 2-port 361T Adapter	652497-B21
	HP Ethernet 1Gb 4-port 331T Adapter	647594-B21
	HP Ethernet 1Gb 2-port 332T Adapter	615732-B21
	10 Gigabit Ethernet Adapters	
	NOTE: No more than two 10GbE I/O devices are supported in a single system.	
	NOTE: A minimum of two Gigabytes (2 GB) of server memory is required per each adapter.	
	NOTE: Direct Attach Cable (DAC) for copper environments or fiber transceivers and	

Options

cables for fiber-optic environments must be purchased separately. See cables/options below.

HP NC523SFP 10Gb 2-port Server Adapter	593717-B21
HP NC552SFP 10Gb 2-port Ethernet Server Adapter	614203-B21
HP Ethernet 10Gb 2-port 530SFP Adapter	652503-B21
HP Ethernet 10Gb 2-port 530T Adapter (StoreEasy 1430 only)	656596-B21
HP Ethernet 10Gb 2-port 560SFP+ Adapter	665249-B21

NOTE: Please see the QuickSpecs for Technical Specifications and additional information: www.hp.com/go/ProLiantNICs.

StoreEasy 1630

Gigabit Ethernet adapters

HP NC112T PCI Express Gigabit Server Adapter	503746-B21
HP NC365T 4-port Ethernet Server Adapter	593722-B21
HP Ethernet 1Gb 4-port 331T Adapter	647594-B21
HP Ethernet 1Gb 2-port 332T Adapter	615732-B21
HP Ethernet 1Gb 2-port 361T Adapter	652497-B21

10 Gigabit Ethernet Adapters

NOTE: No more than two 10GbE I/O devices are supported in a single system.

NOTE: A minimum of two Gigabytes (2 GB) of server memory is required per each adapter.

NOTE: Direct Attach Cable (DAC) for copper environments or fiber transceivers and cables for fiber-optic environments must be purchased separately.

HP NC523SFP 10Gb 2-port Server Adapter	593717-B21
HP Ethernet 10Gb 2-port 530SFP Adapter	652503-B21
HP Ethernet 10Gb 2-port 530T Adapter	656596-B21
HP Ethernet 10Gb 2-port 560SFP+ Adapter	665249-B21
HP NC552SFP 10Gb 2-port Ethernet Server Adapter	614203-B21

NOTE: Please see the QuickSpecs for Technical Specifications and additional information: www.hp.com/go/ProLiantNICs

StoreEasy 1830

Gigabit Ethernet adapters

HP NC112T PCI Express Gigabit Server Adapter	503746-B21
HP NC365T 4-port Ethernet Server Adapter	593722-B21
HP Ethernet 1Gb 4-port 331T Adapter	647594-B21
HP Ethernet 1Gb 2-port 361T Adapter	652497-B21
HP Ethernet 1Gb 2-port 332T Adapter	615732-B21

10 Gigabit Ethernet Adapters

NOTE: No more than two 10GbE I/O devices are supported in a single system.

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HP NC523SFP 10Gb 2-port Server Adapter	593717-B21
HP Ethernet 10Gb 2-port 530SFP Adapter	652503-B21
HP Ethernet 10Gb 2-port 530T Adapter	656596-B21

Options

	HP Ethernet 10Gb 2-port 560SFP+ Adapter	665249-B21
	HP NC552SFP 10Gb 2-port Ethernet Server Adapter	614203-B21
	HP Ethernet 10Gb 2-port 570SFP+ Adapter	718904-B21
	HP Ethernet 10Gb 2-port 571SFP+ Adapter	728987-B21

HP Security	HP Trusted Platform Module Option	488069-B21

NOTE: The TPM (Trusted Platform Module) is a microcontroller chip that can securely store artifacts used to authenticate the server platform. These artifacts can include passwords, certificates and encryption keys. Windows® BitLocker™ Drive Encryption (BitLocker) is a data protection feature available in Windows Server® 2008. BitLocker leverages the enhanced security capabilities of a Trusted Platform Module (TPM) version 1.2. The TPM works with BitLocker to help protect user data and to ensure that a server running Windows Server 2008 has not been tampered with while the system was offline. For more information about TPM, including a white paper, go to: www.hp.com/go/TPM.

NOTE: The TPM key is unique to every TPM deployed server and must be retained. Misplacing or losing the key could result in data loss.

	HP 1U Security Bezel Kit (StoreEasy 1430)	664918-B21
	HP 2U Security Bezel Kit (StoreEasy 1630/1830)	666988-B21

Add More Storage

HP StoreEasy Storage products come standard with at least one installed Smart Array Controller that supports internal drives. The Smart Array Controllers also have external ports for expansion to external storage.

NOTE: Expansion slot availability varies by model.

NOTE: The StoreEasy 1530 can only support one Smart Array Controller (P222) which is pre-installed from the factory.

StoreEasy 1430/1530	**SAS Controllers**	
	Smart Array P421 Controller (StoreEasy 1430 only)	
	HP Smart Array P421/1GB FBWC 6Gb 2-ports Ext SAS Controller	631673-B21
	HP Smart Array P421/2GB FBWC 6Gb 2-ports Ext SAS Controller	631674-B21
	Optional Upgrades (StoreEasy 1430 only)	
	HP 2GB P-series Smart Array Flash Backed Write Cache	631681-B21
	HP SmartCache No Media 24x7 Technical Support 1 Svr License	D7S26A
	HP SmartCache No Media 24x7 Technical Support Flexible License	D7S27A
	HP SmartCache No Media 24x7 Technical Support Electronic License	D7S27AAE

NOTE: Please see the QuickSpecs for Technical Specifications and additional information:

http://h18000.www1.hp.com/products/quickspecs/14227_div/14227_div.html (Smart Array P222 Controller)

http://h18000.www1.hp.com/products/quickspecs/14229_div/14229_div.html (Smart Array P421 Controller and Smart Cache)

http://h18000.www1.hp.com/products/quickspecs/13200_div/13200_div.html (Smart Array Advanced Pack)

	Host Bus Adapter	
	HP H221 Host Bus Adapter	650931-B21

NOTE: This is a 2 x4 External Port HBA.

Options

	HP H221 PCIe 3.0 SAS Host Bus Adapter	729552-B21
	HP H222 Host Bus Adapter	650926-B21

NOTE: Please see the QuickSpecs for Technical Specifications and additional information:

http://h18004.www1.hp.com/products/quickspecs/14336_div/14336_div.html (HBA 220)

http://h18004.www1.hp.com/products/quickspecs/14222_div/14222_div.html (HBA 221)

http://h18004.www1.hp.com/products/quickspecs/14337_div/14337_div.html (HBA 222)

SCSI HBA

	HP SC11Xe Ultra320 Single Channel/ PCIe x4 SCSI Host Bus Adapter	412911-B21

NOTE: Please see the following QuickSpecs for additional information:

http://h18000.www1.hp.com/products/quickspecs/12566_div/12566_div.html (SC11Xe HBA)

Fibre Channel HBA

NOTE: For detailed compatibility information please see:

http://h18006.www1.hp.com/storage/saninfrastructure/hba.html

QLogic Fibre Channel HBAs

	HP 81Q 8Gb 1-port PCIe Fibre Channel Host Bus Adapter	AK344A
	HP 82Q 8Gb 2-port PCIe Fibre Channel Host Bus Adapter	AJ764A

Converged Network Adapter (StoreEasy 1430 only)

	HP CN1000Q Dual Port Converged Network Adapter	BS668A
	HP StoreFabric CN1100R Dual Port Converged Network Adapter	QW990A

StoreEasy 1630/1830

SAS Controllers

Smart Array P421 Controller

	HP Smart Array P421/1GB FBWC 6Gb 2-ports Ext SAS Controller	631673-B21
	HP Smart Array P421/2GB FBWC 6Gb 2-ports Ext SAS Controller	631674-B21

HP Smart Array P431 Controller

	HP Smart Array P431/2GB FBWC 6Gb 2-ports Ext SAS Controller	698531-B21

Smart Array P822 Controller

	HP Smart Array P822/2GB FBWC 2-ports Int/4-ports Ext SAS Controller	615418-B21

Optional Upgrades

	HP 2GB P-series Smart Array Flash Backed Write Cache	631681-B21
	HP SmartCache No Media 24x7 Technical Support 1 Svr License	D7S26A
	HP SmartCache No Media 24x7 Technical Support Flexible License	D7S27A
	HP SmartCache No Media 24x7 Technical Support Electronic License	D7S27AAE
	HP Smart Array Advanced Pack 2.0 No Media 1 Server 1yr 24x7 Support Software	BC377A
	HP Smart Array Advanced Pack 2.0 No Media Electronic Lic 1yr 24x7 Support Software	BC390AAE

NOTE: Please see the QuickSpecs for Technical Specifications and additional information:

http://h18000.www1.hp.com/products/quickspecs/14229_div/14229_div.html (Smart Array P421 Controller)

http://h18000.www1.hp.com/products/quickspecs/14624_div/14624_div.html (Smart Array P430 Controller)

Options

http://h18000.www1.hp.com/products/quickspecs/14341_div/14341_div.html (Smart Array P822 Controller)

Host Bus Adapter

HP H221 Host Bus Adapter	650931-B21
HP H221 PCIe 3.0 SAS Host Bus Adapter	729552-B21
HP H222 Host Bus Adapter	650926-B21

NOTE: Please see the QuickSpecs for Technical Specifications and additional information:

http://h18004.www1.hp.com/products/quickspecs/14222_div/14222_div.html (HBA 221)

http://h18004.www1.hp.com/products/quickspecs/14337_div/14337_div.html (HBA 222)

Fibre Channel HBA

NOTE: For detailed compatibility information please see:

http://h18006.www1.hp.com/storage/saninfrastructure/hba.html

Brocade Fibre Channel HBAs

HP 81B 8Gb 1-port PCIe Fibre Channel Host Bus Adapter	AP769B
HP 82B 8Gb 2-port PCIe Fibre Channel Host Bus Adapter	AP770B

Emulex Fibre Channel HBAs

HP 81E 8Gb 1-port PCIe Fibre Channel Host Bus Adapter	AJ762B
HP 82E 8Gb 2-port PCIe Fibre Channel Host Bus Adapter	AJ763B
HP SN1000E 16Gb 1-port PCIe Fibre Channel Host Bus Adapter	QR558A
HP SN1000E 16Gb 2-port PCIe Fibre Channel Host Bus Adapter	QR559A
HP StoreFabric SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter	C8R38A
HP StoreFabric SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter	C8R39A

QLogic Fibre Channel HBAs

HP 81Q 8Gb 1-port PCIe Fibre Channel Host Bus Adapter	AK344A
HP 82Q 8Gb 2-port PCIe Fibre Channel Host Bus Adapter	AJ764A
HP StoreFabric SN1000Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter	QW971A
HP StoreFabric SN1000Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter	QW972A

Converged Network Adapter

HP CN1000Q Dual Port Converged Network Adapter	BS668A
HP CN1100E Dual Port Converged Network Adapter	BK835A
HP StoreFabric CN1100R Dual Port Converged Network Adapter	QW990A

StoreEasy 1830

SCSI HBA

HP SC11Xe Ultra320 Single Channel/ PCIe x4 SCSI Host Bus Adapter	412911-B21

NOTE: Please see the following QuickSpecs for additional information:

http://h18000.www1.hp.com/products/quickspecs/12566_div/12566_div.html (SC11Xe HBA)

HP Hard Drives for StoreEasy 1430/1530

NOTE: The HP StoreEasy 1430 and 1530 are equipped with entirely re-designed Large Form Factor (LFF 3.5 in) hot plug carriers for HP Qualified Hard Drives and Solid State Drives. These new carriers provide status and activity indicators as well as caution indicators for "Do Not Remove".

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.

Options

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

SAS Hot Plug SmartDrive LFF (3.5-inch) Enterprise Drives

HP 600GB 6G SAS 15K rpm LFF (3.5-inch) SC Enterprise 3yr Warranty Hard Drive	652620-B21
HP 450GB 6G SAS 15K rpm LFF (3.5-inch) SC Enterprise 3yr Warranty Hard Drive	652615-B21

SAS Hot Plug SmartDrive LFF (3.5-inch) Midline Drives

HP 4TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	695510-B21
HP 3TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	652766-B21
HP 2TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	652757-B21
HP 1TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	652753-B21

NOTE: Please see the QuickSpecs for Technical Specifications and additional information:
http://h18000.www1.hp.com/products/quickspecs/12244_div/12244_div.html (Worldwide)

6G SATA Hot Plug with SmartDrive LFF (3.5-inch) Midline (MDL) Drives

HP 4TB 6G SATA 7.2k rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	693687-B21
HP 3TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	628061-B21
HP 2TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	658079-B21
HP 1TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	657750-B21
HP 500GB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	658071-B21

NOTE: SATA hard drives have a 1-year warranty. Please see the QuickSpecs for Technical Specifications and additional information:
http://h18000.www1.hp.com/products/quickspecs/13021_div/13021_div.html (Worldwide)

6G SATA Value Endurance Hot Plug LFF (3.5-inch) Enterprise Boot Solid State Drives

HP 120GB 6G SATA Value Endurance LFF 3.5-in SC Enterprise Boot 3yr Wty Solid State Drive	718171-B21
HP 80GB 6G SATA Value Endurance LFF 3.5-in SC Enterprise Boot 3yr Wty Solid State Drive	734362-B21

6G SATA Value Endurance Hot Plug LFF (3.5-inch) Enterprise Value Solid State Drives

HP 800GB 6G SATA Value Endurance LFF 3.5-in SC Enterprise Value 3yr Wty Solid State Drive	718189-B21
HP 600GB 6G SATA Value Endurance LFF 3.5-in SC Enterprise Boot 3yr Wty Solid State Drive (StoreEasy 1430 only)	739900-B21
HP 480GB 6G SATA Value Endurance LFF 3.5-in SC Enterprise Value 3yr Wty Solid State Drive	718183-B21
HP 300GB 6G SATA Value Endurance LFF 3.5-in SC Enterprise Boot 3yr Wty Solid State Drive (StoreEasy 1430 only)	739890-B21
HP 240GB 6G SATA Value Endurance LFF 3.5-in SC Enterprise Value 3yr Wty Solid State Drive	718177-B21

6G SATA ME Hot Plug LFF (3.5-inch) Enterprise Mainstream Solid State Drives

HP 800GB 6G SATA Mainstream Endurance LFF 3.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	691860-B21
HP 400GB 6G SATA Mainstream Endurance LFF 3.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	691856-B21
HP 200GB 6G SATA Mainstream Endurance LFF 3.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	691854-B21

Options

HP 100GB 6G SATA Mainstream Endurance LFF 3.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	691852-B21

HP Hard Drives for StoreEasy 1630

NOTE: The HP StoreEasy 1630 is equipped with entirely re-designed Large Form Factor (LFF 3.5 in) hot plug carriers for HP Qualified Hard Drives and Solid State Drives. These new carriers provide status and activity indicators as well as caution indicators for "Do Not Remove".

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 SmartDrive LFF (3.5-inch) Enterprise Drives

HP 600GB 6G SAS 15K rpm LFF (3.5-inch) SC Enterprise 3yr Warranty Hard Drive	652620-B21
HP 450GB 6G SAS 15K rpm LFF (3.5-inch) SC Enterprise 3yr Warranty Hard Drive	652615-B21

SAS Hot Plug SmartDrive LFF (3.5-inch) Midline Drives

HP 4TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	695510-B21
HP 3TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	652766-B21
HP 2TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	652757-B21
HP 1TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	652753-B21

NOTE: Please see the QuickSpecs for Technical Specifications and additional information:
http://h18000.www1.hp.com/products/quickspecs/12244_div/12244_div.html (Worldwide)

6G SATA Hot Plug with SmartDrive LFF (3.5-inch) Midline (MDL) Drives

HP 4TB 6G SATA 7.2k rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	693687-B21
HP 3TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	628061-B21
HP 2TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	658079-B21
HP 1TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	657750-B21
HP 500GB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	658071-B21

NOTE: Please see the QuickSpecs for Technical Specifications and additional information:
http://h18000.www1.hp.com/products/quickspecs/13021_div/13021_div.html (Worldwide)

6G SATA Value Endurance Hot Plug LFF (3.5-inch) Enterprise Boot Solid State Drives

HP 120GB 6G SATA Value Endurance LFF 3.5-in SC Enterprise Boot 3yr Wty Solid State Drive	718171-B21
HP 80GB 6G SATA Value Endurance LFF 3.5-in SC Enterprise Boot 3yr Wty Solid State Drive	734362-B21

6G SATA Value Endurance Hot Plug LFF (3.5-inch) Enterprise Value Solid State Drives

HP 800GB 6G SATA Value Endurance LFF 3.5-in SC Enterprise Value 3yr Wty Solid State Drive	718189-B21
HP 600GB 6G SATA Value Endurance LFF 3.5-in SC Enterprise Boot 3yr Wty Solid State Drive	739900-B21
HP 480GB 6G SATA Value Endurance LFF 3.5-in SC Enterprise Value 3yr Wty Solid State Drive	718183-B21

Options

HP 300GB 6G SATA Value Endurance LFF 3.5-in SC Enterprise Boot 3yr Wty Solid State Drive	739890-B21
HP 240GB 6G SATA Value Endurance LFF 3.5-in SC Enterprise Value 3yr Wty Solid State Drive	718177-B21
6G SATA ME Hot Plug LFF (3.5-inch) Enterprise Mainstream Solid State Drives	
HP 800GB 6G SATA Mainstream Endurance LFF 3.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	691860-B21
HP 400GB 6G SATA Mainstream Endurance LFF 3.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	691856-B21
HP 200GB 6G SATA Mainstream Endurance LFF 3.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	691854-B21
HP 100GB 6G SATA Mainstream Endurance LFF 3.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	691852-B21
3G SATA MLC Hot Plug LFF (3.5-inch) Enterprise Mainstream Solid State Drives	
HP 400GB 3G SATA MLC LFF (3.5-inch) SC Enterprise Mainstream 3yr Warranty Solid State Drive	653126-B21

NOTE: Please see the QuickSpecs for Technical Specifications and additional information:
http://h18000.www1.hp.com/products/quickspecs/14038_div/14038_div.html (Worldwide)

Hard Drive Kits
NOTE: All Factory shipped models will be populated with sufficient hard drive blanks based on the number of initial hard drives ordered with the system.

HP LFF Gen8 Hard Drive Blank Kit	666986-B21

HP Hard Drives for StoreEasy 1830

NOTE: The HP StoreEasy 1830 is equipped with entirely re-designed Small Form Factor (SFF 2.5 in) hot plug carriers for HP Qualified Hard Drives and Solid State Drives. These new carriers provide status and activity indicators as well as caution indicators for "Do Not Remove".
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 with SmartDrive SFF (2.5-inch) Enterprise Drives

HP 1.2TB 6G SAS 10K rpm SFF (2.5-inch) SC Dual Port Enterprise 3yr Warranty Hard Drive	718162-B21
HP 1.2TB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	697574-B21
HP 900GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652589-B21
HP 600GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652583-B21
HP 450GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652572-B21
HP 300GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652564-B21
HP 300GB 6G SAS 15K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652611-B21
HP 146GB 6G SAS 15K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652605-B21
SAS Hot Plug SmartDrive SFF (2.5-inch) Midline Drives	
HP 1TB 6G SAS 7.2K rpm SFF (2.5-inch) SC Midline 1yr Warranty Hard Drive	652749-B21

Options

HP 500GB 6G SAS 7.2K rpm SFF (2.5-inch) SC Midline 1yr Warranty Hard Drive	652745-B21
6G SATA Hot Plug with SmartDrive SFF (2.5-inch) Midline (MDL) Drives	
HP 1TB 6G SATA 7.2K rpm SFF (2.5-inch) SC Midline 1yr Warranty Hard Drive	655710-B21
HP 500GB 6G SATA 7.2K rpm SFF (2.5-inch) SC Midline 1yr Warranty Hard Drive	655708-B21
6G SATA Value Endurance Hot Plug SFF (2.5-inch) Enterprise Boot Solid State Drives	
HP 120GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Boot 3yr Wty Solid State Drive	717965-B21
HP 80GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Boot 3yr Wty Solid State Drive	734360-B21
6G SATA Value Endurance Hot Plug SFF (2.5-inch) Enterprise Value Solid State Drives	
HP 800GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	717973-B21
HP 480GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	717971-B21
HP 600GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Boot 3yr Wty Solid State Drive	739898-B21
HP 300GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Boot 3yr Wty Solid State Drive	739888-B21
HP 240GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	717969-B21
6G SAS ME Hot Plug SFF (2.5-inch) Enterprise Mainstream Solid State Drives	
HP 800GB 6G SAS Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	690829-B21
HP 400GB 6G SAS Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	690827-B21
HP 200GB 6G SAS Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	690825-B21
6G SAS SLC Hot Plug SFF (2.5-inch) Enterprise Performance Solid State Drives	
HP 400GB 6G SAS SLC SFF (2.5-inch) SC Enterprise Performance 3yr Warranty Solid State Drive	653082-B21
HP 200GB 6G SAS SLC SFF (2.5-inch) SC Enterprise Performance 3yr Warranty Solid State Drive	653078-B21
Hard Drive Kits	
NOTE: All Factory shipped models will be populated with sufficient hard drive blanks based on the number of initial hard drives ordered with the system. **NOTE:** The part numbers for single HDD blanks below are provided should the customer require replacement HDD blanks for their server.	
HP SFF Gen8 Hard Drive Blank Kit	666987-B21
6G SATA Hot Plug with SmartDrive SFF (2.5-inch) Midline (MDL) Drives	
HP 1TB 6G SATA 7.2K rpm SFF (2.5-inch) SC Midline 1yr Warranty Hard Drive	655710-B21
HP 500GB 6G SATA 7.2K rpm SFF (2.5-inch) SC Midline 1yr Warranty Hard Drive	655708-B21
6G SAS ME Hot Plug SFF (2.5-inch) Enterprise Mainstream Solid State Drives	
HP 800GB 6G SAS Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	690829-B21
HP 400GB 6G SAS Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	690827-B21

Options

HP 200GB 6G SAS Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	690825-B21

6G SAS SLC Hot Plug SFF (2.5-inch) Enterprise Performance Solid State Drives

HP 400GB 6G SAS SLC SFF (2.5-inch) SC Enterprise Performance 3yr Warranty Solid State Drive	653082-B21
HP 200GB 6G SAS SLC SFF (2.5-inch) SC Enterprise Performance 3yr Warranty Solid State Drive	653078-B21

Hard Drive Kits

NOTE: All Factory shipped models will be populated with sufficient hard drive blanks based on the number of initial hard drives ordered with the system.

NOTE: The part numbers for single HDD blanks below are provided should the customer require replacement HDD blanks for their server.

HP SFF Gen8 Hard Drive Blank Kit	666987-B21

StoreEasy Disk Enclosures **NOTE:** The enclosures listed below can be used to add external storage capacity to a HP StoreEasy 1430, 1530, 1630 or 1830.

HP StoreEasy 12 LFF Disk Enclosure	B7E08A

NOTE: This enclosure is the HP D2600 Disk Enclosure. For more information see:
http://h18000.www1.hp.com/products/quickspecs/13404_div/13404_div.html

NOTE: The 12 LFF Disk Enclosure will support (2) of the LFF Drive Bundles (B7E11A, B7E12A, or B7E13A). If less than 12 drives are required, individual LFF drives can be ordered.

NOTE: Though it is not required, HP recommends using all of the same capacity LFF drives within the enclosure.

HP StoreEasy 25 SFF Disk Enclosure	B7E09A

NOTE: This enclosure is the HP D2700 Disk Enclosure. For more information see:
http://h18000.www1.hp.com/products/quickspecs/13404_div/13404_div.html

NOTE: The 25 SFF Disk Enclosure will support (2) of the SFF Drive Bundles (B7E14A, B7E15A). If between 19 and 25 SFF drives are needed in the enclosure, individual SFF drives can be ordered or you can order a third SFF drive bundle and have two spare drives available as needed. See QuickSpecs listed above for individual drive information.

NOTE: HP recommends using all of the same capacity SFF drives within the enclosure.

NOTE: For the above enclosures with either StoreEasy 1430 or StoreEasy 1530 you can connect any combination of up to (4) HP StoreEasy 12 LFF enclosures or StoreEasy 25 SFF enclosures.

NOTE: For the above enclosures with either StoreEasy 1630 or StoreEasy 1830 the number of enclosure you can connect varies, but if using only B7E08A the maximum is 17 enclosures and if using only B7E09A the maximum is 8 enclosures. The number of enclosures is dependent on the numbers of drives supported by the included SmartArray P822. For more information see the SmartArray P822 QuickSpecs.

Options

Drives bundles for StoreEasy Enclosures	**NOTE:** The Drive Bundles below can only be added to the StoreEasy Enclosures listed above. They cannot be added to a StoreEasy1430, 1530, 1630 or 1830 as they do not use the new hot plug SFF or LFF carriers used by ProLiant Gen 8 servers.	
	HP StoreEasy w/6 1TB 6G SAS 7.2K LFF 6TB Drive Bundle	B7E11A
	NOTE: This bundle contains (6) 1TB 6G SAS 7.2K rpm LFF (3.5-inch) Dual Port Midline 1yr Warranty Hard Drive	
	HP StoreEasy w/6 2TB 6G SAS 7.2K LFF 12TB Drive Bundle	B7E12A
	NOTE: This bundle contains (6) 2TB 6G SAS 7.2K rpm LFF (3.5-inch) Dual Port Midline 1yr Warranty Hard Drive	
	HP StoreEasy w/6 3TB 6G SAS 7.2K LFF 18TB Drive Bundle	B7E13A
	NOTE: This bundle contains (6) 3TB 6G SAS 7.2K rpm LFF (3.5-inch) Dual Port Midline 1yr Warranty Hard Drive	
	HP StoreEasy w/9 600GB SAS 10K SFF 5.4TB Drive Bundle	B7E14A
	NOTE: This bundle contains (9) 600GB 6G SAS 10K rpm SFF (2.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	
Drives for StoreEasy Enclosures	HP 4TB 6G SAS 7.2K rpm LFF (3.5-inch) Midline 1yr Warranty Hard Drive	693689-B21
	HP 3TB 6G SAS 7.2K rpm LFF (3.5-inch) Midline 1yr Warranty Hard Drive	625031-B21
	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 1.2TB 6G SAS 10K SFF (2.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	693648-B21
	HP 900GB 6G SAS 10K rpm SFF (2.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	619291-B21
	HP 600GB 6G SAS 10K rpm SFF (2.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	581286-B21

Add a Power Supply

The HP StoreEasy 1430 and 1530 Storage products come standard with one 460W power supply. Add a second power supply for redundancy.

StoreEasy 1430/1530	HP 460W Common Slot Gold Hot Plug Power Supply Kit	503296-B21

Add a Power Cord

NOTE: A regional or country specific power cord option must be ordered with StoreEasy 1530.

StoreEasy 1530	HP C13 - Nema 5-15P US/CA 110V 10Amp 1.83m Power Cord	AF556A
	HP C13 - GB-1002 CN 250V 10Amp 1.83m Power Cord	AF557A
	HP C13 - IRAM -2073 AR 250V 10A 2.5m Power Cord	AF558A
	HP C13 - Nema 5-15P TH/PH 250V 10Amp 1.83m Power Cord	AF559A
	HP C13 - KSC- 8305 KR 250V 10Amp 1.83m Power Cord	AF560A
	HP C13 - CNS-690 TW 110V 13Amp 1.83m Power Cord	AF561A
	HP C13 - IS-1293 IN 240V 6Amp LV 2.0m Power Cord	AF562A
	HP C13 - AS3112-3 AU 250V 10Amp 2.5m Power Cord	AF569A
	HP C13 - SEV 1011 CH 250V 10Amp 1.83m Power Cord	AF565A
	HP C13 - DK-2.5A DK 250V 10Amp 1.83m Power Cord	AF566A
	HP C13 - CEE-VII EU 250V 10Amp 1.83m Power Cord	AF568A
	HP C13 - SI-32 IL 250V 10Amp 1.83m Power Cord	AF564A
	HP C13 - CEI-23-50 IT/CL 250V 10Amp 1.83m Power Cord	AF571A
	HP C13 - JIS C8303 JP 100V 12Amp 2.0m Power Cord	AF572A

Options

HP C13 - BS-1363A UK/HK/SG 250V 10Amp 1.83m Power Cord	AF570A
HP C13 - SABS-164 ZA 250V 10Amp 2.5m Power Cord	AF567A
HP C13 - NBR-14136 BR 250V 10Amp 1.83m Power Cord	AF591A

StoreEasy 1530 Rack Option   HP Tower to Rack Conversion Tray Universal Kit   417705-B21

StoreEasy 1830 I/O Expansion Option
HP DL380p/560 Gen8 3 Slot PCI-E Riser Kit   653206-B21
NOTE: Second processor required if selected.

HP X1800 G2 WSS2012 OS Upgrade

HP X1800 G2 Upgrade to Windows Storage Server 2012 Standard Edition
X1800 G2 Network Storage Servers with the Microsoft Windows Storage Server 2008 R2, Standard Edition Operating System are eligible for a Software-Only Pay -for-Upgrade to the Microsoft Windows Storage Server 2012
Standard Edition operating system:

This upgrade is performed as a clean install and all system configuration will be lost including share configurations, so a full backup of the data should be done prior to upgrading

* A minimum of two OS drives that are the same type and capacity (146GB minimum) must be present in the system before installation.

NOTE: Some expansion cards, including HBAs and NICs, may not be supported by Windows Storage Server 2012. Check Windows Server 2012 driver availability before purchase and installation. All original components that were standard on the X3800 G2 are supported.

NOTE: Check for HP and 3rd-party software qualification with the Windows Storage Server 2012 operating system before purchase and installation.
HP X1800/X3800 G2 WSS2012 Upgrade Software   TC392A

Service and Support, HP Care Pack, and Warranty Information

Warranty

HP StoreEasy 1000 Storage products come with a standard 3-3-3 warranty (3 years parts exchange, 3 years labor and 3 years onsite, next business day response). Software media is warranted to be free of physical defect for a period of 90 days from delivery.
NOTE: Hard drives have either a one year or three year warranty; refer to the specific hard drive QuickSpecs for details.

Services Included with the Product	One year of HP Software Support, standard 9x5 business hours (software advisory and remedial software telephone support, new version license rights, and media and documentation distribution service).

Service and Support	**Services to accelerate time to results**
	HP Storage Services bring you a rich portfolio of consulting and support services designed to add value to our core storage products and solutions. We have the know-how and experience to put storage technology to work for you. We work closely with you as your strategic partner, leveraging our full services portfolio to make sure that everything works to optimize your enterprise.
	Choose from services aligned to our storage product offerings and lifecycle. From mission-critical onsite services to innovative web-based remote support, you choose the precise level of attention and support your business demands.

Discover, plan, and design	Choose from a rich portfolio of services to make the most of HP StoreEasy Storage, so you can efficiently and affordably consolidate, manage, and extract value from unstructured data.
	HP Services can help you discover needs and create a plan for simplifying the environment, reducing risk, and maximizing your storage investments
	HP Backup Recovery Efficiency Analysis - Assessment of how efficiently backup components are being used as the amount of data to be backed up continues to grow exponentially via analysis intelligence and a snapshot of your current backup environment. http://h20195.www2.hp.com/v2/GetPDF.aspx/4AA3-8490ENW.pdf
	HP Backup Recovery Impact Analysis - Focus placed on service requirements and design as the key to success for gaining a clear understanding of the role of increasingly diverse data protection strategies. http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA4-1175ENW.pdf
	HP Backup Recovery Modernization - Initial discovery, interviews, reference architecture design, proposal content development, vendor grading, and final recommendations carried out so as to require minimal resources and locations on your part. http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA4-1199ENW.pdf
	HP Storage Cloud Design Service - Build a scalable, low-cost enterprise storage environment with inherent cloud benefits to meet big data needs.

Deploy and integrate	**We can help you configure, set up, and efficiently use your HP StoreEasy Storage, as well as help migrate data, improve capacity utilization, and establish information management standards used across backup, replication, and archiving needs.**
	HP StoreEasy 1000/3000 Network Storage Solution Installation and Startup Service -Expert system installation and setup by an HP technical specialist designed to reduce implementation time and cost, with

Service and Support, HP Care Pack, and Warranty Information

your basic questions about the service answered during the included orientation session

HP Storage Data Migration Services - End-to-end data migration service providing seamless discovery, assessment, planning, and design, completely customizable to your organization's storage area network or network attached storage environment and using innovative software to help you migrate to HP storage quickly and efficiently.
http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA3-0774ENW.pdf

HP Storage and Data Consultant Residency Service - Strategic augmentation of your current environment with HP resources who become your trusted advisor to provide answers that are right for your storage and backup environment.
http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA3-9481ENW.pdf

HP Proactive Select - A flexible way to purchase services to fit your environment with an extensive menu of HP Proactive Select event and technical services, such as onsite firmware upgrades, health checks, assessments, and education.
http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA2-3842ENW.pdf

Operate and support	**Choose the right support to maximize uptime, free up your resources, and achieve improved value-as you get the most out of the existing IT assets while accelerating time-to-revenue.** **HP Proactive Care 24x7 -** Hardware and software support services designed specifically for your technology with rapid access to Advanced Solution Center Specialists plus firmware and software management and best practice advice http://h20195.www2.hp.com/v2/GetPDF.aspx/4AA3-8855ENW.pdf **HP Proactive Care Personalized Support -** An option-if you have HP Proactive Care- to bring increased personalization of the Proactive Care support experience through the assignment of an Account Service Manager (ASM) who provides IT best practice advice to help address IT issues and projects. http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA4-3446ENW.pdf **HP Support Plus 24 -** Support for environments where proactive help from HP is not required, with 24x7 hardware and software support onsite that includes third-party support with a maximum four-hour onsite response. http://h20195.www2.hp.com/V2/GetPDF.aspx/5981-6638EN.pdf **HP Education Services -** Comprehensive training for new, as well as experienced, storage administrators designed to expand your skills and keep you up to speed with the latest storage and virtualization technology from HP Storage. http://education.hp.com/curr-storsan.htm
Optimized Care - Delivers the highest levels of performance and stability through deployment and proactive management practices	Choose from three levels of operate and support care HP Proactive Care 24x7-Plus, 20 credits per year **Additional options -** HP Proactive Care Personalized Support (once per Proactive Care support new environment), an additional day of HP Personalized Support, and 10 additional HP Proactive Select credits per year
Standard Care-maintains	**HP Proactive Care 24x7-**Plus, 10 credits per year

Service and Support, HP Care Pack, and Warranty Information

high level of uptime, along with expert help to cut the cost and complexity of implementation and support	Additional options - HP Proactive Care Personalized Support (once per Proactive Care support new environment), an additional day of HP Personalized Support, and 10 additional HP Proactive Select credits per year

Basic Care-Minimum recommended support	Support Plus 24- Plus, 10 credits per year
	Additional options - 10 HP Proactive Select credits per year

Remote Support Automation	HP Insight Remote Support-Available at no additional cost to all warranty, HP Care Pack Service and service agreement customers, uses proven technology to deliver secure, reliable 24x7 remote monitoring, diagnosis and problem resolution.
	http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA2-4676ENW.pdf
	http://h18004.www1.hp.com/products/servers/management/insight-remote-support/overview.html

For more information	www.hp.com/services/storage
	To learn more on HP Storage Services, please contact your HP sales representative or HP Authorized Channel Partner
	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 www.hp.com/go/lookuptool

Memory

See the HP ProLiant Gen 8 QuickSpecs for information on memory configurations.

StoreEasy 1430 (DL320e Gen 8): http://h18000.www1.hp.com/products/quickspecs/14326_div/14326_div.pdf

StoreEasy 1530 (ML310e Gen 8): http://h18000.www1.hp.com/products/quickspecs/14339_div/14339_div.pdf

StoreEasy 1630 (DL380e Gen 8): http://h18000.www1.hp.com/products/quickspecs/14328_div/14328_div.pdf

StoreEasy 1830 (DL380p Gen 8): http://h18004.www1.hp.com/products/quickspecs/14212_div/14212_div.html
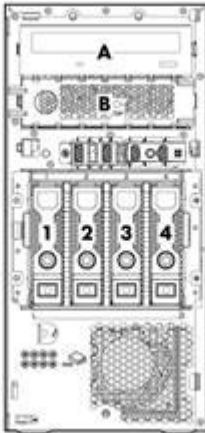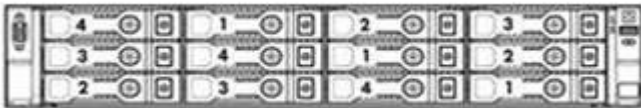
Storage

StoreEasy 1430

Four 3.5" (LFF) hot plug SATA / SAS hard drive bays
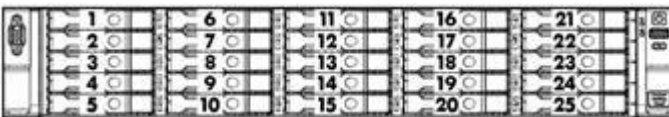
StoreEasy 1530

Four 3.5" (LFF) hot plug SATA / SAS hard drive bays

StoreEasy 1630 (14 LFF HDD)

Twelve 3.5" (LFF) hot plug SATA / SAS hard drive bays in front/Two3.5" (LFF) hot plug SATA / SAS hard drive bays in rear or Two 2.5" (SFF) hot plug SAS hard drive bays in rear (not Shown)

StoreEasy 1830

25 2.5" (SFF) hot plug SAS / SATA hard drive bays

Technical Specifications

StoreEasy 1430 Storage			
System Unit	**Dimensions** (H x W x D) (with bezel)	4 LFF	1.7 x 17.11 x 29.5 inches (4.32 x 43.46 x 75.0 cm)
	Weight (approximate)	Maximum (all hard drives, power supply, and processor installed)	4 LFF - 16.2/16.8 kg, 35.7/37.0 lb
		Minimum (one hard drive, power supply, and processor installed)	32 lb (14.51 kg)
	Input Requirements (per power supply)	Rated Line Voltage	100 to 120 VAC
		Rated Input Current	6 Amps (at 100VAC) to 3 Amps (at 200 VAC)
		Rated Input Frequency	50 to 60 Hz
	Power Supply Output (per power supply)	Rated Steady-State Power	350 W (at 100 to 120 VAC), 350 W (at 200 to 240 VAC)
		Maximum Peak Power	400 W (at 100 to 120 VAC), 400 W (at 200 to 240 VAC)
	System Inlet Temperature	Operating	10° to 35°C (50° to 95°F) at sea level with an altitude derating of 1.0°C per every 304.8 m (1.8°F per every 1000 ft) above sea level to a maximum of 3048 m (10,000 ft), no direct sustained sunlight. Maximum rate of change is 10°C/hr (18°F/hr). The upper limit may be limited by the type and number of options installed. System performance may be reduced if operating with a fan fault or above 30°C (86°F).
		Non-operating	-30° to 60°C (-22° to 140°F). Maximum rate of change is 20°C/hr (36°F/hr).
	Relative Humidity (non-condensing)	Operating	10% to 90% relative humidity (Rh), 28°C (82.4°F) maximum wet bulb temperature, non-condensing.
		Non-operating	5% to 95% relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb temperature, non-condensing.
	Altitude	Operating	3048 m (10,000 ft). This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 457 m/min (1500 ft/min).
		Non-operating	9144 m (30,000 ft). Maximum allowable altitude change rate is 457 m/min (1500 ft/min).
	Acoustic Noise		Listed are the declared A-Weighted sound power levels (LWAd) and declared average bystander position A-Weighted sound pressure levels (LpAm) when the product is operating in a 23°C ambient environment. Noise emissions were measured in accordance with ISO 7779 (ECMA 74) and declared in accordance with ISO 9296 (ECMA 109).

Technical Specifications

	Idle (Note 1)		
		LWAd	5.0 B
		LpAm	35 dB Average Bystander
	Operating		
		LWAd	5.1 B
		LpAm	35 dB Average Bystander
	NOTE: Values are subject to change without notification and are for reference only. **NOTE:** Performance of system, options, and ancillary equipment will vary depending on the system configuration. **NOTE:** Levels presented do not account for non-Hewlett-Packard installed hardware.		
Emissions Classification (EMC)	FCC Rating		Class A
	Normative Standards		CISPR 22; EN55022; EN55024; FCC CFR 47, Pt 15; ICES-003; CNS13438; GB9254; K22;K24; EN 61000-3-2; EN 61000-3-3; EN 60950-1; IEC 60950-1
	NOTE: Product conformance to cited product specifications is based on sample (type) testing, evaluation, or assessment. This product or family of products is eligible to bear the appropriate compliance logos and statements.		

HP iLO 4 On System Management	**Architecture**	PCI Express based health and remote management ASIC
	Processor	Embedded ARM processor core operating at 400MHz
	Upgradeability	Firmware upgradeable via Flash ROM
	Video Support	1920 x 1200 (16 bpp) DVR max resolution
	Interfaces	HP iLO Dedicated Network connection (10/100/1000 Mb/s) on rack, tower and SL systems HP iLO Shared Network connection (10/100/1000 Mb/s) on rack, tower and SL systems HP iLO network connection to blades (100 Mb/s) to Onboard Administrator (with 10/100/1000 Mb/s uplink) on blade systems
	Memory	16 MB Flash 256 MB DDR 3 with ECC (112 MB after ECC and video)
	Operating System Support	For information on HP's Certified and Supported ProLiant Servers for OS and Virtualization Software and latest listing of software drivers available for your server including how to purchase from HP, please visit our OS Support Site at: http://www.hp.com/go/ossupport
	Client System Support	For information on Client System Support, please visit the HP iLO Feature Comparison Site at: www.hp.com/go/compareilo
	Client Browser Support	Microsoft Internet Explorer 9 **NOTE:** For customers using Protected Mode, please use the Java based version of Integrated Remote Console. Microsoft Internet Explorer 8 **NOTE:** For customers using Protected Mode, please use the Java based version of Integrated Remote Console.

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		Microsoft Internet Explorer 7	
		Firefox Extended Support Release (ESR) 10 (on supported Windows and Linux systems	
		Firefox 3.6 (on supported Windows and Linux systems)	
	Command Line Support	Secure Shell and serial port access	
		Secure Socket Layer	
		Secure Shell version 2	
	Security	Advanced Encryption Standard (AES) and Triple Data Encryption Standard (3DES) on browser, CLP and XML scripting interface	
		AES encryption of video	
		RC4 encryption of video	
	Directory Support Services	Active Directory v1.0 (Windows 2003)	
	Driver Support	HP ProLiant iLO 4 Management Controller Driver Package	
	Management protocols supported	SNMP, IPMI 2.0 (system and LAN interface), DMTF Systems Management Architecture for Server Hardware Command Line Protocol (SMASH CLP), HP RIBCL XML	

HP Ethernet 1Gb 2-port 330i Adapter	**Compatibility**	IEEE 802.3 10Base-T IEEE 802.3ab 1000Base-T IEEE 802.3u 100Base-TX	
	Data Transfer Method	PCI Express, four lanes (x8)	
	Controller	BCM5717	
	Network Transfer Rate	10Base-T (Half-Duplex)	10 Mb/s per port, 20 Mb/s Combined
		10Base-T (Full-Duplex)	20 Mb/s per port, 40 Mb/s Combined
		100Base-TX (Half-Duplex)	100 Mb/s per port, 200 Mb/s Combined
		100Base-TX (Full-Duplex)	200 Mb/s per port, 400 Mb/s Combined
		1000Base-TX (Half-Duplex)	1000Mb/s per port, 2000 Mb/s Combined
		1000 Base-TX (Full-Duplex)	2000Mb/s per port, 4000 Mb/s Combined
	Connector	RJ-45	
	Cable Support	10Base-T	Categories 3, 4 or 5 UTP; up to 328 ft (100 m)
		10/100/1000Base-TX	Category 5 or better; up to 328 ft (100 m

StoreEasy 1530			
System Unit	**Tower Dimensions** (H x W x D) (with feet/bezel)	14.5.x 6.89 x 18.71 in (36.82 x17.5 x 47.52 cm)	
	Weight (approximate)	Maximum (all hard drives, power supply, and processor	41.8 lb (18.96 kg)

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	installed)	
	Minimum (one hard drive, power supply, and processor installed)	25.29 lb (11.47 kg)
Input Requirements (per power supply)	Rated Line Voltage	100 to 240 VAC
	Rated Input Current	7.1 Amps (at 120VAC) to 3.5 Amps (at 240 VAC)
	Rated Input Frequency	50 to 60 Hz
	Rated Input Power	486 W
BTU Rating	Maximum	460W - 1773 BTU / hr (at 120 VAC), 1715 (at 240 VAC)
Power Supply Output (per power supply)	Rated Steady-State Power	350 W (at 100 VAC), 350 W (at 200 VAC)
	Maximum Peak Power	350 W (at 100 VAC), 350 W (at 200 VAC)
System Inlet Temperature	Operating	10° to 35°C (50° to 95°F) at sea level with an altitude derating of 1.0°C per every 304.8 m (1.8°F per every 1000 ft) above sea level to a maximum of 3048 m (10,000 ft), no direct sustained sunlight. Maximum rate of change is 10°C/hr (18°F/hr). The upper limit may be limited by the type and number of options installed. System performance may be reduced if operating with a fan fault or above 30°C (86°F).
	Non-operating	-30° to 60°C (-22° to 140°F). Maximum rate of change is 20°C/hr (36°F/hr).
Relative Humidity (non-condensing)	Operating	10 to 90% relative humidity (Rh), 28°C (82.4°F) maximum wet bulb temperature, non-condensing.
	Non-operating	5 to 95% relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb temperature, non-condensing.
Altitude	Operating	3048 m (10,000 ft). This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 457 m/min (1500 ft/min).
	Non-operating	9144 m (30,000 ft). Maximum allowable altitude change rate is 457 m/min (1500 ft/min).
Acoustic Noise	Listed are the declared A-Weighted sound power levels (LWAd) and declared average bystander position A-Weighted sound pressure levels (LpAm) when the product is operating in a 23°C ambient environment. Noise emissions were measured in accordance with ISO 7779 (ECMA 74) and declared in accordance with ISO 9296 (ECMA 109).	
	Idle	
	L WAd	4.3 B
	L pAm	26dB-A

Technical Specifications

		Operating	
	L WAd	4.4 B	
	L pAm	28dB-A	
	NOTE: The Listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels.		
Emissions Classification (EMC)	FCC Rating	Class B	
	Normative Standards	CISPR 22; EN55022; EN55024; FCC CFR 47, Pt 15; ICES-003; CNS13438; GB9254; K22;K24; EN 61000-3-2; EN 61000-3-3; EN 60950-1; IEC 60950-1	
	NOTE: Product conformance to cited product specifications is based on sample (type) testing, evaluation, or assessment. This product or family of products is eligible to bear the appropriate compliance logos and statements.		

HP iLO 4 On System Management	**Architecture**	PCI Express based health and remote management ASIC
	Processor	Embedded ARM processor core operating at 400MHz
	Upgradeability	Firmware upgradeable via Flash ROM
	Video Support	1920 x 1200 (16 bpp) DVR max resolution
	Interfaces	HP iLO Dedicated Network connection (10/100/1000 Mb/s) on rack, tower and SL systems HP iLO Shared Network connection (10/100/1000 Mb/s) on rack, tower and SL systems HP iLO network connection to blades (100 Mb/s) to Onboard Administrator (with 10/100/1000 Mb/s uplink) on blade systems
	Memory	16 MB Flash 256 MB DDR 3 with ECC (112 MB after ECC and video)
	Operating System Support	For information on HP's Certified and Supported ProLiant Servers for OS and Virtualization Software and latest listing of software drivers available for your server including how to purchase from HP, please visit our OS Support Site at: http://www.hp.com/go/ossupport
	Client System Support	For information on Client System Support, please visit the HP iLO Feature Comparison Site at: www.hp.com/go/compareilo
	Client Browser Support	Microsoft Internet Explorer 9 **NOTE:** For customers using Protected Mode, please use the Java based version of Integrated Remote Console. Microsoft Internet Explorer 8 **NOTE:** For customers using Protected Mode, please use the Java based version of Integrated Remote Console. Microsoft Internet Explorer 7 Firefox Extended Support Release (ESR) 10 (on supported Windows and Linux systems) Firefox 3.6 (on supported Windows and Linux systems)

Technical Specifications

	Command Line Support	Secure Shell and serial port access	
		Secure Socket Layer	
		Secure Shell version 2	
	Security	Advanced Encryption Standard (AES) and Triple Data Encryption Standard (3DES) on browser, CLP and XML scripting interface	
		AES encryption of video	
		RC4 encryption of video	
	Directory Support Services	Active Directory v1.0 (Windows 2003)	
	Driver Support	HP ProLiant iLO 4 Management Controller Driver Package	
	Management protocols supported	SNMP, IPMI 2.0 (system and LAN interface), DMTF Systems Management Architecture for Server Hardware Command Line Protocol (SMASH CLP), HP RIBCL XML	

HP Ethernet 1Gb 2-port 330i Adapter	**Compatibility**	IEEE 802.3 10Base-T	
		IEEE 802.3ab 1000Base-T	
		IEEE 802.3u 100Base-TX	
	Data Transfer Method	PCI Express, four lanes (x8)	
	Controller	BCM5717	
	Network Transfer Rate	10Base-T (Half-Duplex)	10 Mb/s per port, 20 Mb/s Combined
		10Base-T (Full-Duplex)	20 Mb/s per port, 40 Mb/s Combined
		100Base-TX (Half-Duplex)	100 Mb/s per port, 200 Mb/s Combined
		100Base-TX (Full-Duplex)	200 Mb/s per port, 400 Mb/s Combined
		1000Base-TX (Half-Duplex)	1000Mb/s per port, 2000 Mb/s Combined
		1000 Base-TX (Full-Duplex)	2000Mb/s per port, 4000 Mb/s Combined
	Connector	RJ-45	
	Cable Support	10Base-T	Categories 3, 4 or 5 UTP; up to 328 ft (100 m)
		10/100/1000Base-TX	Category 5 or better; up to 328 ft (100 m

StoreEasy 1630			
System Unit	**Dimensions - with bezel** (H x W x D)	LFF Drives: 3.44 x 17.54 x 29.5 in (8.75 x 44.55 x 74.94 cm)	
	Weight (approximate)	Maximum (all hard drives: front + rear, full power supply, and processor installed)	71.20 lb (32.30 kg
		Minimum (one hard drive, single power supply, and processor installed. HDD not installed)	30.80 lb (14.00 kg)

Technical Specifications

Input Requirements (per power supply)	Rated Line Voltage	100 to 120 VAC 200 to 240 VAC	
	Rated Input Current	For 1200 W Power Supply: 10 A (at 100 VAC), 4.9 A (at 200 VAC) For 750 W Power Supply: 8.9 A (at 100 VAC), 4.3 A (at 200 VAC) For 460 W Power Supply: 5.5 A (at 100 VAC), 2.6 A (at 200 VAC)	
	Rated Input Frequency	50 to 60 Hz	
	Rated Input Power	For 1200 W Power Supply: 930 W (at 100 VAC), 1348 W (at 200 VAC) For 750 W Power Supply: 857 W (at 100 VAC), 824 W (at 200 VAC) For 460 W Power Supply: 526 W (at 100 VAC), 505 W (at 200 VAC)	
BTU Rating	Maximum	For 1200 W Power Supply: 3530 BTU/hr (at 100 VAC), 4600 BTU/hr (at 200 VAC) For 750 W Power Supply: 2925 BTU/hr (at 100 VAC), 2812 BTU/hr (at 200 VAC) For 460 W Power Supply: 1794 BTU/hr (at 100 VAC), 1725 BTU/hr (at 200 VAC)	
Power Supply Output (per power supply)	Rated Steady-State Power	For 1200 W Power Supply: 800 W (at 100 VAC), 900 W (at 120 VAC), 1200 W (at 200 to 240 VAC) For 750 W Power Supply: 750 W (at 100 to 120 VAC), 750 W (at 200 to 240 VAC) For 460 W Power Supply: 460 W (at 100 to 120 VAC), 460 W (at 200 to 240 VAC)	
	Maximum Peak Power	For 1200 W Power Supply: 800 W (at 100 VAC), 900 W (at 120 VAC), 1200 W (at 200 to 240 VAC) For 750 W Power Supply: 750 W (at 100 to 120 VAC), 750 W (at 200 to 240 VAC) For 460 W Power Supply: 460 W (at 100 to 120 VAC), 460 W (at 200 to 240 VAC)	

Technical Specifications

System Inlet Temperature	Operating	10° to 35°C (50° to 95°F) at sea level with an altitude derating of 1.0°C per every 304.8 m (1.8°F per every 1000 ft) above sea level to a maximum of 3048 m (10,000 ft), no direct sustained sunlight. Maximum rate of change is 10°C/hr (18°F/hr). The upper limit may be limited by the type and number of options installed. System performance may be reduced if operating with a fan fault or above 30°C (86°F).
	Non-operating	-30° to 60°C (-22° to 140°F). Maximum rate of change is 20°C/hr (36°F/hr).
Relative Humidity (non-condensing)	Operating	10 to 90% relative humidity (Rh), 28°C (82.4°F) maximum wet bulb temperature, non-condensing.
	Non-operating	5 to 95% relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb temperature, non-condensing.
Altitude	Operating	3048 m (10,000 ft). This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 457 m/min (1500 ft/min).
	Non-operating	9144 m (30,000 ft). Maximum allowable altitude change rate is 457 m/min (1500 ft/min).

Acoustic Noise	Listed are the declared A-Weighted sound power levels (LWAd) and declared average bystander position A-Weighted sound pressure levels (LpAm) when the product is operating in a 23°C ambient environment. Noise emissions were measured in accordance with ISO 7779 (ECMA 74) and declared in accordance with ISO 9296 (ECMA 109). **NOTE:** The Listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels.	

Idle	**2P Redundant SKU**
LWAd	5.4 B
LpAm	38 dBA
Operating	**2P SKU**
LWAd	5.7 B
LpAm	41 dBA

NOTE: The Listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels.

Emissions Classification (EMC)	FCC Rating	Class A
	Normative Standards	CISPR 22; EN55022; EN55024; FCC CFR 47, Pt 15; ICES-003; CNS14336-1; CNS13438; GB4943; GB9254; EN 61000-3-2; EN 61000-3-3; EN 60950-1; IEC 60950-1

Technical Specifications

		NOTE: Product conformance to cited product specifications is based on sample (type) testing, evaluation, or assessment. This product or family of products is eligible to bear the appropriate compliance logos and statements. **NOTE:** The Listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels.

HP iLO 4 On System Management	**Architecture**	PCI Express based health and remote management ASIC
	Processor	Embedded ARM processor core operating at 400MHz
	Upgradeability	Firmware upgradeable via Flash ROM
	Video Support	1920 x 1200 (16 bpp) DVR max resolution
	Interfaces	HP iLO Dedicated Network connection (10/100/1000 Mb/s) on rack, tower and SL systems HP iLO Shared Network connection (10/100/1000 Mb/s) on rack, tower and SL systems HP iLO network connection to blades (100 Mb/s) to Onboard Administrator (with 10/100/1000 Mb/s uplink) on blade systems
	Memory	16 MB Flash 256 MB DDR 3 with ECC (112 MB after ECC and video)
	Operating System Support	For information on HP's Certified and Supported ProLiant Servers for OS and Virtualization Software and latest listing of software drivers available for your server including how to purchase from HP, please visit our OS Support Site at: http://www.hp.com/go/ossupport
	Client System Support	For information on Client System Support, please visit the HP iLO Feature Comparison Site at: www.hp.com/go/compareilo
	Client Browser Support	Microsoft Internet Explorer 9 **NOTE:** For customers using Protected Mode, please use the Java based version of Integrated Remote Console. Microsoft Internet Explorer 8 **NOTE:** For customers using Protected Mode, please use the Java based version of Integrated Remote Console. Microsoft Internet Explorer 7 Firefox Extended Support Release (ESR) 10 (on supported Windows and Linux systems) Firefox 3.6 (on supported Windows and Linux systems)
	Command Line Support	Secure Shell and serial port access Secure Socket Layer Secure Shell version 2
	Security	Advanced Encryption Standard (AES) and Triple Data Encryption Standard (3DES) on browser, CLP and XML scripting interface AES encryption of video RC4 encryption of video
	Directory Support Services	Active Directory v1.0 (Windows 2003)
	Driver Support	HP ProLiant iLO 4 Management Controller Driver Package

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Management protocols supported	SNMP, IPMI 2.0 (system and LAN interface), DMTF Systems Management Architecture for Server Hardware Command Line Protocol (SMASH CLP), HP RIBCL XML	

HP Ethernet 1Gb 4-port 366i Adapter	**Network Interface**	10Base-T/100Base-TX/1000Base-TX	
	Compatibility	IEEE 802.3 10Base-T	
		IEEE 802.3ab 1000Base-T	
		IEEE 802.3u 100Base-TX	
		IEEE 1588, IEEE 802.1AS	
		IEEE 802.3az - Energy Efficient Ethernet (EEE)	
	Data Transfer Method	PCI Express v 2.0, 5.0 GT/s, two lanes (x2)	
	Controller	I350 Powerville	
	Number of Ports	4	
	Network Transfer Rate	10Base-T (Half-Duplex)	10 Mb/s per port, 40 Mb/s combined
		10Base-T (Full-Duplex)	20 Mb/s per port , 80 Mb/s combined
		100Base-TX (Half-Duplex)	100 Mb/s per port, 400 Mb/s combined
		100Base-TX (Full-Duplex)	200 Mb/s per port, 800 Mb/s combined
		1000Base-TX (Half and Full-Duplex)	1000Mb/s per port, 4000 Mb/s combined
	Connector	Two RJ-45	
	Cable Support	10Base-T	Categories 3, 4 or 5 UTP; up to 328 ft (100 m)
		10/100/1000Base-TX	Category 5 or higher UTP; up to 328 ft (100 m)

StoreEasy 1830			
System Unit	**Dimensions** (H x W x D) (with bezel)	SFF Drives: 3.44 x 17.54 x 27.50 in (8.73 x 44.55 x 69.85 cm)	
	Weight (approximate)	Maximum (all hard drives, power supply, and processor installed)	61.00 lb (27.66 kg)
		Minimum (one SFF hard drive, power supply, and processor installed, ODD not installed)	41.0 lb (18.59 kg)
	Input Requirements (per power supply)	Rated Line Voltage	100 to 120 VAC 200 to 240 VAC
		Rated Input Current	For 1200 W Power Supply: 10 A (at 100 VAC), 4.9 A (at 200 VAC) For 750 W Power Supply:

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		8.9 A (at 100 VAC), 4.3 A (at 200 VAC) For 460 W Power Supply: 5.5 A (at 100 VAC), 2.6 A (at 200 VAC)
	Rated Input Frequency	50 to 60 Hz
	Rated Input Power	For 1200 W Power Supply: 930 W (at 100 VAC), 1348 W (at 200 VAC) For 750 W Power Supply: 857 W (at 100 VAC), 824 W (at 200 VAC) For 460 W Power Supply: 526 W (at 100 VAC), 505 W (at 200 VAC)
BTU Rating	Maximum	For 1200 W Power Supply: 3530 BTU/hr (at 100 VAC), 4600 BTU/hr (at 200 VAC) For 750 W Power Supply: 2925 BTU/hr (at 100 VAC), 2812 BTU/hr (at 200 VAC) For 460 W Power Supply: 1794 BTU/hr (at 100 VAC), 1725 BTU/hr (at 200 VAC)
Power Supply Output (per power supply)	Rated Steady-State Power	For 1200 W Power Supply: 800 W (at 100 VAC), 900 W (at 120 VAC), 1200 W (at 200 to 240 VAC) For 750 W Power Supply: 750 W (at 100 to 120 VAC), 750 W (at 200 to 240 VAC) For 460 W Power Supply: 460 W (at 100 to 120 VAC), 460 W (at 200 to 240 VAC)
	Maximum Peak Power	For 1200 W Power Supply: 800 W (at 100 VAC), 900 W (at 120 VAC), 1200 W (at 200 to 240 VAC) For 750 W Power Supply: 750 W (at 100 to 120 VAC), 750 W (at 200 to 240 VAC) For 460 W Power Supply: 460 W (at 100 to 120 VAC), 460 W (at 200 to 240 VAC)
System Inlet Temperature	Operating	° to 35°C (50° to 95°F) at sea level with an altitude derating of 1.0°C per every 304.8 m (1.8°F per every 1000 ft) above sea level to a maximum of 3048 m (10,000 ft), no direct sustained sunlight. Maximum rate of change is 10°C/hr (18°F/hr). The upper limit may be limited by the type and

Technical Specifications

		number of options installed. System performance may be reduced if operating with a fan fault or above 30°C (86°F).
	Non-operating	-30° to 60°C (-22° to 140°F). Maximum rate of change is 20°C/hr (36°F/hr).
Relative Humidity (non-condensing)	Operating	10% to 90% relative humidity (Rh), 28°C (82.4°F) maximum wet bulb temperature, non-condensing.
	Non-operating	5% to 95% relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb temperature, non-condensing.
Altitude	Operating	3048 m (10,000 ft). This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 457 m/min (1500 ft/min).
	Non-operating	9144 m (30,000 ft). Maximum allowable altitude change rate is 457 m/min (1500 ft/min).
Acoustic Noise	Listed are the declared A-Weighted sound power levels (LWAd) and declared average bystander position A-Weighted sound pressure levels (LpAm) when the product is operating in a 23°C ambient environment. Noise emissions were measured in accordance with ISO 7779 (ECMA 74) and declared in accordance with ISO 9296 (ECMA 109). The listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels. **NOTE:** The Listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels.	

Idle	
LWAd	4.1 B
LpAm	25 dBA

Operating	
LWAd	4.3 B
LpAm	27 dBA

Emissions Classification (EMC)	FCC Rating	Class A
	Normative Standards	CISPR 22; EN55022; EN55024; FCC CFR 47, Pt 15; ICES-003; CNS13438; GB9254; K22;K24; EN 61000-3-2; EN 61000-3-3; EN 60950-1; IEC 60950-1
	NOTE: Product conformance to cited product specifications is based on sample (type) testing, evaluation, or assessment. This product or family of products is eligible to bear the appropriate compliance logos and statements. **NOTE:** The Listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels.	

Technical Specifications

HP iLO 4 On System Management	**Architecture**	PCI Express based health and remote management ASIC
	Processor	Embedded ARM processor core operating at 400MHz
	Upgradeability	Firmware upgradeable via Flash ROM
	Video Support	1920 x 1200 (16 bpp) DVR max resolution
	Interfaces	HP iLO Dedicated Network connection (10/100/1000 Mb/s) on rack, tower and SL systems HP iLO Shared Network connection (10/100/1000 Mb/s) on rack, tower and SL systems HP iLO network connection to blades (100 Mb/s) to Onboard Administrator (with 10/100/1000 Mb/s uplink) on blade systems
	Memory	16 MB Flash 256 MB DDR 3 with ECC (112 MB after ECC and video)
	Operating System Support	For information on HP's Certified and Supported ProLiant Servers for OS and Virtualization Software and latest listing of software drivers available for your server including how to purchase from HP, please visit our OS Support Site at: http://www.hp.com/go/ossupport
	Client System Support	For information on Client System Support, please visit the HP iLO Feature Comparison Site at: www.hp.com/go/compareilo
	Client Browser Support	Microsoft Internet Explorer 9 **NOTE:** For customers using Protected Mode, please use the Java based version of Integrated Remote Console. Microsoft Internet Explorer 8 **NOTE:** For customers using Protected Mode, please use the Java based version of Integrated Remote Console. Microsoft Internet Explorer 7 Firefox Extended Support Release (ESR) 10 (on supported Windows and Linux systems Firefox 3.6 (on supported Windows and Linux systems)
	Command Line Support	Secure Shell and serial port access Secure Socket Layer Secure Shell version 2
	Security	Advanced Encryption Standard (AES) and Triple Data Encryption Standard (3DES) on browser, CLP and XML scripting interface AES encryption of video RC4 encryption of video
	Directory Support Services	Active Directory v1.0 (Windows 2003)
	Driver Support	HP ProLiant iLO 4 Management Controller Driver Package
	Management protocols supported	SNMP, IPMI 2.0 (system and LAN interface), DMTF Systems Management Architecture for Server Hardware Command Line Protocol (SMASH CLP), HP RIBCL XML

Technical Specifications

HP Ethernet 1Gb 4-port 331FLR Adapter	**HP Flexible Network Technology**	HP Flexible Network Technology consists of replaceable network solutions to meet the customers require now or in the future.
	Network Interface	10Base-T/100Base-TX/1000Base-TX
	Compatibility	IEEE 802.3 10Base-T
		IEEE 802.3ab 1000Base-T
		IEEE 802.3ad 1000Base-TX
		IEEE 802.1p 100Base-TX
		IEEE 802.1q 100Base-TX
	Data Transfer Method	PCI Express, four lanes (x4)
	Controller	BCM5719
	Network Transfer Rate	10Base-T (Half-Duplex) 10 Mb/s
		10Base-T (Full-Duplex) 20 Mb/s
		100Base-TX (Half-Duplex) 100 Mb/s
		100Base-TX (Full-Duplex) 200 Mb/s
		1000Base-TX (Half and Full-Duplex) 2000 Mb/s
	Connector	Two RJ-45
	Cable Support	10Base-T Categories 3, 4 or 5 UTP; up to 328 ft (100 m)
		100Base-TX Category 5 or higher UTP; up to 328 ft (100 m)
		1000BaseTX Category 5 or higher UTP; up to 328 ft (100 m)

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.

Technical Specifications