

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

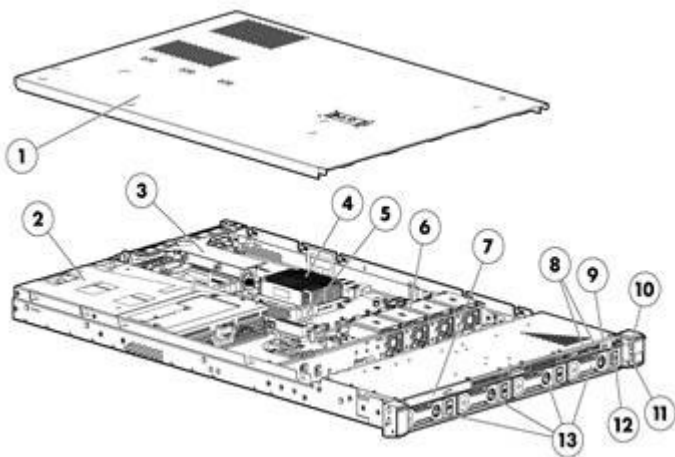
- All StoreEasy 1000 Storage products now run the Windows Storage Server 2012, Standard Edition Operating System
- All StoreEasy 1000 Storage products now built on HP ProLiant Gen 8 servers

Models

HP StoreEasy 1430 Storage

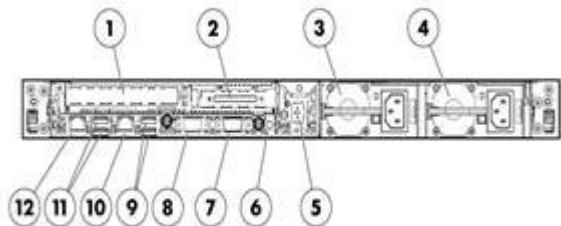
HP StoreEasy 1430 Storage products are storage solutions that deliver multi-protocol file serving and application storage in a compact and affordable 1U rack-mount form factor. They're easy to install and manage, making them perfect for a small workgroup, small business or remote office. The StoreEasy 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 (4 x 2TB SATA LFF HDDs)	B7D89A
HP StoreEasy 1430 12TB SATA Storage (4 x 3TB SATA LFF HDDs)	B7D90A



Front View:

1. Access Panel
2. Power Supply
3. PCI Riser Cage
4. Processor
5. Four DIMM slots
6. Fans
7. Optical drive (optional)
8. 2 USB Connectors
9. UID LED button
10. Health LED
11. NIC status LED



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

Overview

12.

Power On/Standby button and LED
13.

4 LFF Hot plug SATA/SAS HDD Cage
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

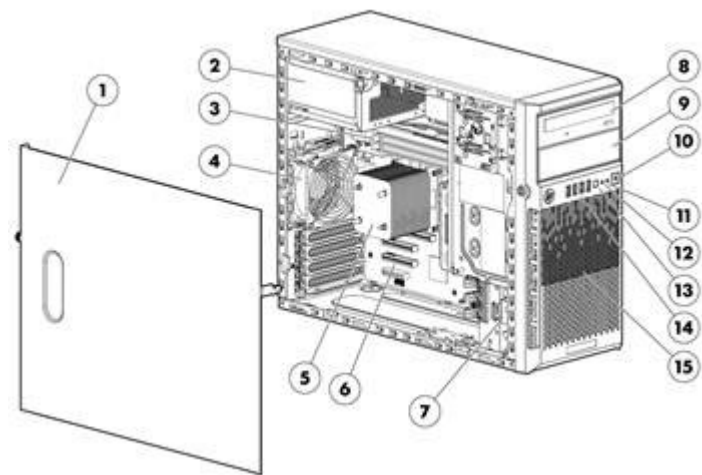
(no drives pre-configured - at least four drives of the same type and capacity, 450GB or greater, must be ordered for pre-installation of OS in the factory. The OS is not a field installable option.)

HP StoreEasy 1530 8TB SATA Storage (4 x 2TB SATA LFF HDDs)

B7D92A

HP StoreEasy 1530 12TB SATA Storage (4 x 3TB SATA LFF HDDs)

B7D93A



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)
9.

Media Drive Blank
10.

Power Button
11.

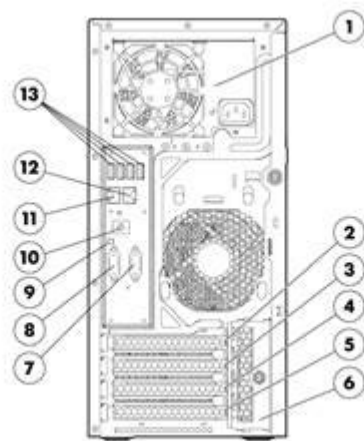
NIC Activity LED
12.

System Health
13.

UID LED button
14.

Four (4) USB connectors
15.

Four (4) LFF or Eight (8) SFF SAS/SATA HDD cage



Rear View

1.

Power supply
2.

Slot 4 PCIe16
3.

Slot 3 PCIe8
4.

Slot 2 PCIe8 (P222)
5.

Slot 1 PCIe4
6.

PCIe card bracket
7.

Serial Connector
8.

Video Connector
9.

UID LED Button
10.

iLO connector
11.

NIC Connector 1 (shared management)
12.

NIC Connector 2
13.

Four (4) USB Connectors

Overview

HP StoreEasy 1630 Storage

HP StoreEasy 1630 Storage products deliver high capacity and drives down your cost per GB. Quad-Core processing, up to 42TB 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

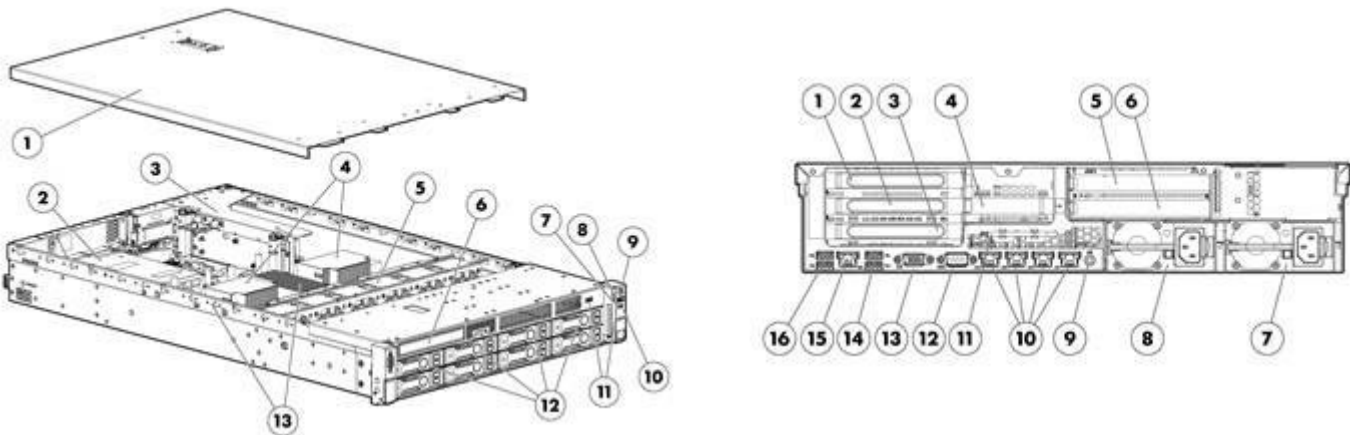
(14 open LFF HDD slots, 12 in front and 2 in rear, a minimum of 8 LFF drives of the same type and capacity must be ordered with system for factory installation)

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

B7D95A

HP StoreEasy 1630 42TB SAS Storage (14 x 3TB SAS LFF HDDs)

B7D96A



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
- 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

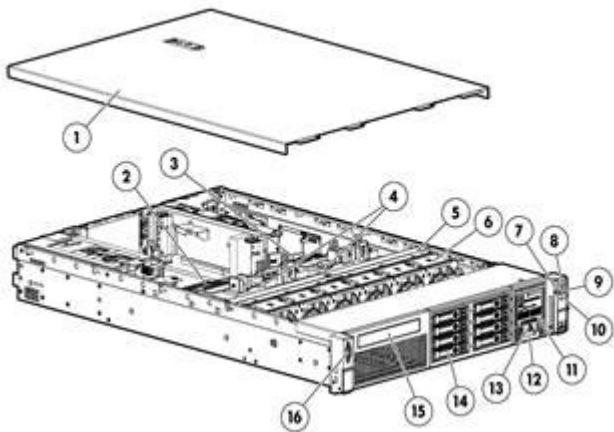
Rear View

- 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
- 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)

Overview

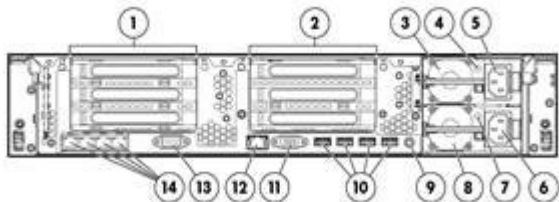
HP StoreEasy 1830 Storage

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



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
9. USB connector
10. Unit ID LED
11. Systems Insight Display
12. Asset Tag
13. USB connector
14. 25 SFF Hot plug Drive Bays
15. Optional Slim Optical Bay (SATA DVD-RW /ROM Optical Drive)
16. Video connector



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
9. Unit ID LED/Button
10. USB connectors (4)
11. Video connector
12. iLO connector
13. Serial connector
14. FlexibleLOM ports (Shown: 4 ports 1Gb each /Optional: 2 ports 10Gb each)

Features and Benefits

Efficiently Enhance Your Resources While Saving Money

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 data deduplication that provides an average 50-60% in space savings.

Leverage advanced data management to automatically enhance resource use, enable compliance with data retention policies, and apply added protection to sensitive files.

Consolidate multiple workloads and roles in a single platform with included support for a broad range of file access protocols, 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.

Security is Built-in with On-board Data Protection

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

Prevent against data loss with Volume Shadow Copy Service online snapshots and support for agent based backup software.

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.

Highly Available, Reliable and Robust Platform

Increase uptime with such standard features as multi-node clustering, continuous health monitoring with HP Active Health System, mirrored operating system disks, hot plug redundant fans and power, advanced memory protection, and a 3-year onsite warranty.

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

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.
- 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 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

Standard Features

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**

More information on Windows Storage Server 2012 Standard Edition can be found here:
<http://www.microsoft.com/en-us/server-cloud/windows-storage-server/default.aspx>

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)



Standard Features

Memory	Type	Unbuffered (UDIMM) or Registered (RDIMM) depending on model			
	Maximum (by O/S license)	2TB			
		StoreEasy 1430	StoreEasy 1530	StoreEasy 1630	StoreEasy 1830
	Standard DIMM Sockets	8GB (2 x 4GB) 4	GB (2x 4GB) 4	12GB (3 x 4GB) 12	16GB (4 x GB) 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	SA P222 installed
		3	PCIe 3.0	X8	X8	Full Length/Full Height	
		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



Standard Features

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

* 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

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.

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
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	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

Storage		StoreEasy 1430	StoreEasy 1530	StoreEasy 1630	StoreEasy 1830
Hard Drives					
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) hot-plugs bays in rear	(25) 2.5" (Small Form Factor) hot-plug bays
External		Support for D2000,	Support for D2000,	Support for D2000, MDS600	Support for D2000, MDS600

Maximum Storage Capacity (raw)		StoreEasy 1430	StoreEasy 1530	StoreEasy 1630	StoreEasy 1830
Internal SATA		12TB	12TB	42TB	23TB
Internal SAS		12TB	12TB	42TB	23TB
Internal plus External					

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

Standard Features

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 a 110V 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 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.

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://h18006.www1.hp.com/products/storage/software/dataprotector/index.html>

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.

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	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

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	
	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	

Models (Pre-Configured)

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 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 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)	
	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			

Models (Pre-Configured)

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 with 2 x 450GB 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	4
	Drives Required	
	Maximum Number of	4
Drives Allowed		

StoreEasy 1530 Models

B7D91A

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.		
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	4
	Drives Required	
	Maximum Number of	4
Drives Allowed		

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	8	
	Drives Required		
	Maximum Number of	14	
	Drives Allowed		

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. A minimum of 14 HDDs of the same type and a capacity must be ordered for factory integration. This system cannot be shipped with less than 8 HDDs.

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

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

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



Options

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 (StoreEasy 1530 only)	652503-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 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.

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



Options

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 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/14227_div/14227_div.html (Smart Array P222 Controller) http://h18000.www1.hp.com/products/quickspecs/14228_div/14228_div.html (Smart Array P420 Controller) http://h18000.www1.hp.com/products/quickspecs/14229_div/14229_div.html (Smart Array P421 Controller) 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.	
	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)	

Options

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

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

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 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/14227_div/14227_div.html
(Smart Array P222 Controller)

http://h18000.www1.hp.com/products/quickspecs/14228_div/14228_div.html
(Smart Array P420 Controller)

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

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

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

http://h18000.www1.hp.com/products/quickspecs/14343_div/14343_div.html
(Dynamic Smart Array Controllers)

Host Bus Adapter

HP H221 Host Bus Adapter 650931-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)

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



Options

StoreEasy 1830	HP SN1000E 16Gb 1-port PCIe Fibre Channel Host Bus Adapter	QR558A
	HP SN1000E 16Gb 2-port PCIe Fibre Channel Host Bus Adapter	QR559A
	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	
	HP CN1000Q Dual Port Converged Network Adapter	BS668A
	HP CN1100E Dual Port Converged Network Adapter	BK835A
	SCSI HBA	
	HP SC11Xe Ultra320 Single Channel/ PCIe x4 SCSI Host Bus Adapter	412911-B21
HP Hard Drives for StoreEasy 1430/1530	NOTE: Please see the following QuickSpecs for additional information: http://h18000.www1.hp.com/products/quickspecs/12566_div/12566_div.html (SC11Xe HBA)	
	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.	
	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 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
	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 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)	

Options

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 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 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)

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
---	------------

HP 200GB 3G SATA MLC LFF (3.5-inch) SC Enterprise Mainstream 3yr Warranty Solid State Drive	653124-B21
---	------------

HP 100GB 3G SATA MLC LFF (3.5-inch) SC Enterprise Mainstream 3yr Warranty Solid State Drive	653122-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
----------------------------------	------------

Options

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 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
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 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

Options

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 you can connect any combination of up to (4) HP StoreEasy 12 LFF enclosures or StoreEasy 25 SFF enclosures.

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 6TB LFF 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 12TB LFF 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 18TB LFF 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 5.4TB SFF 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 1TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive 652753-B21

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

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

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

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

Options

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 1.83m 10A C13-UL US Power Cord	AF556A
	HP 1.83m 10A C13 China Power Cord	AF557A
	HP 2.5m 10A C13-Argentina Power Cord	AF558A
	HP 1.83m 10A C13 Brazil Power Cord	AF559A
	HP 1.83m 10A C13 Korea Power Cord	AF560A
	HP 1.83m 10A C13 Taiwan Power Cord	AF561A
	HP 2.0m 10A C13 India Power Cord	AF562A
	HP 2.5m C13 AU/NZ Power Cord	AF569A
	HP 1.83m 10A C13 CH Power Cord	AF565A
	HP 1.83m 10A C13 DK Power Cord	AF566A
	HP 1.83m 10A C13 EU Power Cord	AF568A
	HP 1.83m 10A C13 IL Power Cord	AF564A
	HP 1.83m C13 IT/CL Power Cord	AF571A
	HP 2m C13 Japan Power Cord	AF572A
	HP 1.83m 10A C13 UK Power Cord	AF570A
	HP 2.5m C13 ZA/IN Power Cord	AF567A
	HP 1.83m 10A C13 NBR14136 Brazil 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/385p Gen8 3 Slot PCI-E Riser Kit NOTE: Second processor required if selected.	653206-B21
-------------------------------------	---	------------

HP X1800 G2 WSS2012 OS Upgrade	<p>HP X1800 G2 Upgrade to Windows Storage Server 2012 Standard Edition</p> <p>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:</p> <p>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</p> <p>* A minimum of two OS drives that are the same type and capacity (146GB minimum) must be present in the system before installation.</p> <p>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</p>
--------------------------------	--

Options

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.

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).

For increased uptime, productivity and ROI-HP Care Pack packaged services for Storage

These days, you need to get the most out of your storage investment-you can't afford not to. When you buy HP storage products and solutions, it's also a good time to think about what levels of service and support you may need. To help take the worry out of deploying, designing, maintaining, and managing your environment, we've designed a portfolio of service options that are as: flexible, reliable and scalable as your storage. Unlike storage-only vendors, we take a holistic approach to your entire environment, bridging storage, servers, blades, software and network infrastructures with our HP Care Pack packaged services for Storage.

Protect your business beyond the warranty

When it comes to robustness and reliability, standard warranties on today's computing equipment have matured just as the technologies have matured. Good news on some fronts-but also a source of potential problems and subsequent consequences that come from depending on standard warranties alone. Standard warranty protects against product defects and some causes of downtime- but not the business. By using a standard approach to warranty uplifts, such as HP Care Pack Services, you can reduce downtime risks and be more certain of operational consistency for both mission-critical and standard business computing. Simply put, HP Care Pack Services normalize the warranty of combined products - helping you proactively guard against unplanned downtime.

Extending warranties with HP Care Pack Services

For cost-effective upgrading or extending your standard warranty, HP Care Pack Services offer a suite of standard reactive hardware and software support services that are sold separately, or combined as with our Support Plus and Support Plus 24 services. The portfolio also provides a combination of proactive and reactive services, such as Proactive 24 Service and Critical Service. In addition, with HP Proactive Select we offer an innovative approach to service delivery that gives you the flexibility to acquire the specific proactive services you need today, then add services as your needs evolve. HP Proactive Select offers a broad set of technical or per-event type service options - including server, storage, and network, SAN device, and software, environment, installation and education services. Services that you can mix and match depending on your specific requirements, from preliminary planning and equipment delivery to installation, configuration, integration, and testing, through every level of ongoing support. Our HP Care Pack packaged services for Storage assures help when you need it most. And for many products, post-warranty HP Care Pack Services are available when your original warranty has expired.

HP Storage Services: Offering reliability, flexibility and value-just like your storage

HP Storage Services offers a full spectrum of customer care, from technology support to complex migrations to complete completely managed services. HP Factory Express provides customization, integration and deployment services for turnkey solutions. HP Education offers flexible, comprehensive training on storage networking, disk storage systems, and storage software to help your IT staff get the most out of your investments. And HP Financial solutions extend innovative financing and asset management programs to cost-effective buy, manage and eventually retire your older equipment.

HP Storage Services, the trusted business technology experts who manage your technology in action, because when technology works, business works. <http://www.hp.com/hps/storage>

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

HP Care Pack Services are sold by HP and HP Authorized Service Partners

- Services for customers purchasing from HP or an enterprise reseller are quoted using HP order configuration tools.
- Customers purchasing from a commercial reseller can find HP Care Pack Services at <http://www.hp.com/go/lookuptool>

Service and Support, HP Care Pack, and Warranty Information

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

Recommended Services

3-Year HP Support Plus 24

For a higher return on your storage investment, HP Support Plus 24 provides integrated hardware and software support services designed specifically for your technology. Available 24x7, this 3-year combined reactive support option delivers onsite hardware support and over-the-phone software support around-the-clock. Leverage the full strength of HP Technology Services - customers can trust the services professionals at HP to work collaboratively with them, putting our strategic and technical know-how to work across their entire infrastructure.

- Improve uptime with responsive hardware and software services
- Enjoy consistent service coverage across geographically dispersed sites
- Update HP software at a predictable cost
- Increase customer satisfaction-with no interoperability gaps

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

HP Installation and Startup Service for StoreEasy Storage

For smooth startup, HP Installation and Startup Service provides for deployment of your HP StoreEasy product while helping you establish readily available access to and management of your critical data and applications. Leverage the full strength of HP Technology Services - customers can trust the services professionals at HP to work collaboratively with them, putting our strategic and technical know-how to work across their entire infrastructure.

- System installation and setup by a HP technical specialist
- Reduced implementation time and cost
- Verification prior to installation that all service prerequisites are met
- Availability of an HP service specialist to answer basic questions related to this service during the orientation session
- Potential expansion of the number of shares and hosts

<http://h20195.www2.hp.com/v2/GetPDF.aspx/4AA2-6112ENL.pdf>

HP Proactive Select Service

HP Proactive Select Service improves your IT performance and manageability through the use of cost effective flexible services. HP provides technical expertise and best practices to accelerate ROI of your technology investment. Selectable proactive services span a wide range of technology and process services - a flexible way to purchase proactive services that fit your particular environment and situation.

HP Proactive Select Service is technology agnostic and purchased in addition to your choice of underlying reactive support.

- Access to a list of flexible and customizable proactive service activities
- Enhance customers' in-house IT team with complementary assistance from HP
- Improved time to solution
- Reduce business risk and project costs by accessing HP specialists
- Simplify IT operational procedures by leveraging HP best practices

<http://h20195.www2.hp.com/v2/GetPDF.aspx/4AA2-3842ENN.pdf>

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

Optional Services

HP Data Migration Service for Windows

For customers who need to safely migrate Windows data within their TCP/IP networks with minimal impact to their operations:

You have a need to migrate data between Windows servers within your TCP/IP network. Or you have a need to migrate storage for your Windows servers. Or both. And you need to accomplish

Service and Support, HP Care Pack, and Warranty Information

these migrations efficiently while minimizing risk at the same time.

HP Data Migration Service for Windows offers you a cost competitive and convenient way to accommodate data migration triggered by a need to refresh or consolidate storage, or to create different storage tiers. This service offers a migration cost in line with the costs of storage products in small and medium-sized storage environments. The service is delivered via a skilled HP service specialist with special consideration for data availability, integrity, and ongoing operational performance during the transfer process.

<http://h20195.www2.hp.com/v2/GetPDF.aspx/4AA2-4734ENW.pdf>

eSupport

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

Support Portal

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

Features include:

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

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

Customer Technical Training

Consider education as an integral part of your strategy to get the best return on investment for your HP storage solution. HP offers a variety of training courses on storage software, networking, archiving and disk storage systems. Our classes are available in many delivery modalities from traditional instructor-led courses at one of our 80 training centers worldwide to on-site training customized to your needs or online. www.hp.com/learn/storage

HP Services Awards

HP Services continues to be recognized for service and support excellence by customers, partners, industry organizations and publications around the world. Recent honors and award reflect our services team's dedications, technical expertise, professionalism and uncompromising commitment to customer satisfaction. For a list of all our awards, please visit: <http://h20219.www2.hp.com/services/cache/433028-0-0-225-121.html>

Additional Services Information

For more information about HP Care Pack Services for Storage, please visit: <http://www.hp.com/hps/storagelf> you have specific questions, contact your local HP representative. Contact information for a representative in your area can be found at "Contact HP" <http://www.hp.com>

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

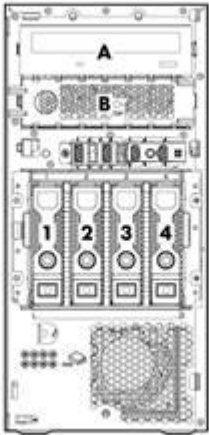
Storage

StoreEasy 1430



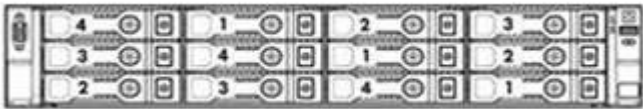
Four 3.5" (LFF) hot plug SATA / SAS
hard drive bays

StoreEasy 1530



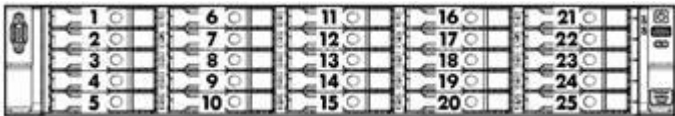
Four 3.5" (LFF) hot plug SATA / SAS
hard drive bays

StoreEasy 1630 (14 LFF HDD)



Twelve 3.5" (LFF) hot plug SATA /
SAS hard drive bays in front/Two 3.5"
(LFF) hot plug SATA / 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).	
		Idle (Note 1)	

Technical Specifications

		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.

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 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 installed)	41.8 lb (18.96 kg)
		Minimum (one hard drive, power supply, and processor installed)	25.29 lb (11.47 kg)

Technical Specifications

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
	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	FCC Rating	Class B

Technical Specifications

	Classification (EMC)	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)
Command Line Support		Firefox 3.6 (on supported Windows and Linux systems)
		Secure Shell and serial port access
		Secure Socket Layer
Security		Secure Shell version 2
		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 2-port 330i Adapter		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)
	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),



Technical Specifications

		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	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).

Technical Specifications

		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
		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

Processor

Upgradeability

Video Support

Interfaces

Memory

Operating System Support

Client System Support

Client Browser Support

PCI Express based health and remote management ASIC

Embedded ARM processor core operating at 400MHz

Firmware upgradeable via Flash ROM

1920 x 1200 (16 bpp) DVR max resolution

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

16 MB Flash

256 MB DDR 3 with ECC (112 MB after ECC and video)

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>

For information on Client System Support, please visit the HP iLO Feature Comparison Site at: www.hp.com/go/compareilo

Microsoft Internet Explorer 9

Technical Specifications

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

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)	SFF Drives: 3.44 x 17.54 x 27.50 in (8.73 x 44.55 x 69.85 cm)
<div><div></div><div>DA - 14434 Worldwide QuickSpecs — Version 3 — 3/8/2013</div><div>Page 41</div></div>		

Technical Specifications

D) (with bezel)		
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: 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),
<div><div></div><div>DA - 14434 Worldwide QuickSpecs — Version 3 — 3/8/2013</div></div> <div>Page 42</div>		



Technical Specifications

		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 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

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
	Command Line Support	Firefox Extended Support Release (ESR) 10 (on supported Windows and Linux systems)
		Firefox 3.6 (on supported Windows and Linux systems)
		Secure Shell and serial port access
	Security	Secure Socket Layer
		Secure Shell version 2
		Advanced Encryption Standard (AES) and Triple Data Encryption Standard (3DES) on browser, CLP and XML scripting interface
	Directory Support Services	AES encryption of video
		RC4 encryption of video
	Driver Support	Active Directory v1.0 (Windows 2003)
	Management protocols supported	HP ProLiant iLO 4 Management Controller Driver Package 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.	

© Copyright 2013 Hewlett-Packard Development Company, L.P.
The information contained herein is subject to change without notice.

Windows is a US registered trademark of Microsoft Corporation. Intel is a US registered trademark of Intel Corporation.

The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

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