Overview

HP StoreEasy 1000 Storage is a new breed of optimized, efficient, secure and highly available storage to simply address the file and application storage challenges of customers' small and medium business, branch office, and workgroup environments. StoreEasy 1000 Storage, built on industry leading HP 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

- Brand new models - StoreEasy 1440, 1540, 1640 and 1840 Storage
- All models now running Windows Storage Server 2012 R2, Standard Edition

Models

HP StoreEasy 1440 Storage

HP StoreEasy 1440 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. All StoreEasy 1440 models have Windows Storage Server 2012 R2, Standard Edition, pre-installed from the factory on the four internal LFF drives configured as RAID6. The StoreEasy 1440 is built on a HP ProLiant DL360e Gen 8 server and includes a rail kit.

HP StoreEasy 1440 Storage	E7W70A

(**NOTE:** This model has 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 1440 4TB SATA Storage	E7W71A

(4 x 1TB 6G 7.2K RPM SATA LFF HDDs pre-installed)

HP StoreEasy 1440 8TB SATA Storage	E7W72A

(4 x 2TB 6G 7.2K RPM SATA LFF HDDs pre-installed)
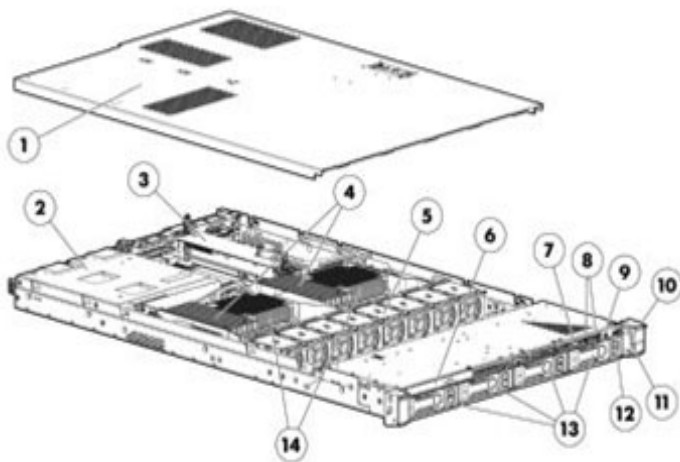
HP StoreEasy 1440 12TB SATA Storage	E7W73A

(4 x 3TB 6G 7.2K RPM SATA LFF HDDs pre-installed)

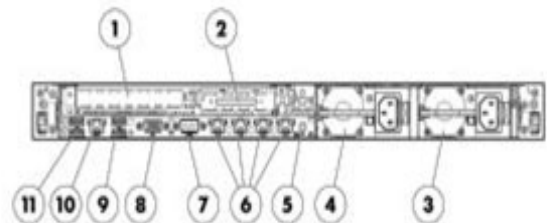|	
HP StoreEasy 1440 16TB SATA Storage	E7W74A

(4 x 4TB 6G 7.2K RPM SATA LFF HDDs pre-installed)

Front View:

1. Access panel

2. Redundant Hot Plug Power Supplies (1 standard, 1 optional)

Rear View:

1. PCIe 3.0 Full-height/half -length (250mm) x16 expansio slot

2. PCIe 2.0 Low Profile x8 expansion slot

Overview

3. Removable Riser Cage assembly for 1 x PCIe 3.0 x16 + 1 x PCIe 2.0 x8
4. 12 DIMM slots - DDR3 Registered (RDIMM)
5. Removable hot-plug fan modules for easy serviceability
6. Optical Disk Drive Bay (optional)
7. Video connector
8. USB connectors
9. Unit ID LED/button
10. Health LED
11. NIC Activity LED
12. Power On/Standby button
13. Drive Bays
14. Up to two Intel® E5-2400/ E5-2400v2 Series processors

3. Power supply bay 1 (Primary Power Supply)
4. Power supply bay 2 (Shown populated: Optional)
5. Unit ID LED/button
6. HP Ethernet 1Gb 4-port 366i Adapter
7. Serial connector
8. Video connector
9. USB connectors
10. iLO connector
11. USB connectors

HP StoreEasy 1540 Storage

HP StoreEasy 1540 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. All StoreEasy 1540 models have Windows Storage Server 2012 R2, Standard Edition, pre-installed from the factory on the four internal LFF drives configured as RAID6. The StoreEasy 1540 is built on an HP ProLiant ML310e v2 Gen 8 Server.

NOTE: A country specific power cord option must be ordered with the StoreEasy 1540. See power cord options section.

HP StoreEasy 1540 Storage   E7W75A

(**NOTE:** This model has 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 1540 4TB SATA Storage   E7W76A
(4 x 1TB 6G 7.2K RPM SATA LFF HDDs pre-installed)

HP StoreEasy 1540 8TB SATA Storage   E7W77A
(4 x 2TB 6G 7.2K RPM SATA LFF HDDs pre-installed)

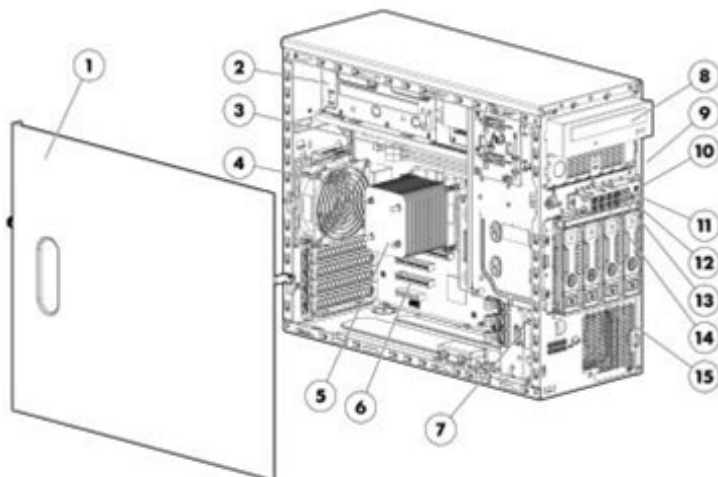HP StoreEasy 1540 12TB SATA Storage   E7W78A
(4 x 3TB 6G 7.2K RPM SATA LFF HDDs pre-installed)

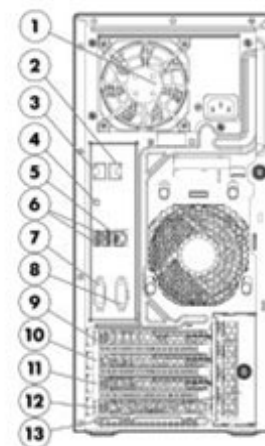HP StoreEasy 1540 16TB SATA Storage   E7W79A
(4 x 4TB 6G 7.2K RPM SATA LFF HDDs pre-installed)

Front View:
1. Quick removal access panel
2. Power Supply
3. Four DIMM slots

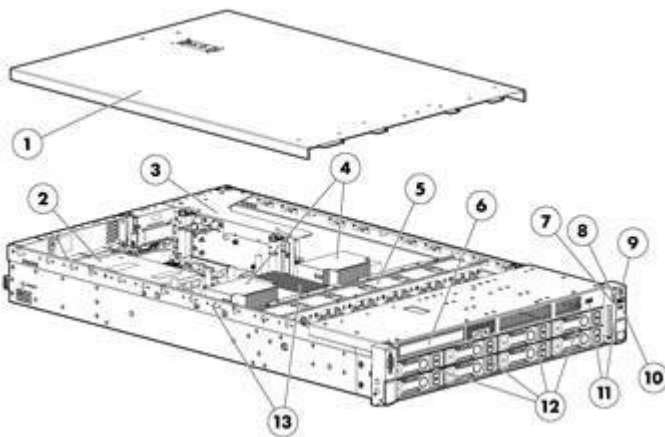**Rear View**
1. Power supply
2. NIC Connector 2
3. NIC Connector 1

Overview

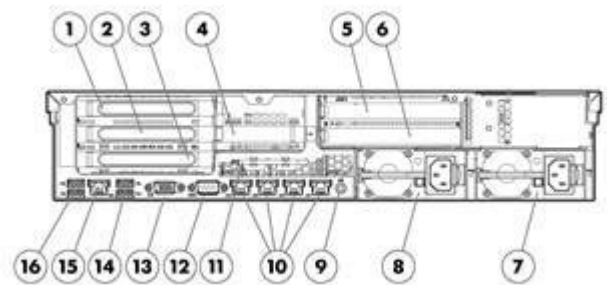|			
4.	Rear system fan (Processor Cooling)	4.	UID LED Button
5.	Processor Heatsink	5.	iLO connector
6.	Four (4) PCIe expansion slots	6.	Two (2) USB3.0 Connectors
7.	Front system fan (Expansion board cooling	7.	Serial Connector
8.	Half Height SATA DVD-ROM or DVD RW Optical Drive (optional)	8.	Video Connector
9.	Media Drive Blank	9.	Slot 4 PCIe x16
10.	Power Button	10.	Slot 3 PCIe x 8
11.	NIC Activity LED	11.	Slot 2 PCIe x8
12.	System Health	12.	Slot 1 PCIe x4
13.	UID LED button	13.	PCIe card bracket
14.	Four (4) USB connectors		
15.	Four (4) LFF HDD cage		

HP StoreEasy 1640 Storage

HP StoreEasy 1640 Storage products deliver high capacity and drives down your cost per GB. Quad-Core processing, up to 48TB internal storage capacity, and ready for external expandability enhance this ultra-dense 2U shared storage solution for small, medium, or large IT environments. All StoreEasy 1640 models have Windows Storage Server 2012 R2, Standard Edition, pre-installed from the factory on two rear internal 300GB 6G 10K RPM SFF drives configured as RAID1. The StoreEasy 1640 is built on a HP ProLiant DL380e Gen 8 Server and includes a rail kit.

HP StoreEasy 1640 Storage	E7W80A
(12 open LFF HDD slots in front)	
HP StoreEasy 1640 8TB SAS Storage	E7W81A
(8 x 1TB 6G 7.2K RPM LFF SAS HDDs pre-installed, 4 open LFF slots)	
HP StoreEasy 1640 16TB SAS Storage	E7W82A
(8 x 2TB 6G 7.2K RPM LFF SAS HDDs pre-installed, 4 open LFF slots)	
HP StoreEasy 1640 24TB SAS Storage	E7W83A
(8 x 3TB 6G 7.2K RPM LFF SAS HDDs pre-installed, 4 open LFF slots)	
HP StoreEasy 1640 32TB SAS Storage	E7W84A
(8 x 4TB 6G 7.2K RPM LFF SAS HDDs pre-installed, 4 open LFF slots)	

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)

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

Overview

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

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)

HP StoreEasy 1840 Storage

HP StoreEasy 1840 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. All StoreEasy 1840 models have Windows Storage Server 2012 R2, Standard Edition, pre-installed from the factory on two internal 300GB 6G 10K RPM SFF drives configured as RAID1. The StoreEasy 1840 is built on a HP ProLiant DL380 Gen 8 server and includes a rail kit.

HP StoreEasy 1840 Storage	E7W85A
(23 open SFF slots in front)	
HP StoreEasy 1840 9.9TB SAS Storage	E7W86A
(11 x 900GB 6G 10K RPM SAS SFF HDDs pre-installed, 12 open SFF slots)	
HP StoreEasy 1840 13.2TB SAS Storage	E7W87A
(11 x 1.2TB 6G 10K RPM SAS SFF HDDs pre-installed, 12 open SFF slots)	
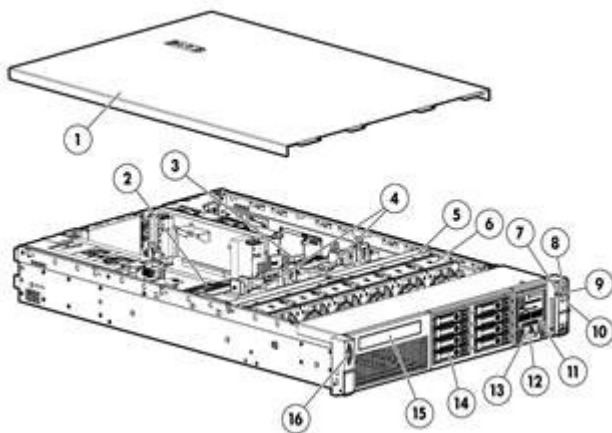
Front View:

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
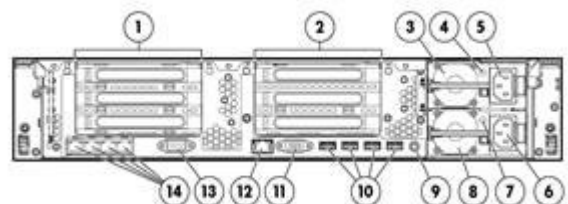
Rear View

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

Overview

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 (picture doesn't show all SFF slots installed)
15. Optional Slim Optical Bay (SATA DVD-RW /ROM Optical Drive)
16. Video connector

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)

QuickSpecs

Features and Benefits

Optimized: Tailored for Your File Storage	The HP StoreEasy 1000 Storage comes with pre-configured hardware with the latest generation storage OS for purpose-built file storage. StoreEasy installation and network configuration wizards simplify installation and prevent configuration errors for faster deployment. Best practices driven storage provisioning tool discovers system storage and recommends the setup for optimum performance, optimum capacity or a balanced configuration based on the available storage.
Efficient: Saves You Money and Time	HP StoreEasy 1000 Storage supports a large numbers of users with a high performance file serving controller and a wide range of disk drives including solid state disks (SSDs). A broad range of file access protocols, including Microsoft Hyper-V and SQL Server application storage over SMB3 or iSCSI. File sync and share feature enable mobile workers to access their files from any Internet connection. Provides corporate data controls including data encryption, data wipe, user lock screen password enforcement, file classification and storage quotas. Reduce your branch office WAN usage by automatically caching frequently accessed corporate datacenter files with Hosted BranchCache.
Protection: Safeguards Your Data	The HP StoreEasy 1000 Storage protects data while at rest with file system encryption and BitLocker® drive encryption, and while it is being transferred with SMB3 encryption and signing. Use File Classification Infrastructure to dynamically identify files based on sensitivity and implement sophisticated access controls using Active Directory Rights Management Services. Install and run endpoint protection such as antivirus on the system itself - reducing 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. Leverage optional HP Autonomy LiveVault and HP Data Protector software for security and efficient policy driven offsite cloud and hybrid cloud backup.
Highly Available: Prevents Your User and Organization Disruption	The HP StoreEasy 1000 Storage increases uptime with such standard features as near continuous health monitoring with HP Active Health System, mirrored OS disks, redundant fans (not available on all models) and power, and advanced memory protection. Confidently deploy large volumes leveraging improved file system online self-healing, online verification, and precise and rapid repair that massively reduces downtime from file corruption. Built on HP ProLiant Gen8 Server series and Microsoft Windows Storage Server 2012 R2 for reliability and ease-of-use. Three year onsite parts and labor warranty for the system, and one year of 24 x 7 software telephone support.

QuickSpecs

Standard Features

Operating System   Microsoft Windows Storage Server 2012 R2, Standard Edition

- Windows Storage Server 2012 R2 (WSS2012 R2) includes a robust range of file serving and storage capabilities. It addresses heterogeneous environments and it enables more efficient storage utilization. WSS2012 R2 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 R2 leverages your Windows Server management skill sets and tools including Active Directory, PowerShell and System Center.
- Extensive protocol support: SMB (2.0, 2.1, 3.0, 3.02), NFS (v2, v3, v4.1), WebDAV, HTTP/HTTPS, FTP/FTPS, ISCSI
- SMB3: 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 64 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 R2, 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 R2 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 Storage Server 2012 R2 installation to systems running Windows Server 2012 R2. 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

Standard Features

into one or more logically structured namespaces. Each namespace appears to users as a single shared folder with a series of subfolders. However, the underlying structure of the namespace can consist of numerous file shares that are located on different servers and in multiple sites.

- Distributed File System Replication (DFS-R): Enables you to efficiently replicate folders (including those referred to by a DFS namespace path) across multiple servers and sites. DFS Replication uses a compression algorithm known as remote differential compression (RDC). RDC detects changes to the data in a file, and it enables DFS Replication to replicate only the changed file blocks instead of the entire file.
- Work Folders: With Work Folders users can store and access work files on personal computers and devices, often referred to as bring-your-own device (BYOD), in addition to corporate PCs. Users gain a convenient location to store work files, and they can access them from anywhere. Organizations maintain control over corporate data by storing the files on centrally managed file servers, and optionally specifying user device policies such as encryption and lock-screen passwords. Work Folders can be deployed with existing deployments of Folder Redirection, Offline Files, and home folders. Work Folders stores user files in a folder on the server called a sync share. You can specify a folder that already contains user data, which enables you to adopt Work Folders without migrating servers and data or immediately phasing out your existing solution
- 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
- Unlimited Client Access Licenses (CALs) included

NOTE: Windows Storage Server 2012 R2 and Windows Server 2012 R2 are built on the same code base. Applications certified for Windows Server are expected to have the same application compatibility profile on Windows Storage Server. Windows Storage Server 2012 R2 and Windows Server 2012 have the same application frameworks, services and plumbing to support running the full breadth of Window-compatible applications. Applications that rely upon certain roles that are removed from Windows Storage Server 2012 R2, such as fax server, active directory domain controller or terminal services will not be able to leverage those roles. Independent Software Vendors (ISVs) ultimately decide what versions and editions of Windows are supported by their

Standard Features

products and users should review ISV compatibility and support information before purchasing. HP StoreEasy customers should review the End User License Agreement (EULA) to see the types of applications that are permitted for installation. All versions of Windows Storage Server 2012 R2 can join Active Directory domains, but cannot be a domain controller.

More information on Windows Storage Server 2012 R2 Standard Edition can be found here: http://technet.microsoft.com/en-us/library/jj643303.aspx

Processor / Cache Memory	StoreEasy 1440	StoreEasy 1540	StoreEasy 1640	StoreEasy 1840
	Intel® Xeon® E5-2403v2(1.8GHz/4-core/10MB/6.4GTs QPI/80W, DDR3-1333) Processor	Intel® Core® i3-4130 (3.4GHz/2-core/3MB/54W, HT) Processor	Intel® Xeon® E5-2407v2(2.4GHz/4-core/10MB/6.4GT/s QPI/80W, DDR3-1333)	Intel® Xeon® E5-2609 v2 (2.5GHz/4-core/10MB/6.4GT-s QPI/80W)

Memory					
	Type	Unbuffered (UDIMM) or Registered (RDIMM) depending on model			
	Maximum (by O/S license)	2TB			
		StoreEasy 1440	Store1530	StoreEasy 1640	StoreEasy 1840
	Standard	8GB (2 x 4GB)	8GB (2x 4GB)	12GB (3 x 4GB)	16GB (4 x 4GB)
	DIMM Sockets	12	4	12	24

Network Controller		StoreEasy 1440	StoreEasy 1540	StoreEasy 1640	StoreEasy 1840
	NIC Ports	4	2	4	4
	Controller	HP Ethernet 1Gb 4-port 366i Adapter	HP Ethernet 1Gb 2-port 332i 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 1440	1	PCIe 3.0	X16	X16	Full-height, half-length (250mm)	SA P222 installed
	2	PCIe 2.0	X4	X8	Low profile slot	

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

	Expansion Slots #	Technology	Bus Width**	Connector Width	Form Factor	Notes
StoreEasy 1540	1	PCIe 2.0	X1	X4	Half Length/Full Height	
	2	PCIe 2.0	X1	x8	Full Length/Full Height	
	3	PCIe 3.0	X8	X8	Full Length/Full Height	SA P222 installed

Standard Features

	Expansion Slots #	Technology	Bus Width**	Connector Width	Form Factor	Notes
	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 1540

	Expansion Slots #	Technology	Bus Width**	Connector Width	Form Factor	Notes
StoreEasy 1640	1	PCIe Gen3.0	X4	X8	Full Length, Full Height Slot	
	2	PCIe Gen3.0	X8	X16	Half Length, Full Height Slot	
	3	PCIe Gen3.0	X8	X8	Half Length, Full Height Slot	SA P822 installed
	4	PCIe Gen2.0	X4	X8	Low Profile	

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

StoreEasy 1840

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	
	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 1840

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

Standard Features

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 1840

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

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

Storage Controller		StoreEasy 1440	StoreEasy 1540	StoreEasy 1640	StoreEasy 1840
	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	0,1,10,5,50,6,60,1 ADM, 10 ADM	0,1,10,5,50,6,60,1 ADM, 10 ADM	0, 1, 1+0, 5, 6, 50, 60, and 1 ADM	0, 1, 1+0, 5, 6, 50, 60, and 1 ADM
	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	Hard Drives				
		StoreEasy 1440	StoreEasy 1540	StoreEasy 1640	StoreEasy 1840
	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 2.5" (Small 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, D6000	Support for D2000, D6000

QuickSpecs

Standard Features

Maximum Storage Capacity (raw)		StoreEasy 1440	StoreEasy 1540	StoreEasy 1640	StoreEasy 1840
	Internal SATA	16TB	16TB	48TB	23TB
	Internal SAS	16TB	16TB	48TB	27.6TB
	Internal plus External	208TB P222 allows 4 x 4TB internal, 48 x 4TB external using 4 D2600s	208TB P222 allows 4 x 4TB internal,48 x 4TB external using 4 D2600s	1.536PB 12 x 4TB HDDs internal, plus 384 x 4TB HDDs using 32 D2600s (requires 4 P822s)	2.327PB 23 x 1.2TB HDDs internal, plus 586 x 4TB HDDs using 48 D2600s (requires 6 P822s)

Power Supply	StoreEasy 1440	StoreEasy 1540	StoreEasy 1640	StoreEasy 1840
	460 Watts, Hot Plug (optional redundant)	460 Watts, Hot Plug (optional redundant)	750 Watts, Hot Plug Redundant	750 Watts, Hot Plug Redundant

Power Cords	StoreEasy 1440	StoreEasy 1540	StoreEasy 1640	StoreEasy 1840
	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 1440, 1640 and 1840 no longer ship standard with a 12-foot NEMA 5-15P to C13 power cords (227099-001) that allow connection to 110V US wall outlets in a home or office. These products are primarily connected to PDU's in data center racks so they now ship standard with only a PDU 6-foot C-14 to C13 power cord (142258-001). If a user wishes to power a system using a110V receptacle (NEMA-15) use the 12-foot NEMA 5-15 to C13 power cord (227099-001). See Power Cords section for Worldwide Power Cord options.

NOTE: The HP StoreEasy 1540 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 1540 Storage product in a in a rack, the Tower to Rack Conversion kit (417705-B21) is required as well as a PDU power cord (416151-B21) to connect to a PDU in a data center rack.

System Fans	StoreEasy 1440	StoreEasy 1540	StoreEasy 1640	StoreEasy 1840
	5 fan modules ship standard, 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 1440	StoreEasy 1540	StoreEasy 1640	StoreEasy 1840
	1U Rack form factor	Micro ATX Tower (4U)	2U Rack form factor	2U Rack form factor

QuickSpecs

Standard Features

Other Feature Specifications

See the corresponding ProLiant QuickSpecs for additional feature specifications.

StoreEasy 1440 (DL360e Gen 8):
http://h18000.www1.hp.com/products/quickspecs/14327_div/14327_div.pdf

StoreEasy 1540 (ML310e v2 Gen 8):
http://h18000.www1.hp.com/products/quickspecs/14564_div/14564_div.pdf

StoreEasy 1640 (DL380e Gen 8):
http://h18000.www1.hp.com/products/quickspecs/14328_div/14328_div.pdf

StoreEasy 1840 (DL380p Gen 8):
http://h18004.www1.hp.com/products/quickspecs/14212_div/14212_div.html

NOTE: Options offered in the HP ProLiant Servers listed above will work in the respective StoreEasy product if supported on Windows Server 2012 R2, Standard Edition. Because StoreEasy is used as a storage product every possible option available from the equivalent ProLiant server is not listed in the StoreEasy 1X40 QuickSpecs. Options that are shown in this document are the most common ones needed for the primary StoreEasy use model.

Optional Software

HP Data Protector software	HP Data Protector Software is enterprise data protection and disaster recovery, ensuring recovery from any disruption. Data Protector integrates a variety of techniques to eliminate backup and recovery windows. The capabilities to eliminate planned downtime range from online backup and backup of open files to zero-downtime, zero-impact backup. The software provides industry-leading instant recovery as well as several disaster recovery alternatives to eliminate unplanned downtime, allowing recovery of entire data centers in minutes.
	Data Protector is enabling organizations to reduce costs by automating routine tasks to maximize the effectiveness of the data protection staff. For the price of an entry-level product, it provides the enterprise functionality customers need. Data Protector scales from single server to distributed enterprise, covering an extensive range of heterogeneous applications, operating environments and storage configurations with a single solution.
	For more information on HP Data Protector: http://www.hp.com/go/dataprotector
HP LiveVault	HP 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'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. For a 30 day free trial of HP LiveVault go to: www.remotedatabackups.com/storeeasylivevault

Models (Pre-Configured)

These models come with factory-installed drives and the Microsoft Windows Storage Server 2012 R2 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 R2, 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 1440 Models

Common Specifications	Processor	(1) Intel® Xeon® E5-2403v2(1.8GHz/4-core/10MB/6.4GTs QPI/80W, DDR3-1333)
	Memory	8GB (2 x 4GB Single Rank x4 PC3L-12800R (DDR3-1600) Registered CAS-11 Low Voltage 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	4 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 1440 4TB SATA Storage   E7W71A
(4 x 1TB 6G 7.2K RPM SATA LFF HDDs pre-installed)
HP StoreEasy 1440 8TB SATA Storage   E7W72A
(4 x 2TB 6G 7.2K RPM SATA LFF HDDs pre-installed)
HP StoreEasy 1440 12TB SATA Storage   E7W73A
(4 x 3TB 6G 7.2K RPM SATA LFF HDDs pre-installed)
HP StoreEasy 1440 16TB SATA Storage   E7W74A
(4 x 4TB 6G 7.2K RPM SATA LFF HDDs pre-installed)

StoreEasy 1540 Models

Common Specifications	Processor	(1) Intel® CoreTM i3-4130 (3.4GHz/2-core/3MB/54W, HT)
	Memory	8GB (2 x 4GB Dual Rank x8 PC3L-10600E (DDR3-1333) Unbuffered CAS-9 Low Voltage 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)

Models (Pre-Configured)

	Form Factor	4U Micro ATX Tower	

HP StoreEasy 1540 4TB SATA Storage   E7W76A
(4 x 1TB 6G 7.2K RPM SATA LFF HDDs pre-installed)

HP StoreEasy 1540 8TB SATA Storage   E7W77A
(4 x 2TB 6G 7.2K RPM SATA LFF HDDs pre-installed)

HP StoreEasy 1540 12TB SATA Storage   E7W78A
(4 x 3TB 6G 7.2K RPM SATA LFF HDDs pre-installed)

HP StoreEasy 1540 16TB SATA Storage   E7W79A
(4 x 4TB 6G 7.2K RPM SATA LFF HDDs pre-installed)

NOTE: A regional or country specific power cord option must be ordered with StoreEasy 1540. See power cord options section.

StoreEasy 1640 Models

Common Specifications	**Processor**	(1) Intel® Xeon® E5-2407v2 (2.4GHz/4-core/10MB/80W)
	Memory	12GB (3 x 4GB Single Rank x4 PC3L-12800R (DDR3-1600) Registered CAS-11 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) hot-plug drive bays in front, Two 2.5" (Small Form Factor) hot-plug drive bays in rear occupied by OS drives
	Network Ports	4 x Gigabit Ethernet
	Expansion Slots	4 x PCIe (one slot occupied by Smart Array P222)
	Power	2 x 750W Power Supply
	Form Factor	2U rack

HP StoreEasy 1640 8TB SAS Storage   E7W71A
(8 x 1TB 6G 7.2K RPM LFF SAS HDDs pre-installed, 4 open LFF slots)

HP StoreEasy 1640 16TB SAS Storage   E7W72A
(8 x 2TB 6G 7.2K RPM LFF SAS HDDs pre-installed, 4 open LFF slots)

HP StoreEasy 1640 24TB SAS Storage   E7W73A
(8 x 3TB 6G 7.2K RPM LFF SAS HDDs pre-installed, 4 open LFF slots)

HP StoreEasy 1640 32TB SAS Storage   E7W74A
(8 x 4TB 6G 7.2K RPM LFF SAS HDDs pre-installed, 4 open LFF slots)

NOTE: When adding drives to the any of the 4 open LFF slots for these models, HP recommends as a best practice to use all internal data drives of the same type and capacity.

StoreEasy 1840 Models

Common Specifications	**Processor**	(1) Intel® Xeon® E5-2609 v2 (2.5GHz/4-core/10MB/6.4GT-s QPI/80W)
	Memory	16GB (4 x 4GB Single Rank x4 PC3L-12800R (DDR3-1600) Registered CAS-11 Low Voltage Memory)
	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, two bays occupied by OS drives
	Network Ports	4 x Gigabit Ethernet
	Expansion Slots	3 x PCIe standard, 6 x PCIe with optional riser (one slot occupied by Smart Array P822)
	Power	2 x 750W power supplies

Models (Pre-Configured)

Form Factor	2U Rack

HP StoreEasy 1840 9.9TB SAS Storage   E7W86A
(11 x 900GB 6G 10K RPM SAS SFF HDDs pre-installed, 12 open SFF slots)

HP StoreEasy 1840 13.2TB SAS Storage   E7W87A
(11 x 1.2TB 6G 10K RPM SAS SFF HDDs pre-installed, 12 open SFF slots)

NOTE: When adding drives to the any of the 12 open SFF slots for these models, HP recommends as a best practice to use all internal data drives of the same type and capacity.

Models (Drives Configure-to-Order)

The StoreEasy 1440, and 1540 models below have no internal drives pre-installed. These models require selection of drive type and quantity for factory integration.
NOTE: 4 drives of the same type and capacity must be selected for the StoreEasy 1440 and 1540 models. These models cannot ship with less than 4 drives pre-configured so that the operating system can be pre-installed. The 4 drives will be configured as RAID 6 for OS installation. Other drive types and capacities can be used in external enclosures.

The StoreEasy 1640 and 1840 models come with 2 x300GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise drives factory configured as RAID 1 with OS pre-installed. (The OS drives are in the two rear bays of the StoreEasy 1630 and in two of the front bays for the StoreEasy 1840. The StoreEasy 1640 and 1840 can ship with just the OS drives and no data drives. If data drives are needed select the drive type and quantity for factory integration.
NOTE: HP recommends that the internal data drives for these models be the same type and capacity. The data drives don't have to be the same as the OS drives.

Choose a Base Model, then Select Hard Drives

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 R2, 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 1440 Storage   E7W70A

NOTE: This model does not include pre-configured HDDs. A minimum of 4 HDDs of the same type and a capacity greater than 146GB 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 1440 pre-configured models listed above	
Drive Options	Minimum Number of Drives Required	4
	Maximum Number of Drives Allowed	4

StoreEasy 1540 Storage   E7W75A

NOTE: This model does not include pre-configured HDDs. A minimum of 4 HDDs of the same type and a capacity greater than 146GB 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 1540. See power cord options section.

Specifications	Same as the StoreEasy 1540 pre-configured models listed above	
Drive Options	Minimum Number of Drives Required	4
	Maximum Number of Drives Allowed	4

StoreEasy 1640 Storage   E7W80A

Models (Drives Configure-to-Order)

NOTE: This model does not include pre-configured data drives. It does include 2 x 300GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise drives factory configured as RAID 1 with OS pre-installed in the rear bays. Data drives can be added for factory integration.

Specifications	Same as the StoreEasy 1640 pre-configured models listed above	
Drive Options	Minimum Number of Drives Required	0
	Maximum Number of Drives Allowed	12

StoreEasy 1840 Storage   E7W85A

NOTE: This model does not include pre-configured data drives. It does include 2 x300GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise drives factory configured as RAID 1 with OS pre-installed in two front bays. Data drives can be added for factory integration.

Specifications	Same as the StoreEasy 1840 pre-configured models listed above	
Drive Options	Minimum Number of Drives Required	0
	Maximum Number of Drives Allowed	23

Options

The following options are available for both StoreEasy Pre-configured and Drive Configure-to-Order models

NOTE: Options ship separately and are not factory integrated
NOTE: Carefully match options to your model to ensure compatibility

Add Another Processor

StoreEasy 1440	HP DL360e Gen8 Intel® Xeon® E5-2403v2 (1.8GHz/4-core/10MB/80W) Processor Kit	708481-B21
StoreEasy 1640	HP DL380e Gen8 Intel® Xeon® E5-2407v2 (2.4GHz/4-core/10MB/80W) Processor Kit	708497-B21
StoreEasy 1840	HP DL380p Gen8 Intel® Xeon® E5-2609v2 (2.5GHz/4-core/10MB/80W) Processor Kit	715222-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 1440 / StoreEasy 1540	**Unbuffered with ECC DIMMs (UDIMMs)**	
	HP 4GB (1x4GB) Single Rank x4 PC3L-12800R (DDR3-1600) Registered CAS-11 Low Voltage Memory Kit (StoreEasy 1440 only)	713981-B21
	HP 4GB (1x4GB) Dual Rank x8 PC3L-10600E (DDR3-1333) Unbuffered CAS-9 Low Voltage Memory Kit (StoreEasy 1540 only)	647907-B21
StoreEasy 1640 / StoreEasy 1840	**Registered DIMMs (RDIMMs)**	
	HP 4GB (1x4GB) Single Rank x4 PC3L-12800R (DDR3-1600) Registered CAS-11 Low Voltage Memory Kit	713981-B21

NOTE: All DDR3 memory option kits consist of one DIMM per kit. **NOTE:** PC3L is a low voltage memory.

Add Optical Drives

StoreEasy 1440	HP 9.5mm SATA DVD-ROM JackBlack Optical Drive	652238-B21
	HP 9.5mm SATA DVD-RW JackBlack Optical Drive	652241-B21
StoreEasy 1540	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 1440/1540	**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.

QuickSpecs

Options

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.

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 1440 only)	652503-B21
HP Ethernet 10Gb 2-port 530T Adapter (StoreEasy 1440 only)	656596-B21
HP Ethernet 10Gb 2-port 560SFP+ Adapter	665249-B21

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

StoreEasy 1640

Gigabit Ethernet adapters

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

10 Gigabit Ethernet Adapters

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

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

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

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

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

HP InfiniBand

QLogic InfiniBand 4X QDR PCI-E G2 Dual Port HCA	583211-B21
HP InfiniBand 4X QDR ConnectX-2 PCIe G2 Dual Port HCA	592520-B21
HP Infiniband FDR/Ethernet 10Gb/40Gb 2-port 544QSFP Adapter	649281-B21

StoreEasy 1840

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

Options

	HP Ethernet 10Gb 2-port 530SFP Adapter	652503-B21
	HP Ethernet 10Gb 2-port 530T Adapter	656596-B21
	HP Ethernet 10Gb 2-port 560SFP+ Adapter	665249-B21
	HP NC552SFP 10Gb 2-port Ethernet Server Adapter	614203-B21
	HP Ethernet 10Gb 2-port 570SFP+ Adapter	718904-B21
	HP Ethernet 10Gb 2-port 571SFP+ Adapter	728987-B21
	HP InfiniBand	
	QLogic InfiniBand 4X QDR PCI-E G2 Dual Port HCA	583211-B21
	HP InfiniBand 4X QDR ConnectX-2 PCIe G2 Dual Port HCA	592520-B21
	HP Infiniband FDR/Ethernet 10Gb/40Gb 2-port 544QSFP Adapter	649281-B21

HP Security	HP Trusted Platform Module Option	488069-B21

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

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

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: Only one additional Smart Array Controller can be installed in the StoreEasy 1540 in slot 4.

StoreEasy 1440/1540	**SAS Controllers**	
	HP Smart Array P222 Controller	
	HP Smart Array P222/512 FBWC 6Gb 1-port Int/1-port Ext SAS Controller	631667-B21
	Smart Array P421 Controller	
	HP Smart Array P421/1GB FBWC 6Gb 2-ports Ext SAS Controller	631673-B21
	HP Smart Array P421/2GB FBWC 6Gb 2-ports Ext SAS Controller	631674-B21
	HP Smart Array P431/2GB FBWC 6Gb 2-ports Ext SAS Controller	698531-B21
	Optional Upgrades (StoreEasy 1440 only)	
	HP 2GB P-series Smart Array Flash Backed Write Cache	631681-B21
	HP SmartCache No Media 24x7 Technical Support 1 Svr License	D7S26A
	HP SmartCache No Media 24x7 Technical Support Flexible License	D7S27A
	HP SmartCache No Media 24x7 Technical Support Electronic License	D7S27AAE

NOTE: Please see the QuickSpecs for Technical Specifications and additional information:
http://h18000.www1.hp.com/products/quickspecs/14227_div/14227_div.html (Smart Array P222 Controller)
http://h18000.www1.hp.com/products/quickspecs/14229_div/14229_div.html (Smart Array P421 Controller and SmartCache)

	Host Bus Adapter	
	HP H221 Host Bus Adapter	650931-B21

NOTE: This is a 2 x4 External Port HBA.

Options

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

NOTE: Please see the QuickSpecs for Technical Specifications and additional information:
http://h18004.www1.hp.com/products/quickspecs/14336_div/14336_div.html (HBA 220)
http://h18004.www1.hp.com/products/quickspecs/14222_div/14222_div.html (HBA 221)
http://h18004.www1.hp.com/products/quickspecs/14337_div/14337_div.html (HBA 222)

SCSI HBA (StoreEasy 1440 only)

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

NOTE: Please see the following QuickSpecs for additional information:
http://h18000.www1.hp.com/products/quickspecs/12566_div/12566_div.html (SC11Xe HBA)

Fibre Channel HBA (StoreEasy 1440 only)
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 Adapt	AJ763B
HP SN1000E 16Gb 1-port PCIe Fibre Channel Host Bus Adapter	QR558A
HP SN1000E 16Gb 2-port PCIe Fibre Channel Host Bus Adapter	QR559A
HP StoreFabric SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter	C8R38A
HP StoreFabric SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter	C8R39A

QLogic Fibre Channel HBAs

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

Converged Network Adapter (StoreEasy 1440 only)

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

StoreEasy 1640/1840   **SAS Controllers**

Smart Array P421 Controller

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

HP Smart Array P431 Controller

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

Smart Array P822 Controller

HP Smart Array P822/2GB FBWC Controller	615418-B21

Optional Upgrades

HP 2GB P-series Smart Array Flash Backed Write Cache	631681-B21
HP SmartCache No Media 24x7 Technical Support 1 Svr License	D7S26A
HP SmartCache No Media 24x7 Technical Support Flexible License	D7S27A
HP SmartCache No Media 24x7 Technical Support Electronic License	D7S27AAE

NOTE: Please see the QuickSpecs for Technical Specifications and additional

Options

information:
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 P430 Controller)
http://h18000.www1.hp.com/products/quickspecs/14341_div/14341_div.html
(Smart Array P822 Controller)

Host Bus Adapter

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

NOTE: Please see the QuickSpecs for Technical Specifications and additional information:
http://h18004.www1.hp.com/products/quickspecs/14222_div/14222_div.html
(HBA 221)
http://h18004.www1.hp.com/products/quickspecs/14337_div/14337_div.html
(HBA 222)

Fibre Channel HBA

NOTE: For detailed compatibility information please see:
http://h18006.www1.hp.com/storage/saninfrastructure/hba.html

Brocade Fibre Channel HBAs

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

Emulex Fibre Channel HBAs

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

QLogic Fibre Channel HBAs

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

Converged Network Adapter

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

StoreEasy 1840

SCSI HBA

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

NOTE: Please see the following QuickSpecs for additional information:
http://h18000.www1.hp.com/products/quickspecs/12566_div/12566_div.html
(SC11Xe HBA)

HP Hard Drives for StoreEasy 1440/1540

NOTE: The HP StoreEasy 1440 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.

Options

StoreEasy 1440/1540 LFF Smart Carrier Drive Bundles

HP StoreEasy 4TB SAS LFF(3.5in) Smart Carrier 4-pack HDD Bundle (Contains 4 x 1TB LFF SAS HDDs - sku 652753-B21)	E7W88A
HP StoreEasy 8TB SAS LFF(3.5in) Smart Carrier 4-pack HDD Bundle (Contains 4 x 2TB LFF SAS HDDs - sku 652757-B21)	E7W89A
HP StoreEasy 12TB SAS LFF(3.5in) Smart Carrier 4-pack HDD Bundle (Contains 4 x 3TB LFF SAS HDDs - sku 652766-B21)	E7W90A
HP StoreEasy 16TB SAS LFF(3.5in) Smart Carrier 4-pack HDD Bundle (Contains 4 x 4TB LFF SAS HDDs - sku 695510-B21)	E7W91A

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

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

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

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

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

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

HP 500GB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline Hard Drive	658071-B21

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

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

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

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

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

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

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

Options

HP 200GB 6G SATA Mainstream Endurance LFF 3.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	691854-B21
HP 100GB 6G SATA Mainstream Endurance LFF 3.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	691852-B21

HP Hard Drives for StoreEasy 1640	**NOTE:** The HP StoreEasy 1640 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.	
	StoreEasy 1640 LFF Smart Carrier Drive Bundles	
	HP StoreEasy 4TB SAS LFF(3.5in) Smart Carrier 4-pack HDD Bundle (Contains 4 x 1TB LFF SAS HDDs - sku 65275-B21)	E7W88A
	HP StoreEasy 8TB SAS LFF(3.5in) Smart Carrier 4-pack HDD Bundle (Contains 4 x 2TB LFF SAS HDDs - sku 652757-B21)	E7W89A
	HP StoreEasy 12TB SAS LFF(3.5in) Smart Carrier 4-pack HDD Bundle (Contains 4 x 3TB LFF SAS HDDs - sku 652766-B21)	E7W90A
	HP StoreEasy 16TB SAS LFF(3.5in) Smart Carrier 4-pack HDD Bundle (Contains 4 x 4TB LFF SAS HDDs - sku 695510-B21)	E7W91A
	SAS Hot Plug SmartDrive LFF (3.5-inch) Enterprise Drives	
	HP 600GB 6G SAS 15K rpm LFF (3.5-inch) SC Enterprise 3yr Warranty Hard Drive	652620-B21
	HP 450GB 6G SAS 15K rpm LFF (3.5-inch) SC Enterprise 3yr Warranty Hard Drive	652615-B21
	SAS Hot Plug SmartDrive LFF (3.5-inch) Midline Drives	
	HP 4TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	695510-B21
	HP 3TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	652766-B21
	HP 2TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	652757-B21
	HP 1TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	652753-B21
	NOTE: Please see the QuickSpecs for Technical Specifications and additional information: http://h18000.www1.hp.com/products/quickspecs/12244_div/12244_div.html (Worldwide)	
	6G SATA Hot Plug with SmartDrive LFF (3.5-inch) Midline (MDL) Drives	
	HP 4TB 6G SATA 7.2k rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	693687-B21
	HP 3TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	628061-B21
	HP 2TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	658079-B21
	HP 1TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	657750-B21
	HP 500GB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	658071-B21
	NOTE: Please see the QuickSpecs for Technical Specifications and additional information: http://h18000.www1.hp.com/products/quickspecs/13021_div/13021_div.html (Worldwide)	

QuickSpecs

Options

6G SATA Value Endurance Hot Plug LFF (3.5-inch) Enterprise Boot Solid State Drives	
HP 120GB 6G SATA Value Endurance LFF 3.5-in SC Enterprise Boot 3yr Wty Solid State Drive	718171-B21
HP 80GB 6G SATA Value Endurance LFF 3.5-in SC Enterprise Boot 3yr Wty Solid State Drive	734362-B21
6G SATA Value Endurance Hot Plug LFF (3.5-inch) Enterprise Value Solid State Drives	
HP 800GB 6G SATA Value Endurance LFF 3.5-in SC Enterprise Value 3yr Wty Solid State Drive	718189-B21
HP 600GB 6G SATA Value Endurance LFF 3.5-in SC Enterprise Boot 3yr Wty Solid State Drive	739900-B21
HP 480GB 6G SATA Value Endurance LFF 3.5-in SC Enterprise Value 3yr Wty Solid State Drive	718183-B21
HP 300GB 6G SATA Value Endurance LFF 3.5-in SC Enterprise Boot 3yr Wty Solid State Drive	739890-B21
HP 240GB 6G SATA Value Endurance LFF 3.5-in SC Enterprise Value 3yr Wty Solid State Drive	718177-B21
6G SATA ME Hot Plug LFF (3.5-inch) Enterprise Mainstream Solid State Drives	
HP 800GB 6G SATA Mainstream Endurance LFF 3.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	691860-B21
HP 400GB 6G SATA Mainstream Endurance LFF 3.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	691856-B21
HP 200GB 6G SATA Mainstream Endurance LFF 3.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	691854-B21
HP 100GB 6G SATA Mainstream Endurance LFF 3.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	691852-B21
NOTE: Please see the QuickSpecs for Technical Specifications and additional information: http://h18000.www1.hp.com/products/quickspecs/14038_div/14038_div.html (Worldwide)	
Hard Drive Kits	
NOTE: All Factory shipped models will be populated with sufficient hard drive blanks based on the number of initial hard drives ordered with the system.	
HP LFF Gen8 Hard Drive Blank Kit	666986-B21

HP Hard Drives for StoreEasy 1840	**NOTE:** The HP StoreEasy 1840 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.

StoreEasy 1840 LFF Smart Carrier Drive Bundles	
HP StoreEasy 3.6TB SAS SFF(2.5in) Smart Carrier 4-pack HDD Bundle (Contains 4 x 900GB SFF SAS HDDs - sku 652589-B21)	E7W92A
HP StoreEasy 4.8TB SAS SFF(2.5in) Smart Carrier 4-pack HDD Bundle (Contains 4 x 1.2TB SFF SAS HDDs - sku 718162-B21)	E7W93A
SAS Hot Plug with SmartDrive SFF (2.5-inch) Enterprise Drives	

QuickSpecs

Options

HP 1.2TB 6G SAS 10K rpm SFF (2.5-inch) SC Dual Port Enterprise 3yr Warranty Hard Drive	718162-B21
HP 1.2TB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	697574-B21
HP 900GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652589-B21
HP 600GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652583-B21
HP 450GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652572-B21
HP 300GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652564-B21
HP 300GB 6G SAS 15K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652611-B21
HP 146GB 6G SAS 15K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652605-B21
SAS Hot Plug SmartDrive SFF (2.5-inch) Midline Drives	
HP 1TB 6G SAS 7.2K rpm SFF (2.5-inch) SC Midline 1yr Warranty Hard Drive	652749-B21
HP 500GB 6G SAS 7.2K rpm SFF (2.5-inch) SC Midline 1yr Warranty Hard Drive	652745-B21
6G SATA Hot Plug with SmartDrive SFF (2.5-inch) Midline (MDL) Drives	
HP 1TB 6G SATA 7.2K rpm SFF (2.5-inch) SC Midline 1yr Warranty Hard Drive	655710-B21
HP 500GB 6G SATA 7.2K rpm SFF (2.5-inch) SC Midline 1yr Warranty Hard Drive	655708-B21
6G SATA Value Endurance Hot Plug SFF (2.5-inch) Enterprise Boot Solid State Drives	
HP 120GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Boot 3yr Wty Solid State Drive	717965-B21
HP 80GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Boot 3yr Wty Solid State Drive	734360-B21
6G SATA Value Endurance Hot Plug SFF (2.5-inch) Enterprise Value Solid State Drives	
HP 800GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	717973-B21
HP 480GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	717971-B21
HP 600GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Boot 3yr Wty Solid State Drive	739898-B21
HP 300GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Boot 3yr Wty Solid State Drive	739888-B21
HP 240GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	717969-B21
6G SAS ME Hot Plug SFF (2.5-inch) Enterprise Mainstream Solid State Drives	
HP 800GB 6G SAS Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	690829-B21
HP 400GB 6G SAS Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	690827-B21
HP 200GB 6G SAS Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	690825-B21
6G SAS SLC Hot Plug SFF (2.5-inch) Enterprise Performance Solid State Drives	

Options

	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
	HP 200GB 6G SAS Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	690825-B21
	6G SAS SLC Hot Plug SFF (2.5-inch) Enterprise Performance Solid State Drives	
	HP 400GB 6G SAS SLC SFF (2.5-inch) SC Enterprise Performance 3yr Warranty Solid State Drive	653082-B21
	HP 200GB 6G SAS SLC SFF (2.5-inch) SC Enterprise Performance 3yr Warranty Solid State Drive	653078-B21
	Hard Drive Kits	
	NOTE: All Factory shipped models will be populated with sufficient hard drive blanks based on the number of initial hard drives ordered with the system.	
	NOTE: The part numbers for single HDD blanks below are provided should the customer require replacement HDD blanks for their server.	
	HP SFF Gen8 Hard Drive Blank Kit	666987-B21

StoreEasy Disk Enclosures

NOTE: The enclosures listed below can be used to add external storage capacity to a HP StoreEasy 1440, 1540, 1640 or 1840.

HP StoreEasy 12 LFF Disk Enclosure — B7E08A

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

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

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

HP StoreEasy 25 SFF Disk Enclosure — B7E09A

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

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

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

NOTE: For the above enclosures with either StoreEasy 1440 or StoreEasy 1540 you can connect any combination of up to (4) HP StoreEasy 12 LFF enclosures or StoreEasy 25 SFF enclosures.

NOTE: For the above enclosures with either StoreEasy 1640 or StoreEasy 1840 the number of enclosure you can connect varies, but if using only B7E08A the maximum is 17 enclosures and if using only B7E09A the maximum is 8 enclosures. The number of enclosures is dependent on the numbers of drives supported by the included SmartArray P822. For more information see the SmartArray P822 QuickSpecs.

Options

LFF Drives bundles for StoreEasy LFF Enclosure	**NOTE:** The Drive Bundles below can only be added to the StoreEasy Enclosures listed above. They cannot be added to a StoreEasy1440, 1540, 1640 or 1840 as they do not use the new hot plug LFF smart carriers used by ProLiant Gen 8 servers.	
	HP StoreEasy 4TB SAS LFF(3.5in) 4-pack HDD Bundle (Contains 4 x 1TB LFF SAS HDDs - sku 507614-B21)	E7W95A
	HP StoreEasy 8TB SAS LFF(3.5in) 4-pack HDD Bundle (Contains 4 x 2TB LFF SAS HDDs - sku 507616-B21)	E7W96A
	HP StoreEasy 12TB SAS LFF(3.5in) 4-pack HDD Bundle (Contains 4 x 3TB LFF SAS HDDs - sku 625031-B21)	E7W97A
	HP StoreEasy 16TB SAS LFF(3.5in) 4-pack HDD Bundle (Contains 4 x 4TB LFF SAS HDDs - sku 693689-B21)	E7W98A
SFF Drives bundles for StoreEasy SFF Enclosure	**NOTE:** The Drive Bundles below can only be added to the StoreEasy Enclosures listed above. They cannot be added to a StoreEasy1440, 1540, 1640 or 1840 as they do not use the new hot plug SFF smart carriers used by ProLiant Gen 8 servers.	
	HP StoreEasy 3.6TB SAS SFF(2.5in) 4-pack HDD Bundle (Contains 4 x 900GB SFF SAS HDDs - sku 619291-B21)	E7X00A
	HP StoreEasy 4.8TB SAS SFF(2.5in) 4-pack HDD Bundle (Contains 4 x 1.2TB SFF SAS HDDs - sku 718160-B21)	E7X01A
Drives for StoreEasy Enclosures	HP 4TB 6G SAS 7.2K rpm LFF (3.5-inch) Midline 1yr Warranty Hard Drive	693689-B21
	HP 3TB 6G SAS 7.2K rpm LFF (3.5-inch) Midline 1yr Warranty Hard Drive	625031-B21
	HP 2TB 6G SAS 7.2K rpm LFF (3.5-inch) Dual Port Midline 1yr Warranty Hard Drive	507616-B21
	HP 1TB 6G SAS 7.2K rpm LFF (3.5-inch) Dual Port Midline 1yr Warranty Hard Drive	507614-B21
	HP 1.2TB 6G SAS 10K SFF (2.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	718160-B21
	HP 900GB 6G SAS 10K rpm SFF (2.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	619291-B21
	HP 600GB 6G SAS 10K rpm SFF (2.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	581286-B21

Add a Power Supply

The HP StoreEasy 1440 and 1530 Storage products come standard with one 460W power supply. Add a second power supply for redundancy.

StoreEasy 1440/1530	HP 460W Common Slot Gold Hot Plug Power Supply Kit	503296-B21

QuickSpecs

Options

Add a Power Cord

NOTE: A regional or country specific power cord option must be ordered with StoreEasy 1540.

StoreEasy 1540	HP C13 - Nema 5-15P US/CA 110V 10Amp 1.83m Power Cord	AF556A
	HP C13 - GB-1002 CN 250V 10Amp 1.83m Power Cord	AF557A
	HP C13 - IRAM -2073 AR 250V 10A 2.5m Power Cord	AF558A
	HP C13 - Nema 5-15P TH/PH 250V 10Amp 1.83m Power Cord	AF559A
	HP C13 - KSC- 8305 KR 250V 10Amp 1.83m Power Cord	AF560A
	HP C13 - CNS-690 TW 110V 13Amp 1.83m Power Cord	AF561A
	HP C13 - IS-1293 IN 240V 6Amp LV 2.0m Power Cord	AF562A
	HP C13 - AS3112-3 AU 250V 10Amp 2.5m Power Cord	AF569A
	HP C13 - SEV 1011 CH 250V 10Amp 1.83m Power Cord	AF565A
	HP C13 - DK-2.5A DK 250V 10Amp 1.83m Power Cord	AF566A
	HP C13 - CEE-VII EU 250V 10Amp 1.83m Power Cord	AF568A
	HP C13 - SI-32 IL 250V 10Amp 1.83m Power Cord	AF564A
	HP C13 - CEI-23-50 IT/CL 250V 10Amp 1.83m Power Cord	AF571A
	HP C13 - JIS C8303 JP 100V 12Amp 2.0m Power Cord	AF572A
	HP C13 - BS-1363A UK/HK/SG 250V 10Amp 1.83m Power Cord	AF570A
	HP C13 - SABS-164 ZA 250V 10Amp 2.5m Power Cord	AF567A
	HP C13 - NBR-14136 BR 250V 10Amp 1.83m Power Cord	AF591A
StoreEasy 1540 Rack Option	HP Tower to Rack Conversion Tray Universal Kit	417705-B21
StoreEasy 1840 I/O Expansion Option	HP DL380p/560 Gen8 3 Slot PCI-E Riser Kit **NOTE:** Second processor required if selected.	653206-B21

Service and Support, HP Care Pack, and Warranty Information

Warranty

HP StoreEasy 1X40 Storage products come with a standard 3-3-3 warranty (3 years parts exchange, 3 years labor and 3 years onsite, next business day response). Software media is warranted to be free of physical defect for a period of 90 days from delivery.

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

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

Service and Support

Services to accelerate time to results

HP Storage Services bring you a rich portfolio of consulting and support services designed to add value to our core storage products and solutions. We have the know-how and experience to put storage technology to work for you. We work closely with you as your strategic partner, leveraging our full services portfolio to make sure that everything works to optimize your enterprise.

Choose from services aligned to our storage product offerings and lifecycle. From mission-critical onsite services to innovative web-based remote support, you choose the precise level of attention and support your business demands.

Discover, plan, and design

Choose from a rich portfolio of services to make the most of HP StoreEasy Storage, so you can efficiently and affordably consolidate, manage, and extract value from unstructured data.

HP Services can help you discover needs and create a plan for simplifying the environme reducing risk, and maximizing your storage investments

HP Backup Recovery Efficiency Analysis - Assessment of how efficiently backup components are being used as the amount of data to be backed up continues to grow exponentially via analysis intelligence and a snapshot of your current backup environment.
http://h20195.www2.hp.com/v2/GetPDF.aspx/4AA3-8490ENW.pdf

HP Backup Recovery Impact Analysis - Focus placed on service requirements and design as the key to success for gaining a clear understanding of the role of increasingly diverse data protection strategies. http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA4-1175ENW.pdf

HP Backup Recovery Modernization - Initial discovery, interviews, reference architecture design proposal content development, vendor grading, and final recommendations carried out so as to require minimal resources and locations on your part.
http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA4-1199ENW.pdf

HP Storage Cloud Design Service - Build a scalable, low-cost enterprise storage environment with inherent cloud benefits to meet big data needs.

Deploy and integrate

We can help you configure, set up, and efficiently use your HP StoreEasy Storage, as wel as help migrate data, improve capacity utilization, and establish information managemen standards used across backup, replication, and archiving needs.

HP StoreEasy 1000/3000 Network Storage Solution Installation and Startup Service -Expert system installation and setup by an HP technical specialist designed to reduce implementation time and cost, with your basic questions about the service answered during the included orientation session

HP Storage Data Migration Services - End-to-end data migration service providing seamless discovery, assessment, planning, and design, completely customizable to your organization's storage area network or network attached storage environment and using innovative software to

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Service and Support, HP Care Pack, and Warranty Information

help you migrate to HP storage quickly and efficiently.
http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA3-0774ENW.pdf

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

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

Operate and support	**Choose the right support to maximize uptime, free up your resources, and achieve improved value-as you get the most out of the existing IT assets while accelerating time-t₀ revenue.**

HP Proactive Care 24x7 - Hardware and software support services designed specifically for your technology with rapid access to Advanced Solution Center Specialists plus firmware and software management and best practice advice
http://h20195.www2.hp.com/v2/GetPDF.aspx/4AA3-8855ENW.pdf

HP Proactive Care Personalized Support - An option-if you have HP Proactive Care- to bring increased personalization of the Proactive Care support experience through the assignment of an Account Service Manager (ASM) who provides IT best practice advice to help address IT issues and projects. http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA4-3446ENW.pdf

HP Support Plus 24 - Support for environments where proactive help from HP is not required, with 24x7 hardware and software support onsite that includes third-party support with a maximum four-hour onsite response.
http://h20195.www2.hp.com/V2/GetPDF.aspx/5981-6638EN.pdf

HP Education Services - Comprehensive training for new, as well as experienced, storage administrators designed to expand your skills and keep you up to speed with the latest storage and virtualization technology from HP Storage.
http://education.hp.com/curr-storsan.htm

Optimized Care - Delivers the highest levels of performance and stability through deployment and proactive management practices	Choose from three levels of operate and support care HP Proactive Care 24x7-Plus, 20 credits per year **Additional options -** HP Proactive Care Personalized Support (once per Proactive Care support new environment), an additional day of HP Personalized Support, and 10 additional HP Proactive Select credits per year

Standard Care- maintains high level of uptime, along with expert help to cut the cost and complexity of implementation and support	**HP Proactive Care 24x7-**Plus, 10 credits per year Additional options - HP Proactive Care Personalized Support (once per Proactive Care support new environment), an additional day of HP Personalized Support, and 10 additional HP Proactive Select credits per year

Service and Support, HP Care Pack, and Warranty Information

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

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

For more information	www.hp.com/services/storage To learn more on HP Storage Services, please contact your HP sales representative or HP Authorized Channel Partner HP Care Pack Services are sold by HP and HP Authorized Service Partners: • Services for customers purchasing from HP or an enterprise reseller are quoted using HP order configuration tools. • Customers purchasing from a commercial reseller can find HP Care Pack Services at www.hp.com/go/lookuptool

Memory

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

StoreEasy 1440 (DL360e Gen 8): http://h18000.www1.hp.com/products/quickspecs/14326_div/14326_div.pdf

StoreEasy 1540 (ML310e v2 Gen 8): http://h18000.www1.hp.com/products/quickspecs/14339_div/14339_div.pdf

StoreEasy 1640 (DL380e Gen 8): http://h18000.www1.hp.com/products/quickspecs/14328_div/14328_div.pdf

StoreEasy 1840 (DL380p Gen 8): http://h18004.www1.hp.com/products/quickspecs/14212_div/14212_div.html

Storage

StoreEasy 1440

| A | Optional DVD-ROM/DVD-RW |
| 1-4 | 4 x LFF SATA/SAS/SSD Hot Pluggable Hard Drives Bays |

StoreEasy 1540
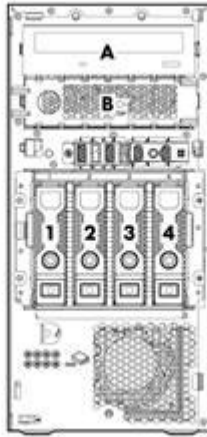
1-4	4 x 3.5" (LFF) SAS/SATA hard drive bays
A	Removable Optical Drive
B	Removable Optical Drive

NOTE. Once Redundant Power Supply is installed, Bay A will be the only media bay available for use.

StoreEasy 1640 (12 LFF HDD in Front, 2 SFF in Rear)
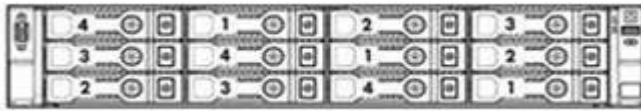
12 x LFF (1:1) SATA/SAS/SSD Hot Pluggable Hard drive bays

StoreEasy 1840
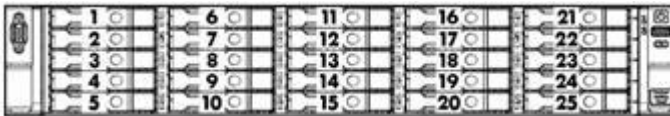
| 1-25 | Twenty-five SFF SAS hot plug drive bays. |

NOTE: This configuration does not support optical drive.
NOTE: This configuration has a built-in expander that is driven by the embedded controller.

Technical Specifications

StoreEasy 1440 Storage	Dimensions (H x W x D) (with bezel)	4 LFF	1.7 x 17.1 x 29.5 inches (4.32 x 43.46 x 75.0 cm)
	Weight (approximate)	Maximum	4 LFF (17.40 kg)
		Minimum	4 LFF (13.65kg)
	Input Requirements (for Standard 460W PSU, see power specifications tables for detail on 460W, 750W and 1200W power supplies)	Rated Line Voltage	100 to 120 VAC 200 to 240 VAC
		Rated Input Current	4.5 Amps (at 120VAC) to 2.2 Amps (at 240 VAC)
		Rated Input Frequency	50 to 60 Hz
	BTU Rating	Maximum	1773 BTU / hr (at 120 VAC), 1715 (at 240 VAC)
	Power Supply Output (per power supply)	Rated Steady-State Power	460 W (at 100 to 120 VAC), 460 W (at 200 to 240 VAC)
			750 W (at 100 to 120 VAC), 750 W (at 200 to 240 VAC)
		Maximum Peak Power	460 W (at 100 to 120 VAC), 460 W (at 200 to 240 VAC)
			750 W (at 100 to 120 VAC), 750 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**

Technical Specifications

		LWAd	(1P non-redundant) 4.7 B Average Bystander
			(2P redundant) 5.0B Average Bystander
		LpAm	(1P non-redundant) 33dBA
			(2P redundant) 35 dBA
	Operating		
		LWAd	(1P non-redundant) 4.7 B Average Bystander
			(2P redundant) 5.0B Average Bystander
		LpAm	(1P non-redundant) 33 dBA
			(2P redundant) 35 dBA
	Emissions Classification (EMC)	FCC Rating	Class A
		Normative Standards	CISPR 22; EN55022; EN55024; FCC CFR 47, Pt 15; ICES-003; CNS13438; GB9254; K22;K24; EN 61000-3-2; EN 61000-3-3; EN 60950-1; IEC 60950-1

NOTE: Product conformance to cited product specifications is based on sample (type) testing, evaluation, or assessment. This product or family of products is eligible to bear the appropriate compliance logos and statements.

HP Dynamic Smart Array B120i Controller	**Dimensions**	Embedded
	Disk Drive and Enclosure Interface - Transfer rate	Up to 6Gb/s SATA (Serial ATA)
	SAS Connectors	6 internal SATA connectors
	Server Interface	x4 PCIe 2.0
	SAS Speed	6Gb/s SATA links
	Cache Memory	Zero Memory RAID has no cache memory
	Logical Drives Supported	Up to 8 logical volumes (6 physical drives)
	Host Memory Addressing	64-bit, supporting greater than 4GB server memory space
	RAID Support	RAID 0 (Striping), RAID 1 (Mirroring)
		RAID 1+0 (Striping & Mirroring)

QuickSpecs

Technical Specifications

HP Smart Array P222	Dimensions (not including bracket)	Low Profile PCIe Form Factor 19.05 cm x 24.13 cm x 5.72cm (7.5 in x 9.5 in x 2.25 in)
	Disk Drive and Enclosure Protocol Support - Transfer rate	6Gb/s SAS (Serial Attached SCSI)
		6Gb/s SATA (Serial ATA)
	SAS Connectors	1 internal (SFF-8087)/1 external (Mini-SAS SFF-8088) x8 wide port connectors
	Cache Memory Speed	DDR-3/800 MHz with 40-bit wide bus provides up to 4.2 GB/s maximum bandwidth.
	Server Interface	x8 5G PCIe 3.0 provides 4GB/s maximum bandwidth.
	SAS Speed	x8 6G SAS provides 4.8GB/s maximum bandwidth.
	Cache Memory	40-bit 512MB ECC protected cache
	Logical Drives Supported	Up to 64 logical volumes
	Maximum Volume Capacity	12TB (4 x 3TB SAS/SATA 3.5" MDL HDD) internal
		144TB (48 x 3TB SAS/SATA 3.5" MDL HDD) external with 4xD2600
		90TB (100 x 900GB SAS 2.5" HDD) external with 4xD2700
	Memory Addressing	64-bit, supporting servers memory space greater than 4 GB
	RAID Support	RAID 6, 60 (Advanced Data Guarding)
		RAID 1, 10 (Drive Mirroring)
		RAID 1 ADM, 10 ADM (Advanced Data Mirroring)
		RAID 0 (Striping)
	Upgradeable Firmware	Upgradeable Firmware with Recovery ROM feature

HP Ethernet 1Gb 4-port 366i Adapter	Network Interface Compatibility	10Base-T/100Base-TX/1000Base-TX	
		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, four lanes (x4)	
	Controller	Intel 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	Four RJ-45	
	Cable Support	10Base-T	Categories 3, 4 or 5 UTP; up to 328 ft (100 m)
		10/100/1000Base-TX	Category 5 UTP; up to 328 ft (100 m)

StoreEasy 1540 Storage	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)

Technical Specifications

Tower Weight (approximate)	Maximum (all hard drives, power supplies, and processors installed)	41.8 lb (18.96 kg)
	Minimum (one hard drive, power supply, and processor installed)	25.29 lb (11.47 kg)
Input Requirements (per power supply)	Rated Line Voltage	100 to 240 VAC
	Rated Input Current	6 Amps
	Rated Input Frequency	47 to 63 Hz
	Rated Input Power	440W at 100 V AC input 440W at 200V AC input
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	
	LWAd	4.0 B
	LpAm	26dB-A

Technical Specifications

		Operating	
		LWAd	4.0 B
		LpAm	26dB-A
		NOTE: The Listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels.	
	Emissions Classification (EMC)	**FCC Rating**	Class B
		Normative Standards	CISPR 22; EN55022; EN55024; FCC CFR 47, Pt 15; ICES-003; CNS13438; GB9254; K22;K24; EN 61000-3-2; EN 61000-3-3; EN 60950-1; IEC 60950-1
		NOTE: Product conformance to cited product specifications is based on sample (type) testing, evaluation, or assessment. This product or family of products is eligible to bear the appropriate compliance logos and statements.	

HP Dynamic Smart Array B120i Controller	**Dimensions**	Embedded
	Disk Drive and Enclosure Interface - Transfer rate	Up to 6Gb/s SATA (Serial ATA)
	SAS Connectors	6 internal SATA connectors
	Server Interface	x4 PCIe 2.0
	SAS Speed	6Gb/s SATA links
	Cache Memory	Zero Memory RAID has no cache memory
	Logical Drives Supported	Up to 8 logical volumes (6 physical drives)
	Host Memory Addressing	64-bit, supporting greater than 4GB server memory space
	Hot Plug Support	Yes
	RAID Support	RAID 0 (Striping), RAID 1 (Mirroring)
		RAID 1+0 (Striping & Mirroring)

HP Smart Array P222	**Dimensions** (not including bracket)	Low Profile PCIe Form Factor 19.05 cm x 24.13 cm x 5.72cm (7.5 in x 9.5 in x 2.25 in)
	Disk Drive and Enclosure Protocol Support - Transfer rate	6Gb/s SAS (Serial Attached SCSI) 6Gb/s SATA (Serial ATA)
	SAS Connectors	1 internal (SFF-8087)/1 external (Mini-SAS SFF-8088) x8 wide port connectors
	Cache Memory Speed	DDR-3/800 MHz with 40-bit wide bus provides up to 4.2 GB/s maximum bandwidth.
	Server Interface	x8 5G PCIe 3.0 provides 4GB/s maximum bandwidth.
	SAS Speed	x8 6G SAS provides 4.8GB/s maximum bandwidth.
	Cache Memory	40-bit 512MB ECC protected cache
	Logical Drives Supported	Up to 64 logical volumes
	Maximum Volume Capacity	12TB (4 x 3TB SAS/SATA 3.5" MDL HDD) internal
		144TB (48 x 3TB SAS/SATA 3.5" MDL HDD) external with 4xD2600
		90TB (100 x 900GB SAS 2.5" HDD) external with 4xD2700
	Memory Addressing	64-bit, supporting servers memory space greater than 4 GB

Technical Specifications

	RAID Support	RAID 6, 60 (Advanced Data Guarding)	
		RAID 1, 10 (Drive Mirroring)	
		RAID 1 ADM, 10 ADM (Advanced Data Mirroring)	
		RAID 0 (Striping)	
	Upgradeable Firmware	Upgradeable Firmware with Recovery ROM feature	

HP Ethernet 1Gb 2-port 332i 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	
		Energy Efficient Ethernet (EEE) compliant with IEEE Std 802.3az (default is disabled)	
	Data Transfer Method	PCI-e, two lanes (x2)	
	Controller	BCM5720	
	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 1640	**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),

Technical Specifications

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

Technical Specifications

		condensing.
	Non-operating	5 to 95% relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb temperature, non-condensing.
Altitude	Operating	3048 m (10,000 ft). This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 457 m/min (1500 ft/min).
	Non-operating	9144 m (30,000 ft). Maximum allowable altitude change rate is 457 m/min (1500 ft/min).

Acoustic Noise

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

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

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

Emissions Classification (EMC)

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

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.

QuickSpecs

Technical Specifications

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

Technical Specifications

HP Ethernet 1Gb 4-port 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 1840	**Dimensions** (H x W x D) (with bezel)	SFF Drives: 3.44 x 17.54 x 27.50 in (8.73 x 44.55 x 69.85 cm)	
	Weight (approximate)	Maximum (all hard drives, power supply, and processor installed)	61.00 lb (27.66 kg)
		Minimum (one SFF hard drive, power supply, and processor installed, ODD not installed)	41.0 lb (18.59 kg)
	Input Requirements (per power supply)	Rated Line Voltage	100 to 120 VAC 200 to 240 VAC
		Rated Input Current	For 1200 W Power Supply: 10 A (at 100 VAC), 4.9 A (at 200 VAC) For 750 W Power Supply: 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),

Technical Specifications

		824 W (at 200 VAC) For 460 W Power Supply: 526 W (at 100 VAC), 505 W (at 200 VAC)
BTU Rating	Maximum	For 1200 W Power Supply: 3530 BTU/hr (at 100 VAC), 4600 BTU/hr (at 200 VAC) For 750 W Power Supply: 2925 BTU/hr (at 100 VAC), 2812 BTU/hr (at 200 VAC) For 460 W Power Supply: 1794 BTU/hr (at 100 VAC), 1725 BTU/hr (at 200 VAC)
Power Supply Output (per power supply)	Rated Steady-State Power	For 1200 W Power Supply: 800 W (at 100 VAC), 900 W (at 120 VAC), 1200 W (at 200 to 240 VAC) For 750 W Power Supply: 750 W (at 100 to 120 VAC), 750 W (at 200 to 240 VAC) For 460 W Power Supply: 460 W (at 100 to 120 VAC), 460 W (at 200 to 240 VAC)
	Maximum Peak Power	For 1200 W Power Supply: 800 W (at 100 VAC), 900 W (at 120 VAC), 1200 W (at 200 to 240 VAC) For 750 W Power Supply: 750 W (at 100 to 120 VAC), 750 W (at 200 to 240 VAC) For 460 W Power Supply: 460 W (at 100 to 120 VAC), 460 W (at 200 to 240 VAC)
System Inlet Temperature	Operating	° to 35°C (50° to 95°F) at sea level with an altitude derating of 1.0°C per every 304.8 m (1.8°F per every 1000 ft) above sea level to a maximum of 3048 m (10,000 ft), no direct sustained sunlight. Maximum rate of change is 10°C/hr (18°F/hr). The upper limit may be limited by the type and 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). The listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels. **NOTE:** The Listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels.

Idle

LWAd	4.1 B
LpAm	25 dBA

Operating

LWAd	4.3 B
LpAm	27 dBA

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

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.

Technical Specifications

		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 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)

Technical Specifications

| **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. |
|---|---|---|

Overview

HP StoreEasy 1X30 Storage

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

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

Models
HP StoreEasy 1430 Storage

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

HP StoreEasy 1430 Storage   B7D88A
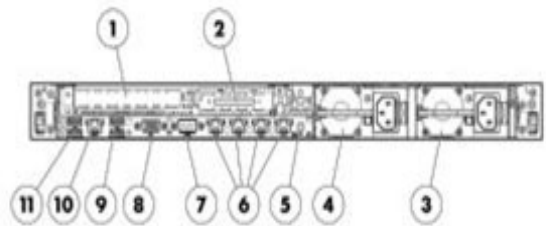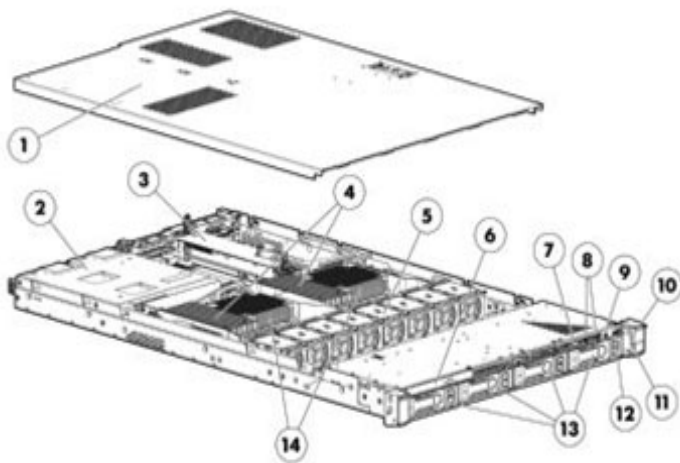
(no drives pre-configured - at least four drives of the same type/capacity, 450GB or greater, must be ordered for pre-installation of OS in the factory. The OS is not a field installable option.)

HP StoreEasy 1430 8TB SATA Storage   B7D89A
(4 x 2TB SATA LFF HDDs)

HP StoreEasy 1430 12TB SATA Storage   B7D90A
(4 x 3TB SATA LFF HDDs)

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

Overview

11.	NIC status LED
12.	Power On/Standby button and LED
13.	4 LFF Hot plug SATA/SAS HDD Cage

11.	USB Connectors
12.	NIC Connector 2

HP StoreEasy 1530 Storage

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

NOTE: A country specific power cord option must be ordered with the StoreEasy 1530. See power cord options section.
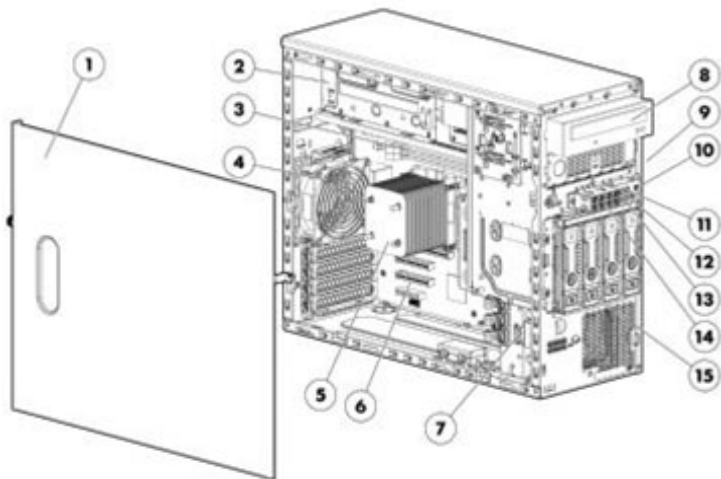
HP StoreEasy 1530 Storage   B7D91A

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

HP StoreEasy 1530 8TB SATA Storage   B7D92A

(4 x 2TB SATA LFF HDDs)

HP StoreEasy 1530 12TB SATA Storage   B7D93A

(4 x 3TB SATA LFF HDDs)

Front View:
1. Quick removal access panel
2. Power Supply
3. Four DIMM slots
4. System fan
5. Processor Heatsink
6. Four (4) PCIe expansion slots
7. PCI Fan
8. Half Height SATA DVD-ROM or DVD RW Optical Drive (optional)
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
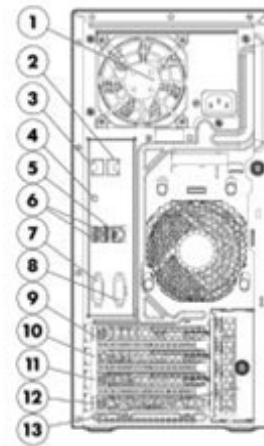
Rear View
1. Power supply
2. Slot 4 PCIex16
3. Slot 3 PCIex8 (P222)
4. Slot 2 PCIex8
5. Slot 1 PCIex4
6. PCIe card bracket
7. Serial Connector
8. Video Connector
9. UID LED Button
10. iLO connector
11. NIC Connector 1 (shared management)
12. NIC Connector 2
13. Four (4) USB Connectors

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 56TB internal storage capacity, and ready for external expandability enhance this ultra-dense 2U shared storage solution for small, medium, or large IT environments. The StoreEasy 1630 is built on a HP ProLiant DL380e Gen 8 Server

HP StoreEasy 1630 Storage   B7D94A

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

HP StoreEasy 1630 900GB SAS Storage   H6Z28A

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

HP StoreEasy 1630 28TB SAS Storage   B7D95A

(14 x 2TB SAS LFF HDDs)

HP StoreEasy 1630 42TB SAS Storage   B7D96A

(14 x 3TB SAS LFF HDDs)
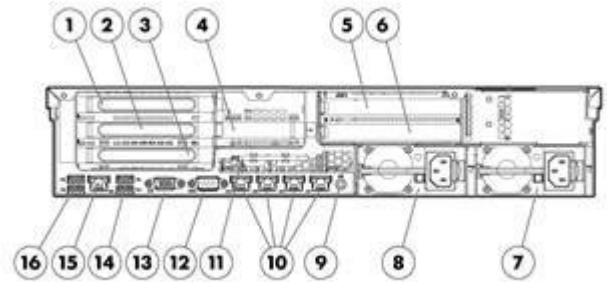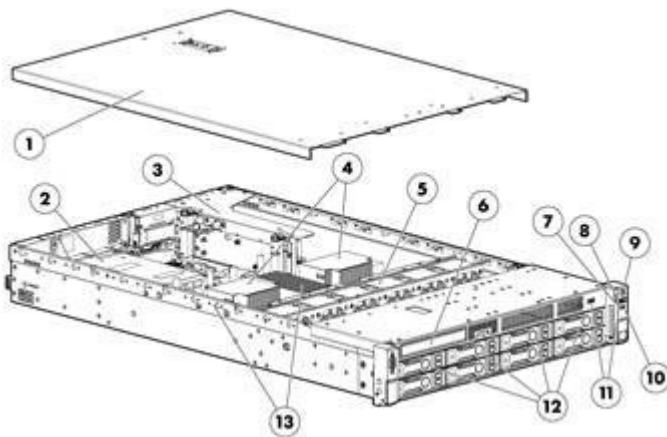
Front View:

1. Quick removal access panel
2. Redundant Hot Plug Power Supplies(upgradeable option)
3. Removable Riser Cage assembly
4. Up to 2 Intel E5-2400 Series Processors
5. Removable Hot Plug Fans modules, (optional, full N+1 redundancy)
6. N/A
7. Health LED
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	B7D97A

(2x450GB SAS SFF HDDs for pre-installed OS and 23 open SFF slots)

HP StoreEasy 1830 12.6TB SAS Storage	B7D98A

(2x450GB SAS SFF HDDs for pre-installed OS, 14x900GB SAS SFF HDDs and 9 open SFF slots)

HP StoreEasy 1830 20.7TB SAS Storage	B7D99A

(2x450GB SAS SFF HDDs for pre-installed OS, 23x900GB SAS SFF HDDs)
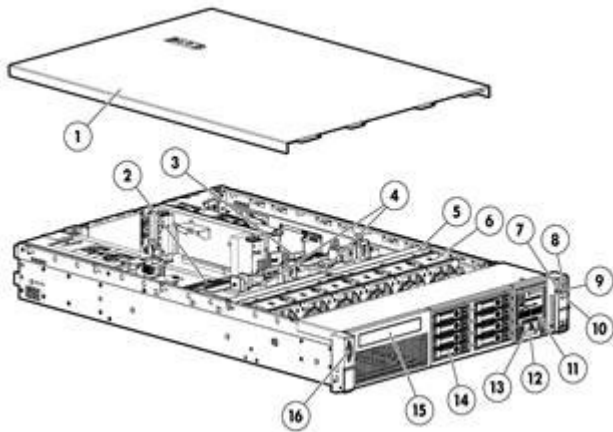
Front View:
1. Quick removal access panel
2. Second Intel Processor
3. First Intel Processor
4. 24 DIMM slots
5. Air Baffle
6. Hot-plug fans, full N+1 redundancy
7. Health LED
8. Power On /Standby button and system power LED button
9. USB connector
10. Unit ID LED
11. Systems Insight Display
12. Asset 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
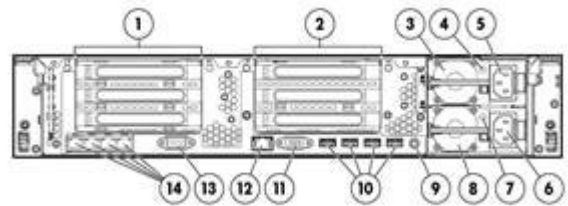
Rear View
1. PCIe 3.0 Slots 1, 2, 3-PCIe 2.0 top to bottom
2. PCIe 3.0 Slots 4-6 top to bottom (required 2nd processor)
3. Power supply 1
4. Power supply 1 Power LED
5. Power supply 1 Power connection (with Intelligent PDU communication)
6. Power supply 2 Power connection (with Intelligent PDU communication)
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 Save money and time	The HP StoreEasy 1000 Storage systems support large numbers of users concurrently accessing their files thanks to a high performance file serving controller and a range of drive media including SSDs.
	Increase capacity use with non-intrusive variable chunk de-duplication delivers an average 50-60% space savings.
	Improve management efficiency with straightforward and consistent management experience that is optimized for IT generalists, including the ability to remotely deploy and configure via Integrated Lights-Out.
	Consolidate multiple workloads and roles in a single platform with included support for a broad range of file access protocols, VMWare, Microsoft Hyper-V, and SQL Server application storage, iSCSI block access, and support for services such as print, DNS, and DHCP.
	Reduce branch office WAN usage by automatically caching frequently accessed corporate data center files with Hosted BranchCache.
	Integrate seamlessly into Windows IT infrastructure.
Secure: Protect your data and organization always	Protect data while at rest with file system encryption and BitLocker Drive Encryption, and while it i being transferred with SMB 3.0 encryption and signing.
	File Classification Infrastructure facilitates sophisticated access controls and support for Active Directory Rights Management Services protects files no matter where they go.
	Install and run endpoint protection such as antivirus on the system itself - eliminating the cost and complexity of connecting an external endpoint protection server.
	Online snapshots enable users to directly recover files and prior file versions. Broad support for agent-based data protection enhances the ability to meet backup and recovery SLAs.
	Leverage optional HP Autonomy LiveVault and HP Data Protector software for highly secure and efficient policy driven offsite cloud and hybrid cloud backup.
Highly Available, Prevent User and Organization disruption	Increase uptime with such standard features as HP Active Health System, mirrored operating system disks RAID for data disks, redundant fans and power, and advanced memory protection maximize uptime.
	Confidently deploy large volumes leveraging improved file system self-healing, file system online analysis, and greatly reduced downtime for corruption correction.
	Three year onsite parts and labor warranty for the system, and one year of software telephone support

Standard Features

Operating System   Microsoft Windows Storage Server 2012, Standard Edition

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

Standard Features

into one or more logically structured namespaces. Each namespace appears to users as a single shared folder with a series of subfolders. However, the underlying structure of the namespace can consist of numerous file shares that are located on different servers and in multiple sites.

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

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

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

Standard Features

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

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

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

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

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

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

Standard Features

StoreEasy 1630	1	PCIe Gen3.0	X4	X8	Full Length, Full Height Slot	
	2	PCIe Gen3.0	X8	X16	Half Length, Full Height Slot	SA P822 installed
	3	PCIe Gen3.0	X8	X8	Half Length, Full Height Slot	
	4	PCIe Gen2.0	X4	X8	Low Profile	

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

StoreEasy 1830

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

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

StoreEasy 1830

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

* 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	Expansion	Technology	Bus	Connector	Bus Number*	Form Factor	Notes

Standard Features

(Optional 2-slot)	Slots #		Width**	Width			
	4	PCIe 3.0	X16	X16	16	Full Length, Full Height	Proc 2
	5	PCIe 3.0	X16	X8	16	Half Length, Full Height	Proc 2

* Default bus assignment (in decimal). Inserting cards with PCI bridges may alter the actual bus assignment number

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

Storage Controller

		StoreEasy 1430	StoreEasy 1530	StoreEasy 1630	StoreEasy 1830
	Controller(s)	HP Smart Array P222/512 FBWC 6Gb 1-port Int/1-port Ext SAS Controller	HP Smart Array P222/512 FBWC 6Gb 1-port Int/1-port Ext SAS Controller	HP Smart Array P822/2GB FBWC 2-ports Int/4-ports Ext SAS Controller	HP Smart Array P822/2GB FBWC 2-ports Int/4-ports Ext SAS Controller
	RAID	0,1,10,5,50,6,60,1 ADM, 10 ADM	0,1,10,5,50,6,60,1 ADM, 10 ADM	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

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Storage Hard Drives

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

Maximum Storage Capacity (raw)

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

Standard Features

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

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

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

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

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

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

Other Feature Specifications

See the corresponding ProLiant QuickSpecs for additional feature specifications.

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

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

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

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

Optional Software

HP Data Protector software

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

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

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

HP LiveVault

HP 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'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. For a 30 day free trial of HP LiveVault go to:
www.remotedatabackups.com/storeeasylivevault

Models (Pre-Configured)

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

Choose a Pre-configured Model

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

HP StoreEasy 1000 Storage products

Common Specifications	Operating System	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

HP StoreEasy 1530 8TB SATA Storage   B7D92A

Models (Pre-Configured)

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

HP StoreEasy 1530 12TB SATA Storage — B7D93A

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

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

StoreEasy 1630 Models

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

HP StoreEasy 1630 900GB SAS Storage — H6Z28A

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

HP StoreEasy 1630 28TB SAS Storage — B7D95A

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

HP StoreEasy 1630 42TB SAS Storage — B7D96A

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

StoreEasy 1830 Models

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

Models (Pre-Configured)

NOTE: 9 Open SFF drive bays

HP StoreEasy 1830 20.7TB SAS Storage   B7D99A

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

Internal Storage: 23 x 900GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive

Models (Drives Configure-to-Order)

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

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

Choose a Base Model, then Select Hard Drives

NOTE: You must select a minimum of 4 drives of the same type and capacity for the StoreEasy 1430 and 1530.
NOTE: You must select a minimum of 8 drives of the same type and capacity for the StoreEasy 1630.
NOTE: Options (other than drives selected as part of the configure-to-order process) ship separately and are not factory integrated.

HP StoreEasy 1000 Storage products (Base models)

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

StoreEasy 1430 Models   B7D88A

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

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

StoreEasy 1530 Models   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 Drives Required	4
	Maximum Number of Drives Allowed	4

StoreEasy 1630 Network Storage System (LFF)   B7D94A

Models (Drives Configure-to-Order)

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

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

StoreEasy 1830 Storage B7D97A

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

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

Options

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

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

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

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

StoreEasy 1430 / 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	647893-B21
	NOTE: All DDR3 memory option kits consist of one DIMM per kit.	
	NOTE: PC3L is a low voltage memory.	

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

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

StoreEasy 1430/1530	**Gigabit Ethernet Adapters**	
	HP NC112T PCI Express Gigabit Server Adapter	503746-B21
	HP NC365T 4-port Ethernet Server Adapter	593722-B21
	HP Ethernet 1Gb 2-port 361T Adapter	652497-B21
	HP Ethernet 1Gb 4-port 331T Adapter	647594-B21
	HP Ethernet 1Gb 2-port 332T Adapter	615732-B21
	10 Gigabit Ethernet Adapters	
	NOTE: No more than two 10GbE I/O devices are supported in a single system.	
	NOTE: A minimum of two Gigabytes (2 GB) of server memory is required per each adapter.	
	NOTE: Direct Attach Cable (DAC) for copper environments or fiber transceivers and cables for fiber-optic environments must be purchased separately. See cables/options below.	
	HP NC523SFP 10Gb 2-port Server Adapter	593717-B21

Options

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

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

StoreEasy 1630

Gigabit Ethernet adapters

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

10 Gigabit Ethernet Adapters

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

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

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

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

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

HP InfiniBand

QLogic InfiniBand 4X QDR PCI-E G2 Dual Port HCA	583211-B21
HP InfiniBand 4X QDR ConnectX-2 PCIe G2 Dual Port HCA	592520-B21
HP Infiniband FDR/Ethernet 10Gb/40Gb 2-port 544QSFP Adapter	649281-B21

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

Options

	HP 10 GbE PCI-e G2 Dual Port Network Interface Card	516937-B21
	HP InfiniBand	
	QLogic InfiniBand 4X QDR PCI-E G2 Dual Port HCA	583211-B21
	HP InfiniBand 4X QDR ConnectX-2 PCIe G2 Dual Port HCA	592520-B21
	HP Infiniband FDR/Ethernet 10Gb/40Gb 2-port 544QSFP Adapter	649281-B21

HP Security	HP Trusted Platform Module Option	488069-B21

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

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

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

Add More Storage

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

NOTE: Expansion slot availability varies by model.

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

StoreEasy 1430/1530	**SAS Controllers**	
	Smart Array P222 Controller (StoreEasy 1430 only)	
	HP Smart Array P222/512 FBWC 6Gb 1-port Int/1-port Ext SAS Controller	631667-B21
	Smart Array P421 Controller (StoreEasy 1430 only)	
	HP Smart Array P421/1GB FBWC 6Gb 2-ports Ext SAS Controller	631673-B21
	HP Smart Array P421/2GB FBWC 6Gb 2-ports Ext SAS Controller	631674-B21
	Optional Upgrades (StoreEasy 1430 only)	
	HP 2GB P-series Smart Array Flash Backed Write Cache	631681-B21
	HP SmartCache No Media 24x7 Technical Support 1 Svr License	D7S26A
	HP SmartCache No Media 24x7 Technical Support Flexible License	D7S27A
	HP SmartCache No Media 24x7 Technical Support Electronic License	D7S27AAE

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

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

http://h18000.www1.hp.com/products/quickspecs/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.

	HP H221 PCIe 3.0 SAS Host Bus Adapter	729552-B21

Options

	HP H222 Host Bus Adapter	650926-B21

NOTE: Please see the QuickSpecs for Technical Specifications and additional information:
http://h18004.www1.hp.com/products/quickspecs/14336_div/14336_div.html (HBA 220)
http://h18004.www1.hp.com/products/quickspecs/14222_div/14222_div.html (HBA 221)
http://h18004.www1.hp.com/products/quickspecs/14337_div/14337_div.html (HBA 222)

SCSI HBA

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

NOTE: Please see the following QuickSpecs for additional information:
http://h18000.www1.hp.com/products/quickspecs/12566_div/12566_div.html (SC11Xe HBA)

Fibre Channel HBA

NOTE: For detailed compatibility information please see:
http://h18006.www1.hp.com/storage/saninfrastructure/hba.html

QLogic Fibre Channel HBAs

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

Converged Network Adapter (StoreEasy 1430 only)

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

StoreEasy 1630/1830

SAS Controllers

Smart Array P421 Controller

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

Smart Array P822 Controller

HP Smart Array P822/2GB FBWC Controller	615418-B21

Optional Upgrades

HP 2GB P-series Smart Array Flash Backed Write Cache	631681-B21
HP SmartCache No Media 24x7 Technical Support 1 Svr License	D7S26A
HP SmartCache No Media 24x7 Technical Support Flexible License	D7S27A
HP SmartCache No Media 24x7 Technical Support Electronic License	D7S27AAE

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

Options

	(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
	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
	HP StoreFabric SN1000Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter	QW971A
	HP StoreFabric SN1000Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter	QW972A
	Converged Network Adapter	
	HP CN1000Q Dual Port Converged Network Adapter	BS668A
	HP CN1100E Dual Port Converged Network Adapter	BK835A
StoreEasy 1830	**SCSI HBA**	
	HP SC11Xe Ultra320 Single Channel/ PCIe x4 SCSI Host Bus Adapter	412911-B21
	NOTE: Please see the following QuickSpecs for additional information: http://h18000.www1.hp.com/products/quickspecs/12566_div/12566_div.html (SC11Xe HBA)	
HP Hard Drives for StoreEasy 1430/1530	**NOTE:** The HP StoreEasy 1430 and 1530 are equipped with entirely re-designed Large Form Factor (LFF 3.5 in) hot plug carriers for HP Qualified Hard Drives and Solid State Drives. These new carriers provide status and activity indicators as well as caution indicators for "Do Not Remove". **NOTE:** The components of a storage subsystem (e.g. the drive, the HBA/controller, firmware, and the server backplane) should operate at the same data transfer rate or the system bandwidth will be negotiated down to an acceptable level for all components. **NOTE:** Hard drives have either a one year or three year warranty; refer to the specific hard drive QuickSpecs for details.	
	SAS Hot Plug SmartDrive LFF (3.5-inch) Enterprise Drives	
	HP 600GB 6G SAS 15K rpm LFF (3.5-inch) SC Enterprise 3yr Warranty Hard Drive	652620-B21
	HP 450GB 6G SAS 15K rpm LFF (3.5-inch) SC Enterprise 3yr Warranty Hard Drive	652615-B21
	SAS Hot Plug SmartDrive LFF (3.5-inch) Midline Drives	
	HP 4TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	695510-B21
	HP 3TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	652766-B21
	HP 2TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	652757-B21
	HP 1TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	652753-B21
	NOTE: Please see the QuickSpecs for Technical Specifications and additional information: http://h18000.www1.hp.com/products/quickspecs/12244_div/12244_div.html (Worldwide)	
	6G SATA Hot Plug with SmartDrive LFF (3.5-inch) Midline (MDL) Drives	

Options

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

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

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

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

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

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

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

HP 800GB 6G SATA Mainstream Endurance LFF 3.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	691860-B21
HP 400GB 6G SATA Mainstream Endurance LFF 3.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	691856-B21
HP 200GB 6G SATA Mainstream Endurance LFF 3.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	691854-B21
HP 100GB 6G SATA Mainstream Endurance LFF 3.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	691852-B21

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

Options

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

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

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

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

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

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

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

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

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

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

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

HP 800GB 6G SATA Mainstream Endurance LFF 3.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	691860-B21
HP 400GB 6G SATA Mainstream Endurance LFF 3.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	691856-B21
HP 200GB 6G SATA Mainstream Endurance LFF 3.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	691854-B21
HP 100GB 6G SATA Mainstream Endurance LFF 3.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	691852-B21

Options

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

Hard Drive Kits

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

HP LFF Gen8 Hard Drive Blank Kit	666986-B21

HP Hard Drives for StoreEasy 1830

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

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

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

SAS Hot Plug with SmartDrive SFF (2.5-inch) Enterprise Drives

HP 1.2TB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	697574-B21
HP 900GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652589-B21
HP 600GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652583-B21
HP 450GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652572-B21
HP 300GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652564-B21
HP 300GB 6G SAS 15K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652611-B21
HP 146GB 6G SAS 15K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652605-B21

SAS Hot Plug SmartDrive SFF (2.5-inch) Midline Drives

HP 1TB 6G SAS 7.2K rpm SFF (2.5-inch) SC Midline 1yr Warranty Hard Drive	652749-B21
HP 500GB 6G SAS 7.2K rpm SFF (2.5-inch) SC Midline 1yr Warranty Hard Drive	652745-B21

6G SATA Hot Plug with SmartDrive SFF (2.5-inch) Midline (MDL) Drives

HP 1TB 6G SATA 7.2K rpm SFF (2.5-inch) SC Midline 1yr Warranty Hard Drive	655710-B21
HP 500GB 6G SATA 7.2K rpm SFF (2.5-inch) SC Midline 1yr Warranty Hard Drive	655708-B21

6G SATA Value Endurance Hot Plug SFF (2.5-inch) Enterprise Boot Solid State Drives

HP 120GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Boot 3yr Wty Solid State Drive	717965-B21
HP 80GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Boot 3yr Wty Solid State Drive	734360-B21

6G SATA Value Endurance Hot Plug SFF (2.5-inch) Enterprise Value Solid State Drives

HP 800GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	717973-B21

Options

HP 480GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	717971-B21
HP 600GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	739898-B21
HP 300GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	739888-B21
HP 240GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	717969-B21
6G SAS ME Hot Plug SFF (2.5-inch) Enterprise Mainstream Solid State Drives	
HP 800GB 6G SAS Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	690829-B21
HP 400GB 6G SAS Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	690827-B21
HP 200GB 6G SAS Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	690825-B21
6G SATA ME Hot Plug SFF (2.5-inch) Enterprise Mainstream Solid State Drives	
HP 800GB 6G SATA Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	691868-B21
HP 400GB 6G SATA Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	691866-B21
HP 200GB 6G SATA Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	691864-B21
HP 100GB 6G SATA Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	691862-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

QuickSpecs

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

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

Drives bundles for StoreEasy Enclosures

NOTE: The Drive Bundles below can only be added to the StoreEasy Enclosures listed above. They cannot be added to a StoreEasy1430, 1530, 1630 or 1830 as they do not use the new hot plug SFF or LFF carriers used by ProLiant Gen 8 servers.

HP StoreEasy w/6 1TB 6G SAS 7.2K LFF 6TB Drive Bundle — B7E11A

NOTE: This bundle contains (6) 1TB 6G SAS 7.2K rpm LFF (3.5-inch) Dual Port Midline 1yr Warranty Hard Drive

HP StoreEasy w/6 2TB 6G SAS 7.2K LFF 12TB Drive Bundle — B7E12A

NOTE: This bundle contains (6) 2TB 6G SAS 7.2K rpm LFF (3.5-inch) Dual Port Midline 1yr Warranty Hard Drive

HP StoreEasy w/6 3TB 6G SAS 7.2K LFF 18TB Drive Bundle — B7E13A

NOTE: This bundle contains (6) 3TB 6G SAS 7.2K rpm LFF (3.5-inch) Dual Port Midline 1yr Warranty Hard Drive

HP StoreEasy w/9 600GB SAS 10K SFF 5.4TB Drive Bundle — B7E14A

NOTE: This bundle contains (9) 600GB 6G SAS 10K rpm SFF (2.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive

Drives for StoreEasy Enclosures

HP 4TB 6G SAS 7.2K rpm LFF (3.5-inch) Midline 1yr Warranty Hard Drive — 693689-B21

HP 3TB 6G SAS 7.2K rpm LFF (3.5-inch) Midline 1yr Warranty Hard Drive — 625031-B21

HP 2TB 6G SAS 7.2K rpm LFF (3.5-inch) Dual Port Midline 1yr Warranty Hard Drive — 507616-B21

HP 1TB 6G SAS 7.2K rpm LFF (3.5-inch) Dual Port Midline 1yr Warranty Hard Drive — 507614-B21

Options

	HP 1.2TB 6G SAS 10K SFF (2.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	693648-B21
	HP 900GB 6G SAS 10K rpm SFF (2.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	619291-B21
	HP 600GB 6G SAS 10K rpm SFF (2.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	581286-B21

Add a Power Supply

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

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

Add a Power Cord

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

StoreEasy 1530	HP C13 - Nema 5-15P US/CA 110V 10Amp 1.83m Power Cord	AF556A
	HP C13 - GB-1002 CN 250V 10Amp 1.83m Power Cord	AF557A
	HP C13 - IRAM -2073 AR 250V 10A 2.5m Power Cord	AF558A
	HP C13 - Nema 5-15P TH/PH 250V 10Amp 1.83m Power Cord	AF559A
	HP C13 - KSC- 8305 KR 250V 10Amp 1.83m Power Cord	AF560A
	HP C13 - CNS-690 TW 110V 13Amp 1.83m Power Cord	AF561A
	HP C13 - IS-1293 IN 240V 6Amp LV 2.0m Power Cord	AF562A
	HP C13 - AS3112-3 AU 250V 10Amp 2.5m Power Cord	AF569A
	HP C13 - SEV 1011 CH 250V 10Amp 1.83m Power Cord	AF565A
	HP C13 - DK-2.5A DK 250V 10Amp 1.83m Power Cord	AF566A
	HP C13 - CEE-VII EU 250V 10Amp 1.83m Power Cord	AF568A
	HP C13 - SI-32 IL 250V 10Amp 1.83m Power Cord	AF564A
	HP C13 - CEI-23-50 IT/CL 250V 10Amp 1.83m Power Cord	AF571A
	HP C13 - JIS C8303 JP 100V 12Amp 2.0m Power Cord	AF572A
	HP C13 - BS-1363A UK/HK/SG 250V 10Amp 1.83m Power Cord	AF570A
	HP C13 - SABS-164 ZA 250V 10Amp 2.5m Power Cord	AF567A
	HP C13 - NBR-14136 BR 250V 10Amp 1.83m Power Cord	AF591A

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

Options

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

HP X1800 G2 WSS2012 OS Upgrade

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

Standard Edition operating system:

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

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

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

NOTE: Check for HP and 3rd-party software qualification with the Windows Storage Server 2012 operating system before purchase and installation.

HP X1800/X3800 G2 WSS2012 Upgrade Software	TC392A

Service and Support, HP Care Pack, and Warranty Information

Warranty

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

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

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

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

Deploy and integrate	**We can help you configure, set up, and efficiently use your HP StoreEasy Storage, as wel as help migrate data, improve capacity utilization, and establish information managemen standards used across backup, replication, and archiving needs.**
	HP StoreEasy 1000/3000 Network Storage Solution Installation and Startup Service -Exper system installation and setup by an HP technical specialist designed to reduce implementation time and cost, with your basic questions about the service answered during the included orientation session
	HP Storage Data Migration Services - End-to-end data migration service providing seamless

Service and Support, HP Care Pack, and Warranty Information

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

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

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

Operate and support	**Choose the right support to maximize uptime, free up your resources, and achieve improved value-as you get the most out of the existing IT assets while accelerating time-to revenue.**

HP Proactive Care 24x7 - Hardware and software support services designed specifically for your technology with rapid access to Advanced Solution Center Specialists plus firmware and software management and best practice advice
http://h20195.www2.hp.com/v2/GetPDF.aspx/4AA3-8855ENW.pdf

HP Proactive Care Personalized Support - An option-if you have HP Proactive Care- to bring increased personalization of the Proactive Care support experience through the assignment of an Account Service Manager (ASM) who provides IT best practice advice to help address IT issues and projects. http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA4-3446ENW.pdf

HP Foundation Care 24x7 Service - Support for environments where proactive help from HP is not required, with 24x7 hardware and software support onsite that includes third-party support with a maximum four-hour onsite response.
http://h20195.www2.hp.com/V2/GetPDF.aspx/5981-6638EN.pdf

HP Education Services - Comprehensive training for new, as well as experienced, storage administrators designed to expand your skills and keep you up to speed with the latest storage and virtualization technology from HP Storage.
http://education.hp.com/curr-storsan.htm

Optimized Care - Delivers the highest levels of performance and stability through deployment and proactive management practices	Choose from three levels of operate and support care HP Proactive Care 24x7-Plus, 20 credits per year **Additional options** - HP Proactive Care Personalized Support (once per Proactive Care support new environment), an additional day of HP Personalized Support, and 10 additional HP Proactive Select credits per year

Standard Care - maintains high level of uptime, along with expert help to cut the cost and complexity of implementation and support	**HP Proactive Care 24x7** - Plus, 10 credits per year Additional options - HP Proactive Care Personalized Support (once per Proactive Care support new environment), an additional day of HP Personalized Support, and 10 additional HP Proactive Select credits per year

Service and Support, HP Care Pack, and Warranty Information

Basic Care - Minimum recommended support	HP Foundation Care 24x7 Service - Plus, 10 credits per year Additional options - 10 HP Proactive Select credits per year
Remote Support Automation	HP Insight Remote Support-Available at no additional cost to all warranty, HP Care Pack Service and service agreement customers, uses proven technology to deliver secure, reliable 24x7 remote monitoring, diagnosis and problem resolution. http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA2-4676ENW.pdf http://h18004.www1.hp.com/products/servers/management/insight-remote-support/overview.html
For more information	www.hp.com/services/storage To learn more on HP Storage Services, please contact your HP sales representative or HP Authorized Channel Partner HP Care Pack Services are sold by HP and HP Authorized Service Partners: ● Services for customers purchasing from HP or an enterprise reseller are quoted using HP order configuration tools. ● Customers purchasing from a commercial reseller can find HP Care Pack Services at: www.hp.com/go/lookuptool

Memory

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

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

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

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

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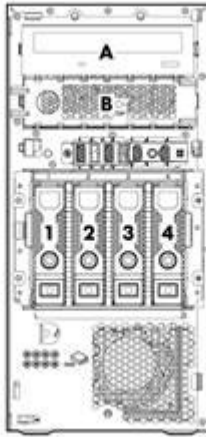
Storage

StoreEasy 1430

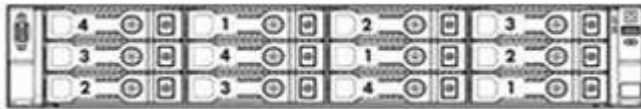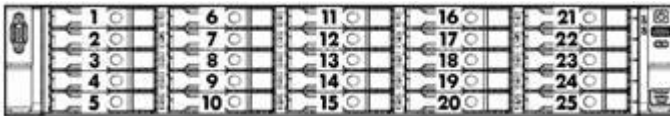Four 3.5" (LFF) hot plug SATA / SAS hard drive bays

StoreEasy 1530

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

StoreEasy 1630 (14 LFF HDD)

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

StoreEasy 1830

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

Technical Specifications

StoreEasy 1430 Storage

System Unit			
	Dimensions (H x W x D) 4 LFF (with bezel)		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)	
		LWAd	5.0 B
		LpAm	35 dB Average Bystander

Technical Specifications

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)
	Command Line Support	Secure Shell and serial port access Secure Socket Layer Secure Shell version 2

Technical Specifications

	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)
	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)

Technical Specifications

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

LWAd	4.3 B
LpAm	26dB-A

Operating

LWAd	4.4 B
LpAm	28dB-A

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

Emissions Classification (EMC)	FCC Rating	Class B
	Normative Standards	CISPR 22; EN55022; EN55024; FCC CFR 47, Pt 15; ICES-003; CNS13438; GB9254; K22;K24; EN 61000-3-2; EN 61000-3-3; EN 60950-1; IEC 60950-1

NOTE: Product conformance to cited product specifications is based on sample (type) testing, evaluation, or assessment. This product or family of products is eligible to bear the appropriate compliance logos and statements.

Technical Specifications

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

QuickSpecs

Technical Specifications

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

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

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	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**	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.

Technical Specifications

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

StoreEasy 1830 System Unit	**Dimensions** (H x W x D) (with bezel)	SFF Drives: 3.44 x 17.54 x 27.50 in (8.73 x 44.55 x 69.85 cm)	
	Weight (approximate)	Maximum	61.00 lb (27.66 kg)

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	(all hard drives, power supply, and processor installed)	
	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), 750 W (at 200 to 240 VAC) For 460 W Power Supply:

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		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

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

Technical Specifications

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

Technical Specifications

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

| Environment-friendly Products and Approach | End-of-life Management and Recycling | Hewlett-Packard offers end-of-life HP product return, trade-in, and recycling programs in many geographic areas. For trade-in information, please go to: http://www.hp.com/go/green. To recycle your product, please go to: http://www.hp.com/go/green or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.

The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: http://www.hp.com/go/green. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment. |
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