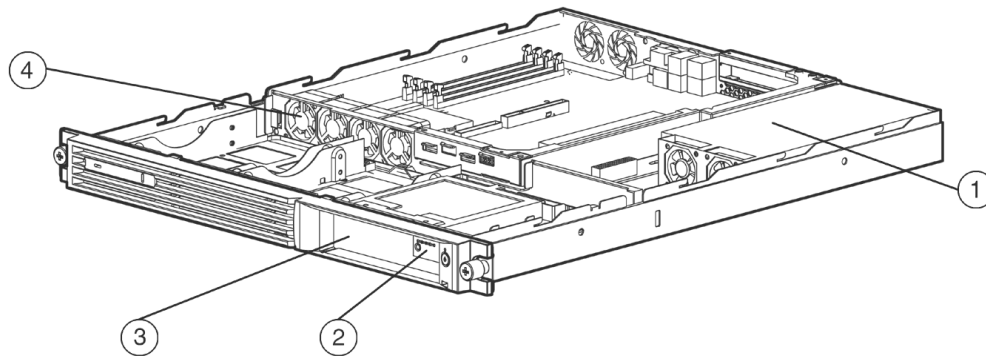


Overview



1. Power Supply
2. LED Indicators
3. Removable CD-ROM/Diskette Drive Assembly Option Kit (included in some models)
4. Fan Assembly

What's New

- Intel® Pentium 4 - 3.06-GHz FC-PGA (Flip Chip-Pin Grid Array) processor (single capability) with 512-KB level 2 cache with Hyper-Threading technology

At a Glance

- Intel Pentium 4 - 3.06GHz, with Hyper-Threading technology, 2.66-GHz or 2.26-GHz or FC-PGA (Flip Chip-Pin Grid Array) processor (single capability) with 512-KB level 2 cache
- The ProLiant DL320 G2 is the cost-effective 1U, 1-way server for flexibly deploying and managing front-end and single-function applications
- 1U Rack form factor (1.75")
- ServerWorks CMIC-SL Chipset with 533-MHz Front Side Bus
- 128-MB PC2100 ECC DDR SDRAM Memory, expandable to 4 GB
- One full-length 64-bit/33-MHz PCI slot available
- Two NC7760 PCI Gigabit Server Adapters (embedded)
- Integrated Dual Channel Ultra ATA/100 Adapter with Integrated ATA RAID (0, 1)
- Optional Slotless Single Channel Wide Ultra3 SCSI Controller Module
- Internal storage capacity of up to 160 GB in ATA Models (2 x 80 GB 1" ATA/100 Non-Hot Plug Drives) or 72GB (2 x 36GB 1" non hot plug SCSI)
- 180-Watt PFC Power Supply
- Front and Rear Unit Identification switches (UID)
- Exceptional serviceability with optional sliding rails, cable management and in-rack toolless service ability access
- Automatic Server Recovery (ASR), Insight Manager and SmartStart
- Protected by HP Services, including a three-year parts, one- year labor, one-year, on-site service, Next Business Day -limited, global warranty and extended, Pre-Failure Warranty which covers processors, memory, and hard drives - Certain restrictions and exclusions apply. Consult the HP Customer Support Center at 1-800-345-1518 for details.

Standard Features

Processor	Intel Pentium 4 - 3.06-GHz (FC-PGA) Processor (With Hyper-Threading technology)	
	Intel Pentium 4 - 2.66-GHz (FC-PGA) Processor	
	Intel Pentium 4 - 2.26-GHz (FC-PGA) Processor	
Chipset	ServerWorks GC-SL Chipset with 533-MHz Front Side Bus	
	NOTE: For more information regarding ServerWorks, please see the following URL: http://www.serverworks.com/products/overview.html	
Memory	Standard	128 MB (PC2100-MHz Registered ECC DDR SDRAM DIMM memory)
	Maximum	4 GB
Network Controller	Two NC7760 PCI Gigabit Server Adapters (embedded)	
Expansion Slots	I/O (1 Total, 1 available)	PCI Voltage:
	64-bit/33 MHz PCI 1	3.3 Volt or universal cards
Storage Controllers	Integrated Dual Channel Ultra ATA/100 Adapter with Integrated ATA RAID 0, 1	
Storage	Diskette Drives	1.44 MB (included in some models) NOTE: CD-ROM/Diskette Drive Assembly Option Kit 301048-B21 and DVD-ROM/Diskette Option Kit 268494-B21 are available
	CD-ROM	24x IDE (ATAPI) Low-Profile CD-ROM Drive (included in some models) NOTE: CD-ROM/Diskette Drive Assembly Option Kit 301048-B21 and DVD-ROM/Diskette Option Kit 268494-B21 are available
	Hard Drives	One of the following: (depending on model) None 80-GB ATA drive
	Maximum Internal Storage	One of the following: (depending on model) 160 GB (2 x 80-GB Ultra ATA/100 7,200 rpm non-hot plug 1"drives)
Interfaces	Serial	1
	USB	2 NOTE: Please see the following URL for additional information regarding USB support: http://www.compaq.com/products/servers/platforms/usb-support.html
	Graphics	1
	Keyboard	1
	Mouse	1
	Network RJ-45	2
Graphics	Integrated ATI RAGE XL Video Controller with 8-MB SDRAM Video Memory	
Form Factor	Rack (1U), (1.75 in/4.45 cm)	

Standard Features

ProLiant Essentials Foundation Pack Software

Insight Manager 7 and HP Systems Insight Manager

Insight Manager 7 and HP's new HP Systems Insight Manager help maximize system uptime and performance and reduce system maintenance costs by providing proactive notification of problems before those problems result in unplanned downtime or reduced productivity. Insight Manager 7 and HP Systems Insight Manager are both easy to set up work with the Insight Management Agents, integrated Light-Out and Remote Insight Light-Out Edition, and Version Control Agents to deliver robust fault, configuration, and asset management as well as remote administration. With HP Systems Insight Manager customers will also be able to take advantage of role-based security; the ability to manage ProLiant, Integrity, and HP9000 systems; and plug-ins for storage, client, printer, and power management as well as server rapid deployment, performance management, and workload management. For more details on HP Systems Insight Manager visit <http://www.hp.com/go/hpsim>

SmartStart

SmartStart is a tool that simplifies server setup, providing a rapid way to deploy reliable and consistent server configurations. For more information, please visit the SmartStart Web site at <http://www.hp.com/servers/smartstart>. SmartStart version supported (minimum): SmartStart 6.40.

Management Agents

The Management Agents form the foundation for HP's Intelligent Manageability strategy. They provide direct, browser-based access to in-depth instrumentation built into HP servers, workstations, desktops, and portables, and send alerts to Insight Manager 7 and other enterprise management applications in case of subsystem or environmental failures. For additional information about the Management Agents and other management products from HP, please visit the management Web site at <http://www.hp.com/servers/manage>.

Subscriber's Choice

Subscriber's Choice Driver and Support Alerts/Notifications is a web-based email subscription service that provides automatic delivery of software and driver change notifications for ProLiant products. Sign up at <http://www.hp.com/go/subscriberschoice> and customize your profile to receive various new alerts as they become available, on a weekly or monthly basis.

ROMPaq, support software, and configuration utilities

The latest software, drivers, and firmware fully optimized and tested for your ProLiant server and options available in SmartStart or downloadable from Software and Drivers download pages, linked from the SmartStart website at <http://www.hp.com/servers/smartstart>.

Survey Utility and diagnostics utilities

The most advanced configuration analysis, reporting and troubleshooting utilities used by HP and at your fingertips, available in SmartStart.

Optional ProLiant Essentials Value Packs

Optional software offerings that selectively extend the functionality of an Adaptive Infrastructure to address specific business problems and needs:

- Rapid Deployment Pack – an automated solution for multi-server deployment and provisioning, enabling companies to quickly and easily adapt to changing business demands.
- Workload Management Pack – provides easier management of complex environments, improving overall server utilization and enabling Windows® 2000 customers for the first time to confidently deploy multiple applications on a single multiprocessor ProLiant Server.
- Performance Management Pack – a performance management solution that identifies and explains hardware performance bottlenecks on ProLiant servers and attached options enabling users to better utilize their valuable resources.

NOTE: Flexible and volume quantity license kits are available for ProLiant Essentials Value Packs. Refer to <http://www.hp.com/servers/proliantessentials> or the various ProLiant Essentials Value Pack product QuickSpecs for more information.

NOTE: For more information regarding ProLiant Essentials Software, please see the following URL: <http://www.hp.com/servers/proliantessentials>

Standard Features

Industry Standard Compliance

PCI 2.2 Compliant
PXE Support
WOL Support
Microsoft® Logo certifications
USB 1.1

Intelligent Manageability

Automatic Server Recovery (ASR)
Remote Insight Lights-Out Edition II (optional)
Insight Manager 7
HP Systems Insight Manager
Integrated Management Log
Drive Parameter Tracking (with Smart Array Controllers)
Dynamic Sector Repairing (with Smart Array Controllers)
Pre-Failure Warranty (covers processors, hard drives and memory)

Security

Power-on password
Keyboard password
Diskette drive control
Diskette boot control
Removable CD-ROM/Diskette Drive Assembly
Administrator's password

Server Power Cords

North America:	One Lowline and one Highline (IEC-IEC) power cord ships standard.
Japan:	One IEC (Highline) and one Lowline power cord ships standard
ROW:	One Highline (IEC) power cord ships standard

Power Supply

Auto-sensing 180-Watt PFC Power Supply, CE Mark Compliant

System Fans

6 fans ship standard. 6 total supported internally.

Ultra Thin Rack Deployment Overview

For the Ultra Thin Rack Deployment Overview, including best practices for the HP ProLiant DL320, please see the following URL: <http://www.compaq.com/products/servers/ProLiantdl320/>.

Required Cabling

For required cabling information, refer to the Web site at: <http://www.compaq.com/products/servers/ProLiantdl320/>.

OS Support

Microsoft Windows NT® Server
Microsoft Windows 2000 Server
Windows Server 2003
LINUX (Red Hat, SuSE, UnitedLinux)

NOTE: Support differences will exist between the ATA and SCSI configurations.

NOTE: For a more complete and up-to-date listing of supported OSs and versions, please visit our OS Support Matrix at: <http://www.hp.com/go/supportos>.

NOTE: For an up-to-date listing of the latest drivers available for the HP ProLiant DL320, please see: <http://www.compaq.com/support/files/server/us/index.html>.

NOTE: For a more complete and up-to-date information on Linux support, please visit HP Linux Web site at <http://h18000.www1.hp.com/products/servers/linux/hpLinuxcert.html>.

Standard Features

Rack Airflow Requirements

- Rack 10000 series Cabinets

The increasing power of new high-performance processor technology requires increased cooling efficiency for rack-mounted servers. The 10000 Series Racks provide enhanced airflow for maximum cooling, allowing these racks to be fully loaded with servers using the latest processors.

CAUTION: If a third-party rack is used, observe the following additional requirements to ensure adequate airflow and to prevent damage to the equipment:

- Front and rear doors: If your 42U server rack includes closing front and rear doors, you must allow 5,350 sq cm (830 square inches) of hole evenly distributed from top to bottom to permit adequate airflow (equivalent to the required 64 percent open area for ventilation).
- Side: The clearance between the installed rack component and the side panels of the rack must be a minimum of 7 cm (2.75 inches)

CAUTION: Always use blanking panels to fill all remaining empty front panel U-spaces in the rack. This arrangement ensures proper airflow. Using a rack without blanking panels results in improper cooling that can lead to thermal damage.

NOTE: For additional information, refer to the Setup and Installation Guide or the Documentation CD provided with the server, or to the server documentation located in the Support section at the following URL:

<http://www5.compaq.com/products/servers/ProLiantDL320/index.html>.

HP Factory Express Capabilities

HP Factory Express gives you the flexibility to choose from a full menu of factory capabilities all in one manufacturing facility, in one process, with one touch giving you full control and access to HP's World class manufacturing facility anytime. This approach provides you the speed to deploy your IT needs, with total quality assurance, reliability, and predictability to lower your total cost of ownership by letting HP install, rack, and customize your software and hardware options for you.

Standard Features

Service and Support

Three-year limited warranty, including hardware diagnostic support, pre-failure warranty (coverage of hard drives, memory and processors). The warranty is fully supported by HP Services and a worldwide network of resellers and service providers. In addition 90-day's getting started software telephone support may be covered under the warranty or available for an additional fee. Enhancements to warranty services are available through HP Care Pack services.

NOTE: Limited warranty includes 3 year parts, 1 year labor, 1-year on-site support

Care Pack services provide a range of life cycle support options that let you choose the service levels that meet your business requirements, from basic to mission-critical.

A full range of HP Care Pack hardware and software services are available including:

- Installation and start up
- Education courses
- Extended onsite hardware coverage hours from same business day 13 hours, 5 day to 24 hours, 7 days call window with options including 4-hour response or 6-hour Call To Repair
- Comprehensive range of software technical support for Microsoft, Linux, ProLiant Essentials and VMWare-based IT solutions helping to deliver high level of application availability. Response times range from 30 mins for critical problems to 2 hours.
- System Management, Performance Services and Mission Critical Support Solution

Service includes HP branded hardware options qualified for the server, purchased at the same time or afterwards, internal to the enclosure, and 22" and smaller external monitors will be covered at the same service level and coverage period as the server. For servers or storage systems installed within a rack, service also covers all HP qualified rack options installed within the same rack.

NOTE: For more information on HP Care Pack services, contact any of our worldwide sales offices or resellers or visit our worldwide Web site on the internet at: <http://www.hp.com/hps/carepack>

NOTE: For more complete information on HP Services offerings, customers and resellers, please visit us at: <http://www.hp.com/hps>

NOTE: Additional information regarding worldwide limited warranty and technical support is available at: <http://h18004.www1.hp.com/products/servers/platforms/warranty/index.html>

Models

DL320R02 3.06-512 KB, 128 MB, ATA without CD/Floppy 336549-xx1	Processor(s)	Intel Pentium 4 - 3.06-GHz (FC-PGA) Processor standard (With Hyper-Threading technology)
	Cache Memory	512-KB level 2 cache
	Memory	128-MB (Standard) to 4-GB (Maximum) PC2100 Registered ECC DDR SDRAM DIMM Memory
	Network Controller	Two - NC7760 PCI Gigabit Server Adapters (embedded)
	Storage Controller	Integrated Dual Channel Ultra ATA/100 Adapter with Integrated ATA RAID 0, 1
	Hard Drives	None ship standard
	Cache Accelerator	160-GB maximum (with optional hard drives)
	Optical Drive	Optional
	Diskette Drive	Optional
	Form Factor	Rack (1U), (1.75 in/4.45 cm)

DL320R02 P3.06-512 KB, 128 MB, ATA 80 GB with CD/Floppy 336549-xx2	Processor(s)	Intel Pentium 4 - 3.06-GHz (FC-PGA) Processor standard (With Hyper-Threading technology)
	Cache Memory	512-KB level 2 cache
	Memory	128-MB (Standard) to 4-GB (Maximum) PC2100 Registered ECC DDR SDRAM DIMM Memory
	Network Controller	Two - NC7760 PCI Gigabit Server Adapters (embedded)
	Storage Controller	Integrated Dual Channel Ultra ATA/100 Adapter with Integrated ATA RAID 0, 1
	Hard Drives	One 80-GB Ultra ATA/100 7,200 rpm non-hot plug 1" drive
	Cache Accelerator	160-GB maximum (with optional hard drives)
	Optical Drive	24x IDE (ATAPI) CD-ROM Drive (Low-Profile)
	Diskette Drive	1.44 MB Floppy
	Form Factor	Rack (1U), (1.75 in/4.45 cm)

DL320R02 P2.66-512 KB, 128 MB, ATA without CD/Floppy 322544-xx1	Processor(s)	Intel Pentium 4 - 2.66-GHz (FC-PGA) Processor standard
	Cache Memory	512-KB level 2 cache
	Memory	128-MB (Standard) to 4-GB (Maximum) PC2100 Registered ECC DDR SDRAM DIMM Memory
	Network Controller	Two - NC7760 PCI Gigabit Server Adapters (embedded)
	Storage Controller	Integrated Dual Channel Ultra ATA/100 Adapter with Integrated ATA RAID 0, 1
	Hard Drives	None ship standard
	Cache Accelerator	160-GB maximum (with optional hard drives)
	Optical Drive	Optional
	Diskette Drive	Optional
	Form Factor	Rack (1U), (1.75 in/4.45 cm)

Models

DL320R02 P2.66-512 KB, 128 MB, ATA 80 GB with CD/Floppy 322544-xx2	Processor(s)	Intel Pentium 4 - 2.66-GHz (FC-PGA) Processor standard
	Cache Memory	512-KB level 2 cache
	Memory	128-MB (Standard) to 4-GB (Maximum) PC2100 Registered ECC DDR SDRAM DIMM Memory
	Network Controller	Two - NC7760 PCI Gigabit Server Adapters (embedded)
	Storage Controller	Integrated Dual Channel Ultra ATA/100 Adapter with Integrated ATA RAID 0, 1
	Hard Drives	One 80-GB Ultra ATA/100 7,200 rpm non-hot plug 1" drive
	Internal Storage	160-GB maximum (with optional hard drives)
	Optical Drive	24x IDE (ATAPI) CD-ROM Drive (Low-Profile)
	Diskette Drive	1.44 MB Floppy
	Form Factor	Rack (1U), (1.75 in/4.45 cm)

DL320R02 P2.26-512 KB, 128 MB, ATA without CD/Floppy 289349-xx1	Processor(s)	Intel Pentium 4 - 2.26-GHz (FC-PGA) Processor standard
	Cache Memory	512-KB level 2 cache
	Memory	128-MB (Standard) to 4-GB (Maximum) PC2100 Registered ECC DDR SDRAM DIMM Memory
	Network Controller	Two - NC7760 PCI Gigabit Server Adapters (embedded)
	Storage Controller	Integrated Dual Channel Ultra ATA/100 Adapter with Integrated ATA RAID 0, 1
	Hard Drives	None ship standard
	Internal Storage	160-GB maximum (with optional hard drives)
	Optical Drive	Optional
	Diskette Drive	Optional
	Form Factor	Rack (1U), (1.75 in/4.45 cm)

DL320R02 P2.26-512 KB, 128 MB, ATA 80 GB with CD/Floppy 289349-xx2	Processor(s)	Intel Pentium 4 - 2.26-GHz (FC-PGA) Processor standard
	Cache Memory	512-KB level 2 cache
	Memory	128-MB (Standard) to 4-GB (Maximum) PC2100 Registered ECC DDR SDRAM DIMM Memory
	Network Controller	Two - NC7760 PCI Gigabit Server Adapters (embedded)
	Storage Controller	Integrated Dual Channel Ultra ATA/100 Adapter with Integrated ATA RAID 0, 1
	Hard Drives	One 80-GB Ultra ATA/100 7,200 rpm non-hot plug 1" drive
	Internal Storage	160-GB maximum (with optional hard drives)
	Optical Drive	24x IDE (ATAPI) CD-ROM Drive (Low-Profile)
	Diskette Drive	1.44 MB Floppy
	Form Factor	Rack (1U), (1.75 in/4.45 cm)

Country Code Key	XX=00	NA
	XX=29	Japan
	XX=37	APD
	XX=42	EURO
	XX=AA	PRC

Options

ProLiant DL320 Unique Options	DL320 G2 Slotless SCSI module with cable	283533-B21
	CD-RW/DVD-ROM/Floppy Combo Option kit	343791-B21
ProLiant Essentials Value Pack Software	Rapid Deployment Pack, 1 User, V1.x	267196-B21
	NOTE: This license allows 1 server to be managed and deployed via the Deployment Server.	
	NOTE: Rapid Deployment pack is now available in Linux only environments.	
	Rapid Deployment Pack, 1 User, V1.x (Japan)	267196-291
	NOTE: This license allows 1 server to be managed and deployed via the Deployment Server.	
	NOTE: Rapid Deployment pack is now available in Linux only environments.	
	Rapid Deployment Pack, 10 Users, V1.x	269817-B21
	NOTE: This license allows 10 servers to be managed and deployed via the Deployment Server.	
	NOTE: Rapid Deployment pack is now available in Linux only environments.	
	Rapid Deployment Pack, 10 Users, V1.x (Japan)	269817-291
	NOTE: This license allows 10 servers to be managed and deployed via the Deployment Server.	
	NOTE: Rapid Deployment pack is now available in Linux only environments.	
	Flexible Quantity License Kit	302127-B21
	License-Only - for use with a Master License Agreement	302128-B21
	ProLiant Essentials Workload Management Pack (Featuring Compaq Resource Partitioning Manager version 2.0)	303284-B21
Memory (DIMMs)	Performance Management Pack, single server	306696-B21
	NOTE: This license allows 1 server to be managed by Performance Management Pack.	
	Performance Management Pack, flexible license kit	306697-B21
	NOTE: A single pack is shipped with a single license key for the total number of licenses ordered	
	NOTE: Flexible and volume quantity license kits are available for ProLiant Essentials Value Packs. Refer to http://www.hp.com/servers/proliantessentials or the various ProLiant Essentials Value Pack product QuickSpecs for more information.	
Internal Storage	NOTE: For more information regarding ProLiant Essentials Software, please see the following URL: http://www.hp.com/servers/proliantessentials .	
	1024-MB PC2100 Registered ECC DDR SDRAM DIMM Memory Kit	287497-B21
	512-MB PC2100 Registered ECC DDR SDRAM DIMM Memory Kit	287496-B21
	256-MB PC2100 Registered ECC DDR SDRAM DIMM Memory Kit	287495-B21
	128-MB PC2100 Registered ECC DDR SDRAM DIMM Memory Kit	287494-B21
Internal Storage	CD-ROM/Diskette Drive Assembly Option Kit	301048-B21
	CD-RW/DVD-ROM/Floppy Combo Option kit	343791-B21
	DVD-ROM/Diskette Drive Assembly Option Kit	268494-B21
	ProLiant DL320 Wide Ultra3 SCSI Cable Option Kit	212690-B21
	NOTE: The SCSI Cable Option Kit (212690-B21) is required if you are adding PCI SCSI or Array card.	
	DL320 G2 Slotless SCSI module with cable	283533-B21

Options

Hard Drives

Wide Ultra320 – Universal Non-Hot Plug		
36.4GB 10,000 rpm, U320 Non-Hot Plug Hard Drive, 1"		271832-B21
72-GB 10,000 rpm, U320 Non-Hot Plug Hard Drive, 1"		332751-B21
NOTE: All U320 Universal Hard Drives are backward compatible to U2 or U3 speeds. U320 drives require an optional U320 Smart Array Controller or U320 SCSI HBA to support U320 transfer rates.		
NOTE: Please see the Hard Drive QuickSpecs for Technical Specifications such as capacity, height, width, interface, transfer rate, seek time, physical configuration, and operating temperature:		
U320 Hard Drive QS:		
http://h18000.www1.hp.com/products/quickspecs/11531_div/11531_div.HTML (Worldwide)		
http://h18000.www1.hp.com/products/quickspecs/11531_na/11531_na.HTML (North America)		
SCSI Hard Drive QS:		
http://h18000.www1.hp.com/products/quickspecs/10260_div/10260_div.HTML (Worldwide)		
http://h18000.www1.hp.com/products/quickspecs/10260_na/10260_na.HTML (North America)		
ATA100 Hard Drive QS:		
http://h18000.www1.hp.com/products/quickspecs/11361_div/11361_div.HTML (Worldwide)		
http://h18000.www1.hp.com/products/quickspecs/11361_na/11361_na.HTML (North America)		
ATA/100 – Non-Hot Plug		
80-GB ATA/100 7,200 rpm Drive (1")		278424-B21
40-GB ATA/100 7,200 rpm Drive (1")		230534-B21

Options

Storage Controllers	Smart Array 532 Controller	225338-B21
	NOTE: Supports Wide Ultra2/3 SCSI drives only. If cabling to internal drives, you must first disable the integrated controller module, and use the Wide Ultra3 SCSI cable option kit 212690-B21.	
	Smart Array 532 Controller (Japan)	225338-291
	NOTE: Supports Wide Ultra2/3 SCSI drives only. If cabling to internal drives, you must first disable the integrated controller module, and use the Wide Ultra3 SCSI cable option kit 212690-B21.	
	Smart Array 5304/256 Controller	283551-B21
	NOTE: Supports Wide Ultra2/3 SCSI drives only. If cabling to internal drives, you must first disable the integrated controller module, and use the Wide Ultra3 SCSI cable option kit 212690-B21.	
	Smart Array 5304/256 Controller (Japan)	283551-291
	NOTE: Supports Wide Ultra2/3 SCSI drives only. If cabling to internal drives, you must first disable the integrated controller module, and use the Wide Ultra3 SCSI cable option kit 212690-B21.	
	Smart Array 641 Controller	291966-B21
	Smart Array 642 Controller	291967-B21
	256-MB Battery-Back Cache Module	254786-B21
	NOTE: This 256-MB Battery-Backed Cache Module supports the Smart Array 5300 series controllers, HP StorageWorks Modular Smart Array 1000 and the HP StorageWorks Modular Smart Array 500	
	64 MB Battery Backed Write Cache Enabler	291969-B21
	NOTE: This 64 MB BBWC supports the Smart Array 641 Controller and Smart Array 642 Controller.	
	64-Bit/133-MHz Dual Channel Ultra320 SCSI Adapter	268351-B21
	NOTE: Supports Wide Ultra3, Ultra320 SCSI drives only. If cabling to internal drives, you must first remove the integrated controller module. ATA models require the Wide Ultra3 SCSI cable option kit 212690-B21.	
	NOTE: This adapter will run at 33-MHz speeds due to the 33-MHz PCI Bus.	
	64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS	284688-B21
	NOTE: Supports Wide Ultra3, Ultra320 SCSI drives only. If cabling to internal drives, you must first remove the integrated controller module. ATA models require the Wide Ultra3 SCSI cable option kit 212690-B21.	
	NOTE: This adapter will run at 33-MHz speeds due to the 33-MHz PCI Bus.	
	NOTE: Please see the following Controller or SCSI Adapter QuickSpecs for Technical Specifications such as PCI Bus, PCI Peak Data Transfer Rate, SCSI Protocols supported, SCSI Peak Data Transfer Rate, Channels, SCSI Ports, Drives supported, Cache, RAID support, and additional information: http://h18000.www1.hp.com/products/quickspecs/10851_div/10851_div.HTML (Smart Array 532) http://h18000.www1.hp.com/products/quickspecs/10640_div/10640_div.HTML (Smart Array 5300 Series) http://h18000.www1.hp.com/products/quickspecs/11563_div/11563_div.HTML (Smart Array 641) http://h18000.www1.hp.com/products/quickspecs/11563_div/11563_div.HTML (Smart Array 642) http://h18000.www1.hp.com/products/quickspecs/10429_div/10429_div.HTML (SCSI Adapter) http://h18000.www1.hp.com/products/quickspecs/11555_div/11555_div.HTML (U320 Adapter)	
Communications	NC3123 Fast Ethernet NIC PCI 10/100 WOL	174830-B21
	NC6170 Dual Port PCI-X 1000SX Gigabit Server Adapter	313879-B21
	NC6770 PCI-X Gigabit Server Adapter, 1000-SX	244949-B21
	NC7170 Dual Port PCI-X 1000T Gigabit Server Adapter	313881-B21
	NOTE: Any NC61XX, NC71XX or NC77XX NIC can be used for redundancy with the embedded NC7760 Network Controller.	

Options

Management Options	Remote Insight Lights-Out Edition II (NA, LA)	227251-001
	Remote Insight Lights-Out Edition II (EMEA)	227251-021
	Remote Insight Lights-Out Edition II (ROW)	227251-371

Security	HP/Atalla AXL600L SSL Accelerator Card for ProLiant Servers	524545-B21
	Compaq AXL300 Accelerator PCI Card (HW SSL Encryption) for ProLiant Servers	227933-B21

Monitors	Rackmount Flat Panel Monitors	
	TFT5110R Flat Panel Monitor (Carbon)	281683-B21
	TFT7210R Rack Mounted 17" Monitor	348373-B21
	<p>NOTE: Monitors larger than 17" may be too heavy for use in rack systems.</p> <p>NOTE: For a complete list of Monitors please view the following URL: http://h18004.www1.hp.com/products/monitors/</p>	

Tape Drives	<p>NOTE: External tape devices, including both tape drives and tape arrays/enclosures, can be directly connected to the VHDCI SCSI port located on the back of the server. Use of a SCSI adapter to connect these devices is optional, not required.</p> <p>External, Rack-Mount, and Array Module Ultrium Tape Drives</p>	
	HP StorageWorks Ultrium 215 Tape Drive, External (Carbon)	Q1545A
	HP StorageWorks Ultrium 215 rack-mount (Carbon) - Single drive installed in a 3U rack-mount kit	350544-B21
	HP StorageWorks Ultrium 215 Array Module (Carbon) - Offline hot-swap drive for Tape Array 5300	C7492B
	HP StorageWorks Ultrium 230 Tape Drive, External (Carbon)	Q1517A
	HP StorageWorks Ultrium 230, Rack-mount (Carbon) - Single drive installed in a 3U rack-mount kit	350545-B21
	HP StorageWorks Ultrium 230 Array Module (Carbon) - Offline hot-swap drive for Tape Array 5300	C7470B
	HP StorageWorks Ultrium 460 Tape Drive, External (Carbon)	Q1520A
	HP StorageWorks Ultrium 460, Rack-mount (Carbon) - Single drive installed in a 3U rack-mount kit	350546-B21
	HP StorageWorks Ultrium 460 Array Module (Carbon) - Offline hot-swap drive for Tape Array 5300	Q1512B
	<p>NOTE: Please see the HP StorageWorks Ultrium 215, 230, and 460 Tape Drive QuickSpecs for additional options such as controllers, media, and other related items: http://h18006.www1.hp.com/products/quickspecs/11739_div/11739_div.html (Worldwide) http://h18006.www1.hp.com/products/quickspecs/11739_na/11739_na.html (North America)</p>	
	<p>For an up-to-date listing of the latest O/S and software support details for HP Ultrium tape drives, please visit: http://www.hp.com/go/connect</p>	
	External and Array Module DAT Drives	
	HP StorageWorks DAT 72 Tape Drive, External (Carbon)	Q1523A

HP StorageWorks DAT 72 Array Module (Carbon) - Offline hot-swap drive for Tape Array 5300	Q1524B
HP StorageWorks DAT 40 Tape Drive, External (Carbon)	C5687C
HP StorageWorks DAT 40 Array Module (Carbon) - Offline hot-swap drive for Tape Array 5300	C7497B
HP StorageWorks DAT 24e Tape Drive, External (Flint)	C1556D
HP StorageWorks DAT 24 Array Module (Carbon) - Offline hot-swap drive for Tape Array 5300	C7498A

NOTE: Please see the DAT Tape Drive QuickSpecs for controllers, media, and other options:
http://h18000.www1.hp.com/products/quickspecs/11883_div/11883_div.HTML (Worldwide)
http://h18000.www1.hp.com/products/quickspecs/11883_na/11883_na.HTML (North America)

For an up-to-date listing of the latest O/S and software support details for HP DAT drives, please visit: <http://www.hp.com/go/connect>

External DLT VS Tape Drives	
HP StorageWorks DLT VS80 Tape Drive, External (Carbon) NA	337699-B22

Options

HP StorageWorks DLT VS80 Tape Drive, External (Carbon) Int'l	337699-B31
HP StorageWorks DLT VS80 Tape Drive, External (Carbon) Japan	337699-291

NOTE: Please see the DLT VS80 Tape Drive QuickSpecs for additional options such as host bus adapters, controllers, media, and other options:

http://h18006.www1.hp.com/products/quickspecs/11403_div/11403_div.HTML (Worldwide)
http://h18006.www1.hp.com/products/quickspecs/11403_na/11403_na.HTML (North America)

For an up-to-date listing of the latest O/S and software support details for the DLT VS80, please visit:
<http://www.hp.com/go/connect>

External SDLT Tape Drives

HP StorageWorks SDLT 320 Tape Drive, External (Carbon) NA	257319-001
HP StorageWorks SDLT 320 Tape Drive, External (Carbon) Int'l	257319-B31
HP StorageWorks SDLT 320 Tape Drive, External (Carbon) Japan	257319-291

NOTE: Please see the SDLT 320 Tape Drive QuickSpecs for additional options such as adapters, controllers, and media.

http://h18006.www1.hp.com/products/quickspecs/11406_div/11406_div.HTML (Worldwide)
http://h18006.www1.hp.com/products/quickspecs/11406_na/11406_na.HTML (North America)

For an up-to-date listing of the latest O/S and software support details for HP SDLT tape drives, please visit: <http://www.hp.com/go/connect>

Rack-Mount Tape Drive Enclosures

HP StorageWorks 3U Rack-Mount Kit	274338-B21
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NOTE: The 3U Rack-Mount Kit can support up to 2 full-height or 4 half-height tape drives and compatible with multiple Single-Ended and LVD SCSI tape drives including DAT, DLT VS80, SDLT 320, Ultrium 215, Ultrium 230, and Ultrium 460 Tape Drives.

HP StorageWorks 5U Rack-Mount Kit	274339-B21
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NOTE: The 5U Rack-Mount Kit can support up to 4 full-height tape drives and is compatible with SDLT 320, Ultrium 230, and Ultrium 460 tape drives.

NOTE: Please see the Rack-Mount Tape Drive Kits QuickSpecs for additional information regarding these kits:

http://h18000.www1.hp.com/products/quickspecs/10854_div/10854_div.HTML (Worldwide)
http://h18000.www1.hp.com/products/quickspecs/10854_na/10854_na.HTML (North America)

HP StorageWorks Tape Array 5300	C7508A
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NOTE: The Tape Array 5300 is a 3U enclosure that supports up to 2 full-height or 4 half-height hot-swap array modules, including DAT and Ultrium tape drives. Cables and terminators are not included and must be ordered separately.

NOTE: Please see the Tape Array 5300 QuickSpecs for additional information regarding this product.

http://h18000.www1.hp.com/products/quickspecs/11878_div/11878_div.HTML (Worldwide)
http://h18000.www1.hp.com/products/quickspecs/11878_na/11878_na.HTML (North America)

Accessories for 3U & 5U Rack-mount Tape Drive Kits

LVD Cable Kit, VHDCI/HD68	168048-B21
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NOTE: For use with the 3U Rackmount Kit and 5U Rackmount Kit only.

LVD Cable Kit, HD68/HD68	242381-B21
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NOTE: For use with the 3U Rackmount Kit and 5U Rackmount Kit only.

Accessories for 3U & 5U Rack-mount Tape Drive Kits

PSU/Fan Upgrade Kit - Redundant hot-swap power supply unit and fan for Tape Array 5300.

68-pin HD multi-mode terminator	C2364A
1.0m 68-pin VHDCI to 68-pin HD cable	C2361B
2.5m 68-pin VHDCI to 68-pin HD cable	C2362B
5.0m 68-pin VHDCI to 68-pin HD cable	C2365A
10.0m 68-pin VHDCI to 68-pin HD cable	C2363B
0.5m 68-pin HDI to 68-pin HD cable LVD/SE	C2978B

Options

1.5m 68-pin HDI to 68-pin HD cable LVD/SE	C2979B
0.9m 68-pin HDI to 68-pin HD cable LVD/SE	C2911C
2.5m 68-pin HDI to 68-pin HD cable LVD/SE	C2924C
NOTE: For use with Tape Array 5300 only	

Tape Autoloaders

DAT Autoloaders

HP StorageWorks DAT 40x6 Tape Autoloader, External (Flint)	C5717C
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NOTE: Please see the DAT 40x6 Tape Autoloader QuickSpecs at <http://www.hp.com/go/tape> for additional options such as host bus adapters, controllers and media.

HP StorageWorks 1/8 Tape Autoloader

1/8 Ultrium 460 Tape Autoloader, Tabletop	AA927A
1/8 SDLT 320 Tape Autoloader, Tabletop	AA926A
1/8 Ultrium 230 Tape Autoloader, Tabletop	C9572CB
1/8 DLT VS80 Tape Autoloader, Tabletop	C9264CB
1/8 Tape Autoloader Rackmount Kit	C9268R

NOTE: Required to install the 1/8 tape autoloader in a standard 19-inch rack

NOTE: Please reference the 1/8 Tape Autoloader QuickSpecs at <http://www.hp.com/go/automation> for additional information needed to create a complete solution; reference current compatibility information at <http://www.hp.com/go/ebs>

HP StorageWorks SSL1016 Tape Autoloader

SSL1016 Ultrium 460 Tape Autoloader	330821-B21
SSL1016 SDLT 320 Tape Autoloader	330816-B21
SSL1016 DLT1 Tape Autoloader	330815-B21

NOTE: Please reference the SSL1016 Tape Autoloader QuickSpecs at <http://www.hp.com/go/automation> for additional information needed to create a complete solution; reference current compatibility information at <http://www.hp.com/go/ebs>

Tape Libraries

HP StorageWorks MSL6000 Tape Library

MSL6030, 1 drive, 30 slots, Ultrium 460, rackmount	330731-B22
MSL6030, 2 drive, 30 slots, Ultrium 460, rackmount	330731-B23
MSL6030, 1 drive, 30 slots, Ultrium 460, rackmount with embedded FC router	330731-B24
MSL6030, 2 drive, 30 slots, Ultrium 460, rackmount with embedded FC router	330731-B25
MSL6030, 1 drive, 30 slots, Ultrium 460, tabletop	330788-B21
MSL6030, 2 drive, 30 slots, Ultrium 460, tabletop	330788-B22
MSL6060, 2 drive, 60 slot, Ultrium 460, rackmount	331196-B21
MSL6060, 2 drive, 60 slot, Ultrium 460, rackmount with embedded FC router	331196-B22
MSL6060, 2 drive, 60 slot, Ultrium 460, tabletop	331195-B21

NOTE: Please reference the MSL6000 Tape Library QuickSpecs at <http://www.hp.com/go/automation> for additional information needed to create a complete solution; reference current compatibility information at <http://www.hp.com/go/ebs>

HP StorageWorks MSL5026S2 Tape Library

MSL5026S2, 1 drive, 26 slots, SDLT 320, rackmount	293472-B22
MSL5026S2, 2 drive, 26 slots, SDLT 320, rackmount	293472-B23
MSL5026S2, 1 drive, 26 slots, SDLT 320, rackmount with embedded FC router	293472-B24
MSL5026S2, 2 drive, 26 slots, SDLT 320, rackmount with embedded FC router	293472-B25
MSL5026S2, 1 drive, 26 slots, SDLT 320, tabletop	293473-B21
MSL5026S2, 2 drive, 26 slots, SDLT 320, tabletop	293473-B22

NOTE: Please reference the MSL5026S2 Tape Library QuickSpecs at <http://www.hp.com/go/automation> for additional information needed to create a complete solution;

Options

reference current compatibility information at <http://www.hp.com/go/ebs>

HP StorageWorks MSL5052S2 Tape Library

MSL5052S2, 2 drive, 52 slots, SDLT 320, rackmount	293474-B21
MSL5052S2, 2 drive, 52 slots, SDLT 320, rackmount with embedded FC router	293474-B24
MSL5052S2, 2 drive, 52 slots, SDLT 320, tabletop	293476-B21

NOTE: Please reference the MSL5052S2 Tape Library QuickSpecs at <http://www.hp.com/go/automation> for additional information needed to create a complete solution; reference current compatibility information at <http://www.hp.com/go/ebs>

HP StorageWorks MSL5030 Tape Library

MSL5030, 1 drive, 30 slots, Ultrium 230, rackmount	301897-B22
MSL5030, 2 drive, 30 slots, Ultrium 230, rackmount	301897-B23
MSL5030, 1 drive, 30 slots, Ultrium 230, rackmount with embedded FC router	301897-B24
MSL5030, 2 drive, 30 slots, Ultrium 230, rackmount with embedded FC router	301897-B25
MSL5030, 1 drive, 30 slots, Ultrium 230, tabletop	301898-B21
MSL5030, 2 drive, 30 slots, Ultrium 230, tabletop	301898-B22

NOTE: Please reference the MSL5030 Tape Library QuickSpecs at <http://www.hp.com/go/automation> for additional information needed to create a complete solution; reference current compatibility information at <http://www.hp.com/go/ebs>

HP StorageWorks MSL5060 Tape Library

MSL5060, 2 drive, 60 slots, Ultrium 230, rackmount	301899-B22
MSL5060, 2 drive, 60 slots, Ultrium 230, rackmount with embedded FC router	301899-B23
MSL5060, 2 drive, 60 slots, Ultrium 230, tabletop	301900-B21

NOTE: Please reference the MSL5060 Tape Library QuickSpecs at <http://www.hp.com/go/automation> for additional information needed to create a complete solution; reference current compatibility information at <http://www.hp.com/go/ebs>

HP StorageWorks ESL E-Series Tape Libraries

ESL Extended 712e Tape Library, 0 drive, 712 LTO slots	AA934A
ESL Extended 630e Tape Library, 0 drive, 630 SDLT slots	AA935A
ESL E Ultrium 460 drive kit	AA937A
ESL E SDLT 320 drive kit	AA936A

NOTE: Please reference the ESL E-Series Tape Libraries QuickSpecs at <http://www.hp.com/go/automation> for additional information needed to create a complete solution; reference current compatibility information at <http://www.hp.com/go/ebs>

HP StorageWorks ESL9000 Series Tape Libraries

ESL9595 Extended Tape Library, 0 drive, 400 slots (can scale to 595 slots; includes card cage, Interface Mgr card, Command View license)	343378-B21
ESL9322 Extended Tape Library, 0 drive, 222 slots (can scale to 322 slots; includes card cage, Interface Mgr card, Command View license)	343377-B21
ESL9000 Ultrium 460 drive kit	330834-B21
ESL9000 Ultrium 230 drive kit	301930-B21
ESL9000 SDLT 320 drive kit	293414-B21

Magento-Optical Jukeboxes

HP StorageWorks 9.1 GB Entry-level Optical Storage

9100mx standalone drive	C1114M
220mx, 1 drive, 24 slot jukebox	C1118M
220mx, 2 drive, 24 slot jukebox	C1119M

NOTE: Please reference the Magento-Optical Jukebox data sheets at <http://www.hp.com/go/optical> for additional information needed to create a complete solution.

Options

External Storage – Rack	Redundant Power Supply 499W	338296-B21
	StorageWorks Enclosure 4200 Redundant Power Supply Option	338296-B21
	StorageWorks Enclosure 4200 Ultra3 Single Bus I/O Module Option	190212-B21
	StorageWorks Enclosure 4200 Ultra3 Dual Bus I/O Module Option	190213-B21
	StorageWorks Enclosure 4200 Tower to Rack Conversion Kit	150213-B21

HP StorageWorks Modular Smart Array 1000	HP StorageWorks Modular Smart Array 1000	201723-B22
	Modular Smart Array 1000 Controller	218231-B22
	Modular Smart Array Fibre Channel I/O Module	218960-B21
	Modular Smart Array 1000 Fabric Switch	218232-B21
	Modular Smart Array 1000 Fibre Channel Adapter (FCA) 2101	245299-B21
	Modular Smart Array hub 2/3	286763-B21

NOTE: Please see the Modular Smart Array 1000 QuickSpecs for additional options and configuration information at

http://h18000.www1.hp.com/products/quickspecs/11033_na/11033_na.HTML (North America)

http://h18000.www1.hp.com/products/quickspecs/11033_div/11033_div.HTML (Worldwide)

StorageWorks Modular Array 8000	MA8000 60 Hz	175992-B21
	MA8000 50 Hz	175992-B22

NOTE: Options include controller, solution kits, ACS. MA8000 includes controller shelf, drive shelves and cabinet. Packaging upgrade to RA8000.

NOTE: Please see the StorageWorks MA8000 QuickSpecs for FC Hubs, FC switches, platform software, host adapters, disks and options for complete solutions at:

http://h18000.www1.hp.com/products/quickspecs/10545_na/10545_na.HTML (North America)

http://h18000.www1.hp.com/products/quickspecs/10545_div/10545_div.HTML (Worldwide)

UPS and PDU Power Cord Matrix	<i>Please see the UPS and PDU Power Cord Matrix that lists cable descriptions, requirements, and specifications for UPS and PDU units.</i>	
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<ftp://ftp.compaq.com/pub/products/servers/ProLiantstorage/power-protection/powercordmatrix.pdf>.

Options

Uninterruptible Power Systems — Rack UPSs	HP UPS R5500 XR, (5000VA, 4500 Watt), High Voltage (NA/Jpn)	326529-D71
	HP UPS R5500 XR, (6000VA, 5400 Watt), High Voltage (Int'l)	326529-B31
	HP UPS R1500 XR (1440VA, 1340 Watt), Low Voltage (NA)	204404-001
	HP UPS R1500 XR (1500VA, 1340 Watt), High Voltage (Int'l)	204404-B31
	HP UPS R1500 XR (1500VA, 1340 Watt), Low Voltage (Japan)	204404-291
	HP UPS R3000 XR (2880VA, 2700 Watt), Low Voltage (NA)	192186-001
	HP UPS R3000 XR (3000VA, 2700 Watt), High Voltage (NA)	192186-002
	HP UPS R3000 XR (2400VA, 2250 Watt), Low Voltage (Japan)	192186-291
	HP UPS R3000 XR (3000VA, 2700 Watt), High Voltage (Japan)	192186-292
	HP UPS R3000 XR (3000VA, 2700 Watt), High Voltage (Int'l - detachable cord)	192186-B31
	HP UPS R3000 XR (3000VA, 2700 Watt), High Voltage (16A IEC309 Plug)	192186-B32
	HP UPS R3000 XR (3000VA, 2700 Watt), High Voltage (16A CEE 7/7 SCHUKO Plug)	192186-B33
	HP UPS R3000 XR (3000VA, 2700 Watt), High Voltage (16A BS-546 Plug)	192186-AR1
	Rack-Mountable UPS R6000 (6000VA, 6000 Watt) High Voltage (NA)	347207-001
	NOTE: The UPS R6000 has a hardwired input.	
	Rack-Mountable UPS R6000 (6000VA, 6000 Watt) High Voltage (Int'l)	347207-B31
	NOTE: The UPS R6000 has a hardwired input.	
	Rack-Mountable UPS R6000 (6000VA, 6000 Watt) High Voltage (Japan)	347207-291
	NOTE: The UPS R6000 has a hardwired input.	
	HP UPS R12000 XR, N+x (12KVA, 12KW) High Voltage (WW)	207552-B22
	NOTE: The UPS R12000 XR has a hardwired input and output	
	NOTE: UPS R6000 has a hardwired input; and the UPS R12000 XR has a hardwired input and output connection.	

UPS Options	Extended Runtime Module R5500XR, WW	326564-B21
	NOTE: 3U each, two ERM maximum.	
	SNMP Serial Port Card	192189-B21
	NOTE: Supports tower and rack UPS XR models. This card does not support the 500, 700, and 6000VA UPSs (non-XR models).	
	Six Port Card	192185-B21
	NOTE: Supports tower and rack UPS XR models. This card does not support the 500, 700, and 6000VA UPSs (non-XR models).	
	Extended Runtime Module, R1500 XR	218971-B21
	NOTE: 2U each, two ERM maximum.	
	Extended Runtime Module, R3000 XR	192188-B21
	NOTE: 2U each, one ERM maximum.	
	Extended Runtime Module, R6000	347224-B21
	NOTE: 3U each, two ERM maximum.	
	Extended Runtime Module, R12000 XR, 4U	217800-B21
	R1200 XR Backplate Receptacle Kit, (2) L6-30R (NA)	325361-001
	NOTE: The R12000 XR Backplate Kit has a hardwired input.	
	R1200 XR Backplate Receptacle Kit, (2) IEC-309R (WW)	325361-B21
	NOTE: The R12000 XR Backplate Kit has a hardwired input.	
	SNMP-EN Adapter	347225-B21
	NOTE: 4U each, two ERM maximum.	
	SNMP-EN Adapter	347225-B21
	NOTE: Supports R6000 UPS series only.	

Options

Modular PDU Options	Fixed Cord Extension Bars (2 PDU sticks per kit)	351655-B21
	Fixed Cord PDU (NA/JPN)	351655-D72
	Fixed Cord PDU (INT'L)	351655-B31
	Third Party Modular PDU Mounting Kit	310777-B21
	NOTE: This kit allows you to mount the Modular PDUs in (1U configuration only) in racks other than the 9000/10000 Series racks (any racks using the standard 19" rail, including the 7000 Series racks). For more details please refer the Modular PDU QuickSpecs.	
	4.5' IEC C 13 to IEC C14 PDU Jumper Cable (1 per pack)	142257-006
	4.5' IEC C 13 to IEC C14 PDU Jumper Cable (15 per pack)	142257-007

USB Options	USB Easy Access Keyboard (Carbonite/Silver)	DC168B#
	USB Optical Scroll Mouse (Carbonite)	DD441B
	USB 1.44-MB External Diskette Drive (Carbonite)	DC141B

USB Easy Access Keyboard (Carbonite) Country Key Code

Dash #	Description	Dash #	Description
A2M	ICELAND	ABT	HE
AB0	TAWA	ABU	UK
AB1	KOR	ABV	ARA
AB2	PRC	ABX	FIN
AB6	FRA	ABY	DEN
AB7	GRK	ABZ	ITL
AB8	TURK	AC0	BEL
AB9	PORT	AC4	BRZ
ABA	US	ACB	RUSS
ABB	EURO	AKB	CZE
ABC	FCAN	AKC	HUNG
ABD	GR	AKD	POL
ABE	SP	AKL	THAI
ABF	FR	AKN	BHCSY
ABH	NL	AKR	SLOV
ABJ	Japan	ARK	ICELAND
ABM	LA	B15	KAZ
ABN	NOR	UUZ	SWISS
ABS	SW		

Custom Builder	Please see the Enterprise Configurator for configuration assistance at: http://www.hp.com/products/configurator .
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ProLiant DL320 Deployment Options	Rack Adapter Kit	332815-B21
	NOTE: This kit allows HP rack servers to fit in racks that are 24" wide.	
	Third Party Cabinet Rack Option	174574-B21
	Sliding Rails and Cable Management Solution Option	174575-B21
	Telco Rack Option	174576-B21

Options

HP Rack 10000 Series (Graphite Metallic)

HP S10614 (14U) Rack Cabinet – Shock Pallet	292302-B22
HP 10842 (42U, 800mm wide) Rack Cabinet – Pallet	257415-B21
HP 10842 (42U, 800mm wide) Rack Cabinet – Shock Pallet	257415-B22
HP 10647 (47U) Rack Cabinet – Pallet	245160-B21
HP 10647 (47U) Rack Cabinet – Shock Pallet	245160-B23
HP 10642 (42U) Rack Cabinet – Pallet	245161-B21
HP 10642 (42U) Rack Cabinet – Shock Pallet	245161-B22
HP 10642 (42U) Rack Cabinet – Crated	245161-B23
HP 10636 (36U) Rack Cabinet – Pallet	245162-B21
HP 10636 (36U) Rack Cabinet – Shock Pallet	245162-B22
HP 10636 (36U) Rack Cabinet – Crated	245162-B23
HP 10622 (22U) Rack Cabinet – Pallet	245163-B21
HP 10622 (22U) Rack Cabinet – Shock Pallet	245163-B22
HP 10622 (22U) Rack Cabinet – Crated	245163-B23

NOTE: -B21 (pallet) used to ship empty racks shipped on a truck

-B22 (shock pallet) used to ship racks with equipment installed (by custom systems, VARs and Channels)

-B23 (crated) used for air shipments of empty racks

NOTE: It is mandatory to use a shock pallet in order to ship racks with equipment installed.

NOTE: Please see the Rack 10000 QuickSpecs for Technical Specifications such as height, width, depth, weight, and color:

http://www5.compaq.com/products/quickspecs/10995_div/10995_div.HTML (Worldwide)

http://www5.compaq.com/products/quickspecs/10995_na/10995_na.HTML (North America)

NOTE: For additional information regarding Rack Cabinets, please see the following URL:

<http://h18000.www1.hp.com/products/servers/proliantstorage/rack-options/index.html>.

Rack Options for HP Rack 10000 Series

Rack Blanking Panels – Graphite (Multi)	253214-B26
NOTE: Contains one each of 1U, 2U, 4U and 8U.	
Rack Blanking Panels – Graphite (1U)	253214-B21
NOTE: The Rack Blanking Panels (PN 253214-B21) contains 10 each of (1U).	
Rack Blanking Panels – Graphite (2U)	253214-B22
NOTE: The Rack Blanking Panels (PN 253214-B22) contains 10 each of (2U).	
Rack Blanking Panels – Graphite (3U)	253214-B23
NOTE: The Rack Blanking Panels (PN 253214-B23) contains 10 each of (3U).	
Rack Blanking Panels – Graphite (4U)	253214-B24
NOTE: The Rack Blanking Panels (PN 253214-B24) contains 10 each of (4U).	
Rack Blanking Panels – Graphite (5U)	253214-B25
NOTE: The Rack Blanking Panels (PN 253214-B25) contains 10 each of (5U).	
800mm Wide Stabilizer Kit (Graphite)	255488-B21
NOTE: Supported by the Rack 10842 cabinet only.	
600mm Stabilizer Kit – Graphite	246107-B21
Baying Kit for Rack 10000 series (Carbon)	248929-B21
42U Side Panel – Graphite Metallic	246099-B21
110V Fan Kit (Graphite)	257413-B21
NOTE: Roof Mount Includes power cord with IEC320-C13 to Nema 5-15P.	
220V Fan Kit (Graphite)	257414-B21
NOTE: Roof Mount Includes power cord with IEC320-C13 to Nema 6-15P.	
36U Side Panel – Graphite Metallic	246102-B21
47U Side Panel – Graphite Metallic	255486-B21

Options

9000/10000 Series Offset Baying Kit (42U)	248931-B21		
NOTE: This kit can be used to connect 9000 and 10000 series racks of the same U height together. Kit contents include hardware for connecting racks and a panel to cover the 100mm gap at the rear of the two racks.			
NOTE: For additional information regarding Rack Options, please see the following URL: http://h18000.www1.hp.com/products/servers/proliantstorage/rack-options/index.html .			
Ballast Option Kit	120672-B21		
9000/10000 Series Offset Baying Kit (42U)	248931-B21		
NOTE: This kit can be used to connect 9000 and 10000 series racks of the same U height together. Kit contents include hardware for connecting racks and a panel to cover the 100mm gap at the rear of the two racks.			
NOTE: For additional information regarding Rack Cabinets, please see the following URL: http://h18000.www1.hp.com/products/servers/proliantstorage/rack-options/index.html			
Rack Rail Adapter Kit (25" depth)	120675-B21		
100 kg Sliding Shelf	234672-B21		
Monitor/Utility Shelf - Graphite	253449-B21		
Depth Adjustable Fixed Rail	332558-B21		
Cable Management D-Rings Kit	168233-B21		
KVM USB Interface Adapter	336047-B21		
Server Console Switch 1 x 4 port (100-230 VAC)	400336-001		
Server Console Switch, 0 x 1 x 8 port	336044-B21		
Server Console Switch, 0 x 2 x 16 port	336045-B21		
Server Console Switch 1 x 4 port (100-230 VAC) (Int'l)	400336-B31		
Server Console Switch 1 x 4 port (100-230 VAC) (Japan)	400336-291		
IP Console Switch Box, 1 x 1 x 16	262585-B21		
IP Console Switch Box, 3 x 1 x 16	262586-B21		
IP Console Interface Adapter, 8 pack	262587-B21		
IP Console Interface Adapter, 1 pack	262588-B21		
IP Console Expansion Module	262589-B21		
CPU to Server Console Cable, 12'	110936-B21		
CPU to Server Console Cable, 3'	110936-B24		
CPU to Server Console Cable, 7'	110936-B25		
IP CAT5 Cable 3', 4 pack	263474-B21		
IP CAT5 Cable 6', 8 pack	263474-B22		
IP CAT5 Cable 12', 8 pack	263474-B23		
IP CAT5 Cable 20', 4 pack	263474-B24		
IP CAT5 Cable 40', 1 pack	263474-B25		
Switch Box Connector Kit (high voltage) (Int'l)	144007-B33		
TFT5600 Rack Keyboard Monitor	221546-xx1		
Country Code Key (for TFT5600 RKM Rack Keyboard Monitor (PN 221546-xx1))			
XX = 001	US	XX = 091	Norway
XX = 031	UK	XX = 101	Sweden/Finland
XX = 041	Germany	XX = 111	Switzerland
XX = 051	France	XX = 131	Portugal
XX = 061	Italy	XX = 181	Belgium
XX = 071	Spain	XX = 291	Japan
XX = 081	Denmark	XX = B31	International
Local Access Cable Kit	232985-B21		
1U Rack Keyboard & Drawer (Carbon)	257054-xx1		
NOTE: The 1U Rack Keyboard & Drawer (PN 257054-xx1) is to be used with the Keyboards for Racks			

Options

with Trackball (PN 158649-xxx).

Country Code Key (for 1U Rack Keyboard & Drawer (PN 257054-xx1))

XX = 001	US	XX = 091	Norway
XX = 031	UK	XX = 101	Sweden/Finland
XX = 041	Germany	XX = 111	Switzerland
XX = 051	France	XX = 131	Portugal
XX = 061	Italy	XX = 181	Belgium
XX = 071	Spain	XX = 291	Japan
XX = 081	Denmark	XX = B31	International

Input Device Adjustable Rails 287139-B21

NOTE: Input Device Adjustable Rails (287139-B21) are for use with the TFT5110R, TFT5600RKM and integrated keyboard/drawer which is used in mounting into third party racks.

Input Device Telco Rail 287138-B21

NOTE: Input Device Adjustable Rails (287138-B21) are for use ONLY with the TFT5110R, TFT5600RKM and integrated keyboard/drawer which is used in mounting into third party racks.

Keyboard/Monitor/Mouse extension cables 169989-001

NOTE: For additional information regarding Rack Options, please see the following URL:
<http://h18000.www1.hp.com/products/servers/proliantstorage/rack-options/index.html>.

Options

HP Factory Express

Factory Installation, Racking, and Customization Services

Factory Express Server Configuration Level 1 293355-888

NOTE: Free Installation of HP Options - Installation of HP Options memory, NICs, hard drives, controllers, processors, I/O cards, pre-install standard OEM OS image, and tape drives. Installation fees will apply to all non-HP certified hardware and asset tags.

Factory Express Server Configuration Level 2 266326-888

NOTE: Includes Level 1 Customer Intent of a ProLiant server and options configuration, OS installation, custom image download, IP addressing, network setting, and custom packaging. Customer unique requirements (quick restore creation, cd duplication, test reports, real-time reporting of server MAC address, password, and RILOE). Customer access, validation and control through VPN (price/server).

Factory Express Rack Integration Level 3 with 1 - 3 servers or storage enclosures 325736-888

Factory Express Rack Integration Level 3 with 4 - 9 servers or storage enclosures 232539-888

Factory Express Rack Integration Level 3 with 10 or more servers or storage enclosures 325735-888

NOTE: Includes Level 1 Customer Intent for standard mounted servers and storage units plus standard cable mgmt, RAID configuration, servers & storage, power distribution, networking gear and accessories (price/rack).

NOTE: Available on ProLiant rack models only.

Factory Express Rack Integration Level 4 with 1 - 3 servers or storage enclosures 325734-888

Factory Express Rack Integration Level 4 with 4 - 9 servers or storage enclosures 232540-888

Factory Express Rack Integration Level 4 with 10 or more servers or storage enclosures 325733-888

NOTE: Includes Level 2 Customer Intent plus customer defined cable management and naming convention, customer furnished image download, IP addressing, cluster configurations (SQL, External storage RAID). Quick restore creation, cd duplication, test reports, real-time reporting of server MAC address, password, RILOE). Customer access and validation through VPN (price/rack).

NOTE: Available on ProLiant rack models only.

Factory Express Rack Integration Level 5 with 1 - 3 servers or storage enclosures 325732-888

Factory Express Rack Integration Level 5 with 4 - 9 servers or storage enclosures 232541-888

Factory Express Rack Integration Level 5 with 10 or more servers or storage enclosures 325731-888

NOTE: Includes Level 4 Customer Intent plus Custom SW layering and extended test, Customer access, validation and control through VPN, Clustered racks with networking gear and / or external storage array, Start-up installation services custom quote. (price/rack).

NOTE: Available on ProLiant rack models only.

NOTE: Factory Express Engineered Solution Level 6 is a custom solutions available through Factory Express. Please contact your local reseller or Account Manager.

Service and Support Offerings (HP Care Pack Services)

Hardware Services On-site Service

Next Business Day On-site Service, 5-Day x 9-Hour Coverage, 3 Years (Canadian Part Number) FP-ELXEC-36

Next Business Day On-site Service, 5-Day x 9-Hour Coverage, 3 Years (U.S. Part Number) 102407-002

Next Business Day On-site Service, 5-Day x 9-Hour Coverage, 3 Years (AP/EMEA Part Numbers) U4479A
U4479E

4-Hour On-site Service, 5-Day x 13-Hour Coverage, 3 Years (Canadian Part Number) FP-EL3EC-36

4-Hour On-site Service, 5-Day x 13-Hour, 3 Years (U.S. Part Number) 331045-002

4-Hour On-site Service, 5-Day x 13-Hour Coverage, 3 Years (AP/EMEA Part Numbers) U4480A
U4480E

4-Hour On-site Service, 7-Day x 24-Hour Coverage, 3 Years (Canadian Part Number) FP-EL7EC-36

4-Hour On-site Service, 7-Day x 24-Hour Coverage, 3 Years (U.S. Part Number) 162675-002

4-Hour On-site Service, 7-Day x 24-Hour Coverage, 3 Years (AP/EMEA Part Numbers) U4481A
U4481E

6-Hour Call to Repair, On-site Service, 7-Day x 24-Hour Coverage, 3 Years (Canadian Part Number) FP-ELCEC-36

6-Hour Call to Repair, On-site Service 7-Day x 24-Hour Coverage, 3 Years (U.S. Part Number) 331046-002

6-Hour Call to Repair, On-site Service, 7-Day x 24-Hour Coverage, 3 Years (AP/EMEA Part Numbers) U4482A
U4482E

Options

Installation & Start-up Services

Hardware Installation (Canadian Part Number)	FP-ELINS-EC
Hardware Installation (U.S. Part Number)	401791-002
Hardware Installation (AP/EMEA Part Numbers)	U4490A U4490E
Installation & Start-Up of a ProLiant server and Microsoft O/S per the Customer Description and/or Data Sheet. To be delivered on a scheduled basis 8am-5pm, M-F, excl. HP holidays. (U.S. Part Number)	240013-002
Installation & Start-Up of a ProLiant server and Microsoft O/S per the Customer Description and/or Data Sheet. To be delivered on a scheduled basis 8am-5pm, M-F, excl. HP holidays. (Canadian Part Number)	FM-MSTEC-01
Installation & Start-Up of a ProLiant server and Microsoft or Linux O/S per the Customer Description and/or Data Sheet. To be delivered on a scheduled basis 8am-5pm, M-F, excl. HP holidays. (AP/EMEA Part Numbers)	U4491A U4491E
Installation & Start-Up of a ProLiant server and Linux O/S per the Customer Description and/or Data Sheet. To be delivered on a scheduled basis 8am-5pm, M-F, excl. HP holidays. (U.S. Part Number)	331051-002
Installation & Start-Up of a ProLiant server and Linux O/S per the Customer Description and/or Data Sheet. To be delivered on a scheduled basis 8am-5pm, M-F, excl. HP holidays. (Canadian Part Number)	FM-LSTEC-01

Support Plus

Onsite HW support, 8am-9pm, M-F, 4hr response and Microsoft O/S SW Tech support offsite, onsite at HP's discretion, 8am-9pm, M-F 2hr response time excl. HP holidays. (U.S. Part Number)	239928-002
Onsite HW support, 8am-9pm, M-F, 4hr response and Microsoft O/S SW Tech support offsite, onsite at HP's discretion, 8am-9pm, M-F 2hr response time excl. HP holidays. (Canadian Part Number)	FM-M01E1-36
Onsite HW support, 8am-9pm, M-F, 4hr response and Microsoft O/S SW Tech support offsite, onsite at HP's discretion, 8am-9pm, M-F 2hr response time excl. HP holidays. (AP/EMEA Part Numbers)	U4492A U4492E
Onsite HW support, 8am-9pm, M-F, 4hr response and Linux O/S SW Tech support offsite, onsite at HP's discretion, 8am-9pm, M-F 2hr response time excl. HP holidays. (U.S. Part Number)	331049-002
Onsite HW support, 8am-9pm, M-F, 4hr response and Linux O/S SW Tech support offsite, onsite at HP's discretion, 8am-9pm, M-F 2hr response time excl. HP holidays. (Canadian Part Number)	FM-L01E1-36
Onsite HW support, 8am-9pm, M-F, 4hr response and Linux O/S SW Tech support offsite, onsite at HP's discretion, 8am-9pm, M-F 2hr response time excl. HP holidays. (AP/EMEA Part Numbers)	U4494A U4494E

Support Plus 24

Onsite HW support 24x7, 4hr response and Microsoft O/S SW Tech support offsite, onsite at HP's discretion, 24x7 2hr response time incl. HP holidays. (U.S. Part Number)	239930-002
Onsite HW support 24x7, 4hr response and Microsoft O/S SW Tech support offsite, onsite at HP's discretion, 24x7 2hr response time incl. HP holidays. (Canadian Part Number)	FM-M02E1-36
Onsite HW support 24x7, 4hr response and Microsoft O/S SW Tech support offsite, onsite at HP's discretion, 24x7 2hr response time incl. HP holidays. (AP/EMEA Part Numbers)	U4493A U4493E
Onsite HW support 24x7, 4hr response and Linux O/S SW Tech support offsite, onsite at HP's discretion, 24x7 2hr response time incl. HP holidays. (U.S. Part Number)	331050-002
Onsite HW support 24x7, 4hr response and Linux O/S SW Tech support offsite, onsite at HP's discretion, 24x7 2hr response time incl. HP holidays. (Canadian Part Number)	FM-L02E1-36
Onsite HW support 24x7, 4hr response and Linux O/S SW Tech support offsite, onsite at HP's discretion, 24x7 2hr response time incl. HP holidays. (AP/EMEA Part Numbers)	U4495A U4495E

HP Care Pack Priority Services for ProLiant Servers - Priority Silver

24 x 7 HW, 4-hr response, Named HW engineer; 24 x 7 Silver Software Support, 1-hr response, Monday - Friday, 8AM - 5PM local time, 2-hr response after hours for Windows NT, Windows 2000, Professional, Server or Advanced Server Operating System, Technical Account Manager, Technical Newsletter, SW activity review, proactive patch notification, 1 System Healthcheck per year (2-5-2 Part Number for Canada)	FM-M04E1-36
24 x 7 HW, 4-hr response, Named HW engineer; 24 x 7 Silver Subsequent System Support for Windows NT, Windows 2000, Professional, Server or Advanced Server Operating System (2-5-2 Part Number for Canada)	FM-M24E1-36

Options

24 x 7 HW, 4-hr response, Named HW engineer; 24 x 7 Silver Software Support, 1-hr response, Monday - Friday, 8AM - 5PM local time, 2-hr response after hours for Novell NetWare Operating System, Technical Account Manager, Technical Newsletter, SW activity review (2-5-2 Part Number for Canada)	FM-N04E1-36
24 x 7 HW, 4-hr response, Named HW engineer; 24 x 7 Silver Subsequent System Support for Novell NetWare Operating System (2-5-2 Part Number for Canada)	FM-N24E1-36
24 x 7 HW, 4-hr response, Named HW engineer; 24 x 7 Silver Software Support, 1-hr response, Monday - Friday, 8AM - 5PM local time, 2-hr response after hours for Windows NT, Windows 2000, Professional, Server or Advanced Server Operating System, Technical Account Manager, Technical Newsletter, SW activity review, proactive patch notification, 1 System Healthcheck per year (6-3 Part Number for U.S.)	239932-002
24 x 7 HW, 4-hr response, Named HW engineer; 24 x 7 Silver Subsequent System Support for Windows NT, Windows 2000, Professional, Server or Advanced Server Operating System (6-3 Part Number for U.S.)	239934-002
24 x 7 HW, 4-hr response, Named HW engineer; 24 x 7 Silver Software Support, 1-hr response, Monday - Friday, 8AM - 5PM local time, 2-hr response after hours for Novell NetWare Operating System, Technical Account Manager, Technical Newsletter, SW activity review (6-3 Part Number for U.S.)	239972-002
24 x 7 HW, 4-hr response, Named HW engineer; 24 x 7 Silver Subsequent System Support for Novell NetWare Operating System (6-3 Part Number for U.S.)	239974-002

NOTE: For more information, customer/resellers can contact <http://www.hp.com/hps/>

Memory

HP ProLiant DL320 G2 All Models

Standard Memory
128-MB PC2100 Registered ECC DDR SDRAM DIMM Memory installed (1 x 128-MB SDRAM DIMM)

Standard Memory Plus Optional Memory
Up to 3200-MB memory is available with the optional installation of PC2100 Registered ECC DDR SDRAM DIMM Memory kits.

Standard Memory Replaced with Optional Memory
Up to 4096-MB of memory is available with the removal of the standard 128-MB of memory and the optional installation of PC2100 Registered ECC DDR SDRAM DIMM Memory kits.

NOTE: Chart does not represent all possible configurations.

Memory		Slot			
		1	2	3	4
Standard	128 MB	Empty	Empty	Empty	128 MB
Optional	3,200 MB	1024 MB	1024 MB	1024 MB	128 MB
Maximum	4,096 MB	1024 MB	1024 MB	1024 MB	1024 MB

Following are memory options available from HP:

- 1024-MB PC2100 Registered ECC DDR SDRAM DIMM Memory Option Kit
 - 512-MB PC2100 Registered ECC DDR SDRAM DIMM Memory Option Kit
 - 256-MB PC2100 Registered ECC DDR SDRAM DIMM Memory Option Kit
 - 128-MB PC2100 Registered ECC DDR SDRAM DIMM Memory Option Kit
- 287497-B21

287496-B21

287495-B21

287494-B21

Storage



- 0 - 1 Two 3.5" x 1" ATA non-hot plug drive bays
- A Removable CD-ROM/Diskette Drive Assembly

Drive Support

	Quantity Supported	Position Supported	Controller
Removable Media			
1.44-MB Diskette Drive	Up to 1	A	Integrated
Low-profile IDE (ATAPI) CD-ROM Drive	Up to 1	A	Integrated IDE (ATAPI)
Low-profile IDE DVD-ROM Drive	Up to 1	A	Integrated IDE
Hard Drives			
<i>Wide Ultra3 SCSI Non-Hot Plug Drives</i>			
	Quantity Supported	Position Supported	Controller
1-inch	Up to 2	0-1	
36.4-GB 10,000 rpm			Integrated Single Channel Wide Ultra2 Controller Module (SCSI Models)
18.2-GB 10,000 rpm			Smart Array 532 Controller
			Smart Array 5304/128 Controller
			Smart Array 5304/256 Controller
			64-bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
<i>ATA/100 Non-Hot Plug Drives</i>			
	Quantity Supported	Position Supported	Controller
1-inch	Up to 2	0-1	
80-GB 7,200 rpm			Integrated Ultra ATA/100 Controller Module (ATA Models)
40-GB 7,200 rpm			

Storage

External Storage

	Quantity Supported	Position Supported	Host Controller or Adapter
Modular Smart Array 30 Family Up to 13		External	Smart Array 5304/256 Controller Smart Array 6402/128 Controller Smart Array 6404/256 Controller Smart Array 642 Controller 64-Bit/133-MHz Dual Channel Ultra320 SCSI Adapter 64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
Modular Smart Array 500 System	1	External	Smart Array 532 Controller (used as Host Bus Adapter) Please see the Modular Smart Array 500 QuickSpecs for the latest list of supported HBAs: http://www.hp.com/go/msa500
Modular Smart Array 1000	Please see the Modular Smart Array 1000 QuickSpecs below to determine configuration requirements	External	Please see the Modular Smart Array 1000 QuickSpecs (URL below) for the latest list of supported HBAs
Modular Smart Array 1000: http://h18000.www1.hp.com/products/quickspecs/11033_div/11033_div.HTML (Worldwide) http://h18000.www1.hp.com/products/quickspecs/11033_na/11033_na.HTML (North America)			

Maximum Storage Capacity – (StorageWorks Enclosure 4300 with ATA models)

Internal	80 GB (2 x 40 GB 1" ATA/100)
External	509.6 GB (1 x (14 x 36.4-GB 1" Wide Ultra3 Drives))
Total	589.6 GB

Storage

Tape Drives, Tape Autoloaders & Tape Libraries

NOTE: For an up-to-date listing of the latest O/S Support details for each of the Tape Drives listed below, please see the following:

http://www5.compaq.com/products/quickspecs/North_America/10233.html (North America)

<http://www5.compaq.com/products/quickspecs/Division/10233.html> (Worldwide)

NOTE: For an up-to-date listing of the latest O/S Support details for each of the Tape Autoloaders & Tape Libraries listed below, please see the following:

http://www5.compaq.com/products/quickspecs/North_America/10809.html (North America)

<http://www5.compaq.com/products/quickspecs/Division/10809.html> (Worldwide)

	Quantity Supported	Position Supported	Controller
Ultrium 215, External	Up to 2	External	64-Bit/133Mhz Dual Channel Ultra320 SCSI Adapter
Ultrium 230, External			64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
Ultrium 460, External			
HP StorageWorks DAT 72 Tape Drive, External	Up to 3	External	64-Bit/133Mhz Dual Channel Ultra320 SCSI Adapter
HP StorageWorks DAT 40 Tape Drive, External			64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
HP StorageWorks DAT 24 Tape Drive, External			
HP StorageWorks DLT VS80 Tape Drive, External	Up to 3	External	64-Bit/133Mhz Dual Channel Ultra320 SCSI Adapter
			64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
HP StorageWorks SDLT 320 Tape Drive, External	Up to 2	External	64-Bit/133Mhz Dual Channel Ultra320 SCSI Adapter
			64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
HP StorageWorks DAT 40x6 Tape Autoloader, External	1 autoloader per SCSI channel	External	64-Bit/133Mhz Dual Channel Ultra320 SCSI Adapter
1/8 Ultrium 460 Tape Autoloader			64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
1/8 SDLT 320 Tape Autoloader			
1/8 Ultrium 230 Tape Autoloader			
1/8 DLT VS80 Tape Autoloader			
SSL1016 Ultrium 460 Tape Autoloader			
SSL1016 SDLT320 Tape Autoloader			
SSL1016 DLT1 Tape Autoloader			
MSL6000 (Ultrium 460 -based) Tape Library	Please reference the MSL Tape Library QuickSpecs to determine configuration requirements	External	64-Bit/133Mhz Dual Channel Ultra320 SCSI Adapter
MSL5026S2 (SDLT 320-based) Tape Library			64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
MSL5052S2 (SDLT 320-based) Tape Library			
MSL5030 (Ultrium 230 -based) Tape Library			
MSL5060 (Ultrium 230 -based) Tape Library			
ESL Extended 712e	Please reference the ESL E-Series and	External	64-Bit/133Mhz Dual Channel Ultra320 SCSI Adapter
ESL Extended 630e	ESL9000 Series Tape Libraries QuickSpecs to determine configuration requirements		64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
ESL9322 ETLA			
ESL9595 ETLA			

TechSpecs

System Unit	Dimensions (HxWxD)	1.67 x 19.0 x 21.9 in (4.24 x 48.3 x 55.6 cm)	
	Weight	24.58 lb (11.15 kg)	
	Fully configured with two hard drives, four DIMM modules, and a PCI expansion board		
	Input Requirements (per power supply)	Range Line Voltage	100 to 240 VAC
		Nominal Line Voltage	100 to 120 VAC/220 to 240 VAC
		Rated Input Current	3 A (100 to 120 VAC) to 1.5 A (200 to 240 VAC)
		Rated Input Frequency	50 to 60 Hz
	BTU Rating	870 BTUs/hr	
		NOTE: The BTU Rating listed is for the Rated Input Power of 255W.	
	Power Supply Output Power (per power supply)	Steady State Power	180 W (rated)
			NOTE: The maximum expected steady state.
		Maximum Peak Power	200 W (2 minutes)
	Environmental Operating Operating	Ambient Temperature	50° to 95° F (10° to 35° C)
		Temperature Derating	1.8° F per 984.25 ft to 9,842.5 ft (1° C per 300 m to 3000 m)
		Relative Humidity	10% to 90% (non-condensing)
		Maximum wet bulb temperature	82° F (28° C)
	Non-operating Storage	Temperature	-4° to 140° F (-20 to 60° C)
		Relative Humidity	10% to 95%
		Maximum wet bulb temperature	84° F (29° C)
	Non-operating Shipping	Temperature	-40° to 140° F (-40 to 60° C)
		Relative Humidity	10% to 90%
		Maximum wet bulb temperature	86° F (30° C)
	Acoustic Noise	Idle (Fixed Disk Drives Spinning)	
		L WAd (BELS)	6.1
		L pAm (dBA)	541
		Operating (Random Seeks to Fixed Disks)	
		L WAd (BELS)	6.2
		L pAm (dBA)	52

TechSpecs

1.44-MB Diskette Drive	Size	3.5 in (8.89 cm)	
	LED Indicators (front panel)	Green	
	Read/Write Capacity per Diskette (high/mid/low density)	1.44 MB/1.2 MB/720 KB formatted	
	Drive Supported	One	
	Drive Height	0.50 in/1.27 cm	
	Drive Rotation	300-360/300 rpm	
	Transfer Rate Synchronous (Maximum) (high/mid/low)	500/500/250 K b/s	
	Bytes/Sector	512	
	Sectors/Track (high/low)	18/9	
	Tracks/Side (high/low)	80/80	
	Access Times	Track-to-Track (high/mid/low)	3/3/6 ms
		Average (high/mid/low)	174/94/94 ms
		Settling Time	15 ms
		Latency Average	83/100 ms
	Cylinders (high/low)	80/80	
	Read/Write Heads	Two	

Non-Hot Plug ATA/100 Hard Drives	80 GB 7.2K 278424-B21	Capacity	80054 MB	
		Height	1.0 in (2.54 cm)	
		Width	4.0 in (10.16 cm)	
		Interface	ATA 100	
		Transfer Rate Synchronous (Maximum)	100 MB/s	
		Seek Time (typical reads, including settling)	Single Track	0.8 ms
			Average	8.5 ms
			Full-Stroke	17.8 ms
			Rotational Speed	7,200 rpm
		Physical Configuration	Bytes/Sector	512
			Logical Blocks	156,355,584
		Operating Temperature	41° to 131° F (5° to 55° C)	

TechSpecs

Power Supply

Input voltage specifications Input Specifications Relative humidity (non-condensing) Dielectric voltage withstand Maximum Wet Bulb Temperature	Rated input voltage	100 VAC to 240 VAC
	Rated input line	180 VAC to 264VAC (90 VAC to 132 VAC)
	Frequency range	47 to 63 Hz
	Rated input power	298 W
	Rated input current	3.3 A, 1.7 A (110 V, 220 V)
	Steady state power	180W
	Maximum peak power	200W for 2 minutes
	Ambient temperature range	20 ms from zero crossing at 120 VAC
	Operating	41° to 122° F (5° to 50° C)
	Non-operating	-40° to 185° F (-40° to 85° C)
	Operating	5% to 95%
	Non-operating	5% to 95%
	Input to output	3,000 VAC/minute
	Input to ground	1500 VAC/minute
	80/80	82° F (28° C)

TechSpecs

Low-Profile 24X Max IDE (ATAPI) CD-ROM Drive	Disk	Applicable Disk	CD-DA, CD-ROM (Mode 1 and 2) CD-XA, CD-I (Mode 2, Form 1 and 2) CD-I Ready, CD Extra, Video CD, CD-Bridge Photo CD (Single and Multi-session) CD-WO
		Capacity	550 MB (Mode 1, 12 cm) 640 MB (Mode 2, 12 cm)
		Diameter	4.7 in, 3.15 in/12 cm, 8 cm
		Rotational Speed	4200 rpm maximum
		Center Hole	0.6 in/15 mm diameter
		Thickness	1.2 mm
		Track Pitch	1.6 μ m
Block Size		Mode 0	2,368, 2,352 bytes
		Mode 1	2,352, 2,340, 2,336, 2,048 bytes
		Mode 2	2,352, 2,340, 2,336, 2,048 bytes
Interface		IDE (ATAPI)	
Access Times (typical)		Random	<150 ms
		Full-Stroke	<350 ms
Data Transfer Rate		Sustained	150 KB/s (sustained 1X)
		Burst	2100 to 4800 KB/s
Cache Buffer		128 KB	
Start-up Time (typical)		< 10 seconds	
Stop Time		< 5 seconds	
Operating Conditions		Temperature	41° to 118° F (5° to 45° C)
		Humidity	10% to 80%
Dimensions		(HxWxD, maximum)	0.5 x 5.12 x 5.16 in (1.27 x 13 x 13.1 cm)
		Weight	<11.98 oz (<340 g)

TechSpecs

Two NC7760 PCI Gigabit Server Adapters (embedded)	Network Interface		10Base-T/ 100Base-TX/ 1000Base-TX
	Compatibility		IEEE 802.3 10Base-T IEEE 802.3ab 1000Base-T IEEE 80.3u 100Base-TX
	Data Transfer Method		32-bit bus-master PCI
	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	1000Mb/s
	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 UTP; up to 328 ft (100 m)
Video Controller	Controller Chip		ATI RAGE XL
	Video DRAM		8 MB Video SDRAM
	Data Transfer Method		32-bit PCI
	Support Resolution	Supported Color Depths:	
		640 x 480	16.7M, 64K, 256, 16
		800 x 600	16.7M, 64K, 256, 16
		1024 x 768	16.7M, 64K, 256, 16
		1152 x 864	16.7M, 64K, 256, 16
		1280 x 1024	16.7M, 64K, 256, 16
		1600 x 1200	64K, 256, 16
	Connector		VGA

TechSpecs

Integrated Dual Channel Ultra ATA/100 Controller Module	Temperature Range	Operating	32° to 158° F (0° to 70° C)
		Shipping	-40° to 257° F (-40° to 125° C)
	Relative humidity (non-condensing)	Operating	10% to 90%
		Non-operating	5% to 95%
	Simultaneous drive transfer channels	2 channels	
	Transfer rate synchronous (maximum)	100 B/s	
	Data transfer method	32-bit PCI bus-master	
	Drive support	Ultra ATA, EIDE & Fast ATA-2	
	PCI bus transfer rate (maximum)	133 MB/s	
	Data transfer modes	UDMA Mode[0-5]	
		PIO Mode[0-4]	
	Protocol	ATA100 compatible	
	Feature	CRC (Cyclical Redundancy Check)	
	Buffer size	128 Byte	

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