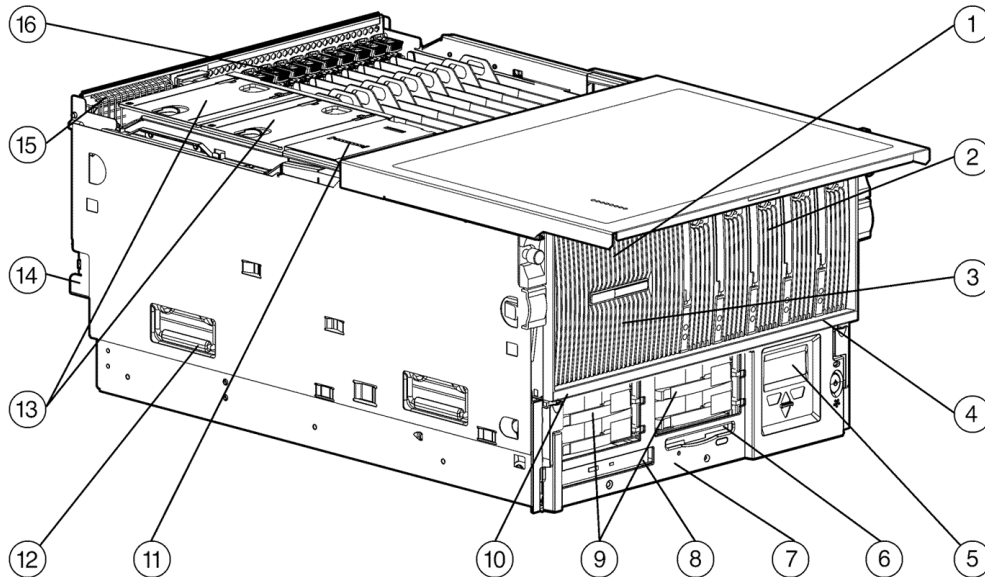


Overview



- | | |
|--|---|
| <ol style="list-style-type: none"> 1. Processor/Memory Module 2. Hot Plug RAID Memory Cartridge 3. Four or Eight Intel Xeon Processors MP with fault tolerant processor power modules 4. DIMM Status LED 5. Integrated Management Display 6. Integrated 1.44-MB Diskette Drive 7. Media Module 8. Integrated 24X IDE CD-ROM Drive, Low Profile | <ol style="list-style-type: none"> 9. Four 1" Ultra320 SCSI Hot Plug Drive Bays (running U3 speeds) 10. Attention LED Indicators 11. System Interconnect Status Indicator 12. Integrated Lift Handles 13. Redundant Hot Plug Fans 14. Two Redundant Hot Plug Power Supplies 15. I/O Modules 16. Eleven 64-bit PCI-X and PCI I/O expansion slots, all Hot Plug (10 x 100 MHz PCI-X and 1 x 33 MHz PCI) |
|--|---|

What's New

- Intel® Xeon Processor MP 2.8 GHz/21MB, MP 2.5 GHz/1MB or 2.0GHz/1MB Processors (eight processor capability)

At a Glance

- Intel Xeon Processor MP 2.8 GHz/2MB, 2.5GHz/1MB, or 2.0GHz/1MB Processors (eight processor capability)
- Hot Plug RAID Memory using XOR & ECC-protected memory and user-friendly diagnostics
- The ultimate high-density data center server delivering breakthrough 8-way scalable performance for 7 x 24 multi-server rack environments
- ProLiant 8500 & DL760 to DL760G2 upgrade option
- Tool less chassis for enhanced serviceability
- 133 MHz SDRAM DIMM memory that is expandable to 64 GB addressable memory (+16GB for full redundancy)
- Integrated Smart Array 5i Controller (Ultra3 support) (supports RAID 0, 1, 1+0, and 5 across internal hard disk drives) (One Internal Channel for RAID Capability for internal drives and one External Channel for tape support only)
- (10) 64b/100MHz capable PCI-X slots & (1) 64-bit/33-MHz PCI slot
- Full RILOE II support
- Integrated NC7770 PCI-X Gigabit Server Adapter
- Internal Hot Plug Drive Storage of 587.2 GB (4 x 1" 146.8-GB Ultra 320 hard drives running U3)
- Robust set of hot plug and redundant features including Hot Plug RAID Memory, PCI/PCI-X Hot Plug, hot plug drive bays, redundant hot plug fans and power supplies and support for redundant NICs, ASR-2, Remote-Flash Redundant ROM
- Protected by HP Services, including a three-year, Next Business Day on-site, limited, Global warranty and extended Pre-Failure Warranty that covers processors, memory and disk drives - Certain restrictions and exclusions apply. Consult the HP Customer Support Center at 1-800-345-1518 for details.

Standard Features

Processor	(4) Intel Xeon Processor MP 2.8 GHz\2MB
<i>One of the following depending on Model</i>	(4) Intel Xeon Processor MP 2.5 GHz\1MB
	(4) Intel Xeon Processor MP 2.0 GHz\1MB
	(4) Intel Xeon Processor MP 2.0 GHz \2MB
	(4) Intel Xeon Processor MP 1.5 GHz\1MB

Cache Memory	2-MB integrated level 3 cache (per processor)
<i>One of the following depending on Model</i>	(NOTE: Available with 2.0 MHz.)
	1-MB integrated level 3 cache (per processor)
	(NOTE: Available with 1.5 MHz.)

Upgradability	Upgradable to eight processors
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Chipset	HP developed F8 chipset
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Memory <i>One of the following depending on Model</i>	Standard	4096 MB addressable protected 133MHz ECC SDRAM DIMMs (2.0MHz Models)
	Maximum	64 GB (80 GB total)
	Standard	2048MB addressable protected 133MHz ECC SDRAM DIMMs (1.5 MHz Models)
	Maximum	64 GB (80 GB total)

NOTE: All models come standard with all five memory cartridges populated and Hot Plug RAID Memory enabled.
NOTE: In standard Hot Plug RAID Memory mode, addressable memory refers to the portion of memory that is addressable by the OS. Total memory consists of addressable memory plus the redundant memory (stored in the dedicated parity memory cartridge.)

Network Controller	Integrated NC7770 PCI-X Gigabit Server Adapter in a slot
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Expansion Slots	I/O	PCI Voltage:	
	(11 Total – 64-bit PCI-X and PCI, all Hot Pluggable)		
	PCI-X 100-MHz (Hot Plug)	10	3.3 Volt (keyed for 3.3 Volt or universal PCI-X/PCI cards)
	PCI 33MHz (Hot Plug)	1	5 Volt (keyed for 5V)

NOTE: For more information regarding PCI-X, please see the following URL:
<http://h18000.www1.hp.com/products/servers/technology/pci-x-enablement.html>.

Storage Controllers	Smart Array 5i Controller (integrated on system board) supports (Ultra3) (supports RAID 0, 1, 1+0, and 5 across internal hard disk drives)
	Optional support for Ultra3 or Ultra 320 storage controllers in an I/O slot to internal drives via array bypass cable

Standard Features

Storage	Diskette Drives	Integrated 1.44 MB Floppy Drive
	CD-ROM	Integrated 24x IDE CD-ROM drive Low-Profile
	Hard Drives	None
	Maximum Internal Storage	587.2 GB (4 x 146.8 GB Ultra320 1" Drives) (internal hot plug cage only) Ultra320 drives run U3.

Interfaces	Serial	1
	Pointing Device (Mouse)	1
	Graphics	1
	Keyboard	1
	Network RJ-45	1

Graphics	Integrated ATI RAGE XL Video Controller with 8-MB SDRAM Video Memory
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Form Factor	7U Rack Form Factor; Ships with sliding rack rails and cable management arm; Standard 19" rack-mountable
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Upgrade Kit The ProLiant 8500/DL760 Supported Upgrade Option Kit (PN 190756-B21) is supported in any ProLiant 8500 and ProLiant DL760 (700/900MHz).

NOTE: This upgrade kit (190756-B21) enables customers to upgrade from a ProLiant 8500 or a ProLiant DL760 to ProLiant DL760 G2 technology.

NOTE: The upgrade kit includes the following:

- ProLiant DL760 G2 Processor & Memory module with...
 - 4 x Intel Xeon Processor MP 2.0GHz/2MB
 - 4096 MB addressable protected 133MHz ECC SDRAM DIMMs (All five memory cartridges are populated and Hot Plug RAID Memory is enabled.)
- ProLiant DL760 G2 I/O Module with...
 - Integrated NC7770 PCI-X Gigabit Server Adapter in a slot
 - Smart Array 5i Controller (embedded)
 - ProLiant DL760 G2 I/O lid with label
- ProLiant DL760 G2 system midplane
- ProLiant DL760 G2 front hood label
- Two ProLiant DL760 G2 service number labels
- Two IEC to IEC 220V power cables
- HP ProLiant Essentials Foundation Pack
- HP ProLiant DL760 G2 Server Documentation CD

LIMITED WARRANTY AND TECHNICAL SUPPORT INFORMATION NOTE: Certain restrictions and exclusions may apply. The terms of the warranty may vary by geographic region. The ProLiant DL760 G2 server upgrade kit is an option and carries a warranty that covers replacement of defective parts, labor costs, and next-business-day onsite repair charges for the first year of ownership or the remainder of the warranty on the server it is upgrading, whichever is longer.

Standard Features

ProLiant Essentials Foundation Pack Software

Insight Manager 7 and HP Systems Insight Manger

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 5.00.

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>.

ActiveUpdate

Active Update is a web-based application that keeps IT managers directly connected to HP for proactive notification and delivery of the latest software updates.

ROMPaq, support software, and configuration utilities

The latest software, drivers, and firmware fully optimized and tested for your ProLiant server and options.

Survey Utility and diagnostics utilities

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

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>

Industry Standard Compliance

ACPI 1.0b Compliant
PCI-X and PCI 2.2 Compliant
PAE Support
Microsoft® Logo certifications

Standard Features

Intelligent Manageability	Insight Manager 7 HP Systems Insight Manager Remote Insight Lights-Out Edition II (optional) ROM-Based Setup Utility (RBSU) Integrated Management Display (IMD) Server Health logging Automatic Server Recovery-2 (ASR-2) System Interconnect Status Indicators Remote-Flash Redundant ROM Hot Spare Boot (NOTE: Upon the event of a failed processor or VRM in a multi-processing environment, the system will automatically reboot and use the remaining good processor(s).) Power Down Utility Power Supply Viewer Pre-Failure Warranty (covers processors, as well as hard drives and memory)
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Availability	Hot Plug RAID Memory using Industry Standard ECC Memory PCI-X/PCI Hot Plug with push button functionality Redundant Hot Plug Fans Smart Array 5300 Controller (optional) Dynamic sector repairing and drive parameter tracking (with Smart Array controllers) Fault Tolerant Processor Power Modules Redundant/adaptive load balancing NIC Support Redundant Hot Plug Power Supplies
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Security	Power-on password Diskette drive control Diskette boot control Network server mode Security provision Parallel and serial interface control Administrator's password Disk configuration lock Hot plug access security
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Server Power Cords	Two Highline IEC to IEC power cords (PDU adapters) ships standard
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Power Supply	Two Redundant Hot Plug 1150/500-Watt power supplies per system. Power supplies are load sharing and provide 1150 Watts of Redundant power for 220 volt input or 500 Watts of Redundant power for 110 volt input. NOTE: To ensure redundancy of server power, HP requires that 200-240 VAC power be used for all deployments. This will ensure that both power supplies can support up to their maximum configurations, and remain in a redundant power supply state. NOTE: A maximum of two power supplies are supported and ship standard with each server.
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System Fans	Two Hot-Plug redundant fans ship standard. Two maximum supported.
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Required Cabling	For required cabling information, refer to the Web site at: http://hp.com/products/servers/ProLiantDL760 .
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Standard Features

OS Support

Microsoft Windows 2000
Microsoft Windows 2000 Advanced Server
Microsoft Windows Server 2003 (Standard, and Enterprise)
SCO UnixWare®
LINUX (Red Hat, SuSE)

NOTE: For a more complete and up-to-date listing of supported OS's and versions, please visit our OS Support Matrix at: <ftp://ftp.compaq.com/pub/products/servers/os-support-matrix-310.pdf>.

NOTE: For an up-to-date listing of the latest drivers available for the ProLiant DL760 G2, please see: <http://h18023.www1.hp.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>.

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 830 square inches (5,350 sq cm) 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 2.75 inches (7 cm).

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://h18000.www1.hp.com/products/servers/ProLiantdl760/index.html>.

NOTE: Allow a minimum of 48 in (121.92 cm) clearance beyond the front of your rack to permit server installation and removal. This applies to both individual rack installations as well as when aligning rack rows so that the front doors are facing each other.

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

HP Services provides a three-year, limited warranty, including Pre-Failure Warranty (coverage of hard drives, memory and processors) fully supported by a worldwide network of resellers and service providers and lifetime toll-free 7 x 24 hardware technical phone support. In addition, available service offerings include:

NOTE: Limited Warranty includes 3 year Parts, 3 year Labor, 3-year on-site support.

A full range of HP Care Pack packaged hardware and software services:

- Installation and start up
- Extended coverage hours and enhanced response times
- System management and performance services
- Availability and recovery services

NOTE: For more information, visit <http://www.hp.com/services/carepack>.

Please see the following URL regarding Warranty Information For Your HP Products:

<http://h18004.www1.hp.com/products/servers/platforms/warranty/index.html>

For additional information regarding Worldwide Limited Warranty and Technical Support, please see the following

URL: <ftp://ftp.compaq.com/pub/supportinformation/ejourney/176738.pdf>.

NOTE: Certain restrictions and exclusions apply. Consult the Customer Support Center at 1-800-345-1518 for details.

Models

Model DL760R02 X2.8-2MB, 4096MB (4P) 326703-B21	Processor(s)	(4) Intel Xeon Processors MP at 2.8 GHz standard (up to 8 supported)
	Cache Memory	2-MB integrated Level 3 cache (per processor)
	Memory	4096 MB (Standard) to 64 GB (Maximum) addressable protected 133MHz ECC SDRAM DIMM (5120 MB total)
	Network Controller	Integrated NC7770 PCI-X Gigabit Server Adapter in a slot
	Storage Controller	Integrated Smart Array 5i Controller (Ultra 3 support) (supports RAID 0, 1, 1+0, and 5 across internal hard disk drives)
	Hard Drives	None
	Internal Storage	587.2 GB maximum (with optional hard drives)
	Cache Accelerator	2-MB Cache coherency accelerator embedded on host board
	Optical Drive	24x IDE CD-ROM Drive
	I/O Slots	PCI and PCI-X
	Form Factor	7U Rack Form Factor

Model DL760R02 X2.5-1MB, 4096MB (4P) 338974-B21	Processor(s)	(4) Intel Xeon Processors MP at 2.5 GHz standard (up to 8 supported)
	Cache Memory	1-MB integrated Level 3 cache (per processor)
	Memory	4096 MB (Standard) to 64 GB (Maximum) addressable protected 133MHz ECC SDRAM DIMM (2560 MB total)
	Network Controller	Integrated NC7770 PCI-X Gigabit Server Adapter in a slot
	Storage Controller	Integrated Smart Array 5i Controller (Ultra 3 support) (supports RAID 0, 1, 1+0, and 5 across internal hard disk drives)
	Hard Drives	None
	Internal Storage	587.2 GB maximum (with optional hard drives)
	Cache Accelerator	2-MB Cache coherency accelerator embedded on host board
	Optical Drive	24x IDE CD-ROM Drive
	I/O Slots	PCI and PCI-X
	Form Factor	7U Rack Form Factor

Model DL760R02 X2.0-1MB, 2048MB (4P) 326702-B21	Processor(s)	(4) Intel Xeon Processors MP at 2.0 GHz standard (up to 8 supported)
	Cache Memory	1-MB integrated Level 3 cache (per processor)
	Memory	2048 MB (Standard) to 64 GB (Maximum) addressable protected 133MHz ECC SDRAM DIMM (2560 MB total)
	Network Controller	Integrated NC7770 PCI-X Gigabit Server Adapter in a slot
	Storage Controller	Integrated Smart Array 5i Controller (Ultra 3 support) (supports RAID 0, 1, 1+0, and 5 across internal hard disk drives)
	Hard Drives	None
	Internal Storage	587.2 GB maximum (with optional hard drives)
	Cache Accelerator	2-MB Cache coherency accelerator embedded on host board
	Optical Drive	24x IDE CD-ROM Drive
	I/O Slots	PCI and PCI-X
	Form Factor	7U Rack Form Factor

Models

Model DL760R02 X2.0-2MB, 4096MB (4P) 171206-B21	Processor(s)	(4) Intel Xeon Processors MP at 2.0 GHz standard (up to 8 supported)
	Cache Memory	2-MB integrated Level 3 cache (per processor)
	Memory	4096 MB (Standard) to 64 GB (Maximum) addressable protected 133MHz ECC SDRAM DIMM (5120 MB total)
	Network Controller	Integrated NC7770 PCI-X Gigabit Server Adapter in a slot
	Storage Controller	Integrated Smart Array 5i Controller (Ultra 3 support) (supports RAID 0, 1, 1+0, and 5 across internal hard disk drives)
	Hard Drives	None
	Internal Storage	587.2 GB maximum (with optional hard drives)
	Cache Accelerator	2-MB Cache coherency accelerator embedded on host board
	Optical Drive	24x IDE CD-ROM Drive
	I/O Slots	PCI and PCI-X
	Form Factor	7U Rack Form Factor

Model DL760R02 X1.5-1MB, 2048MB (4P) 171202-B21	Processor(s)	(4) Intel Xeon Processors MP at 1.5 GHz standard (up to 8 supported)
	Cache Memory	1-MB integrated Level 3 cache (per processor)
	Memory	2048 MB (Standard) to 64 GB (Maximum) addressable protected 133MHz ECC SDRAM DIMM (2560 MB total)
	Network Controller	Integrated NC7770 PCI-X Gigabit Server Adapter in a slot
	Storage Controller	Integrated Smart Array 5i Controller (Ultra 3 support) (supports RAID 0, 1, 1+0, and 5 across internal hard disk drives)
	Hard Drives	None
	Internal Storage	587.2 GB maximum (with optional hard drives)
	Cache Accelerator	2-MB Cache coherency accelerator embedded on host board
	Optical Drive	24x IDE CD-ROM Drive
	I/O Slots	PCI and PCI-X
	Form Factor	7U Rack Form Factor

Options

Upgrade Kit	ProLiant 8500/DL760 (with 2.8GHz/2M Xeon Processors MP) to ProLiant DL760 G2 Upgrade Kit NOTE: This option kit is supported in any ProLiant 8500 and ProLiant DL760 (700/900MHz). NOTE: This upgrade kit (PN 335206-B21) enables customers to upgrade from a ProLiant 8500 or a ProLiant DL760 to ProLiant DL760 G2 technology.	335206-B21
	ProLiant 8500/DL760 (with 2.0GHz/2M Xeon Processors MP) to ProLiant DL760 G2 Upgrade Kit NOTE: This option kit is supported in any ProLiant 8500 and ProLiant DL760 (700/900MHz). NOTE: This upgrade kit (PN 190756-B21) enables customers to upgrade from a ProLiant 8500 or a ProLiant DL760 to ProLiant DL760 G2 technology. LIMITED WARRANTY AND TECHNICAL SUPPORT INFORMATION NOTE: Certain restrictions and exclusions may apply. The terms of the warranty may vary by geographic region. The ProLiant DL760 G2 server upgrade kits are an option and carries a warranty that covers replacement of defective parts, labor costs, and next-business-day onsite repair charges for the first year of ownership or the remainder of the warranty on the server it is upgrading, whichever is longer.	190756-B21
ProLiant Essentials Value Pack Software	ProLiant Essentials Performance Management Pack Single Server License	306696-B21
	ProLiant Essentials Workload Management Pack (Featuring Compaq Resource Partitioning Manager version 2.0) 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 .	303284-B21
Software	HP digital asset protection	302316-001
NetServer to ProLiant integrations services	HP NetServer to ProLiant integration and assessment service NOTE: HP identifies current levels of NetServer support, services, and management. This service helps maximize customer's ability to add ProLiant platforms into their current environment.	304164-002
	HP TopTools to Insight Manager 7 installation and startup service NOTE: Provides on-site review, installation and configuration services for Insight Manager 7. HP will also re-create, as closely as possible, the views and reports from the customer's current TopTools configuration. This service assures a smooth transition to the ProLiant Essentials software.	304163-002
	HP NetServer to ProLiant Essentials Rapid Deployment Pack installation and startup service NOTE: Install and configure Rapid Deployment Pack in a test environment, then deploy a server image to a maximum of 250 systems in the production environment. This service helps to assure successful system deployment.	304162-002

Options

Processor	NOTE: Intel Xeon 2.0GHz, 2.8GHz and 1.50 GHz processors cannot be mixed in the same server. They all have to be of the same speed.	
	(4) Intel Xeon MP 2.80GHz -2MB Processor Option Kit	334037-B21
	NOTE: This processor option kit (PN 334037-B21) supports the ProLiant DL760 G2 and the ProLiant DL740 servers. This option kit contains 4 x Intel Xeon MP 2.8GHz-2MB processors.	
	(4) Intel Xeon MP 2.5GHz-1MB Processor Option Kit	339072-B21
	NOTE: This processor option kit (PN 339072-B21) supports the ProLiant DL760 G2 and ProLiant DL740 servers. This option kit contains 4 x Intel Xeon MP 2.5GHz-1MB processors.	
	(4) Intel Xeon MP 2.0GHz-1MB Processor Option Kit	334036-B21
NOTE: This processor option kit (PN 334036-B21) supports the ProLiant DL760 G2 and ProLiant DL740 servers. This option kit contains 4 x Intel Xeon MP 2.0GHz-1MB processors.		
(4) Intel Xeon MP 2.0GHz -2MB Processor Option Kit	287520-B21	
NOTE: This processor option kit (PN 287520-B21) supports the ProLiant DL760 G2 and the ProLiant DL740 servers. This option kit contains 4 x Intel Xeon MP 2.0GHz-2MB processors.		
(4) Intel Xeon MP 1.5GHz-1MB Processor Option Kit	287519-B21	
NOTE: This processor option kit (PN 287519-B21) supports the ProLiant DL760 G2 and ProLiant DL740 servers. This option kit contains 4 x Intel Xeon MP 1.5GHz-1MB processors.		
Memory (SDRAM DIMMs)	2048MB 133MHz ECC SDRAM Memory Option Kit (1x2048MB)	317093-B21
	NOTE: A ROM dated later than 2/14/2003 is needed to use 2 GB DIMMs.	
	1024MB 133MHz ECC SDRAM Memory Option Kit (1x1024MB)	236854-B21
	512MB 133MHz ECC SDRAM Memory Option Kit (1x512MB)	236853-B21
	256MB 133MHz ECC SDRAM Memory Option Kit (1x256MB)	236852-B21
NOTE: Memory must be populated in banks of 10. (2 per memory cartridge x 5 cartridges.) All DIMMs in a bank must be the same sku number.		
Optical Drives	DL760 G2 8X DVD-ROM Drive Option Kit	337057-B21
Hard Drives	Ultra 320 SCSI – Universal Hot Plug	
	36.4GB 10,000 rpm, U320 Universal Hard Drive, 1"	286713-B22
	72.8GB 10,000 rpm, U320 Universal Hard Drive, 1"	286714-B22
	146.8GB 10,000 rpm, U320 Universal Hard Drive, 1"	286716-B22
	18.2GB 15,000 rpm, U320 Universal Hard Drive, 1"	286775-B22
	36.4GB 15,000 rpm, U320 Universal Hard Drive, 1"	286776-B22
	72.8GB 15,000 rpm, U320 Universal Hard Drive, 1"	286778-B22
	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_na/11531_na.HTML	

Options

Storage Controllers	Smart Array 532 Controller	225338-B21	
	Smart Array 5302/128 Controller	283552-B21	
	Smart Array 5304/256 Controller	283551-B21	
	Smart Array 6402/128 Controller	273915-B21	
	Smart Array 641 Controller	291966-B21	
	Smart Array 642 Controller	291967-B21	
	64-MB BBWC Module for Smart Array 641/642 Controllers	291969-B21	
	Ultra3 Channel Expansion Module for Smart Array 5300 Controller	153507-B21	
	128-MB Cache Module for Smart Array 5302 Controller	153506-B21	
	RAID ADG Upgrade for Smart Array 5302	288601-B21	
	256-MB Battery-Backed 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-Bit/133MHz Dual Channel Ultra320 SCSI Adapter (The 64-bit/133-MHz Dual Channel Wide Ultra320 SCSI Adapter (268351-B21) will default to Wide Ultra2 when not used with the Wide Ultra3 hard drives.)	268351-B21	
	256MB DDR, Battery-Backed Cache Upgrade Kit for SA-6400 NOTE: This 256-MB DDR, Battery-Backed Cache upgrade kit supports the Smart Array 6400 series controller only.	273913-B21	
	Smart Array 6404/256 Controller	273914-B21	
	Ultra320 Expansion Module for SA-6402	273911-B21	
	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_na/10851_na.HTML (Smart Array 532)		
	http://h18000.www1.hp.com/products/quickspecs/10640_na/10640_na.HTML (Smart Array 5300 Series)		
	http://h18000.www1.hp.com/products/quickspecs/11328_na/11328_na.HTML (Smart Array 5312)		
http://h18000.www1.hp.com/products/quickspecs/11587_na/11587_na.HTML (Smart Array 6402)			
http://h18000.www1.hp.com/products/quickspecs/11563_na/11563_na.HTML (Smart Array 641)			
http://h18000.www1.hp.com/products/quickspecs/11563_na/11563_na.HTML (Smart Array 642)			
http://h18000.www1.hp.com/products/quickspecs/10429_na/10429_na.HTML (SCSI Adapter)			
http://h18000.www1.hp.com/products/quickspecs/11555_na/11555_na.HTML (U320 Adapter)			
Communications	NC6170 Dual Port PCI-X 1000SX Gigabit Server Adapter	313879-B21	
	NC6770 PCI-X Gigabit Server Adapter, 1000-SX	244949-B21	
	NC7770 PCI-X Gigabit Server Adapter	244948-B21	
	NC7170 Dual Port PCI-X 1000T Gigabit Server Adapter	313881-B21	
Redundant Options	1150/500-Watt Hot Plug N 1 redundant power supply	401231-001	
	NOTE: A maximum of two power supplies are supported by the ProLiant DL760 G2 (shipped standard with each server).		

Options

Management Options	Remote Insight Lights-Out Edition II	227251-001
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		
	<i>Essential Series</i>	
	Compaq S9500 CRT Monitor (19-inch, Carbon/Silver)	261615-003
	Compaq S7500 CRT Monitor (17-inch, Carbon/Silver)	261606-001
	Compaq S5500 CRT Monitor (15-inch Carbon/Silver)	261602-001
	Compaq TFT1501 Flat Panel Monitor (15-inch, Carbon/Silver)	301042-003
	Compaq TFT1701 Flat Panel Monitor (17-inch, Carbon/Silver)	292847-003
	<i>Advantage Series</i>	
	Compaq V7550 CRT Color Monitor (17-inch, Carbon/Silver)	261611-003
	Compaq TFT1720 Flat Panel Monitor (17-inch, Carbon/Silver)	295926-003
	Compaq FT1720M Flat Panel Monitor (17-inch, Carbon/Silver, includes speaker, USB port, headphone)	301958-003
	Compaq TFT1520 Flat Panel Monitor (15-inch, Carbon/Silver)	295925-003
	Compaq TFT1520M Flat Panel Monitor (15-inch, Carbon/Silver includes speaker, USB port, headphone)	301957-003
	<i>Performance Series</i>	
	HP P930 CRT Monitor (19-inch, Flat-screen, Carbon/Silver)	302268-003
	HP P1130 CRT Monitor (21-inch, Flat-screen, Carbon/Silver)	302270-003
	HP L1825 Flat Panel Monitor (18-inch, Carbon/Silver)	303486-003
	HP L2025 Flat Panel Monitor (20-inch, Carbon/Silver)	303102-003
	Compaq TFT1825 Flat Panel Monitor (18-inch, Carbon/Silver)	296751-003
	Compaq TFT2025 Flat Panel Monitor (20-inch, Carbon/Silver)	285550-003
	<i>Rackmount Flat Panel Monitors</i>	
	TFT5110R Flat Panel Monitor (Carbon) (1U rack mountable)	281683-B21

Options

Tape Drives

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.

External LTO Ultrium Tape Drives

HP StorageWorks Ultrium 215 Tape Drive for ProLiant, External (Carbon)	Q1544A
HP StorageWorks Ultrium 230 Tape Drive for ProLiant, External (Carbon)	Q1516A
HP StorageWorks Ultrium 460 Tape Drive for ProLiant, External (Carbon)	Q1519A

NOTE: Please see the HP StorageWorks Ultrium 215, 230, and 460 Tape Drive QuickSpecs for additional options such as controllers, and other related items, and for an up-to-date listing of the latest O/S Support details, please see the following:

http://h18006.www1.hp.com/products/quickspecs/11739_na/11739_na.html

External DAT 72 Tape Backup Drives

HP StorageWorks DAT 72 for ProLiant, External (Carbon)	Q1527A
HP StorageWorks DAT 72 Tape Drive for Open Connect, External (Carbon)	Q1523A
HP StorageWorks DAT 72 for ProLiant, Internal Hot Plug (Carbon)	Q1529A

NOTE: Please see the DAT 72 Tape Drive QuickSpecs for additional options such as adapters, controllers, and cassettes, and for an up-to-date listing of the latest O/S Support details, please see the following:

http://h18000.www1.hp.com/products/quickspecs/11597_na/11597_na.HTML

Internal and External DAT Tape Drives

HP StorageWorks DAT 40 Tape Drive for ProLiant, External (Carbon)	Q1554A
HP StorageWorks DAT 40 Tape Drive for Open Connect, External (Carbon)	C5687C
HP StorageWorks DAT 40 Tape Drive for ProLiant, Internal Hot Plug	Q1546A

NOTE: Please see the DAT40 Tape Drive QuickSpecs for additional options such as host bus adapters, controllers, cassettes, and for an up-to-date listing of the latest O/S Support details, please see the following:

http://h18006.www1.hp.com/products/quickspecs/11784_na/11784_na.html

HP StorageWorks DAT 24 Tape Drive for Open Connect, External (Flint)	C1556D
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NOTE: Please see the DAT24 Tape Drive QuickSpecs for additional options:

http://h18006.www1.hp.com/products/quickspecs/11783_na/11783_na.html

External and Rackmount DLT Tape Drives

HP StorageWorks DLT VS 40/80 Tape Drive, External (Carbon)	280129-B22
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NOTE: Please see the DLT VS 40/80 Tape Drive QuickSpecs for additional options such as host bus adapters, controllers, cassettes, and for an up-to-date listing of the latest O/S Support details, please see the following:

http://h18006.www1.hp.com/products/quickspecs/11403_na/11403_na.HTML

HP StorageWorks DLT 40/80 Tape Drive, External (Carbon)	146197-B22
HP StorageWorks DLT 40/80 Tape Drive, 3U Rackmount (Single Drive)	274332-B21
HP StorageWorks DLT 40/80 Tape Drive, 3U Rackmount (Two Drives)	274335-B21
HP StorageWorks DLT 40/80 Tape Drive, 5U Rackmount (Four Drives)	274337-B21

NOTE: Please see the DLT 40/80 Tape Drive QuickSpecs for additional options such as host bus adapters, controllers, cassettes, and for an up-to-date listing of the latest O/S Support details, please see the following:

http://h18000.www1.hp.com/products/quickspecs/10658_na/10658_na.HTML

Options

External and Rackmount SDLT Tape Drives

HP StorageWorks SDLT 110/220 Tape Drive, External (Carbon)	192103-002
HP StorageWorks SDLT 110/220 Tape Drive, 3U Rackmount (Single Drive)	274331-B21
HP StorageWorks SDLT 110/220 Tape Drive, 3U Rackmount (Two Drives)	274334-B21
HP StorageWorks Rackmount DLT 40/80, Tape Array III, 5U (Four Drives)	274336-B21

NOTE: Please see the [SDLT 110/220 Tape Drive QuickSpecs](#) for additional options such as adapters, controllers, and media, and for an up-to-date listing of the latest O/S Support details, please see the following:

http://h18000.www1.hp.com/products/quickspecs/10772_na/10772_na.HTML

HP StorageWorks SDLT 160/320 Tape Drive, External (Carbon)	257319-001
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NOTE: Please see the [SDLT 160/320-GB Tape Drive QuickSpecs](#) for additional options such as adapters, controllers, and media, and for an up-to-date listing of the latest O/S Support details, please see the following:

http://h18000.www1.hp.com/products/quickspecs/11406_na/11406_na.HTML

Rackmount Tape Drive Kits

3U Rackmount Kit	274338-B21
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NOTE: The 3U Rackmount Kit (PN 274338-B21) 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 the DAT 24, DAT 40, DAT 72, DLT 40/80, DLT VS 40/80 and the SDLT 110/220-GB, SDLT 160/320-GB, Ultrium 215, Ultrium 230, and Ultrium 460 Tape Drives.

5U Rackmount Kit	274339-B21
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NOTE: The 5U Rackmount Kit (PN 274339-B21) can support up to (4) full-height tape drives and is compatible with all DLT/SDLT tape drives including the 20/40-GB DLT, 35/70-GB DLT, 40/80-GB DLT, SDLT 110/220-GB and the SDLT 160/320-GB tape drives. Also supported are the Ultrium 230 and Ultrium 460 tape drives.

NOTE: Please see the [Rackmount Tape Drive Kits QuickSpecs](#) for additional information regarding these kits, please see the following:

http://h18000.www1.hp.com/products/quickspecs/10854_na/10854_na.HTML

Rackmount Tape Drive Cable 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.

Tape Automation

StorageWorks ESL9000 Enterprise System Library

ESL9322L1 - LTO Ultrium and ESL9322 based enterprise library with up to 8 drives and 222, 322 slots

ESL9322L1 222 slot 0 DRV LTO1	330832-B21
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ESL9595 and ESL9595 LTO Libraries

ESL9595 400 slot, zero drives	330833-B21
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NOTE: Please see the [StorageWorks ESL9322 Enterprise Library QuickSpecs](#) for additional information including Tape Drives, Cartridges, Controllers, and SCSI Cables and additional options needed for a complete solution at:

http://h18000.www1.hp.com/products/quickspecs/11628_na/11628_na.HTML

ESL9322: Common Options

ESL9322, slot upgrade 222 to 322 slots	293588-B21
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ESL9595: Common Options

ESL 9000 400 to 500 slot upgrade	330842-B21
ESL 9000 500 to 595 slot upgrade	330842-B22
ESL 9000 400 to 595 slot upgrade	330842-B23
ESL9000 222 to 322 slot upgrade	330840-B21

Add-on drives & Accessories

Options

ESL9000 LVD SDLT 160/320 Drive upgrade (ESL9595S2 and ESL9322S2 only)	293414-B21
ESL9000 LTO2 Upgrade Drive	330834-B21
ESL9000 LTO1 drive upgrade (ESL9322L1 and ESL9595L1 only)	301930-B21
ESL9000 Universal Load Port (support both LTO & SDLT cartridges) Not removable	302254-B21
ESL9000 Field Upgrade SDLT 110/220, LVD Drive (ESL9198SL, ESL9326SL, ESL9595SL only)	234617-B21
ESL9000 Field Upgrade SDLT 110/220, HVD Drive (for existing ESL9326D/DX customers)	234617-B22
LVD Extender Kit for ESL9198DLX, ESL9198SL, ESL9326SL	221249-B21

StorageWorks MSL6000 and MSL5000 mainstream tape libraries

MSL6060L1 - LTO Ultrium 1 based mainstream library up to 4 drives and 60 slots

MSL6060, 0 DRV, Ultrium 460, RM Library	331196-B23
MSL6060, 2 DRV, Ultrium 460, RM Library	331196-B21
MSL6060, 2 DRV, Ultrium 460, embedded Fibre, RM Library	331196-B22

NOTE: Please see the StorageWorks MSL6060 LTO Library QuickSpecs for additional information including Upgrade Kits, Accessories, and SCSI Cable Kits and additional options needed for a complete solution at:

http://h18000.www1.hp.com/products/quickspecs/11608_na/11608_na.HTML

MSL5060L1 - LTO Ultrium 1 based mainstream library up to 4 drives and 60 slots

MSL5060, 0 DRV, Ultrium 230, RM Library	301899-B21
MSL5060, 2 DRV, Ultrium 230, RM Library	301899-B22
MSL5060, 2 DRV, Ultrium 230, embedded Fibre, RM Library	301899-B23

NOTE: Please see the StorageWorks MSL5060 LTO Library QuickSpecs for additional information including Upgrade Kits, Accessories, and SCSI Cable Kits and additional options needed for a complete solution at:

http://h18000.www1.hp.com/products/quickspecs/11438_na/11438_na.HTML

MSL5052S2 - SDLT160 based mainstream library up to 4 drives and 52 slots

MSL5052S2, 0 DRV, SDLT 160/320, RM Library	255102-B21
MSL5052S2, 2 DRV, SDLT 160/320, RM Library	293474-B21
MSL5052S2, 2 DRV, SDLT 160/320, RM Library with embedded Fibre	293474-B24

NOTE: Please see the StorageWorks MSL5052S2 Library QuickSpecs for additional information including Upgrade Kits, Accessories, and SCSI Cable Kits and additional options needed for a complete solution at:

http://h18000.www1.hp.com/products/quickspecs/11442_na/11442_na.HTML

MSL6030 - LTO Ultrium 1 based mainstream library up to 4 drives and 60 slots

MSL6030, 0 DRV, RM Library	330731-B21
MSL6030, 1 DRV, LTO Ultrium 460, RM Library	330731-B22
MSL6030, 2 DRV, LTO Ultrium 460, RM Library	330731-B23
MSL6030, 1 DRV, LTO Ultrium 460, embedded Fibre, RM Library	330731-B24
MSL 6030, 2 DRV, LTO Ultrium 460, embedded Fibre, RM Library	330731-B25

NOTE: Please see the StorageWorks MSL6030 LTO Library QuickSpecs for additional information including Upgrade Kits, Accessories, and SCSI Cable Kits and additional options needed for a complete solution at:

http://h18000.www1.hp.com/products/quickspecs/11625_na/11625_na.HTML

MSL5030L1 - LTO Ultrium 1 mainstream library up to 2 drives and 30 slots

MSL5030, 0 DRV, RM Library	301897-B21
MSL5030, 1 DRV, LTO Ultrium 230, RM Library	301897-B22
MSL5030, 2 DRV, LTO Ultrium 230, RM Library	301897-B23
MSL5030, 1 DRV, LTO Ultrium 230, embedded Fibre, RM Library	301897-B24
MSL 5030, 2 DRV, LTO Ultrium 230, embedded Fibre, RM Library	301897-B25

NOTE: Please see the StorageWorks MSL5030 LTO Library QuickSpecs for additional information including Upgrade Kits, Accessories, and SCSI Cable Kits and additional options needed for a complete solution at:

http://h18000.www1.hp.com/products/quickspecs/11439_na/11439_na.HTML

Options

MSL5026S2 - SDLT160 based mainstream library up to 2 drives and 26 slots

MSL5026S2, 0 DRV, RM Library	293472-B21
MSL5026S2, 1 DRV, SDLT 160/320, RM Library	293472-B22
MSL5026S2, 2 DRV, SDLT 160/320, RM Library	293472-B23
MSL5026S2, 1 DRV, SDLT 160/320, RM Library with embedded Fibre	293472-B24
MSL5026S2, 2 DRV, SDLT 160/320, RM Library with embedded Fibre	293472-B25

NOTE: Please see the StorageWorks MSL5026SL Library QuickSpecs for additional information including Upgrade Kits, Accessories, and SCSI Cable Kits and additional options needed for a complete solution at:

http://h18000.www1.hp.com/products/quickspecs/11453_na/11453_na.HTML

MSL5026SL Graphite - SDLT110 based mainstream library up to 2 drives and 26 slots

MSL5026SL, 1 DRV SDLT RM, graphite	302512-B21
MSL5026SL, 2 DRV SDLT RM, graphite	302512-B22

NOTE: Please see the StorageWorks MSL5026SL Graphite Library QuickSpecs for additional information including Upgrade Kits, Accessories, and SCSI Cable Kits and additional options needed for a complete solution at:

http://h18000.www1.hp.com/products/quickspecs/11440_na/11440_na.HTML

MSL5026DLX- 40/80GB DLT based mainstream library up to 2 drives and 26 slots

MSL5026DLX, 1 40/80GB DLT, LVD, RM	231891-B21
MSL5026DLX, 2 40/80GB DLT, LVD, RM	231891-B22

NOTE: Please see the StorageWorks MSL5026DLX Library QuickSpecs for additional information including Upgrade Kits, Accessories, and SCSI Cable Kits and additional options needed for a complete solution at:

http://h18000.www1.hp.com/products/quickspecs/10860_na/10860_na.HTML

MSL6000 and MSL5000 Add-on drives & accessories

MSL5000 SDLT 160/320 Upgrade DRV (MSL5052S2 & MSL5026S2 only)	293475-B21
MSL Ultrium 460 upgrade drive in hot plug canister	
MSL5000 LTO Ultrium 1 Upgrade DRV (MSL5060L1 & MSL5030L1 only)	301901-B21
MSL5000 SDLT 110/220 Upgrade DRV	231823-B22
MSL5000 40/80GB DLT Upgrade DRV	231823-B21
MSL5000 Dual Magazine LTO (2 X 15 slot magazines)	301902-B21
MSL5000 Dual Magazine DLT (2 X 13 slot magazines)	232136-B21
MSL Universal Pass-Through mechanism	304825-B21
MSL5026, 5U Pass-Through extender (required one for each unit connected to the stack, for third and additional units) - for MSL5026 & MSL5030	231824-B22
MSL5052, 10U Pass-Through Extender (required one for each unit connected to the stack, for third and additional units) - for MSL5052 & MSL5060	231824-B23

DAT Autoloader

HP StorageWorks DAT40x6 Tape Autoloader for ProLiant, External (Flint)	Q1551A
HP StorageWorks DAT40x6 Tape Autoloader for Open Connect, External (Flint) WW	C5717C
HP StorageWorks DAT40x6 Tape Autoloader for ProLiant, External (Flint)	Q1552A

NOTE: Please see the DAT40x6 Tape Autoloader QuickSpecs for additional options such as host bus adapters, controllers, cassettes, and for an up-to-date listing of the latest O/S Support details, please see the following:

http://h18006.www1.hp.com/products/quickspecs/11785_na/11785_na.html

HP StorageWorks 1/8 Autoloader

HP StorageWorks 1/8 Autoloader, Rackmount kit	C9266R
HP StorageWorks 1/8 Autoloader, Tabletop, Ultrium 230	C9572CB
HP StorageWorks 1/8 Autoloader, Tabletop, DLTVS80	C9264CB

SSL1016 tape autoloader

SSL1016 DLT1 tape autoloader (includes two 8-cartridge magazines and a barcode reader)	330815-B21
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Options

NOTE: Please see the SSL1016 SDLT160/320 tape autoloader Quick Specs for additional information:

http://h18000.www1.hp.com/products/quickspecs/11626_na/11626_na.HTML

SSL1016 Ultrium 460 tape autoloader

330821-B21

NOTE: Please see the SSL1016 SDLT160/320 tape autoloader Quick Specs for additional information:

http://h18006.www1.hp.com/products/quickspecs/11704_na/11704_na.HTML

SSL1016 SDLT160/320 tape autoloader (includes two 8-cartridge magazines and a barcode reader)

330816-B21

NOTE: Please see the SSL1016 SDLT160/320 tape autoloader Quick Specs for additional information:

http://h18006.www1.hp.com/products/quickspecs/11609_na/11609_na.HTML

External Storage

HP StorageWorks Modular Smart Array 30 SB

302969-B21

HP StorageWorks Modular Smart Array 30 DB

302970-B21

Ultra320 Dual Bus I/O Module for MSA 30

287483-B21

Ultra320 Single Bus I/O Module for MSA 30

287484-B21

HP StorageWorks Modular Smart Array 500

HP StorageWorks Modular Smart Array 500

201724-B21

Modular Smart Array 500 Starter Kit

351504-B21

(includes Modular Smart Array 500 and 2 SA-532 Adapters)

Modular Smart Array 500 High Availability Kit

351281-B21

(includes Modular Smart Array 500 controller, 4-port IO Module, Smart Array Multipath Software and 2 SA-532 Adapters)

Modular Smart Array 500 Controller

218252-B21

128-MB Cache Module for Smart Array Controller

153506-B21

NOTE: 128-MB Cache Module for Smart Array Controller (PN 153506-B21) is an upgrade cache module (128 MB Standard) for Modular Smart Array 500 Controller

256-MB Battery-Backed Cache Module

254786-B21

NOTE: Please see the Modular Smart Array 500 QuickSpecs for additional information including configuration steps and additional options needed for a complete solution at:

http://h18000.www1.hp.com/products/quickspecs/11050_na/11050_na.HTML

Options

Cluster Options	ProLiant Cluster HA/F100 for Modular Smart Array 1000	252408-B24
	ProLiant Cluster HA/F200 for Modular Smart Array 1000	252409-B24
	NOTE: For additional information regarding the ProLiant Cluster for HA/F100, HA/F200 for Modular Smart Array 1000 please see the following QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/11035_na/11035_na.html	
	ProLiant Cluster HA/F500 Enhanced Kit for MA8000/EMA 16000	379937-B27
	ProLiant Cluster HA/F500 Enhanced DT Kit for MA8000/EMA 16000	164227-B25
	NOTE: For additional information regarding the ProLiant Cluster for HA/F500 please see the following QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/10232_na/10232_na.html	
	ProLiant Cluster HA/F500 Basic Kit for Enterprise Virtual Array	313047-B23
	ProLiant Cluster HA/F500 Enhanced Kit for Enterprise Virtual Array	254623-B24
	NOTE: For additional information regarding the ProLiant Cluster HA/F500 for Enterprise Virtual Array please see the following QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/11055_na/11055_na.html	
	HP Serviceguard for Linux ProLiant Cluster A.11.14 for Red Hat EL 2.1 (2 node license cluster kit)	305199-B22
	NOTE: Kit includes 2 licenses, documentation and an Ethernet crossover cable.	
	HP Serviceguard for Linux ProLiant Cluster A.11.15 for UnitedLinux 1.0 (2 node license cluster kit)	305199-B23
	NOTE: Kit includes 2 licenses, documentation and an Ethernet crossover cable.	
	HP Serviceguard for Linux License A.11.14 for Red Hat EL 2.1 (single license version)	307754-B22
	NOTE: Kit includes single license version and documentation.	
	HP Serviceguard for Linux License A.11.15 for UnitedLinux 1.0 (single license version)	307754-B23
	NOTE: Kit includes single license version and documentation.	
	NOTE: For additional information regarding the HP Serviceguard for Linux License, please see the following QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/11518_na/11518_na.html	
	HP Parallel Database Cluster Model PDC/O2000-MSA1000 for Oracle Real Application Cluster on Windows	279406-B24
	NOTE: For additional information regarding the HP Parallel Database Cluster Model PDC/O2000-MSA1000, please see the following QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/10889_na/10889_na.html	
	ProLiant Parallel Database Cluster for Linux - Oracle9i Real Application Cluster	308225-B22
	NOTE: For additional information regarding the ProLiant Parallel Database Cluster for Linux, please see the following QuickSpecs at: http://www5.compaq.com/products/quickspecs/11688_na/11688_na.html	
	PDC/O5000-EVA Windows RAC Cluster Kit	252478-B24

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	

Options

StorageWorks Modular Array 8000/Enterprise Modular Array 12000	EMA12000 D14 60Hz	175990-B21
	EMA12000 S14 60Hz	175991-B21
	MA8000 60Hz	175992-B21
	EMA12000 Blue 60Hz	175993-B21

NOTE: Options include controller, solution kits, ACS. MA8000/EMA12000 includes controller shelf, drive shelves and cabinet. Packaging upgrade to RA8000/ESA12000.

NOTE: Please see the StorageWorks MA8000/EMA12000 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

StorageWorks Enterprise Modular Array 16000 FC	EMA16000 D14 60Hz (opal)	238792-B21
	EMA16000 S14 60Hz (opal)	238791-B21

NOTE: Models include: Dual HSG80 controllers in each Model 2200 enclosure (2 pairs per single bus configuration, 4 pairs per dual bus configuration) with 1GB cache per controller pair, and 12 14-bay drive enclosures with redundant power supplies. Configure-to-Order (CTO) builds are available. Options include ACS, platform kits and software by HP.

NOTE: Please see the StorageWorks EMA16000 QuickSpecs for FC switches, platform software, host adapters, disks and options for complete solutions at: http://h18000.www1.hp.com/products/quickspecs/10812_na/10812_na.HTML

StorageWorks Options	StorageWorks SAN Switch 2/8-EL	322120-B21
	StorageWorks SAN Switch 2/16	322118-B21
	StorageWorks SAN Switch 2/8-EL Upgrade Kit	325888-B21
	StorageWorks SAN Switch 2/16-EL Upgrade Kit	288250-B21
	StorageWorks Director 2/64	286809-B21

NOTE: Please see the StorageWorks Director 2/64 QuickSpecs for additional information: http://h18000.www1.hp.com/products/quickspecs/11003_na/11003_na.HTML

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

Uninterruptible Power Systems – Rack Mountable	HP UPS R1500 XR (1440VA, 1340 Watt), Low Voltage	204404-001
	HP UPS R3000 XR (2880VA, 2700 Watt), Low Voltage	192186-001
	HP UPS R3000 XR (3000VA, 2700 Watt), High Voltage	192186-002
	Rack-Mountable UPS R6000 (6000VA, 6000 Watt) High Voltage	347207-001
	UPS R12000 XR N+x (200-240V) (hardwired)	207552-B22

NOTE: The UPS R6000 has a hardwired input.

NOTE: The UPS R12000 XR has a hardwired input and output; requires a 100A circuit.

Options

UPS Options	SNMP Serial Port Card	192189-B21
	NOTE: Supports tower and rack UPS XR models ranging from 1000 – 3000VA.	
	Six Port Card	192185-B21
	NOTE: Supports tower and rack UPS XR models ranging from 1000 – 3000VA.	
	High to Low Voltage Transformer (250VA)	388643-B21
	NOTE: Supports R6000 UPS series only. 2.5 amps @ 125 Volts max output across two NEMA 5-15.	
	Extended Runtime Module, T1000 XR	218967-B21
	NOTE: 2U each, two ERM maximum.	
	Extended Runtime Module, T1500 XR/T2200 XR	218969-B21
	NOTE: 3U each, one ERM maximum.	
	Extended Runtime Module, R1500 XR	218971-B21
	NOTE: 2U each, two ERM maximum.	
	Extended Runtime Module, R3000 XR	192188-B21
	NOTE: 3U 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	325361-001
	NOTE: The R12000 XR Backplate Kit has a hardwired input.	
	R1200 XR Backplate Receptacle Kit, (2) IEC-309R	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.		
Multi-Server UPS Card	123508-B21	
NOTE: Supports R6000 UPS series only.		
Scalable UPS Card	123509-B21	
NOTE: Supports R6000 UPS series only.		

Modular PDUs 1U/0U (Up to 32 outlets) NOTE: 1U/0U mounting brackets shipped with the unit (optimized for 10000 and 9000 series racks).	HP Modular Power Distribution Units (mPDU), Low Volt Model, 24A (100-127 VAC)	252663-D71
	NOTE: This mPDU (252663-D71) may also be used to connect the low volt model of the UPS R3000 XR.	
	HP Modular Power Distribution Units (mPDU), High Volt Model, 24A (200-240 VAC)	252663-D72
	HP Modular Power Distribution Units (mPDU), High Volt Model, 40A (200-240 VAC)	252663-B21
	NOTE: This mPDU (252663-B21), 40A model has a hardwired input.	
	HP Modular Power Distribution Units (mPDU), High Volt Model, 16A (200-240 VAC)	252663-B24
NOTE: This PDU has a detachable input power cord and allows for adaptability to country specific power requirements. This model may also be used with the high volt UPSs R3000 XR and R6000 For North America, need to order cable PN 340653-001.		
NOTE: Please see the following Modular Power Distribution Unit (Zero-U/1U Modular PDUs) QuickSpecs for additional options including shorter jumper cables and country specific power cords: http://h18000.www1.hp.com/products/quickspecs/11041_na/11041_na.HTML		

Options

PDU Options	Third Party Modular PDU Mounting Kit	310777-B21
	NOTE: This kit allows you to mount the Modular PDUs in racks other than the 9000/10000 Series racks (any racks using the standard 19" rail). 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

Rack Builder Please see the Rack Builder for configuration assistance at http://www8.compaq.com/RackBuilderOnline/pages/pg_main.html.

Third Party Rack Kit	Third Party Rack Kit	274739-B21
	NOTE: The Third party rack kit supports the ML530 G2, ML570 G2, DL740, and DL760 G2. Provides support for any rack, square hole or round hole (including HP Rack System /E and HP Systems) with an adjustment range from 23 ½" – 34" deep.	
	NOTE: The Third Party Rack Kit is required for round hole racks or for square hole racks that do not conform to the adjustment range of the standard rail that ships with the server.	
	Telco Rack Support NOTE: Support for all 2-post Telco racks requires the Third Party Rack Kit (PN 274739-B21) kit plus an additional option kit from Rack Solutions. The Rack Solutions brackets can be purchased at: http://www.racksolutions.com/compaq .	

HP Rack 10000 Series (Graphite Metallic)	HP Rack S10614 (14U) Rack Cabinet – Shock Pallet	292302-B22
	HP Rack 10842 (42U, 800mm wide) – Pallet	257415-B21
	HP Rack 10842 (42U, 800mm wide) – Shock Pallet	257415-B22
	HP Rack 10647 (47U) – Pallet	245160-B21
	HP Rack 10647 (47U) – Crated	245160-B23
	HP Rack 10642 (42U) – Pallet	245161-B21
	HP Rack 10642 (42U) – Shock Pallet	245161-B22
	HP Rack 10642 (42U) – Crated	245161-B23
	HP Rack 10636 (36U) – Pallet	245162-B21
	HP Rack 10636 (36U) – Shock Pallet	245162-B22
	HP Rack 10636 (36U) – Crated	245162-B23
	HP Rack 10622 (22U) – Pallet	245163-B21
	HP Rack 10622 (22U) – Shock Pallet	245163-B22
	HP Rack 10622 (22U) – 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: Please see the Rack 10000 QuickSpecs for Technical Specifications such as height, width, depth, weight, and color: http://h18000.www1.hp.com/products/quickspecs/10995_na/10995_na.HTML	
	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

Options

NOTE: The Rack Blanking Panels (PN 253214-B21) contains 10 each of (2U). Rack Blanking Panels – Graphite (3U)	253214-B23
NOTE: The Rack Blanking Panels (PN 253214-B21) contains 10 each of (3U). Rack Blanking Panels – Graphite (4U)	253214-B24
NOTE: The Rack Blanking Panels (PN 253214-B21) contains 10 each of (4U). Rack Blanking Panels – Graphite (5U)	253214-B25
NOTE: The Rack Blanking Panels (PN 253214-B21) 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
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
Console Management Controller (CMC) Option Kit	203039-B21
Console Management Controller (CMC) Sensors Option Kit	203039-B22
Console Management Controller (CMC) Locking Option Kit	203039-B23
Console Management Controller (CMC) Smoke Sensors Option Kit	203039-B24
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
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

Options

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 (115V)	144007-001
Switch Box Connector Kit (230V)	144007-002
TFT5600 Rack Keyboard Monitor	221546-001
Local Access Cable Kit	232985-B21
1U Rack Keyboard & Drawer (Carbon)	257054-001
NOTE: The 1U Rack Keyboard & Drawer (PN 257054-001) is to be used with the Keyboards for Racks with Trackball (PN 158649-001).	
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 a your local reseller or Account Manager.	

Service and Support Offerings (HP Care Pack Services)

NOTE: These Service and Support Offerings are for Windows NT, Windows 2000 Server/Advanced Server or Novell NetWare Operating System.

Hardware Services On-site Service

4-Hour On-site Service 5-Day x 13-Hour Coverage, 3 Years (Canadian Part Number)	FP-HE3EC-36
4-Hour On-site Service, 5-Day x 13-Hour, 3 Years (U.S. Part Number)	331104-002
4-Hour On-site Service, 7-Day x 24-Hour Coverage, 3 Years (Canadian Part Number)	FP-HE7EC-36
4-Hour On-site Service, 7-Day x 24-Hour Coverage, 3 Years (U.S. Part Number)	401784-002

Installation & Start-up Services

Hardware Installation (Canadian Part Number)	FP-HEINS-EC
Hardware Installation (U.S. Part Number)	401794-002
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. (U.S. Part Number)	240016-002
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-04

Options

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)	331110-002
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-04
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)	239937-002
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-M01E4-36
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. (U.S. Part Number)	331108-002
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-L01E4-36
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)	239939-002
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-M02E4-36
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. (U.S. Part Number)	331099-002
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-L02E4-36
HP Care Pack Priority Service Plan - 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 (6-3 Part Number for U.S.)	239941-002
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 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-M04E4-36
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 (6-3 Part Number for U.S.)	239943-002
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 (2-5-2 Part Number for Canada)	FM-M24E4-36
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 Novell NetWare Operating System, Technical Account Manager, Technical Newsletter, SW activity review (6-3 Part Number for U.S.)	239981-002
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 (2-5-2 Part Number for Canada)	FM-N04E4-36
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.)	239983-002
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-N24E4-36
HP Care Pack Priority Service Plan - Priority Gold	
24 x 7 HW, 4-hr response, Named HW engineer; 24 x 7 Gold Software Support, 30 minute	239945-002

Options

response (critical), 1-hr response (non-critical), for Windows NT, Windows 2000, Professional, Server or Advanced Server Operating System, Technical Account Manager, Technical Newsletter, SW activity review, proactive revision management, Upgrade impact planning, 2 System Healthcheck per year (6-3 Part Number for U.S.)	
24 x 7 HW, 4-hr response, Named HW engineer; 24 x 7 Gold Software Support, 30 minute response (critical), 1-hr response (non-critical), for Windows NT, Windows 2000, Professional, Server or Advanced Server Operating System, Technical Account Manager, Technical Newsletter, SW activity review, proactive revision management, Upgrade impact planning, 2 System Healthcheck per year (2-5-2 Part Number for Canada)	FM-M08E4-36
24 x 7 HW, 4-hr response, Named HW engineer; 24 x 7 Gold Subsequent System Support for Windows NT, Windows 2000, Professional, Server or Advanced Server Operating System (6-3 Part Number for U.S.)	239947-002
24 x 7 HW, 4-hr response, Named HW engineer; 24 x 7 Gold Subsequent System Support for Windows NT, Windows 2000, Professional, Server or Advanced Server Operating System (2-5-2 Part Number for Canada)	FM-M28E4-36
24 x 7 HW, 4-hr response, Named HW engineer; 24 x 7 Gold Software Support, 30 minute response (critical), 1-hr response (non-critical), for Novell NetWare Operating System, Technical Account Manager, Technical Newsletter, SW activity review, Upgrade impact planning (6-3 Part Number for U.S.)	239985-002
24 x 7 HW, 4-hr response, Named HW engineer; 24 x 7 Gold Software Support, 30 minute response (critical), 1-hr response (non-critical), for Novell NetWare Operating System, Technical Account Manager, Technical Newsletter, SW activity review, Upgrade impact planning (2-5-2 Part Number for Canada)	FM-N08E4-36
24 x 7 HW, 4-hr response, Named HW engineer; 24 x 7 Gold Subsequent System Support for Novell NetWare Operating System (6-3 Part Number for U.S.)	239987-002
24 x 7 HW, 4-hr response, Named HW engineer; 24 x 7 Gold Subsequent System Support for Novell NetWare Operating System (2-5-2 Part Number for Canada)	FM-N28E4-36
HP Care Pack Priority Service Plan - Priority Gold Executive	
24 x 7 HW, 2-hr response, Named HW engineer; 24 x 7 Gold Software Support, 30 minute response (critical), 1-hr response (non-critical), for Windows NT, Windows 2000, Professional, Server or Advanced Server Operating System, Technical Account Manager, Technical Newsletter, SW activity review, proactive revision management, Upgrade impact planning, 2 System Healthcheck per year (6-3 Part Number for U.S.)	239949-002
24 x 7 HW, 2-hr response, Named HW engineer; 24 x 7 Gold Software Support, 30 minute response (critical), 1-hr response (non-critical), for Windows NT, Windows 2000, Professional, Server or Advanced Server Operating System, Technical Account Manager, Technical Newsletter, SW activity review, proactive revision management, Upgrade impact planning, 2 System Healthcheck per year (2-5-2 Part Number for Canada)	FM-M09E4-36
24 x 7 HW, 2-hr response, Named HW engineer; 24 x 7 Gold Subsequent System Support for Windows NT, Windows 2000, Professional, Server or Advanced Server Operating System (6-3 Part Number for U.S.)	239951-002
24 x 7 HW, 2-hr response, Named HW engineer; 24 x 7 Gold Subsequent System Support for Windows NT, Windows 2000, Professional, Server or Advanced Server Operating System (2-5-2 Part Number for Canada)	FM-M29E4-36
24 x 7 HW, 2-hr response, Named HW engineer; 24 x 7 Gold Software Support, 30 minute response (critical), 1-hr response (non-critical), for Novell NetWare Operating System, Technical Account Manager, Technical Newsletter, SW activity review, Upgrade impact planning (6-3 Part Number for U.S.)	239989-002
24 x 7 HW, 2-hr response, Named HW engineer; 24 x 7 Gold Software Support, 30 minute response (critical), 1-hr response (non-critical), for Novell NetWare Operating System, Technical Account Manager, Technical Newsletter, SW activity review, Upgrade impact planning (2-5-2 Part Number for Canada)	FM-N09E4-36
24 x 7 HW, 2-hr response, Named HW engineer; 24 x 7 Gold Subsequent System Support for Novell NetWare Operating System (6-3 Part Number for U.S.)	239991-002
24 x 7 HW, 2-hr response, Named HW engineer; 24 x 7 Gold Subsequent System Support for Novell NetWare Operating System (2-5-2 Part Number for Canada)	FM-N29E4-36

NOTE: For more information, customer/resellers can contact

Options

<http://www.hp.com/services/carepack>

Memory

HP ProLiant DL760 G2 1.5 GHz/1MB or 2.0/1MB, 2048MB (4P)

Standard Memory

2048-MB addressable buffered ECC SDRAM DIMM memory (2 x 256-MB DIMMs x 5 Hot-Plug RAID Memory Cartridges. The 5th cartridge is populated for redundancy.)

Standard Memory Plus Optional Memory

Up to 51,200-MB of addressable ECC SDRAM DIMM memory is available with the installation of optional ECC SDRAM DIMM memory expansion kits.

Standard Memory Replaced with Optional Memory

Up to 65,536-MB of addressable ECC SDRAM DIMM memory is available with the removal of standard memory and the installation of optional ECC SDRAM DIMM memory expansion kits.

NOTE: 8 slots per Hot-Plug RAID Memory Cartridge. Up to 64-GB addressable memory total. Memory must be added in banks of two DIMMs per cartridge across all five (four if running in a non-redundant mode) Hot-Plug RAID Memory Cartridges. Charts do not represent all possible configurations.

Memory		Slot							
		1	2	3	4	5	6	7	8
Cartridge 1 (C1)	Standard	256 MB	256 MB	empty	empty	empty	empty	empty	empty
	Optional	256 MB	256 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB
	Maximum	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB
Cartridge 2 (C2)	Standard	256 MB	256 MB	empty	empty	empty	empty	empty	empty
	Optional	256 MB	256 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB
	Maximum	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB
Cartridge 3 (C3)	Standard	256 MB	256 MB	empty	empty	empty	empty	empty	empty
	Optional	256 MB	256 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB
	Maximum	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB
Cartridge 4 (C4)	Standard	256 MB	256 MB	empty	empty	empty	empty	empty	empty
	Optional	256 MB	256 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB
	Maximum	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB
Cartridge 5 (C5)	Standard	256 MB	256 MB	empty	empty	empty	empty	empty	empty
	Optional	256 MB	256 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB
	Maximum	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB

Following are memory options available from HP:

- 2048MB 133MHz ECC SDRAM Memory Option Kit (1x2048MB) 317093-B21
NOTE: A ROM dated later than 2/14/2003 is needed to use 2 GB DIMMs.
- 1024MB 133MHz ECC SDRAM Memory Option Kit (1x1024MB) 236854-B21
- 512MB 133MHz ECC SDRAM Memory Option Kit (1x512MB) 236853-B21
- 256MB 133MHz ECC SDRAM Memory Option Kit (1x256MB) 236852-B21

Memory

HP ProLiant DL760 G2 2.0 GHz/2MB or 2.8 GHz/2MG, 4096MB (4P)

Standard Memory

4096-MB buffered ECC SDRAM DIMM memory (2 x 512-MB DIMMs x 5 Hot-Plug Memory Cartridges. The 5th cartridge is populated for redundancy.)

Standard Memory Plus Optional Memory

Up to —53,248-MB of SDRAM DIMM memory is available with the installation of optional SDRAM DIMM memory expansion kits.

Standard Memory Replaced with Optional Memory

Up to 65,536-MB of SDRAM DIMM memory is available with the removal of standard memory and the installation of optional SDRAM DIMM memory expansion kits.

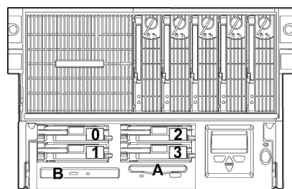
NOTE: 8 slots per Hot-Plug RAID Memory Cartridge. Up to 64-GB addressable memory total. Memory must be added in banks of two DIMMs per cartridge across all five (four if running in a non-redundant mode) Hot-Plug RAID Memory Cartridges. Charts do not represent all possible configurations.

Memory		Slot							
		1	2	3	4	5	6	7	8
Cartridge 1 (C1)	Standard	512 MB	512 MB	empty	empty	empty	empty	empty	
	Optional	512 MB	512 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB
	Maximum	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB
Cartridge 2 (C2)	Standard	512 MB	512 MB	empty	empty	empty	empty	empty	
	Optional	512 MB	512 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB
	Maximum	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB
Cartridge 3 (C3)	Standard	512 MB	512 MB	empty	empty	empty	empty	empty	
	Optional	512 MB	512 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB
	Maximum	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB
Cartridge 4 (C4)	Standard	512 MB	512 MB	empty	empty	empty	empty	empty	
	Optional	512 MB	512 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB
	Maximum	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB
Cartridge 5 (C5)	Standard	512 MB	512 MB	empty	empty	empty	empty	empty	
	Optional	512 MB	512 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB
	Maximum	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB

Following are memory options available from HP:

- 2048MB 133MHz ECC SDRAM Memory Option Kit (1x2048MB) 317093-B21
NOTE: A ROM dated later than 2/14/2003 is needed to use 2 GB DIM
- 1024MB 133MHz ECC SDRAM Memory Option Kit (1x1024MB) 236854-B21
- 512MB 133MHz ECC SDRAM Memory Option Kit (1x512MB) 236853-B21
- 256MB 133MHz ECC SDRAM Memory Option Kit (1x256MB) 236852-B21

Storage



- 0 - 3 1" Ultra320 SCSI Hot Plug drive bays
- A Integrated 1.44MB Floppy drive
- B Integrated 24x IDE CD-ROM (Low-Profile)

Drive Support

	Quantity Supported	Position Supported	Controller
Integrated Media			
Integrated 1.44-MB Diskette Drive	Up to 1	A	Integrated
Integrated 24x IDE CD-ROM Drive (Low-profile)	Up to 1	B	Integrated IDE

Hard Drives

Ultra320 Hot Pluggable Drives

	Quantity Supported	Position Supported	Controller
1-inch	Up to 4	0-3	
146.8-GB 10,000 rpm			Integrated 5i Smart Array Controller
72.8-GB 10,000 rpm			Smart Array 532 Controller
36.4-GB 10,000 rpm			Smart Array 5302/128 Controller
72.8-GB 15,000 rpm			Smart Array 5304/256 Controller
36.4-GB 15,000 rpm			Smart Array 6402/128 Controller
18.2-GB 15,000 rpm			Smart Array 5312 Controller
			Smart Array 641 Controller
			Smart Array 642 Controller
			64-bit/133-MHz Dual Channel Ultra320 SCSI Adapter

NOTE: All U320 Universal Hard Drives are backward compatible to U2 or U3 speeds.

Storage

External Storage

	Quantity Supported	Position Supported	Host Controller or Adapter
Modular Smart Array 30 Family	Up to 13	External	Smart Array 5302/128 Controller 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_na/11033_na.HTML			

Maximum Storage Capacity – (StorageWorks Enclosure SCSI Attached)

Internal	587.2 GB (4 x 146.8-GB Ultra320 1" Drives)
External	90.428 TB hot plug SCSI storage (44 x (14 x 146.8-GB Ultra320 1" Drives))
Total	91.016 TB

Tape Drives

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://h18000.www1.hp.com/products/quickspecs/North_America/10233.html

NOTE: For an up-to-date listing of the latest O/S Support details for each of the Tape Storage Systems listed below, please see the following: http://h18000.www1.hp.com/products/quickspecs/North_America/10809.html

	Quantity Supported	Position Supported	Controller
External DAT 72		External	64-Bit/133-MHz Dual Channel Ultra320 SCSI Adapter
Internal AIT 100-GB, Hot Plug	Up to 1	0+1 or 2+3	Integrated 5i Smart Array Controller Smart Array 532 Controller
Internal AIT 50-GB, Hot Plug			Smart Array 5302/128 Controller Smart Array 5304/256 Controller
Internal AIT 35-GB, LVD, Hot Plug			Smart Array 6402/128 Controller Smart Array 5312 Controller
Internal 20/40-GB DAT, Hot Plug			64-Bit/133-MHz Dual Channel Ultra320 SCSI Adapter *NOTE: The Smart Array 532 Controller does not support the AIT 100-GB Hot Plug Tape Drive.
Internal DAT 72 Tape Drive			
External AIT 100-GB	Up to 2 per controller	External	64-Bit/133MHz Dual Channel Ultra320 SCSI Adapter
External AIT 50-GB			
External AIT 35-GB LVD	Up to 3 per controller		
External DAT 12/24			
External DAT 20/40			
Internal DAT 72 Tape Drive			
External DLT VS 40/80	Up to 3 per controller	External	64-Bit/133MHz Dual Channel Ultra320 SCSI Adapter
External DLT 40/80			

Storage

HP StorageWorks AIT 35 GB Autoloader	Up to 1 (for a single HBA) Up to 2 (for a dual HBA)	External	64-Bit/133MHz Dual Channel Ultra320 SCSI Adapter
External Ultrium 215 External Ultrium 230 External Ultrium 460	Up to 2 drives per controller	External	64-Bit/133MHz Dual Channel Ultra320 SCSI Adapter
External SDLT 110/220 External SDLT 160/320	Up to 2 drives per controller	External	64-Bit/133MHz Dual Channel Ultra320 SCSI Adapter
SSL2020 AIT Library	2 drives per SCSI channel	External	64-Bit Dual Channel Wide Ultra2 SCSI Adapter SAN Access Module for Smart Array 5302 Controller
20/40-GB DAT 8 Cassette Autoloader External	Up to 1	External	64-Bit/133MHz Dual Channel Ultra320 SCSI Adapter
MSL6060L1 (Ultrium 460 -based) Library MSL6030 (LTO Ultrium -based) Library	2 drives per SCSI channel	External	64-Bit/133-MHz Dual Channel Ultra320 SCSI Adapter
SSL1016 tape autoloader	Up to 2 drives	External	64-Bit/133-MHz Dual Channel Ultra320 SCSI Adapter
MSL5026DLX (40/80GB DLT-based) MSL5026SL (SDLT-based) Library MSL5052SL (SDLT-based) Library MSL5052S2 (SDLT-based) Library MSL5030L1 (LTO-based) Library MSL5060L1 (LTO-based) Library MSL6030 (Ultrium 460 -based) Library MSL6060 (Ultrium 460 -based) Library	2 drives per SCSI channel	External	64-Bit/133-MHz Dual Channel Ultra320 SCSI Adapter
ESL9322 ESL9322L1 ESL9595SL ESL9595 ESL9595L1	Please see the ESL Library QuickSpecs below to determine configuration requirements	External	64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS

ESL9595SL: http://h18000.www1.hp.com/products/quickspecs/11332_na/11332_na.HTML

ESL9322: http://h18000.www1.hp.com/products/quickspecs/11628_na/11628_na.HTML

ESL9322L1: http://h18000.www1.hp.com/products/quickspecs/11445_na/11445_na.HTML

ESL9595: http://h18000.www1.hp.com/products/quickspecs/11629_na/11629_na.HTML

ESL9595L1: http://h18000.www1.hp.com/products/quickspecs/11435_na/11435_na.HTML

TechSpecs

System Unit	Dimensions (HxWxD)	12.14 x 17.5 x 27 in (30.83 x 44.45 x 68.58 cm)		
	Weight	165 lb (75 kg)		
	No hard drives installed, two power supplies			
	Input Requirements (per power supply)	Rated Input Voltage (lowline/highline)	100 to 120 VAC/200 to 240 VAC	
		Rated Input Frequency	47 to 63 Hz (lowline/highline)	
		Input Power	740W/1700W (lowlinehighline)	
		Rated Input Current (lowlinehighline)	8A at 100 VAC/10A at 200 VAC	
	BTU Rating (Maximum output) (NOTE that the maximum heat output by the server is equal to the electrical power input.)	1555 Watts [5309 BTU/hr] (System is configured to draw maximum power)		
	Power Supply Output Power (per power supply)	Rated Steady-State Power	500W/1150W (lowlinehighline)	
		Maximum Peak Power	540W/1150W (lowlinehighline)	
	Temperature Range	Operating	50° to 95° F at sea level, altitude de-rating of 1.8° F per 1,000 ft to 10,000 ft (10° to 35° C at sea level, altitude de-rating of 1°C per 300 m to 3,000 m). Maximum rate of change is 18°F/Hr (10°C/Hr)	
		Non-operating	-22° to 140° F (-30° to 60° C). Maximum rate of change is 36° F/Hr (20° C/Hr)	
		Shipping	-22° to 122° F (-30° to 50° C)	
	Relative Humidity (non-condensing)	Operating	10 to 90% relative humidity, 82.4°F (28°C) maximum wet bulb temperature, non-condensing	
		Non-operating	5 to 95% relative humidity, 101.7°F (38.7°C) maximum wet bulb temperature, non-condensing	
Maximum Wet Bulb Temperature	101.7° F (38.7° C)			
Acoustic Noise	Idle (Fixed Disk Drives Spinning)			
	L_{WA}d (BELS)	6.9		
	L_{pAm} (dBA)	53		

TechSpecs

Power Supply	1150/500W, Hot Plug Redundant (2 standard)	One Redundant Power Supply (optimized to provide full redundancy at 220 volts)		
	Input Specifications	Normal Line Voltage	100 to 120 VAC/200 to 240 VAC	
		Range Input Line	90 to 132 VAC/180 to 265 VAC	
		Frequency Range	47 to 63 Hz	
		Power Factor	0.95	
		Input Current	8 A at 100 VAC/10 A at 200 VAC	
		Inrush Current	<70 A at 132 VAC (cold start)	
		Holdup Time	20 ms from zero crossing at 120 VAC	
	General Specifications	Full Output Rating	To 104° F (40° C) and 5,000 ft (1524 m) To 89.6° F (32° C) and 10,000 ft (3,048 m) (derate linearly)	
		Minimum Load	1 A on 5 V output; 1 A on 12 V output; 0.5 A on 3.3 V output	
		Ambient Temperature Range	Operating	41° to 122° F (5° to 50° C)
	Storage		-40° to 185° F (-40° to 85° C)	
	Dielectric Voltage Withstand	Input to Output	3,000 VAC/min	
		Input to Ground	1,500 VAC/min	
	Input Transient Susceptibility	Common and Differential Mode	2,500 V, 1µs, damped sinusoid 600 V, 10 µs pulse (superimposed on AC line)	
Differential Mode		20% step change in AC input voltage		

1.44-MB Diskette Drive	Size	3.5 in		
	LED Indicators (front panel)	Green		
	Read/Write Capacity per Diskette (high/low density)	1.44 MB/720 KB		
	Drive Supported	One		
	Drive Height	11 mm		
	Drive Rotation	300 rpm		
	Transfer Rate Synchronous (Maximum) (high/low)	500 K/250 K bits/s		
	Bytes/Sector	512		
	Sectors/Track (high/low)	18/9		
	Tracks/Side (high/low)	80/80		
	Access Times	Track-to-Track (high/low)	3/6 ms	
		Average (high/low)	174/94 ms	
		Settling Time	15 ms	
		Latency Average	83/100 ms	
	Cylinders (high/low)	80/80		
Read/Write Heads	Two			

TechSpecs

Low-Profile 24X Max IDE 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 x 3.15 in/12 x 8 cm
		Rotational Speed	4200 rpm maximum
		Center Hole	0.6 in/15 mm diameter
		Thickness	1.2 mm
		Track Pitch	1.6 µm
	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	<140 ms
		Full-Stroke	<300 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 120° F (5° to 55° C)
		Humidity	10% to 80%
Dimensions	(HxWxD, maximum)	0.5 x 5.16 x 5.12 in (1.27 x 13.1 x 13 cm)	
	Weight	<0.75 lb (<340 g)	
<hr/>			
Smart Array 5i Controller (integrated on system board)	Protocol	Wide Ultra3 SCSI	
	Processor	32-bit RISC	
	XOR engine	Hardware RAID	
	Electrical interface	Low Voltage Differential (LVD)	
	Simultaneous Drive Transfer Channels	2	
	Channel Transfer Rate	320 MB/s total; 160 MB/s per channel	
	SCSI Port Connectors	One external and one internal SCSI port	
	Memory	32 MB of DRAM used for code, transfer buffers, and non-battery-backed read cache	
	Peak transfer rate	160 MB/s	
	Logical Drives Supported	32	
	Software Upgradeable Firmware	Yes	
	RAID Support	RAID 5 (Distributed Data Guarding) RAID 1+0 (Striping and Mirroring) RAID 1 (Mirroring) RAID 0 (Striping)	
	Disk Drive and Enclosure Protocol Support	Ultra2 and Ultra3	

TechSpecs

NC7770 PCI-X Gigabit Server Adapter	Network Interface	10/100/1000-T	
	Compatibility	IEEE 802.3 10Base-T	
		IEEE 802.3ab 1000Base-T	
		IEEE 802.3u 100Base-TX	
	Data Transfer Method	64-bit/133MHz PCI-X	
	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-T (Half-Duplex)	1000 Mb/s
1000Base-T (Full-Duplex)		2000 Mb/s	
Connector	RJ-45		
Cable Support	10Base-T	Category 3,4 or 5 UTP; up to 328 ft (100 m)	
	10/100/1000Base-T	Category 5 UTP (2 pair); up to 328 ft (100 m)	

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