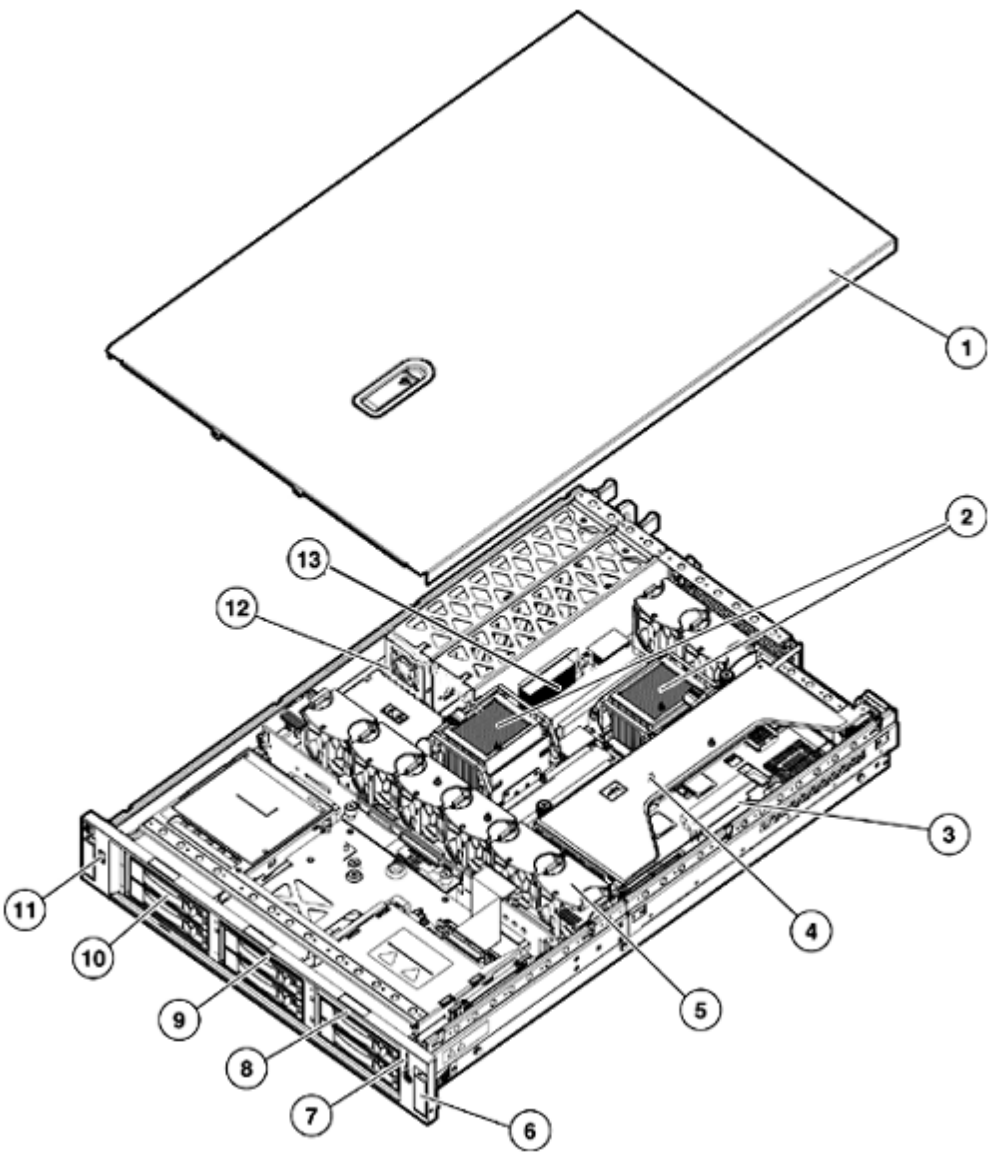
RETIRED: This document has been officially retired, and the base products listed herein are now considered obsolete and are no longer available for sale. Consequently, the information contained within may no longer be current. This document is provided exclusively for reference and informational purposes.

Overview



SCSI Model shown above

1. Quick removal access panel
2. AMD 200 series Opteron processor
3. Smart Array 6i Ultra320 array controller with optional 128MB Battery Backed Write Cache (BBWC) OR Smart Array P600 Controller (SAS) in a PCI slot for SAS models
4. Three PCI-X non hot plug expansion slots
5. Hot-plug fans, full redundancy option
6. Quick release lever for fast server access
7. Front LEDs (show server status) and Unit Identification button/LED (for easy in rack server identification)
8. 24X Max CD-ROM
9. Optional 1.44 MB (3.5") Diskette Drive
10. Support for up to six Ultra320 SCSI hot plug hard drives or for five hot plug hard drives and one DAT 40 or DAT 72 hot plug tape drive OR on SAS Model support up to eight Small Form Factor (SFF) SAS drive (Internal tape is not supported on SAS models)
11. USB 1.1 Port
12. Hot plug power supply, redundancy option
13. Eight PC3200 400MHz DDR Sockets

Overview

What's New

The DL385 introduces a new processor speed:

- Support for model 285 (2.6 GHz), which is a Dual-core processor and is supported on both SCSI and SAS models

At a Glance

The HP ProLiant DL385 delivers on the DL380's history of design excellence with enterprise-class uptime and manageability, proven 2-way AMD Opteron performance, and 2U density for a variety of rack deployments and applications.

- Processors:
  - SCSI Models:
    - Up to two AMD Opteron processors model 285 (2.6 GHz Dual-core), 280 (2.4 GHz Dual-core), 275 (2.2 GHz Dual-core), 270 (2.0 GHz Dual-core), 265 (1.8 GHz Dual-core), 254 (2.8 GHz Single-core), 252 (2.6 GHz Single-core) and 250 (2.4 GHz Single-core) with 1MB L2 cache per core
  - SAS Models:
    - Up to two AMD Opteron processors model 285 (2.6 GHz Dual-core), 280 (2.4 GHz Dual-core), 275 (2.2 GHz Dual-core) and 265 (1.8 GHz Dual-core) with 1MB L2 cache per core
  - AMD chipset
- Memory:
  - 1 GB PC3200 400MHz DDR Memory (2 x 512 MB)
- Storage Controller:
  - SCSI Models:
    - Integrated Ultra320 Smart Array 6i Controller with 64MB RAM and optional 128MB Battery-Backed Write Cache (BBWC) Enabler option kit
  - SAS Models:
    - HP Smart Array P600/256 BBWC Controller (in PCI slot)
- Internal Drive Support:
  - SCSI Models:
    - Support for up to six Ultra320 SCSI hot plug hard drives or for five hot plug hard drives and one DAT hot plug tape drive
    - Internal hot plug capacity 1.8TB standard (6 x 300GB U320 HDD)
  - SAS Models:
    - Support for up to eight SFF SAS hot plug hard drives (internal tape not supported)
    - Internal hot plug capacity 1.168TB standard (8 x 146GB SAS HDD)
  - SCSI/SAS Models:
    - Optional dual channel drive backplane (2/4 split)
    - Optional floppy disk drive
- Network Controller:
  - Embedded NC7782 PCI-X Gigabit Server Adapter
- Expansion Slots:
  - 3 Total: (2) 64-bit/100MHz PCI-X non-hot plug; (1) 64-bit/133MHz PCI-X non-hot plug
- USB 1.1 Ports:
  - 3 Total: (1) front; (2) rear accessible ports
- Redundancy:
  - Hot Plug Fans with optional full redundancy
  - Hot Plug Power Supply with optional redundancy
- Management:
  - Integrated Lights-Out (iLO) Standard Management on system board
  - Support for new iLO Shared Network Port enables access to the iLO management processor through one of the embedded system NICs
  - Automatic Server Recovery (ASR), ROM Based Setup Utility (RBSU), HP System Insight Manager, Status LEDs including system health and UID and SmartStart

Overview

- Form Factor:
  - Rack (2U), (3.5-inch)
- Deployment/Serviceability:
  - Tool-less access to all system components for easy in rack serviceability
  - Quick Deploy Rail System includes sliding universal rails, an ambidextrous cable management arm and quick release levers for fast and easy serviceability and in-rack tool-less access to major components
- Warranty:
  - Protected by HP Services and a worldwide network of resellers and service providers. Three-year Next Business Day, on-site limited global warranty. Certain restrictions and exclusions apply. Pre-Failure Notification on processors, memory, and SCSI/SAS hard drives. SATA hard drives have a one-year warranty.

Standard Features

NOTE: For the Standard Features shipped in the "Factory Integrated Models", please see the "Configuration Information - Factory Integrated Models" section.

Processor One of the following depending on model	Dual-core AMD Opteron 285 (2.6 GHz/1MB) Dual-core AMD Opteron 280 (2.4 GHz/1MB) Dual-core AMD Opteron 275 (2.2 GHz/1MB) Dual-core AMD Opteron 270 (2.0 GHz/1MB) Dual-core AMD Opteron 265 (1.8 GHz/1MB) Single-core AMD Opteron 254 (2.8 GHz/1MB) Single-core AMD Opteron 252 (2.6 GHz/1MB) Single-core AMD Opteron 250 (2.4 GHz/1MB)
Cache Memory	1MB Level 2 cache per core
Upgradeability	Upgradeable to dual processing
Chipset	AMD Opteron 8000 series Chipset
Memory Protection	Advanced ECC

Memory One of the following depending on model	Type	PC3200 400MHz DDR
	Standard	1 GB (2 x 512 MB)
	Maximum	16 GB using PC3200 32 GB using PC2700 (4 GB DIMMS)

Network Controller	Embedded NC7782 PCI-X Gigabit Server Adapter

PCI-X Non Hot-Plug Riser Expansion Slots

Slot Number	Bus Speed	Bus Number*	Device Number**	Hot Plug	PCI Voltage
1	64-bit/100MHz PCI-X	5	7	no	3.3 Volt
2	64-bit/100MHz PCI-X	5	8	no	3.3 Volt
3	64-bit/133MHz PCI-X	6	9	no	3.3 Volt

*NOTE: Default bus assignment. Inserting cards with PCI bridges may alter the actual bus assignment number.

**NOTE: Slots are enumerated differently based on OS. MS OS's enumerate from lowest to highest Device ID by bus (starting with the lowest bus).

Standard Features

Storage Controller One of the following depending on model	SCSI Models	Smart Array 6i Controller (integrated on system board)
	SAS Models	Smart Array P600/256 BBWC Controller (in PCI slot)
Storage	Diskette Drive	1.44 MB Diskette Drive (optional)
	Optical Drive	24x IDE CD-ROM
	Hard Drives	None Standard NOTE: The system can be operated in single channel or dual channel (2/4 split). SCSI configuration kit (364471-B21) is required for dual channel configurations.

Maximum Internal Storage Type	Hot Plug SCSI	1.80TB	6 x 300GB with standard internal hot plug drive cage
	Hot Plug SAS	1.168TB	8 x 146GB with standard internal hot plug small form factor SAS drive cage

Interfaces	Serial	1
	Pointing Device (Mouse)	1
	Graphics	1
	Keyboard	1
	Network RJ-45	3 (1 for iLO)
	USB 1.1 Ports	3 (1 front, 2 back) NOTE: Please see the following URL for additional information regarding USB support: http://h18004.www1.hp.com/products/servers/platforms/usb-support.html.

Graphics	Integrated ATI Rage XL Video Controller with 8-MB SDRAM Video Memory
Form Factor	Rack (2U), (3.5-inch)

Standard Features

ProLiant Essentials Foundation Pack Software	HP Systems Insight Manager	HP Systems Insight Manager (HP SIM) provides a unified, secure and extensible environment to centrally manage servers, storage and other infrastructure devices across multiple operating system platforms. Through a single management view, HP SIM provides core management services that include device discovery and identification, event views, health monitoring, inventory data collection, software version control and reporting. HP SIM is built on industry standards and is extensible with value-added ProLiant Essentials, Integrity Essentials and Storage Essentials software to meet individual management needs. For more details on HP SIM visit http://www.hp.com/go/hpsim. HP SIM provides organizations with the following benefits: • Simplifies and consolidates infrastructure lifecycle management using task and query based functionality • Provides the foundation for infrastructure automation and virtualization • Enables IT management based on business processes not hardware platforms • Lowers infrastructure maintenance cost and frees resources for innovation • Maximizes resource utilization with virtualization technologies • Provides a central point of integration between infrastructure and Enterprise management tools such as HP OpenView
	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 7.20
	Insight Management Agents	Insight Management Agents should be installed on all HP servers to present system instrumentation, health and configuration information into HP Systems Insight Manager and the HP System Management Homepage. The HP System Management Homepage aggregates systems data from Insight Management Agents and other HP management tools, providing a consolidated browser-based interface for managing individual servers, Insight Management Agents and The HP System Management Homepage are included on ProLiant Support Packs, and can also be installed using the server profiles provided with the ProLiant Essentials Rapid Deployment Pack. For additional information about the Management Agents and the HP System Management Homepage please visit the management Web site at http://www.hp.com/servers/manage
	Subscribers 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 http://www.hp.com/go/support.

Insight Diagnostics Online Edition	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 (RDP) is an automated deployment and provisioning solution for all ProLiant servers. RDP includes the ProLiant Integration Module featuring ProLiant server pre-configured events for OS installation, and optimized software drivers, firmware and management agents. Every RDP disc includes a 7-day, 10-node trial licenses for evaluation purposes. RDP requires a license for each server deployed and is available for purchase with HP servers. For more information, visit: http://www.hp.com/servers/rdp. • 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. • Intelligent Networking Pack - detects and analyzes network bottlenecks or broken network linkages and steers traffic to the optimum route based on network conditions, plus it provides an extra layer of protection. The virus throttle feature of the solution slows the propagation of fast spreading virus. • Vulnerability and Patch Management Pack - identifies and remediates software security vulnerabilities due to missing patches as well operating system configurations that can be exploited by viruses, worms, and other blended threats. • Virtual Machine Management Pack - provides central management and control of virtual machines from Microsoft and VMware. Integrated approach provides the ability to manage both physical and virtual resources from a single management console. • Server Migration Pack - The Server Migration Pack automates the manual processes required for migrating servers between physical or virtual platforms (P2V, V2P, and V2V). • Server Migration Pack - P2P Edition: Upgrading or replacing your existing server? Effortlessly transition to new servers with automated, accurate and affordable migration of OS, application and data.
Optional Remote Management Packs	• Integrated Lights-Out Advanced Pack - upgrades the Integrated Lights-Out processor to full virtual presence and control with graphical console and virtual media.

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	ACPI 2.0 Compliant PCI 2.2 Compliant WOL Support Microsoft® Logo certifications USB 1.1 Support
Remote Management	Integrated Lights Out (iLO) Standard Management: • Virtual Text Remote Console • Virtual Power Button Control • Dedicated & shared LAN Connectivity • Browser and command line access • Automatic IP Configuration via DHCP/DNS/WINS • Industry Standard 128-bit Secure Sockets Layer (SSL) and Secure Shell Security • IML and iLO Event Logging • Support for 12 user accounts with customizable access privilege • Integrated Lights Out Advanced Pack (optional) • Remote Insight Lights-Out Edition II (optional)
Intelligent Manageability	HP Systems Insight Manager SmartStart Redundant ROM Remote Flash ROM Management Agent Integrated Management Log Automatic Server Recovery (ASR) Dynamic Sector Repairing (with Smart Array Controllers) Drive Parameter Tracking (with Smart Array Controllers) Pre-Failure Warranty (covers processors, SCSI/SAS hard drives and memory)
Server Power Cords	One Lowline NEMA power cord and One Highline IEC Power cord ships standard. Localized cables included with geographic specific models in other world regions.
Power Supply	575 Watt, CE Mark Compliant Optional Hot Plug AC Redundant Power Supply
UPS and PDU Power Cord Matrix	Please see the UPS and PDU cable matrix that lists cable descriptions, requirements, and specifications for UPS and PDU units: ftp://ftp.compaq.com/pub/products/servers/ProLiantstorage/power-protection/powercordmatrix.pdf.
System Fans	5 hot plug fans ship standard. 8 hot plug fans total supported internally for full redundancy NOTE: The additional 3 fans are available via Redundant Fan Option Kit (PN 293048-B21).
Required Cabling	For required cabling information, refer to the Web site at: http://h18000.www.1.hp.com/products/servers/proliantdl385.

Standard Features

OS Support

Microsoft Windows Server 2000
Microsoft Windows Server 2003
Novell NetWare
Red Hat Enterprise Linux
SUSE Linux Enterprise Server
VMware Virtualization Software
Solaris 10 32/64-bit

NOTE: For more complete and up-to-date information on how to buy server operating systems from HP please visit the OS product site at: http://h18004.www1.hp.com/products/servers/software/OEM.html
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 ProLiant DL385, please see: http://h18023.www1.hp.com/support/files/server/us/index.html.
NOTE: For more Linux OS support & certification information, please visit our the ProLiant & Bladesystem Server Linux matrix http://h18004.www1.hp.com/products/servers/linux/hpLinuxcert.html
NOTE: For more information on HP's Certified and Supported ProLiant Servers, please visit the VMware Server Support Matrix at: http://h18004.www1.hp.com/products/servers/software/vmware/hpvmwarecert.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/proliantdl380/index.html.

Rack Kit

The DL385 quick deploy rail system provides tool-free support for racks with square or round mounting holes (including Compaq/HP 7000, 9000, 10000 and HP series), with an adjustment range of 24" - 36". The ambidextrous cable management arm can be mounted on either the left or right side for improved cable management.
NOTE: Cable management arm must be removed to access hot-plug power supplies when the cable management arm is mounted on the right.

Standard Features

Telco Rack Support	DL385 Telco Rack Kit: Support for all 2-post Telco racks requires the use of the standard rack kit and an additional option kit from Rack Solutions (http://www.racksolutions.com/hp/)
Factory Express Portfolio for Servers and Storage	HP Factory Express offers configuration, customization, integration and deployment services for HP servers and storage products. Customers can choose how their factory solutions are built, tested, integrated, shipped and deployed. Factory Express offers service packages for simple configuration, racking, installation, complex configuration and design services as well as individual factory services, such as image loading, asset tagging, and custom packaging. HP products supported through Factory Express include a wide array of servers and storage: HP Integrity, HP ProLiant, HP ProLiant Server Blades, HP BladeSystem, HP 9000 servers as well as the MSA1000, VA7xxx, EVA, XP, rackable tape libraries and configurable network switches. For more information on Factory Express services for your specific server model please contact your sales representative or go to http://www.hp.com/go/factory-express.
HP Enterprise Configurator	The HP eCo-Enterprise Configurator now provides factory default racking for our HP hardware portfolio. This approach is aligned with our strategic direction to meet the needs and expectations of our valued customers. If you require "custom" rack configuration, please contact HP's Customer Business Center or an Authorized Partner for assistance.
HP ProLiant Smart Buys (NA only)	The HP Smart Buy program offers mainstream business solutions at competitive prices with excellent availability and superior HP quality. It offers a wide range of industry-leading HP products at compelling prices, allowing you to receive richer configurations with additional options. NOTE: ProLiant Smart Buys are available in NA only. For detailed specification information on ProLiant Smart Buys please click on the following link: ftp://ftp.compaq.com/pub/products/servers/smartbuys.pdf
Service and Support	This product is covered by a global limited warranty and supported by HP Services and a worldwide network of resellers and service providers. Hardware diagnostic support and repair is available for three years from date of purchase. Support for software and initial setup is available for 90 days from date of purchase. Additional support may be covered under the warranty or available for an additional fee. Enhancements to warranty services are available through HP Care Pack services or customized service agreements. NOTE: Server Warranty includes 3 year Parts, 3 year Labor, 3-year on-site support. Additional information regarding worldwide limited warranty and technical support is available at: http://h18004.www1.hp.com/products/servers/platforms/warranty/index.html HP Care Pack services include coverage for the HP branded hardware options qualified for the server, purchased at the same time or afterward, internal to the enclosure, as well as 22" and smaller external monitors and tower UPS options up to 3kVA; these items will be covered at the same service level and for the same coverage period as the server. Coverage of UPS Battery is not included, standard warranty terms & conditions apply. For servers or storage systems installed within a rack, service also covers all HP qualified rack options installed within the same rack. HP services provide continuous care and support expertise with committed response designed to meet your IT and business needs.

Standard Features

To fully capitalizing on your HP ProLiant servers' capabilities requires a service partner who thoroughly understands your server technology and systems environment. HP Services, an industry leader in provision of multi vender support solutions provides a range of support services designed to meet the varying needs of business. Whether an SMB or large global corporation HP has a ProLiant server support offer to help you speedily deploy and maximize system uptime.

Enhanced Care - Minimum recommended service support offer designed to ensure customers have access to expert assistance, whenever they need it.

- *4-Hour On-site Service, 7-Day x 24-Hour Coverage, 3 Years*

Continuous Care - Recommended service delivering cost-effective support options designed to extend HP Services committed response and guaranteed fix times, designed to speed problem identification and resolution.

- *6-Hour Call to Repair, On-site Service, 7-Day x 24-Hour Coverage, 3 Years*

Total Care - Highest HP Support service level recommend to help increase IT performance and availability with comprehensive, integrated hardware and software services

- *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*

Deployment Services - HP Installation and Start Up services designed to take time, risk, and worry out of the deployment of ProLiant servers - and free customers IT support staff to focus on what they do best, their business.

- *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*

NOTE: For a complete listing of service offerings and information visit:
http://www.hp.com/services/proliantservices
http://www.hp.com/go/proliant/carepack

Models

NOTE: ProLiant Smart Buys are available in NA only. For detailed specification information on ProLiant Smart Buys please click on the following link: ftp://ftp.compaq.com/pub/products/servers/smartbuys.pdf.

DL385R01 O2.6 GHz-1MB, 1GB (Dual-core/SCSI) 407613-xx1	Processor(s)	(1) Dual-core AMD 285 (2.6 GHz) Opteron Processor standard
	Cache Memory	1MB Integrated Level 2 Cache per core
	Memory	1 GB PC3200 400MHz DDR Memory
	Network Controller	Embedded NC7782 PCI-X Gigabit Server Adapter
	Storage Controller	Smart Array 6i Controller (integrated on system board)
	Hard Drive	None ship standard
	Internal Storage	1.8TB
	Optical Drive	24x IDE CD-ROM
	Diskette Drive	Optional
	Form Factor	Rack (2U), (3.5-inch)
DL385R01 O2.6 GHz-1MB, 1GB (Dual-core/SAS) 407615-xx1	Processor(s)	(1) Dual-core AMD 285 (2.6 GHz) Opteron Processor standard
	Cache Memory	1MB Integrated Level 2 Cache per core
	Memory	1 GB PC3200 400MHz DDR Memory
	Network Controller	Embedded NC7782 PCI-X Gigabit Server Adapter
	Storage Controller	Smart Array P600/256 BBWC Controller (in PCI slot)
	Hard Drive	None ship standard
	Internal Storage	1.168TB
	Optical Drive	24x IDE CD-ROM
	Diskette Drive	Optional
	Form Factor	Rack (2U), (3.5-inch)
DL385R01 O2.4 GHz-1MB, 1GB (Dual-core/SCSI) 399684-xx1	Processor(s)	(1) Dual-core AMD 280 (2.4 GHz) Opteron Processor standard
	Cache Memory	1MB Integrated Level 2 Cache per core
	Memory	1 GB PC3200 400MHz DDR Memory
	Network Controller	Embedded NC7782 PCI-X Gigabit Server Adapter
	Storage Controller	Smart Array 6i Controller (integrated on system board)
	Hard Drive	None ship standard
	Internal Storage	1.8TB
	Optical Drive	24x IDE CD-ROM
	Diskette Drive	Optional
	Form Factor	Rack (2U), (3.5-inch)

Models

DL385R01 O2.2 GHz-1MB, 1GB (Dual-core/SCSI) 391112-xx1	Processor(s)	(1) Dual-core AMD 275 (2.2 GHz) Opteron Processor standard
	Cache Memory	1MB Integrated Level 2 Cache per core
	Memory	1 GB PC3200 400MHz DDR Memory
	Network Controller	Embedded NC7782 PCI-X Gigabit Server Adapter
	Storage Controller	Smart Array 6i Controller (integrated on system board)
	Hard Drive	None ship standard
	Internal Storage	1.8TB
	Optical Drive	24x IDE CD-ROM
	Diskette Drive	Optional
	Form Factor	Rack (2U), (3.5-inch)
DL385R01 O2.0 GHz-1MB, 1GB (Dual-core/SCSI) 391111-xx1	Processor(s)	(1) Dual-core AMD 270 (2.0 GHz) Opteron Processor standard
	Cache Memory	1MB Integrated Level 2 Cache per core
	Memory	1 GB PC3200 400MHz DDR Memory
	Network Controller	Embedded NC7782 PCI-X Gigabit Server Adapter
	Storage Controller	Smart Array 6i Controller (integrated on system board)
	Hard Drive	None ship standard
	Internal Storage	1.8TB
	Optical Drive	24x IDE CD-ROM
	Diskette Drive	Optional
	Form Factor	Rack (2U), (3.5-inch)
DL385R01 O1.8 GHz-1MB, 1GB (Dual-core/SCSI 391110-xx1	Processor(s)	(1) Dual-core AMD 265 (1.8 GHz) Opteron Processor standard
	Cache Memory	1MB Integrated Level 2 Cache per core
	Memory	1 GB PC3200 400MHz DDR Memory
	Network Controller	Embedded NC7782 PCI-X Gigabit Server Adapter
	Storage Controller	Smart Array 6i Controller (integrated on system board)
	Hard Drive	None ship standard
	Internal Storage	1.8TB
	Optical Drive	24x IDE CD-ROM
	Diskette Drive	Optional
	Form Factor	Rack (2U), (3.5-inch)

Models

DL385R01 O2.2 GHz-1MB, 1GB (Dual-core/SAS) 391109-xx1	Processor(s)	(1) Dual-core AMD 275 (2.2 GHz) Opteron Processor standard
	Cache Memory	1MB Integrated Level 2 Cache per core
	Memory	1 GB PC3200 400MHz DDR Memory
	Network Controller	Embedded NC7782 PCI-X Gigabit Server Adapter
	Storage Controller	Smart Array P600/256 BBWC Controller (in PCI slot)
	Hard Drive	None ship standard
	Internal Storage	1.168TB
	Optical Drive	24x IDE CD-ROM
	Diskette Drive	Optional
	Form Factor	Rack (2U), (3.5-inch)
DL385R01 O1.8 GHz-1MB, 1GB (Dual-core/SAS) 391108-xx1	Processor(s)	(1) Dual-core AMD 265 (1.8 GHz) Opteron Processor standard
	Cache Memory	1MB Integrated Level 2 Cache per core
	Memory	1 GB PC3200 400MHz DDR Memory
	Network Controller	Embedded NC7782 PCI-X Gigabit Server Adapter
	Storage Controller	Smart Array P600/256 BBWC Controller (in PCI slot)
	Hard Drive	None ship standard
	Internal Storage	1.168TB
	Optical Drive	24x IDE CD-ROM
	Diskette Drive	Optional
	Form Factor	Rack (2U), (3.5-inch)
DL385R01 O2.8 GHz-1MB, 1GB (Single-core) 398370-xx1	Processor(s)	(1) Single-core AMD 254 (2.8 GHz) Opteron Processor standard
	Cache Memory	1MB Integrated Level 2 Cache
	Memory	1 GB PC3200 400MHz DDR Memory
	Network Controller	Embedded NC7782 PCI-X Gigabit Server Adapter
	Storage Controller	Smart Array 6i Controller (integrated on system board)
	Hard Drive	None ship standard
	Internal Storage	1.8TB
	Optical Drive	24x IDE CD-ROM
	Diskette Drive	Optional
	Form Factor	Rack (2U), (3.5-inch)

Country Code Key	XX=00	U.S.
	XX=20	Brazil
	XX=29	Japan
	XX=37	APD
	XX=42	Euro
	XX=AA	PRC

NOTE: For Configure to Order requirements within EMEA region, please consult local Sales Contact.
NOTE: HP does not allow factory integration of options into standard models listed above.
Configure-to-order servers must start with a CTO Chassis.
NOTE: This product offering does not support HP Factory Express Server Configuration Level 1.
NOTE: FIO indicates that this option only available as a Factory Installable Option.

Step 1: Base Configuration

Models	HP ProLiant DL385 Rack CTO Chassis, NA (SCSI)	382608-405
	Factory Integrated Model ships with:	
	Embedded NC7782 PCI-X Gigabit Server Adapter	
	Ultra320 Smart Array 6i Controller (integrated on system board)	
	Three available 64-bit PCI-X slots, including two non-hot plug 100MHz slots and one non-hot-plug 133MHz slot	
	575 Watt hot plug power supply, CE Mark Compliant	
	One Lowline NEMA power cord and One Highline IEC Power cord	
	5 hot plug fans	
	Rack (2U), (3.5-inch)	
	HP ProLiant DL385 Rack CTO Chassis, NA (SAS)	393622-405
	Factory Integrated Model ships with:	
	Embedded NC7782 PCI-X Gigabit Server Adapter	
	Three available 64-bit PCI-X slots, including two non-hot plug 100MHz slots and one non-hot-plug 133MHz slot	
	575 Watt hot plug power supply, CE Mark Compliant	
	One Lowline NEMA power cord and One Highline IEC Power cord	
	5 hot plug fans	
	Rack (2U), (3.5-inch)	

Step 1A: If SAS Model, Choose SAS Starter Kit or Controller (only one of the following)

SAS Controller	HP Smart Array P600/256 BBWC Controller NOTE: This is a required selection if one of the two following SAS Starter Kits is not selected. If choosing this part number, 2.5" SAS hard drives must still be selected under Step 4.	337972-B21
SAS Starter Kit	SAS Starter Kit - 36GB NOTE: Includes Smart Array P600/256 BBWC Controller and (2) 36GB SFF SAS Universal Hard Drives.	396221-B21
	SAS Starter Kit - 72GB NOTE: Includes Smart Array P600/256 BBWC Controller and (2) 72GB SFF SAS Universal Hard Drives.	396220-B21

Configuration Information - Factory Integrated Models (North America Only)

Step 2: Choose Required Options (only one of the following from each list unless otherwise noted)

Processors	Dual-core AMD® O285 2.6/1000-1M DL385 FIO Base NOTE: If two processors are desired, select one -L21 and one 407624-B21.	407624-L21
	Dual-core AMD® O280 2.4/1000-1M DL385 FIO Base NOTE: If two processors are desired, select one -L21 and one 399692-B21.	399692-L21
	Dual-core AMD® O275 2.2/1000-1M DL385 FIO Base NOTE: If two processors are desired, select one -L21 and one 393831-B21.	393831-L21
	Dual-core AMD® O270 2.0/1000-1M DL385 FIO Base NOTE: If two processors are desired, select one -L21 and one 393830-B21.	393830-L21
	Dual-core AMD® O265 1.8/1000-1M DL385 FIO Base NOTE: If two processors are desired, select one -L21 and one 393829-B21.	393829-L21
	Single core AMD® O254 2.8/1000-1M DL385 FIO Base NOTE: If two processors are desired, select one -L21 and one 399087-B21. Single core processor selections are only available for SCSI chassis (382608-405).	399087-L21
Base Memory	1 GB PC3200 DDR SDRAM DIMM Memory Kit (2 x 512 MB)	376638-B21
	2 GB PC3200 DDR SDRAM DIMM Memory Kit (2 x 1 GB)	376639-B21
	4 GB PC3200 DDR SDRAM DIMM Memory Kit (2 x 2 GB)	379300-B21
	2 GB PC3200 DDR SDRAM DIMM 2RANK Memory Kit (2 x 1 GB)	435640-B21
	4 GB PC3200 DDR SDRAM DIMM Memory Kit (2 x 2 GB)	379300-B21
	8 GB PC2700 DDR SDRAM DIMM Memory Kit (2 x 4 GB) NOTE: The Redundant Fan Option Kit (PN 293048-B21) is required to be installed when the 8 GB PC2700 DDR SDRAM DIMM Memory Kit (2 x 4 GB) (PN 395409-B21) is used.	395409-B21

Step 3: Choose Additional Factory Integratable Options

Optical Drive	Drv CD-ROM 24X FIO Base	338732-B21
	Slimline CD-RW/DVD-ROM Combo Option Kit	331903-B21
	Slimline DVD-ROM Drive (8x/24x) Option Kit	264007-B21
Diskette Drive	Floppy Drive Kit (SCSI Models only)	364507-B21
	Floppy Drive Kit (SAS Models only)	393998-B21

Step 4: Choose Additional Options for Factory Integration

NOTE: For additional options, please refer to the "Options" section below.

NOTE: Some options may not be factory integrated. Please contact your local sales representative for additional information.

ProLiant DL385 Unique Options	Dual-core AMD Opteron 285 2.6 GHz-1MB Processor Option Kit	407624-B21
	Dual-core AMD Opteron 280 2.4 GHz-1MB Processor Option Kit	399692-B21
	Dual-core AMD Opteron 275 2.2 GHz-1MB Processor Option Kit	393831-B21
	Dual-core AMD Opteron 270 2.0 GHz-1MB Processor Option Kit	393830-B21
	Dual-core AMD Opteron 265 1.8 GHz-1MB Processor Option Kit	393829-B21
	Single-core AMD Opteron 254 2.8 GHz-1MB Processor Option Kit	399087-B21
	Single-core AMD Opteron 252 2.6 GHz-1MB Processor Option Kit	376190-B21
	Single-core AMD Opteron 250 2.4 GHz-1MB Processor Option Kit	376189-B21
ProLiant Essentials Value Pack Software	**ProLiant Essentials Intelligent Networking Pack**	
	ProLiant Essentials Intelligent Networking Pack - Windows Edition, Single Server License NOTE: For use with a single server. Contains one license with a unique license activation key and documentation. NOTE: For additional ProLiant Intelligent Networking Pack License Kits please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/12062_div/12062_div.HTML	436225-B21
	ProLiant Essentials Intelligent Networking Pack - Linux Edition, Single Server License NOTE: For additional ProLiant Intelligent Networking Pack - Linux License Kits please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/12327_div/12327_div.HTML	436229-B21
	ProLiant Essentials Performance Management Pack	
	ProLiant Essentials Performance Management Pack, Single-Server License NOTE: For use with a single server. Contains one license with a unique license activation key, HP Management CD and documentation. NOTE: The most recent version of the software can always be downloaded at http://www.hp.com/products/pmp.	306696-B21
	ProLiant Essentials Performance Management Pack, Single-Server License NOTE: For use with a single server. Contains one license with a unique license activation key, HP Management CD and documentation. NOTE: The most recent version of the software can always be downloaded at http://www.hp.com/products/pmp. NOTE: For additional ProLiant Performance Management Pack License Kits please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/11925_div/11925_div.HTML	306696-B21
	ProLiant Essentials Rapid Deployment Pack Windows Edition Release	
	Rapid Deployment Pack, Single-Server License NOTE: This license allows 1 server to be deployed and managed via RDP.	267196-B21
	Rapid Deployment Pack, Single-Server License (Japan) NOTE: This license allows 1 server to be deployed and managed via RDP.	267196-291
	ProLiant Essentials Rapid Deployment Pack - Physical Media Kit	434559-B21
	ProLiant Essentials Rapid Deployment Pack Flatpack - single-server license NOTE: For additional ProLiant Essentials Rapid Deployment Pack License Kits please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/11053_div/11053_div.HTML	434560-B21

Options

	ProLiant Essentials Workload Management Pack	
	ProLiant Essentials Workload Management Pack, Single Server License	303284-B21
	NOTE: For additional ProLiant Workload Management Pack License Kits please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/11452_div/11452_div.HTML	
	ProLiant Essentials Virtualization Management Software	
	ProLiant Essentials Virtual Machine Management Pack, Single-Server License NOTE: For use with a single server. Contains one license with a unique license activation key and documentation.	435661-B21
	ProLiant Essentials Server Migration Pack, Single-Migration License NOTE: Contains one license, enabling 1 server migration, with a unique license activation key and documentation. NOTE: This license allows 1 server to be migrated from a physical server to a virtual machine. Or this license can be used to migrate a virtual machine from one virtualization layer i.e. VMware GSX to a different virtualization layer such as VMware ESX or Microsoft Virtual Server 2005.	435663-B21
	ProLiant Essentials Server Migration Pack - Physical to ProLiant Edition, Single-Migration License	412978-B21
	HP ProLiant Essentials Server Migration Pack - Physical to ProLiant Edition. 1 Year Unlimited Migration License	412982-B21
	NOTE: For additional ProLiant Essentials Virtualization Management Software License Kits please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/12328_div/12328_div.HTML	
	ProLiant Essentials Vulnerability and Patch Management Pack	
	ProLiant Essentials Vulnerability and Patch Management Pack, Single-Server License NOTE: For use with a single server. Contains one license with a unique license activation key and documentation.	371645-B21
	NOTE: For additional ProLiant Vulnerability and Patch Management Pack License Kits, please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/12111_div/12111_div.HTML	
	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.	
Remote Management	**Integrated Lights-Out Advanced Pack**	
	Integrated Lights-Out Advanced Pack, 1 server Featuring: Sophisticated virtual administration features for ultimate control of servers in the data centers and remote sites.	263825-B21
	NOTE: For additional Integrated Light-Out Advanced Pack License Kits please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/11052_div/11052_div.HTML	

Options

ProLiant Software Maintenance Subscription	ProLiant Software Maintenance Subscription	355060-B21
	ProLiant Software Maintenance Single Release	356573-B21
	ProLiant Foundation Pack Single Release	356604-B21
	NOTE: Please see the SmartStart QuickSpecs for additional information regarding the subscription purchase: http://h18000.www1.hp.com/products/quickspecs/Division/11073.html (Worldwide)	
Processor	Dual-core AMD Opteron 285 2.6 GHz-1MB Processor Option Kit	407624-B21
	Dual-core AMD Opteron 280 2.4 GHz-1MB Processor Option Kit	399692-B21
	Dual-core AMD Opteron 275 2.2 GHz-1MB Processor Option Kit	393831-B21
	Dual-core AMD Opteron 270 2.0 GHz-1MB Processor Option Kit	393830-B21
	Dual-core AMD Opteron 265 1.8 GHz-1MB Processor Option Kit	393829-B21
	Single-core AMD Opteron 254 2.8 GHz-1MB Processor Option Kit	399087-B21
	Single-core AMD Opteron 252 2.6 GHz-1MB Processor Option Kit	376190-B21
	Single-core AMD Opteron 250 2.4 GHz-1MB Processor Option Kit	376189-B21
Memory	1 GB PC3200 DDR SDRAM DIMM Memory Kit (2 x 512 MB)	376638-B21
	2 GB PC3200 DDR SDRAM DIMM Memory Kit (2 x 1 GB)	376639-B21
	2 GB PC3200 DDR SDRAM DIMM 2RANK Memory Kit (2 x 1 GB)	435640-B21
	4 GB PC3200 DDR SDRAM DIMM Memory Kit (2 x 2 GB)	379300-B21
	8 GB PC2700 DDR SDRAM DIMM Memory Kit (2 x 4 GB)	395409-B21
	NOTE: The Redundant Fan Option Kit (PN 293048-B21) is required to be installed when the 8 GB PC2700 DDR SDRAM DIMM Memory Kit (2 x 4 GB) (PN 395409-B21) is used.	
Optical Drives	Slimline CD-RW/DVD-ROM Combo Option Kit	331903-B21
	Slimline DVD-ROM Drive (8x/24x) Option Kit	264007-B21
	HP DVD±R/RW 8X Slim	383975-B21
Diskette Drive	Floppy Drive Option Kit	364507-B21
	NOTE: For SCSI models only.	
	Floppy Drive Option Kit, SAS	393998-B21
	NOTE: For SAS models only.	

Options

Hard Drives	Ultra320 - Universal Hot Plug	
	HP 300GB U320 10K Universal HDD	350964-B22
	HP 146GB U320 10K Universal HDD	286716-B22
	HP 72GB U320 10K Universal HDD	286714-B22
	HP 300GB U320 15K Universal HDD	411089-B22
	HP 146GB U320 15K Universal HDD	347708-B22
	HP 72GB U320 15K Universal HDD	286778-B22
	HP 36GB U320 15K Universal HDD	286776-B22
	NOTE: All U320 Universal Hard Drives are backward compatible to U2 or U3 speeds.	
	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: http://h18000.www1.hp.com/products/quickspecs/11531_div/11531_div.HTML (Worldwide)	
	SFF SATA Hot Plug	
	HP 60GB 1.5G SATA 5.4K SFF HDD	379306-B21
	NOTE: Please see the SATA Hard Drive QuickSpecs for Technical Specifications such as capacity, height, width, interface, transfer rate, seek time, physical configuration, and operating temperature: http://h18000.www1.hp.com/products/quickspecs/12091_div/12091_div.HTML (Worldwide)	
	SFF SAS - Universal Hot Plug	
	HP 146GB 3G SAS 10K SFF SP HDD	431958-B21
	HP 72GB 3G SAS 10K SFF SP HDD	375861-B21
	HP 72GB 3G SAS 15K SFF SP HDD	431935-B21
	HP 36GB 3G SAS 10K SFF SP HDD	375859-B21
	HP 36GB 3G SAS 15K SFF SP HDD	431933-B21
	NOTE: Supported on SAS models only.	
	NOTE: Please see the SAS Hard Drive QuickSpecs for Technical Specifications such as capacity, height, width, interface, transfer rate, seek time, physical configuration, and operating temperature: http://h18000.www1.hp.com/products/quickspecs/12244_div/12244_div.HTML (Worldwide)	
SCSI Configuration Kit	SCSI Configuration Kit	364471-B21
	NOTE: Kit Includes duplex drive backplane terminator and 2 long SCSI cables.	

Options

Storage Controllers	**SCSI Controllers**	
	128MB Battery-Backed Write Cache with Battery Housing	346914-B21
	NOTE: This 128 MB BBWC is interoperable with the Smart Array 641 Controller and Smart Array 642 Controller.	
	Smart Array 6402/128 Controller	273915-B21
	Smart Array 6404/256 Controller	273914-B21
	Smart Array 641 Controller	291966-B21
	Smart Array 642 Controller	291967-B21
	128-MB BBWC (Battery-Backed Write Cache) Enabler	351580-B21
	NOTE: This 128MB BBWC supports the Smart Array 641 Controller and Smart Array 642 Controller.	
	Ultra320 Expansion Module for SA-6402	273911-B21
	64-Bit/133-MHz Single Channel Ultra320 SCSI HBA G2	374654-B21
	NOTE: Please see the following QuickSpecs for Technical Specifications and additional information: http://h18000.www.1.hp.com/products/quickspecs/12030_div/12030_div.HTML (Smart Array 6i) http://h18000.www1.hp.com/products/quickspecs/11587_div/11587_div.HTML (Smart Array 6400 Series) http://h18000.www1.hp.com/products/quickspecs/12067_div/12067_div.HTML (Smart Array 641) http://h18000.www1.hp.com/products/quickspecs/12069_div/12069_div.HTML (Smart Array 642) http://h18000.www1.hp.com/products/quickspecs/11943_div/11943_div.HTML (Single Channel U320 SCSI G2 HBA)	
	SAS Controller	
	Smart Array P600 Controller	
	HP Smart Array P600/256 BBWC Controller	337972-B21
	NOTE: Ships standard on SAS models.	
	512MB DDR BBWC Upgrade	372538-B21
	NOTE: Please see the following QuickSpecs for Technical Specifications and additional information: http://h18000.www1.hp.com/products/quickspecs/12247_div/12247_div.HTML (Smart Array P600 Controller)	
	SAS HBA	
	HP 8 Internal Port SAS HBA with RAID	347786-B21
	NOTE: Please see the following QuickSpecs for additional information: http://h18004.www1.hp.com/products/quickspecs/12332_div/12332_div.html (8 Internal Port SAS HBA)	
Communications	HP NC150T PCI 4-port Gigabit 1000T Combo Switch Adapter	367132-B21
	HP NC310F PCI-X 1000SX Gigabit Server Adapter	368169-B21
	HP NC340T PCI-X 4-port 1000T Gigabit Server Adapter	391661-B21
	HP NC7771 PCI-X 1000T Gigabit Server Adapter	290563-B21

Options

Redundant Options	Redundant Fan Option Kit NOTE: Hot Plug Redundant Fan Option Kit (PN 293048-B21) contains three fans. NOTE: The Redundant Fan Option Kit (PN 293048-B21) is required to be installed when the 8 GB PC2700 DDR SDRAM DIMM Memory Kit (2 x 4 GB) (PN 395409-B21) is used.	293048-B21
	Hot Plug AC Redundant Power Supply Module (NEMA and IEC cords) (NA and Japan)	355892-001
	Hot Plug AC Redundant Power Supply Module (IEC cord only) (WW)	355892-B21
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
Tape Drives	NOTE: For the complete listing of Tape Drive offerings, please see: http://www.hp.com/products1/storage/compatibility/tapebackup/ISS/index.html For recommended tape drive offerings for this ProLiant server see the following:	
	USB Tape Drives	
	HP StorageWorks DAT 72 USB Internal Tape Drive (Carbonite) NOTE: HP recommends combining this tape drive with the 1U USB Rack-Mount kit (A8007A) for a complete rack-mount solution. NOTE: Requires purchase of the Adaptec USB2connect 3100LP USB adapter available at http://www.adaptec.com. Microsoft Windows support only.	DW026A
	Ultrium Tape Drives	
	HP StorageWorks Ultrium 232 Internal Tape Drive (Carbonite) NOTE: HP recommends combining this tape drive with the 1U SCSI Rack-Mount kit (A7445B) for a complete rack-mount solution.	DW064A
	HP StorageWorks 3U SCSI Rack-mount kit with one Ultrium 460 (Carbon)	350546-B22
	HP StorageWorks 1U SCSI Rack-mount kit with one Ultrium 448 SCSI Tape Drive (Carbonite)	DW028B
	HP StorageWorks 1U SCSI Rack-mount kit with one Ultrium 920	EH903A
	HP StorageWorks 3U SCSI Rack-mount kit with one Ultrium 960 (Carbonite)	Q1595B
	NOTE: Please see the HP StorageWorks Ultrium 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/12128_div/12128_div.html (Worldwide) 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.	
	Rack-Mount Tape Drive Enclosures	
	HP StorageWorks 1U SCSI Rack-Mount kit NOTE: The 1U Rack-Mount Kit can support up to (2) half-height tape drives and is compatible with multiple Single-Ended and LVD SCSI tape drives including the DAT 24, DAT 40, DAT 72, DLT VS80, DLT VS160, Ultrium 215, Ultrium 232, Ultrium 448 and Ultrium 920 tape drives.	A7445B
	HP StorageWorks 1U USB Rack-Mount Kit NOTE: The 1U USB Rack-Mount Kit can support up to (2) half-height tape drives and is compatible with the DAT 24 USB, DAT 40 USB and DAT 72 USB tape drives.	A8007A

	HP StorageWorks 3U Rack-mount kit NOTE: The 3U Rack-mount Kit can support up to (2) full-height or (4) half-height tape drives and compatible with multiple LVD SCSI tape drives including DAT 40, DAT 72, DLT VS160, SDLT 320, SDLT 600, Ultrium 232, Ultrium 460, Ultrium 448, Ultrium 920 and Ultrium 960 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)	274338-B22
Tape Autoloaders	**HP StorageWorks DAT Autoloader**	
	HP StorageWorks DAT 72x10 tape autoloader	AE313A
	HP StorageWorks 1/8 Tape Autoloader	
	HP StorageWorks 1/8 Ultrium 920 G2 Tape Autoloader	AH165A
	HP StorageWorks 1/8 Ultrium 448 G2 Tape Autoloader	AH164A
	HP StorageWorks 1/8 Ultrium 232 G2 Tape Autoloader	AH163A
	HP StorageWorks 1/8 G2 Tape Autoloader Rack Kit NOTE: Required to install the 1/8 G2 Autoloaders in a standard 19-inch rack; includes rails and rackmount instructions NOTE: Please reference the 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	AH166A
Tape Libraries	**HP StorageWorks MSL2024 Tape Library**	
	HP StorageWorks MSL2024 1 Ultrium 960 Drive Library	AG115A
	HP StorageWorks MSL2024 1 Ultrium 960 4GB FC Drive Library	AG326B
	HP StorageWorks MSL2024 1 Ultrium 920 Drive Library	AH169A
	HP StorageWorks MSL2024 2 Ultrium 920 Drive Library	AH170A
	HP StorageWorks MSL2024 1 Ultrium 448 Drive Library	AG116A
	HP StorageWorks MSL2024 2 Ultrium 448 Drive Library	AG117A
	HP StorageWorks MSL4048 Tape Library	
	HP StorageWorks MSL4048 1 Ultrium 448 Drive Library	AG320A
	HP StorageWorks MSL4048 2 Ultrium 448 Drive Library	AG321A
	HP StorageWorks MSL4048 1 Ultrium 920 Drive Library	AH171A
	HP StorageWorks MSL4048 2 Ultrium 920 Drive Library	AH172A
	HP StorageWorks MSL4048 1 Ultrium 960 Drive Library	AG322A
	HP StorageWorks MSL4048 1 Ultrium 960 4GB FC Drive Library	AG324B
	HP StorageWorks MSL4048 2 Ultrium 960 Drive Library	AG323A
	HP StorageWorks MSL4048 2 Ultrium 960 4GB FC Drive Library	AG325B
	HP StorageWorks MSL6000 Tape Library	
	Ultrium 960 technology	
	HP StorageWorks MSL6030 1 Ultrium 960 Dr LVDS Library	AD606B
	HP StorageWorks MSL6030 1 Ultrium 960 Dr FC Library	AD608B
	HP StorageWorks MSL6030 2 Ultrium 960 Dr LVDS Library	AD607B
	HP StorageWorks MSL6030 2 Ultrium 960 Dr FC Library	AD609B
	Ultrium 460 technology	

Options

	HP StorageWorks MSL6030 1 Ultrium 460 Dr LVDS Library	AD598B
	HP StorageWorks MSL6030 1 Ultrium 460 Dr FC Library	AD600B
	HP StorageWorks MSL6030 2 Ultrium 460 Dr LVDS Library	AD599B
	HP StorageWorks MSL6030 2 Ultrium 460 Dr FC Library	AD601B
	NOTE: Please reference the MSL2024, MSL4048, and 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 Data Protector Express Software	HP DP Express Backup Server Upgrade for ProLiant Software	BB117AP
	HP DP Express Package for Microsoft Small Business Server	BB118AA
	NOTE: Please see the HP Data Protector Express QuickSpecs for additional information regarding the purchase of HP Data Protector Express software: http://h18000.www1.hp.com/products/quickspecs/12337_div/12337_div.html (Worldwide)	
	NOTE: To obtain a free licensed copy of HP Data Protector Express for ProLiant edition software, please visit the "Protect Your Data" link accessible from your ProLiant server's System Management Homepage (SMH) software (SmartStart 7.5 or later).	
Cluster Options	ProLiant Cluster Starter Kit	364023-B22
	NOTE: For additional information regarding the ProLiant Cluster Starter Kit please see the following QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/11935_div/11935_div.html (Worldwide)	
	HP HA/F200 for Entry SAN Cluster	364026-B22
	NOTE: For additional information regarding the ProLiant Cluster for Entry Level SAN please see the following QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/11932_div/11932_div.html (Worldwide)	
	ProLiant Cluster HA/F500 for the Enterprise SAN	364024-B21
	NOTE: For additional information regarding the ProLiant Cluster HA/F500 for Enterprise SAN please see the following QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/11933_div/11933_div.html (Worldwide)	
	NOTE: For configuration/certification options for the HP Parallel Database Cluster for Oracle RAC please go to: http://www.hp.com/solutions/highavailability/oracle	
	HP Serviceguard for Linux ProLiant Cluster A.11.16 for SUSE SLES 9 & 10 and Red Hat EL 3 & 4 (2 node license cluster kit)	305199-B26
	HP Serviceguard for Linux A.11.16 for SUSE SLES 9 & 10 and Red Hat EL 3 & 4 (single license version)	307754-B26
	HP Serviceguard for Linux and Red Hat Global File System - 1 year subscription	T2798AA#001
	HP Serviceguard for Linux and Red Hat Global File System - 3 years subscription	T2798AA#003

	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_div/11518_div.html (Worldwide) NOTE: For configuration/certification options for HP Serviceguard for Linux please go to: http://www.hp.com/info/sglx	
HP StorageWorks Modular Smart Array 20	HP StorageWorks Modular Smart Array 20 NOTE: Rack-mountable 12 (SATA) drive enclosure with U320 Host connectivity, redundant power supplies.	335921-B21
	HP StorageWorks Modular Smart Array 20 Starter Kit NOTE: Rack-mountable 12 (SATA) drive enclosure with U320 Host connectivity, redundant power supplies. Includes Smart Array 6402/128 Controller. NOTE: The Modular Smart Array Enclosure 20 Family supports the SATA 1.5Gb/s 3.5" Hot Plug Hard Drives.	366172-B21
HP StorageWorks Modular Smart Array 30	HP StorageWorks Modular Smart Array 30 SB NOTE: Rack-mountable 14 drive enclosure with single bus, redundant power supplies	302969-B21
	HP StorageWorks Modular Smart Array 30 DB NOTE: Rack-mountable 14 drive enclosure with dual bus, redundant power supplies NOTE: The Modular Smart Array Enclosure 30 Family supports the Wide Ultra3, Ultra320 Hot Plug Hard Drives.	302970-B21
HP StorageWorks Modular Smart Array 50	HP StorageWorks Modular Smart Array 50 Enclosure NOTE: Supported by the SAS Models only. NOTE: Please see the Modular Smart Array 50 QuickSpecs for additional information including configuration steps and additional options needed for a complete solution at: http://h18000.www1.hp.com/products/quickspecs/12245_div/12245_div.HTML (Worldwide)	364430-B21
HP StorageWorks Modular Smart Array 500	HP StorageWorks Modular Smart Array 500 Generation 2 NOTE: Please see the Modular Smart Array 500 Generation 2 QuickSpecs for additional information including configuration steps and additional options needed for a complete solution at: http://h18000.www1.hp.com/products/quickspecs/11956_div/11956_div.HTML (Worldwide)	335880-B21
HP StorageWorks Modular Smart Array 1000	HP StorageWorks Modular Smart Array 1000 NOTE: Please see the Modular Smart Array 1000 QuickSpecs for additional options and configuration information at http://h18000.www1.hp.com/products/quickspecs/11033_div/11033_div.HTML (Worldwide)	201723-B22

Options

HP StorageWorks Modular Smart Array 1500 cs	Modular Smart Array 1500 Controller Shelf	AA986A
	NOTE: Please see the StorageWorks Modular SAN Array 1500 cs QuickSpecs for additional options and configuration information at: http://www.hp.com/go/MSA1500cs	
StorageWorks Options	NOTE: The following is a list of all Fibre Channel Host Bus Adapters for Windows, Linux and Netware. For detailed compatibility information please see: http://h18006.www1.hp.com/storage/saninfrastructure/hba.html	
	HP StorageWorks FC2143 4Gb PCI-X 2.0 -to-Fibre Channel HBA	AD167A
	HP StorageWorks FC2243 Dual Channel 4Gb PCI-X 2.0 HBA	AD168A
	HP StorageWorks FC1143 4Gb PCI-X 2.0 HBA	AB429A
	HP StorageWorks FC1243 Dual Channel 4Gb PCI-X 2.0 HBA	AE369A
Uninterruptible Power Systems - Rack	HP, R1.5kVA UPS, 1U, NA	AF419A
	HP, R1.5kVA UPS, 1U, INTL	AF418A
	HP, R1.5kVA UPS, 1U, JPN/TW	AF421A
	HP R3000 VA UPS, 2U, DTC, INTL NOTE: Replaces non-RoHs compliant part numbers 192186-B31, 192186-B32, 192186-B33, 192186-AR1.	AF414A
	HP R3000 VA UPS, 2U, L5-30, NA NOTE: Replaces non-RoHs compliant part number 192186-001.	AF422A
	HP R3000 VA UPS, 2U, L6-20, NA NOTE: Replaces non-RoHs compliant part number 192186-002.	AF423A
	HP R3000 VA UPS, 2U, L6-20, JPN NOTE: Replaces non-RoHs compliant part number 192186-292.	AF424A
	HP R3000 VA UPS, 2U, L5-30, JPN NOTE: Replaces non-RoHs compliant part number 192186-291.	AF425A
	HP R5500 VA UPS, INTL NOTE: Replaces non-RoHs compliant part number 326529-B31.	AF416A
	HP R5500 VA UPS, NA/JPN NOTE: Replaces non-RoHs compliant part number 326529-D71.	AF426A

Options

HP Power Distribution Unit with Power Monitoring	HP 17.3 kVA S2324 Monitored PDU- dual input, 3U, 24A (NA/JPN) NOTE: Replaces non-RoHs compliant part number 370959-D71.	AF503A
	HP 8.3 kVA S1324 Monitored PDU- single input, 3U, 24A (NA/JPN) NOTE: Replaces non-RoHs compliant part number 370960-D71.	AF504A
	HP 16.6 kVA S2140 Monitored PDU- dual input, 1U, 40A (NA/JPN) NOTE: Replaces non-RoHs compliant part number 37061-D71.	AF505A
	HP 8.6 S1140 Monitored PDU- single input, 1U, 40A (NA/JPN) NOTE: Replaces non-RoHs compliant part number 370962-D71.	AF506A
	HP 22.1 kVA S2316 Monitored PDU- dual input, 3U, 16A (INTL) NOTE: Replaces non-RoHs compliant part number 370963-B31.	AF507A
	HP 11 kVA S1316 Monitored PDU- single input, 3U, 16A (INTL) NOTE: Replaces non-RoHs compliant part number 370964-B31.	AF508A
	HP 14.7 kVA S2132 Monitored PDU- dual input, 1U, 32A (INTL) NOTE: Replaces non-RoHs compliant part number 370965-B31.	AF509A
	HP 7.3kVA S1132 Monitored PDU- single input, 1U, 32A (INTL) NOTE: Replaces non-RoHs compliant part number 370966-B31.	AF510A

Modular Power Distribution Units 1U/0U (Up to 32 outlets) NOTE: 1U/0U mounting brackets shipped with the unit (optimized for 10000 and 9000 series racks).	3.6kVA Model - mPDU, 16A, High (WW)	252663-B24
	2.8 kVA Model - mPDU, 24A, Low (NA/JPN)	252663-D71
	4.9kVA Model - mPDU, 24A, High (NA/JPN)	252663-D72
	7.3kVA Model - mPDU, 32A, High (INT'L)	252663-B31
	8.3kVA Model - mPDU, 40A, High (WW)	252663-B21
	8.3kVA Model - mPDU, 40A, High (power cord attached) (NA/JPN)	252663-D73
	9.2kVA Model - mPDU, 40A, High (power cord attached) (INTL)	252663-B32
	8.3kVA Model - mPDU 40A, High (core only) (NA/JPN)	252663-D75
	9.2kVA Model - mPDU 40 A, High (core only) (Int'l)	252663-B34
	8.3kVA Model - mPDU 32A, High (core only) (Int'l)	252663-B33
	4.9kVA Model - mPDU 24A, High (core only) (NA/JPN)	252663-D74
	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_div/11041_div.HTML (Worldwide)	

USB Options	HP USB 2-Button Optical Scroll Mouse (Carbonite/Silver)	DC172B
	HP USB 04 Standard Keyboard	DT528A#xxx
	USB 2.0 4-port HUB	DG954A
	HP 1GB Drive Key II- USB 2.0 Flash Drive	AG382AA
	HP 512MB DriveKey II- USB Flash Drive	ED516AA

Options

Other	ProLiant ML3xx Internal to External SCSI Cable Option Kit (HD68)	159547-B22
	ProLiant ML3xx Internal to External SCSI Cable Option Kit (VHDCI)	333370-B21
	NOTE: These kits allow the unused U320 SCSI port on the system board to route externally out the rear of the unit through a PCI slot if operating the unit in simplex mode (only one SCSI channel used).	
Rack Shipping Kit	Shipping Kit for Round Hole Racks	371482-B21
HP Rack 5000 Series (Graphite Metallic)	HP 5642 Rack-Unassembled	358254-B21
	NOTE: Please see the HP Rack 5642 QuickSpecs for additional part numbers and Technical Specifications such as height, width, depth, weight, and color: http://h18000.www1.hp.com/products/quickspecs/12074_div/12074_div.HTML (Worldwide)	
	NOTE: For additional information regarding Rack Cabinets, please see the following URL: http://www.hp.com/go/rackandpower.	
HP Rack 10000 G2 Series (Carbon/Graphite Metallic)	10642 G2 (42U) Rack Cabinet - Pallet	AF001A
	10642 G2 (42U) Rack Cabinet - Shock Pallet	AF002A
	10642 G2 (42U) Rack Cabinet - Crated	AF003A
	10642 G2 (42U) Rack Cabinet, with Extension - Shock Pallet	AF004A
	10636 G2 (36U) Rack Cabinet - Pallet	AF011A
	10636 G2 (36U) Rack Cabinet - Shock Pallet	AF012A
	10636 G2 (36U) Rack Cabinet - Crated	AF013A
	10636 G2 (36U) Rack Cabinet, with Extension - Shock Pallet	AF014A
	10622 G2 (22U) Rack Cabinet - Pallet	AF021A
	10622 G2 (22U) Rack Cabinet - Shock Pallet	AF022A
	10842 G2 (42U) 800mm Wide Rack Cabinet - Pallet	AF041A
	10842 G2 (42U) 800mm Wide Rack Cabinet - Shock Pallet	AF042A
	10647 G2 (47U) Rack Cabinet - Pallet	AF031A
	NOTE: It is mandatory to use a shock pallet when shipping racks with equipment installed.	
	NOTE: Please see the Rack 10000 G2 QuickSpecs for Technical Specifications such as height, width, depth, weight, and color: http://h18000.www1.hp.com/products/quickspecs/12402_div/12402_div.HTML (Worldwide)	
	NOTE: For additional information regarding Rack Cabinets, please see the following URL: http://www.hp.com/go/rackandpower.	

Options

HP Rack 10000 Series (Graphite Metallic)	10642 (42U) Infrastructure Rack (Low Voltage)	379006-001
	10642 (42U) Infrastructure Rack (High Voltage)	379005-001
	HP S10614 (14U) Rack Cabinet - Shock Pallet	292302-B22
	HP 10842 (42U) Rack Cabinet - Pallet	257415-B21
	HP 10842 (42U) Rack Cabinet - Shock Pallet	257415-B22
	HP 10647 (47U) Rack Cabinet - Pallet	245160-B21
	HP 10647 (47U) Rack Cabinet - Crated	245160-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: xxxxxx-B21 (pallet) used to ship empty racks shipped on a truck. xxxxxx-B22 (shock pallet) used to ship racks with equipment installed (by custom systems, VARs and Channels). xxxxxx-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 additional options and Technical Specifications such as height, width, depth, weight, and color: http://h18000.www1.hp.com/products/quickspecs/10995_div/10995_div.HTML (Worldwide)	
	NOTE: For additional information regarding Rack Cabinets, please see the following URL: http://www.hp.com/go/rackandpower	
Keyboards and Monitors	TFT7210R Rack Mounted 17" Monitor	348373-B21
	TFT7600 Rackmount Keyboard Monitor US	AG052A
	TFT7600 Rackmount Keyboard Monitor UK	AG053A
	TFT7600 Rackmount Keyboard Monitor GR	AG054A
	TFT7600 Rackmount Keyboard Monitor FR	AG055A
	TFT7600 Rackmount Keyboard Monitor IT	AG056A
	TFT7600 Rackmount Keyboard Monitor SP	AG057A
	TFT7600 Rackmount Keyboard Monitor DEN	AG058A
	TFT7600 Rackmount Keyboard Monitor NOR	AG059A
	TFT7600 Rackmount Keyboard Monitor SE/FI	AG060A
	TFT7600 Rackmount Keyboard Monitor SWI	AG061A
	TFT7600 Rackmount Keyboard Monitor PORT	AG062A
	TFT7600 Rackmount Keyboard Monitor BEL	AG063A
	TFT7600 Rackmount Keyboard Monitor JPN2	AG064A
	TFT7600 Rackmount Keyboard Monitor RUS	AG065A
	TFT7600 Rackmount Keyboard Monitor INTL	AG066A
	1U Rackmount Keyboard with USB, US	AG072A
	1U Rackmount Keyboard with USB, UK	AG073A
	1U Rackmount Keyboard with USB, GR	AG074A
	1U Rackmount Keyboard with USB, FR	AG075A
	1U Rackmount Keyboard with USB, ITL	AG076A
	1U Rackmount Keyboard with USB, SP	AG077A

Options

	1U Rackmount Keyboard with USB, DEN	AG078A
	1U Rackmount Keyboard with USB, NOR	AG079A
	1U Rackmount Keyboard with USB, SE/FI	AG080A
	1U Rackmount Keyboard with USB, SWI	AG081A
	1U Rackmount Keyboard with USB, PORT	AG082A
	1U Rackmount Keyboard with USB, BEL	AG083A
	1U Rackmount Keyboard with USB, JPN2	AG084A
	1U Rackmount Keyboard with USB, RUS	AG085A
	1U Rackmount Keyboard with USB, INTL	AG086A
	NOTE: For additional information regarding Rack Options, please see the following URL: http://www.hp.com/go/rackandpower.	
HP KVM Switch Options	2x1x16 IP Console Switch with Virtual Media	AF601A
	4x1x16 IP Console Switch with Virtual Media	AF602A
	2x16 Server Console Switch with Virtual Media	AF600A
	PS/2 Virtual Media Interface Adapter, 1 pack	AF604A
	NOTE: Requires PS/2 and one USB port on server.	
	Server Console Switch (KVM), 0 x 1 x 8 port	336044-B21
	Server Console Switch (KVM), 0 x 2 x 16 port	336045-B21
	PS/2 Interface Adapter, 1 pack	262588-B21
	PS/2 Interface Adapter, 8 pack	262587-B21
	USB Interface Adapter, 1 pack	336047-B21
	Serial Interface adapter - 1 Pack with power supply	373035-B21
	NOTE: Cat5e cables are required to connect Interface Adapters to Console Switches. Cat5e cables can be found at the following URL: http://www.hp.com/go/kvm.	
	HP 1x 4 Server Console Switch (ALL)	AF611A
	PS2 Server Console Cable, 6 ft, 2 pack	AF612A
	USB Server Console Cable, 6 ft, 2 pack	AF613A
	NOTE: For additional information regarding KVM switches, Serial Console servers, rack mount monitors, keyboards and all related options please see the following URL: http://www.hp.com/go/rackandpower	
HP Serial Console Server Options	HP 16 Port Serial Console Server (worldwide)	AF101A
	HP 48 Port Serial Console Server (worldwide)	AF102A
	Serial Adapter, RJ45-DB9 DCE Female, 1 Pack	AF103A
	Serial Adapter, RJ45-DB9 DCE Female, 8 Pack	AF110A
	NOTE: Cat5e cables are required to connect Serial Adapters to Serial Console Servers. Additional Serial Adapters and Cat5e cables can be found at the following URL: http://www.hp.com/go/kvm.	
	NOTE: For additional information regarding KVM switches, Serial Console servers, rack mount monitors, keyboards and all related options please see the following URL: http://www.hp.com/go/kvm.	

Options

Service and Support Offerings (HP Care Pack Services)

Hardware Services On-site Service	
4-Hour On-site Service, 5-Day x 13-Hour Coverage, 3 Years, Electronic	U4544E
4-Hour On-site Service, 7-Day x 24-Hour Coverage, 3 Years, Electronic	U4545E
Hardware Services 6-Hour Call to Repair On-site Service	
6-Hour Call to Repair, On-site Service, 7-Day x 24-Hour Coverage, 3 Years, Electronic	U4546E
Installation & Start-up Services	
Hardware Installation, Electronic	U4554E
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, Electronic	U4555E
Installation and Startup for Essentials Rapid Deployment Pack, Electronic	U5683E
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, Electronic	U4556E
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, Electronic	U4557E
Onsite HW support 24x7, 4hr response and SuSE Linux SW Tech support offsite, onsite at HP's discretion, 24x7 2hr response time incl. HP holidays, Electronic	U6312E
Onsite HW support 24x7, 4hr response and Red Hat ES Linux SW Tech support offsite, onsite at HP's discretion, 24x7 2hr response time incl. HP holidays, Electronic	U8334E

NOTE: For more information, customer/resellers can contact http://www.hp.com/services/carepack or http://h20219.www2.hp.com/services/cache/10768-0-0-225-121.html.

NOTE: Memory configurations listed do not apply to "Factory Integrated Models".

HP ProLiant Model DL385 Models

Standard Memory

1 GB PC3200 DDR SDRAM running at 400MHz comes installed (2 x 512 MB SDRAM)

Standard Memory Plus Optional Memory

Up to 25 GB memory is available with the optional installation of PC3200 Registered DDR SDRAM DIMM Memory Option Kit (This assumes using 2 processors)

Standard Memory Replaced with Optional Memory

Up to 32 GB of memory is available with the removal of the standard 512 MB of memory and the optional installation of PC2700 (4GB DIMMS) Registered DDR SDRAM DIMM Memory Option Kit

DIMM Installation Guidelines:

1. All DIMMS must be PC3200 DDR 400 MHz SDRAM DIMMs or PC2700 DDR 333 MHz SDRAM DIMMs.
2. Both DIMM slots in a memory bank must be populated.
3. Both DIMMs in a memory bank must be identical.
4. Processor 1 memory bank 1 must always be populated.
5. Populate DIMMs beginning with the farthest slots from the processor, starting with the SMALLEST DIMMs first, moving in towards the processor.
6. If only installing 1GB DIMMs, ensure that the Dual Rank DIMMs are installed closest to the processor. Dual Rank can be determined by looking for the "2R" or "2R x8" wording on the label of the DIMM.
7. For optimal performance in most applications, populate memory bank 1 for every populated processor socket.
8. DIMM banks are active only when the corresponding processor socket is populated.

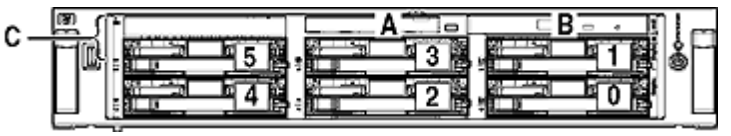
NOTE: Chart does not represent all possible memory configurations (slots 5 - 8 are available when second processor is added).

Memory		Slot							
		1	2	3	4	5	6	7	8
Standard	1 GB	Empty	Empty	512 MB	512 MB	Empty	Empty	Empty	Empty
Optional	25 GB	4 GB	4 GB	512 MB	512 MB	4 GB	4 GB	4 GB	4 GB
Maximum	32 GB	4 GB	4 GB	4 GB	4 GB	4 GB	4 GB	4 GB	4 GB

Following are memory options available from HP:

- 1 GB PC3200 DDR SDRAM DIMM Memory Kit (2 x 512 MB) 376638-B21
- 2 GB PC3200 DDR SDRAM DIMM Memory Kit (2 x 1 GB) 376639-B21
- 4 GB PC3200 DDR SDRAM DIMM Memory Kit (2 x 2 GB) 379300-B21
- 8 GB PC2700 DDR SDRAM DIMM Memory Kit (2 x 4 GB) 395409-B21
  NOTE: The Redundant Fan Option Kit (PN 293048-B21) is required to be installed when the 8 GB PC2700 DDR SDRAM DIMM Memory Kit (2 x 4 GB) (PN 395409-B21) is used.

Storage



0 - 5	Six Ultra320 SCSI hot plug hard drive bays
A	1.44-MB Diskette Drive (optional)
B	24x IDE CD-ROM (Universal Media Bay)
C	Six Wide Ultra3/Ultra320 SCSI hot plug hard drives or for five hot plug hard drives and one DAT 40 or DAT 72 hot plug tape drive



1-8	Eight SFF SAS hot plug hard drive bays

Drive Support

	Quantity Supported	Position Supported	Controller
Removable Media			
1.44-MB Diskette Drive	1	A	Integrated IDE NOTE: Optional
IDE CD-ROM Drive	1	B	Integrated IDE NOTE: Standard
Slimline DVD-ROM (8x24x) Option Kit (Servers)	1	B	Integrated IDE NOTE: Optional
Slimline CD-RW/DVD-ROM Combo Option Kit	1	B	Integrated IDE NOTE: Optional

Hard Drives

Ultra320 SCSI - Hot Plug Drives

	Quantity Supported	Position Supported	Controller
300GB U320 10K 146GB U320 10K 72GB U320 10K 300GB U320 15K 146GB U320 15K 72GB U320 15K 36GB U320 15K	Up to 6	0-5	Smart Array 6i Controller (integrated on system board) Smart Array 6402/128 Controller Smart Array 6404/256 Controller Smart Array 641 Controller Smart Array 642 Controller

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

SFF SATA - Hot Plug Drives

	Quantity Supported	Position Supported	Controller
60GB 1.5G SATA 5.4K	Up to 8	1-8	HP Smart Array P600/256 BBWC Controller

Storage

SFF SAS - Hot Plug Drives

	Quantity Supported	Position Supported	Controller
146GB 3G SAS 10K SP 72GB 3G SAS 10K SP 72GB 3G SAS 15K SP 36GB 3G SAS 10K SP 36GB 3G SAS 15K SP	Up to 8	1-8	HP Smart Array P600/256 BBWC Controller

External Storage

	Quantity Supported	Position Supported	Host Controller or Adapter
Modular Smart Array 50 Enclosure	1	External	HP Smart Array P600/256 BBWC Controller
Modular Smart Array 500 G2	1 per SCSI	External	Smart Array 642 Controller (used as Host Bus Adapter) Please see the Modular Smart Array 500 G2 QuickSpecs for the latest list of supported HBAs: http://www.hp.com/go/msa500
Modular Smart Array 1500 cs	Please see the Modular Smart Array 1500 cs QuickSpecs link below to determine configuration requirements	External	Please see the Modular Smart Array 1500 QuickSpecs (URL below) for the latest list of supported HBAs
Modular Smart Array 1000	Please see the Modular Smart Array 1000 QuickSpecs link 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)
Modular Smart Array 1500 cs: http://www.hp.com/go/MSA1500cs

Maximum Storage Capacity - (Modular Smart Array SCSI Attached)

Internal	1.80TB (6 x 300GB Ultra320)
External	54.60TB (13 x (14 x 300GB Ultra320))
Total	56.40TB

Maximum Storage Capacity - (SAS Models with MSA50)

Internal	1.168B (8 x 146GB SAS)
External	2.920TB (20 x 146GB SAS)
Total	4.088TB

Tape Drives, Tape Autoloaders, & Tape Libraries

Storage

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/Division/10233.html (Worldwide)

NOTE: For an up-to-date listing of the latest O/S Support details for each of the Tape Autoloaders and Tape Libraries listed below, please see the following: http://h18000.www1.hp.com/products/quickspecs/Division/10809.html (Worldwide)

NOTE: For complete listing of tape drive offerings see http://www.hp.com/products1/storage/compatibility/tapebackup/ISS/index.html

For recommended tape drive offerings for this ProLiant server see the following:

	Position Supported	Controller	Controller Part Numbers
HP StorageWorks Tape Drives, External DAT 24 USB DAT 40 USB DAT 72 USB	External	USB 2.0 Port	Adaptec USB2connect 3100LP adapter orderable at http://www.adaptec.com (Windows only)
HP StorageWorks Tape Drives, External Ultrium 232 Ultrium 448 Ultrium 460 Ultrium 920 Ultrium 960 DAT 40 DAT 72 DLT VS160 SDLT 600	External	64-Bit/133-MHz Single Channel Ultra320 SCSI HBA G2	374654-B21
HP StorageWorks Autoloaders, External DAT 72x10 Autoloader 1/8 G2 Tape Autoloader	External	64-Bit/133-MHz Single Channel Ultra320 SCSI HBA G2	374654-B21
HP StorageWorks SCSI Rack-Mount Tape Drive Enclosures 1U Rack-Mount Kit 3U Rack-Mount Kit	External	64-Bit/133-MHz Single Channel Ultra320 SCSI HBA G2	374654-B21
HP StorageWorks USB Rack-Mount Tape Drive Enclosures 1U Rack-Mount Kit	External	USB 2.0 Port	N/A

Storage

HP StorageWorks Tape Libraries, External MSL2024 (Ultrium 448, Ultrium 920 and 960-based) MSL4048 (Ultrium 448, Ultrium 920 and 960-based) MSL6000 (Ultrium 960 and 460-based) MSL6000 (SDLT 600-based)	External	Please consult the EBS connectivity matrix at http://www.hp.com/go/ebs for detailed connectivity information.	N/A

Power Specifications

Power Supply Specification	Part number	321632-001				
	Spare Kit	355892-B21				
Operational Input Voltage Range (Vrms)	90 - 264					
Frequency Range (Nominal) (Hz)	47 - 63 (50 / 60)					
Nominal Input Voltage (Vrms)	100	115	208	220	230	240
Max Rated Output Wattage Rating	575	575	575	575	575	575
Nominal Input Current (A rms)	7.4	6.4	3.4	3.2	3.1	2.9
Max Rated Input Wattage Rating (Watts)	728	719	701	693	693	693
Max. Rated VA (Volt-Amp)	743	733	716	707	707	707
Efficiency (%)	79	80	82	83	83	83
Power Factor	0.98					
Leakage Current (mA)	0.31	0.36	0.65	0.69	0.72	0.75
Max. Inrush Current (A peak)	35	35	35	35	35	35
Max. Inrush Current duration (mS)	2-3					
Power cord requirements	Nema 5-15P to IEC320-C13 Option no. / Spare no: See chart on Page 2					
	IEC320-C13 to IEC320-C14 Option no. / Spare no.: 142259-001/142258-B21					

NOTES:

- To review typical system power ratings use the Active Answers Power Calculator which is available via the online tool located at url: http://h30099.www3.hp.com/configurator/calc/Power%20Calculator%20Catalog.xls

To drill down to calculators:

- Click on: "ProLiant Servers"
- Click on the Server of interest. Example: DL385
- Click on: "Power Calculator" link. (You may need to scroll down to see it)

# - Power cords (13 Cord Sets)	Country	Power Cord Part Number
	APD	139867-006
	APD	100613-003
	APD	100614-003
	Australia	100611-007
	Europe	100614-003
	France	100614-003
	Germany	100614-003
	Japan	139867-006
	PRC	139867-006
	PRC	100613-003
	PRC	100661-007
	UK	100613-003
	US	163719-002

System Unit	**Dimensions** (HxWxD) (with feet/bezel)	3.38 x 17.54 x 26.01 in (8.59 x 44.54 x 66.07 cm)	
	Weight(approximate)	Maximum	60 lb (27.22 kg)
		No drives:	47.18 lb (20.41 kg)
	Input Requirements (per power supply)	Rated Input Voltage	100-132 VAC, 200-240 VAC
		Rated Input Current	7.5A (100VAC), 3.8A (200VAC)
		Rated Input Frequency	50 to 60 Hz
		Rated Input Power	735 W
	BTU Rating	2508 BTU/HR	
	Power Specifications	To review typical system power ratings use the Active Answers Power Calculator which is available via the online tool located at URL: http://h30099.www3.hp.com/configurator/powercalcs.asp. To drill down to calculators: - Click on: "ProLiant Servers" - Click on the Server of interest. Example: DL385 - Click on: "Power Calculator" link. (You may need to scroll down to see it.)	
	Power Supply Output Power (per power supply)	Rated Steady-State Power	575W
		Maximum Peak Power	575W
	Temperature Range NOTE: All temperature ratings shown are for sea level. An altitude derating of 1 Cj° per 300 m (1.8 FR per 1000 ft) to 3048 m (10,000 ft) is applicable. No direct sunlight allowed.	Operating	50° to 95° F (10° to 35° C) Altitude Rating: 10,000 ft. This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 1500 ft/min.
		Non-Operating	Altitude Rating: **30,000 ft.** Maximum allowable altitude change rate is 1500 ft/min.
		Shipping	-40° to 158° F (-40° to 70° C)
	Maximum Wet Bulb Temperature	82.4° F (28° C)	
	Relative Humidity (non-condensing) NOTE: Storage maximum humidity of 95% is based on a maximum temperature of 45°C (113°F). Altitude maximum for storage corresponds to a pressure minimum of 70 kPa.	Operating	10% to 90%
		Shipping	5% to 95%
	Acoustic Noise	Idle Minimum (Fixed Disk Drives Spinning)	
		L WAd (BELS)	7.4
		L pAm (dBA)	58
		Operating Minimum (Random Seeks to Fixed Disks)	
		L WAd (BELS)	7.4
		L pAm (dBA)	58

Smart Array 6i Controller (Ultra320), Integrated	Data Compatible with all Smart Array Controllers	Yes
	Instant Upgrades to other Smart Array Controllers	Yes
	Consistent Software Manageability Tools	Yes
	PCI-X Bus	64-bit up to 133 MHz (integrated on system board)
	Electrical Protocol	Low Voltage Differential (LVD)
	SCSI Protocols Supported	Ultra320, Ultra3, Ultra2
	SCSI Peak Data Transfer Rate	320 MB/s per channel
	Channels	Two 68-Pin Wide-Ultra SCSI-3 connectors
	SCSI Ports (external/internal)	0/2 NOTE: The ProLiant DL385 does not have an external SCSI port
	Logical Drives Supported	Supports up to 32 RAID volume
	Cache	64 MB Read Cache
	Battery-Backed Write Cache	Yes, with installation of Battery-Backed Write Cache Enabler, up to 128MB
	RAID Support	0, 1, 1+0, 5
	Online Configuration	Yes
	Online Capacity Expansion	Yes
	Logical Drive Capacity Extension	Yes
	Online Stripe Size Migration	Yes
	Online RAID Level Migration	Yes
	Online Spare Support	Yes
	Automatic Data Recovery	Yes
	Drive Roaming	Yes
	Redundant Controllers	No

Technical Specifications

Smart Array P600 Controller (SAS models only)	**Protocol**	3 Gb Serial Attached SCSI
	Architecture	1.5 Gb SATA
	SAS Connectors	64-bit
	Data Transfer Method	1 internal & 1 external/internal shared x4 Wide Port SAS connectors
	PCI Bus Speed	64-Bit PCI bus-master
	PCI	64-bit, 133-MHz PCI-X (1 GB/s maximum bandwidth)
	Simultaneous Drive Transfer Ports	PCI-X and 3.3 volt PCI compatibility only
	Port Transfer Rate	2 x4 Wide SAS Ports
	Software upgradeable Firmware	12 Gb/s per x4 Wide SAS Port (4 x 3 Gb/s)
	Cache Memory	Yes
	Logical Drives Supported	256 MB Read/Write (512-MB module upgrade available); ECC protection, battery-backed, and removable
	Maximum Capacity	Up to 32 logical drives Up to 2.2 TB per logical drive
	Memory Addressing	2.7 TB (38 x 72 GB) 64-bit, supporting servers memory greater than 4 GB
	RAID Support	RAID 6 (Advanced Data Guarding) RAID 5 (Distributed Data Guarding) RAID 1+0 (Striping & Mirroring) RAID 0 (Striping)
	Upgradeable Firmware Disk Drive and	4-MB flashable ROM
	Enclosure Protocol Support	3 Gb SAS and 1.5 Gb SATA

Embedded NC7782 PCI-X Gigabit Server Adapter	**Network Interface**	10Base-T/100Base-TX/1000Base-TX	
	Compatibility	IEEE 802.3 10Base-T	
		IEEE 802.3ab 1000Base-T	
		IEEE 802.3u 100Base-TX	
	Data Transfer Method	64-bit bus-master 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-TX (Half and Full-Duplex)	2000 Mb/s
	Connector	Two RJ-45	
	Cable Support	10Base-T	Categories 3, 4 or 5 UTP; up to 328 ft (100 m)
		100Base-TX	Category 5 or higher UTP; up to 328 ft (100 m)
		1000BaseTX	Category 5 or higher UTP; up to 328 ft (100 m)

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