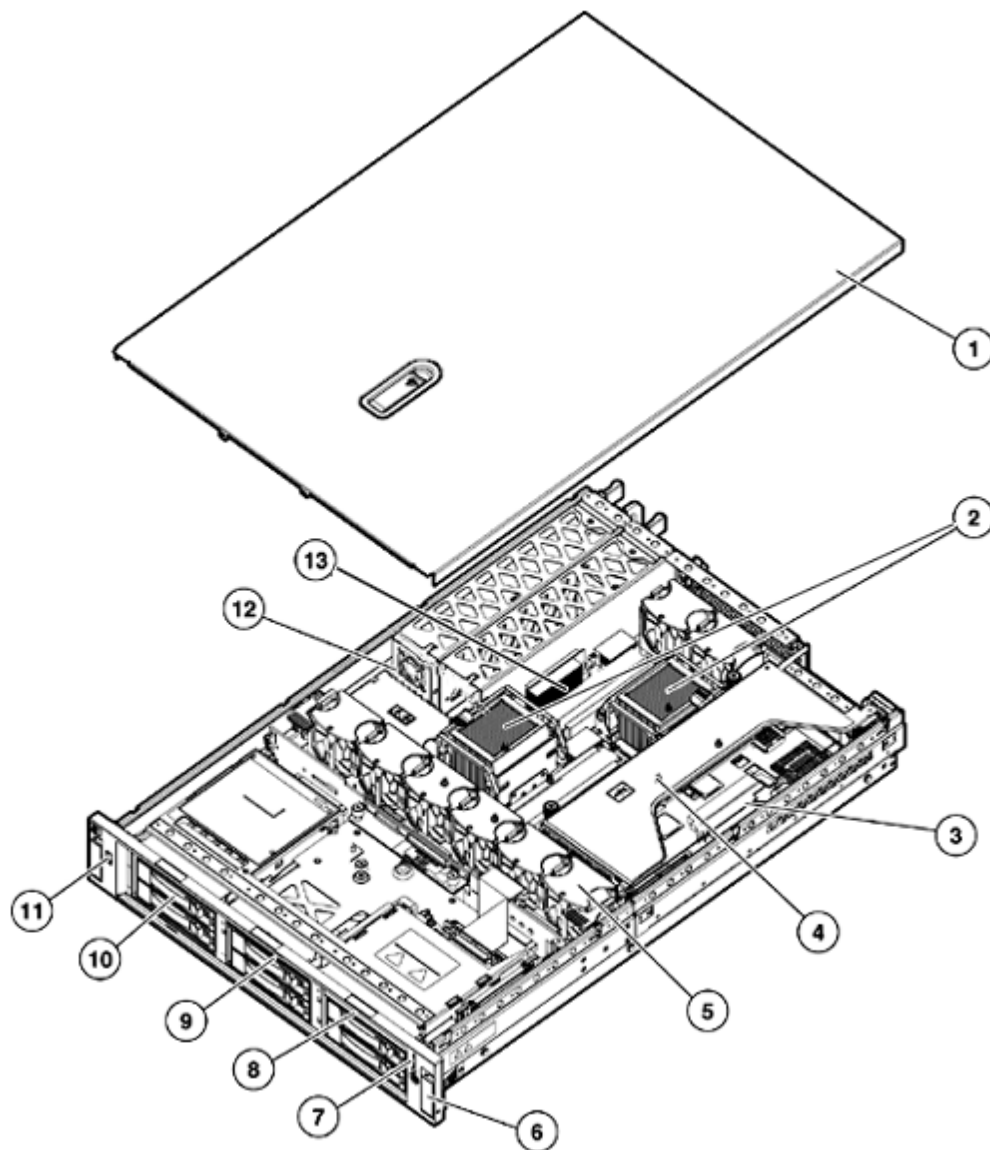


## Overview

### HP ProLiant DL385



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) (High performance models include 128MB BBWC)
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 (High performance models include Diskette Disk Drive)
10. Support for up to six 1" Ultra320 SCSI hot plug hard drives or for five hot plug hard drives and one DAT 40 or DAT 72 hot plug tape drive
11. USB port (USB 1.1 Support)
12. Hot plug power supply, redundancy option
13. Eight PC3200 400MHz DDR Sockets

### Overview

#### At a Glance

The world's best selling server just got a sister; the new 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.

Introducing the HP ProLiant DL385 now with the latest performance technologies

- Up to two AMD Opteron processors model 250 (2.4 GHz) and 252 (2.6 GHz) with 1MB L2 cache and on-board memory controller, running at clock speed, for outstanding performance and scalability
- AMD chipset
- 1GB PC3200 400MHz DDR Memory (2 x 512 MB)
- Integrated Ultra320 Smart Array 6i Controller with 64MB RAM and optional 128MB Battery-Backed Write Cache (BBWC) Enabler option kit
- Support for up to six 1" Ultra320 SCSI hot plug hard drives or for five hot plug hard drives and one DAT hot plug tape drive
- Internal hot plug capacity 1.8 TB standard (6 x 300 GB 1" HD)
- Hot Plug Fans with optional full redundancy
- Hot Plug Power Supply with optional redundancy
- Tool-less access to all system components for easy in rack serviceability
- Three available 64-bit PCI-X slots, including two non-hot plug 100MHz slots and one non-hot-plug 133MHz slot
- NC7782 Dual Port PCI-X Gigabit Server Adapter (embedded)
- Optional dual channel drive backplane (2/4 split)
- Optional floppy disk drive
- USB 1.1 support, one port up front and two ports in back
- 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
- 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
- Protected by HP Services, including a three-year, Next Business Day, on-site limited Global warranty and extended Pre-Failure Warranty, which covers processors, memory, and hard drives - Certain restrictions and exclusions apply.

## Standard Features

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

**Processor** AMD Opteron 200 series 2.4 GHz  
 One of the following depending on model AMD Opteron 200 series 2.6 GHz

**Cache Memory** 1-MB Level 2 cache

**Upgradeability** Upgradeable to dual processing

**Chipset** AMD Opteron 8000 series Chipset

**Memory Protection** Advanced ECC

**Memory** Type PC3200 400MHz DDR  
 One of the following depending on model Standard 1024 MB (2 x 512 MB)  
 Maximum 16 GB

**Network Controller** NC7782 Dual Port PCI-X Gigabit Server Adapter (embedded)

### 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).

NOTE: For more information regarding PCI-X, please see the following URL: <http://www.HP.com/pci-x>.

**Storage Controller** Smart Array 6i Controller (integrated on system board)

**Storage** Diskette Drive 1.44 MB Diskette Drive (optional on some models)  
 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.

## Standard Features

Maximum Internal Storage Type	Hot Plug SCSI	1.8 TB	6 x 300 GB with standard internal hot plug drive cage
Interfaces	Serial	1	
	Pointing Device (Mouse)	1	
	Graphics	1	
	Keyboard	1	
	Network RJ-45	3 (1 for iLO)	
	USB	3 (1 front, 2 back)	
<p><b>NOTE:</b> Please see the following URL for additional information regarding USB support:  <a href="http://h18004.www1.hp.com/products/servers/platforms/usb-support.html">http://h18004.www1.hp.com/products/servers/platforms/usb-support.html</a>.</p>			
Graphics	Integrated ATI Rage XL Video Controller with 8-MB SDRAM Video Memory		
Form Factor	Rack (2U), (3.5-inch)		
ProLiant Essentials Foundation Pack Software	HP Systems Insight Manager	HP's new HP Systems Insight Manager (HP SIM) helps 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. HP SIM are both easy to set up work with the Insight Management Agents, integrated Light-Out and Remote Insight Light-Outs Edition, and Version Control Agents to deliver robust fault, configuration, and asset management as well as remote administration. With HP SIM customers will also be able to take advantage of role-based security; the ability to manage ProLiant, Integrity, and HP 9000 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 HP SIM visit <a href="http://www.hp.com/go/hpsim">http://www.hp.com/go/hpsim</a> .	
	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: <a href="http://www.hp.com/servers/smartstart">http://www.hp.com/servers/smartstart</a> SmartStart version supported (minimum): SmartStart 7.20	
	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 HP Systems Insight Manager 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: <a href="http://www.hp.com/servers/manage">http://www.hp.com/servers/manage</a>	

## Standard Features

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 <a href="http://www.hp.com/go/subscriberschoice">http://www.hp.com/go/subscriberschoice</a> 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 <a href="http://www.hp.com/go/support">http://www.hp.com/go/support</a> .
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: <ul style="list-style-type: none"><li>• Rapid Deployment Pack - an automated solution for multi-server deployment and provisioning, enabling companies to quickly and easily adapt to changing business demands.</li><li>• 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.</li><li>• Integrated Lights-Out Advanced Pack - upgrades the Integrated Lights-Out processor to full virtual presence and control with graphical console and virtual media.</li><li>• 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.</li><li>• Intelligent Networking Pack - detects and analyzes network bottlenecks or broken network linkages and steers traffic to the optimum route based on network conditions.</li><li>• 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.</li><li>• 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.</li></ul>

**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)  
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).)**  
Pre-Failure Warranty (covers processors, hard drives and memory)

### Server Power Cords

One Lowline NEMA power cord and One Highline IEC Power cord ships standard

### Power Supply

575 Watt, CE Mark Compliant  
Optional Hot Plug AC Redundant Power Supply

### 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  
LINUX (Red Hat, SuSE)

**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 DL380 G4, 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/proliantdl380/index.html>.

### Rack Kit

The DL380 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.

### Telco Rack Support

DL380 G4 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/>)

## Standard Features

### 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, EVA3000 & EVA5000, XP, rackable tape libraries and configurable network switches.

For more information on how to order please contact your sales representative or go to <http://www.hp.com/go/factory-express>.

### Service and Support

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

**NOTE:** Limited warranty includes 3 year parts, 3 year labor, 3-year next business day on-site support.

From Web-based support...to remote diagnostic tools that help decrease downtime...to dedicated onsite service, HP and its service partners provide "as-you-need-it" access to ProLiant-specific knowledge and skills no other vendor can match.

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

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

- Installation and Start up services helps you get your ProLiant servers deployed rapidly
- Education courses provide industry leading training for IT professionals
- Support services for fast, efficient resolution of hardware and software issues
- Extending onsite hardware warranty coverage from next business day to same business day 13 hours, 5 day or 24 hours, 7 days call window with options including 4-hour response or 6-hour Call To Repair
- Comprehensive range of software technical support for Microsoft, Linux, ProLiant Essentials and VMWare-based IT solutions helping to deliver high level of application availability. Response times range from 30 mins for critical problems to 2 hours.
- System Management, Performance Services and Mission Critical Support Solution

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.

## Standard Features

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

**NOTE:** For more information on Software Support offers contact any of our worldwide sales offices or resellers or visit our worldwide Web site on the internet at: <http://www.hp.com/hps/software>

**NOTE:** For more information on HP ProLiant Essentials support offers contact any of our worldwide sales offices or resellers or visit our worldwide Web site on the internet at:  
[http://www.hp.com/hps/servers/sr\\_proliant\\_essentials.html](http://www.hp.com/hps/servers/sr_proliant_essentials.html)

**NOTE:** For more information on HP training offers contact any of our worldwide sales offices or resellers or visit our worldwide Web site on the internet at: <http://www.hp.com/education/>

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

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

## Models

<b>DL385R01 O2.4 GHz- 1MB, 1GB 373545-xx1</b>	<b>Processor(s)</b>	(1) AMD 200 series Opteron Processor at 2.4 GHz standard
	<b>Cache Memory</b>	1-MB Integrated Level 2 Cache
	<b>Memory</b>	1GB PC3200 400MHz DDR Memory
	<b>Network Controller</b>	NC7782 Dual Port PCI-X Gigabit Server Adapter (embedded)
	<b>Storage Controller</b>	Smart Array 6i Controller (integrated on system board)
	<b>Hard Drive</b>	None ship standard
	<b>Internal Storage</b>	1.8 TB
	<b>Optical Drive</b>	24x IDE CD-ROM
	<b>Diskette Drive</b>	Optional
	<b>Form Factor</b>	Rack (2U), (3.5-inch)

<b>DL385R01 O2.6 GHz- 1MB, 1GB 376138-xx1</b>	<b>Processor(s)</b>	(1) AMD 200 series Opteron Processor at 2.6 GHz standard
	<b>Cache Memory</b>	1-MB Integrated Level 2 Cache
	<b>Memory</b>	1GB PC3200 400MHz DDR Memory
	<b>Network Controller</b>	NC7782 Dual Port PCI-X Gigabit Server Adapter (embedded)
	<b>Storage Controller</b>	Smart Array 6i Controller (integrated on system board)
	<b>Hard Drive</b>	None ship standard
	<b>Internal Storage</b>	1.8 TB
	<b>Optical Drive</b>	24x IDE CD-ROM
	<b>Diskette Drive</b>	Optional
	<b>Form Factor</b>	Rack (2U), (3.5-inch)

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

## Configuration Information - Factory Integrated Models

**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.

### Step 1: Base Configuration

Models	<p>HP ProLiant DL385 Rack CTO Chassis, NA <span style="float: right;">382608-405</span></p> <p><b>Factory Integrated Model ships with:</b></p> <p>NC7782 Dual Port PCI-X Gigabit Server Adapter (embedded)</p> <p>Ultra320 Smart Array 6i Controller (integrated on system board)</p> <p>Three available 64-bit PCI-X slots, including two non-hot plug 100MHz slots and one non-hot-plug 133MHz slot</p> <p>NC7782 Dual Port PCI-X Gigabit Server Adapter (embedded)</p> <p>575 Watt hot plug power supply, CE Mark Compliant</p> <p>One Lowline NEMA power cord and One Highline IEC Power cord</p> <p>5 hot plug fans</p> <p>Rack (2U), (3.5-inch)</p>
	<p>HP ProLiant DL385 Rack Chassis, EMEA/APD <span style="float: right;">382608-B21</span></p> <p><b>Factory Integrated Model ships with:</b></p> <p>NC7782 Dual Port PCI-X Gigabit Server Adapter (embedded)</p> <p>Ultra320 Smart Array 6i Controller (integrated on system board)</p> <p>Three available 64-bit PCI-X slots, including two non-hot plug 100MHz slots and one non-hot-plug 133MHz slot</p> <p>NC7782 Dual Port PCI-X Gigabit Server Adapter (embedded)</p> <p>575 Watt hot plug power supply, CE Mark Compliant</p> <p>One Lowline NEMA power cord and One Highline IEC Power cord</p> <p>5 hot plug fans</p> <p>Rack (2U), (3.5-inch)</p>

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

Processors	<p>AMD(R) O250 2.4/800-1M DL385 FIO Base <span style="float: right;">376189-L21</span></p> <p>NOTE: If two processors are desired, select one 376189-L21 and one 376189-B21.</p> <p>AMD(R) O252 2.6/800-1M DL385 FIO Base <span style="float: right;">376190-L21</span></p> <p>NOTE: If two processors are desired, select one 376190-L21 and one 376190-B21.</p>
Base Memory	<p>1GB PC3200 DDR SDRAM DIMM Memory Kit (2 x 512 MB) <span style="float: right;">376638-B21</span></p> <p>2GB PC3200 DDR SDRAM DIMM Memory Kit (2 x 1 GB) <span style="float: right;">376639-B21</span></p> <p>4GB PC3200 DDR SDRAM DIMM Memory Kit (2 x 2 GB) <span style="float: right;">379300-B21</span></p>
Optical Drive	<p>Drv CDROM 24X FIO Base <span style="float: right;">338732-B21</span></p> <p>Slimline CD-RW/DVD-ROM Combo Option Kit <span style="float: right;">331903-B21</span></p> <p>Slimline DVD-ROM Drive (8x/24x) Option Kit <span style="float: right;">264007-B21</span></p>
Diskette Drive	<p>Floppy Drive Kit <span style="float: right;">364507-B21</span></p>

## *Configuration Information - Factory Integrated Models*

### Step 3: Choose Additional Options for Factory Integration

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

## Options

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

ProLiant DL385 Unique Options	AMD Opteron 250 2.4 GHz-1MB Processor Option Kit for the ProLiant DL385	376189-B21
	AMD Opteron 252 2.6 GHz-1MB Processor Option Kit for the ProLiant DL385	376190-B21
ProLiant DL380 G4 / DL385 Shared Options	DL380 G4 Redundant Fan Option Kit	293048-B21
	<b>NOTE:</b> Hot Plug Redundant Fan Option Kit (PN 293048-B21) contains three fans. This kit is included with all 2MB cache and high performance models.	
	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) (WW)	355892-B21
	Floppy Drive Option Kit	364507-B21
	<b>NOTE:</b> Included in high performance models.	
	SCSI Configuration Kit	364471-B21
	<b>NOTE:</b> Kit Includes duplex drive backplane terminator and 2 long SCSI cables.	
ProLiant Essentials Value Pack Software	Rapid Deployment Pack, 1 User, V1.x	267196-B21
	<b>NOTE:</b> This license allows 1 server to be managed and deployed via the Deployment Server.	
	Rapid Deployment Pack, 1 User, V1.x (Japan)	267196-291
	<b>NOTE:</b> This license allows 1 server to be managed and deployed via the Deployment Server.	
	Rapid Deployment Pack, 10 Users, V1.x	269817-B21
	<b>NOTE:</b> This license allows 10 servers to be managed and deployed via the Deployment Server.	
	Rapid Deployment Pack, 10 Users, V1.x (Japan)	269817-291
	<b>NOTE:</b> This license allows 10 servers to be managed and deployed via the Deployment Server.	
	ProLiant Essentials Workload Management Pack (Featuring Resource Partitioning Manager version 2.0)	303284-B21
	Rapid Deployment Pack, Flexible Quantity License Kit	302127-B21
	License-Only - for use with a Master License Agreement	302128-B21
	ProLiant Essentials Performance Management Pack v2.0, Single License	306696-B21
	<b>NOTE:</b> This license allows 1 server to be managed by Performance Management Pack.	
	Performance Management Pack, flexible license kit	306697-B21
<b>NOTE:</b> A single pack is shipped with a single license key for the total number of licenses ordered		
ProLiant Essentials Integrated Lights-Out Advanced Pack	263825-B21	
<b>Featuring:</b> sophisticated virtual administration features for ultimate control of servers in the data centers and remote sites		
ProLiant Essentials Intelligent Networking Pack (1 License)	372906-B21	
ProLiant Essentials Intelligent Networking Pack Flex License	372950-B21	
ProLiant Essentials Intelligent Networking Pack Track License	372951-B21	
ProLiant Essentials Virtual Machine Management Pack, Single-Server License	372214-B21	
<b>NOTE:</b> For use with a single server. Contains one license with a unique license activation key and documentation.		

## Options

ProLiant Essentials Virtual Machine Management Pack, Flexible-Quantity License <b>NOTE:</b> For use with multiple servers. This part number can be used to purchase multiple licenses with a single activation key.	372215-B21
ProLiant Essentials Virtual Machine Management Pack, Tracking License <b>NOTE:</b> For use with signed and implemented Activation Key Agreements only. Purchase of this part number entitles the customer to deploy additional licenses of the product under the terms of the existing Activation Key Agreement.	372216-B21
ProLiant Essentials Vulnerability and Patch Management Pack, Single-Server License	371645-B21
ProLiant Essentials Vulnerability and Patch Management Pack, 10-Server License	372029-B21
ProLiant Essentials Vulnerability and Patch Management Pack, Flexible-Quantity License	371646-B21
ProLiant Essentials Vulnerability and Patch Management Pack, Tracking license for new servers	371647-B21
ProLiant Essentials Vulnerability and Patch Management Pack, Tracking license for installed servers	378372-B21
ProLiant Essentials Vulnerability and Patch Management Pack, 1-Server 10-Desktop Bundle License <b>NOTE:</b> Flexible and volume quantity license kits are available for ProLiant Essentials Value Packs. Refer to <a href="http://www.hp.com/servers/proliantessentials">http://www.hp.com/servers/proliantessentials</a> or the various ProLiant Essentials Value Pack product QuickSpecs for more information. <b>NOTE:</b> For more information regarding ProLiant Essentials Software, please see the following URL: <a href="http://www.hp.com/servers/proliantessentials">http://www.hp.com/servers/proliantessentials</a> .	389941-B21

<b>ProLiant Software Maintenance Subscription</b>	ProLiant Software Maintenance Subscription	355060-B21
	ProLiant Software Maintenance Single Release	356573-B21
	ProLiant Foundation Pack Single Release	356604-B21
<b>NOTE:</b> Please see the SmartStart QuickSpecs for additional information regarding the subscription purchase: <a href="http://h18000.www1.hp.com/products/quickspecs/12007_div/12007_div.HTML">http://h18000.www1.hp.com/products/quickspecs/12007_div/12007_div.HTML</a> (Worldwide) <a href="http://h18000.www1.hp.com/products/quickspecs/12007_na/12007_na.HTML">http://h18000.www1.hp.com/products/quickspecs/12007_na/12007_na.HTML</a> (North America)		

<b>Software</b>	HP digital asset protection	302316-001
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<b>Processor</b>	AMD Opteron 250 2.4 GHz-1MB Processor Option Kit	376189-B21
	AMD Opteron 252 2.6 GHz-1MB Processor Option Kit	376190-B21

<b>Memory</b>	1GB PC3200 DDR SDRAM DIMM Memory Kit (2 x 512 MB)	376638-B21
	2GB PC3200 DDR SDRAM DIMM Memory Kit (2 x 1 GB)	376639-B21
	4GB PC3200 DDR SDRAM DIMM Memory Kit (2 x 2 GB)	379300-B21

## Options

Optical Drives	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	364507-B21
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Hard Drives	<b>Ultra320 SCSI - Universal Hot Plug</b>	
	300-GB 10,000 rpm U320 Universal Hard Drive (1")	350964-B22
	146.8-GB 10,000 rpm U320 Universal Hard Drive (1")	286716-B22
	72.8-GB 10,000 rpm U320 Universal Hard Drive (1")	286714-B22
	146.8-GB 15,000 rpm U320 Universal Hard Drive (1")	347708-B22
	72.8-GB 15,000 rpm U320 Universal Hard Drive (1")	286778-B22
	36.4-GB 15,000 rpm U320 Universal Hard Drive (1")	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:

U320 Hard Drive QS:

[http://h18000.www1.hp.com/products/quickspecs/11531\\_div/11531\\_div.HTML](http://h18000.www1.hp.com/products/quickspecs/11531_div/11531_div.HTML)  
(Worldwide)

[http://h18000.www1.hp.com/products/quickspecs/11531\\_na/11531\\_na.HTML](http://h18000.www1.hp.com/products/quickspecs/11531_na/11531_na.HTML)  
(North America)

Storage Controllers	Smart Array 6i 128MB Battery Backed Write Cache Enabler Option Kit	346914-B21
	<b>NOTE:</b> This 128 MB BBWC is interoperable with the Smart Array 641/641.	
	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
	128MB Battery-Backed Cache Enabler	351580-B21
	<b>NOTE:</b> This 128MB BBWC supports the Smart Array 641 Controller and Smart Array 642 Controller.	
	256MB DDR, Battery-Backed Cache Upgrade Kit for SA-6400	273913-B21
	<b>NOTE:</b> This 256MB DDR, Battery-Backed Cache upgrade kit supports the Smart Array 6400 series controller only.	
64-Bit/133-MHz Dual Channel Ultra320 SCSI Adapter	268351-B21	
Ultra320 Expansion Module for SA-6402	273911-B21	

## Options

**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/12030\\_div/12030\\_div.HTML](http://h18000.www1.hp.com/products/quickspecs/12030_div/12030_div.HTML)  
(Smart Array 6i)

[http://h18000.www1.hp.com/products/quickspecs/11746\\_div/11746\\_div.HTML](http://h18000.www1.hp.com/products/quickspecs/11746_div/11746_div.HTML)  
(Smart Array 6400 Series)

[http://h18000.www1.hp.com/products/quickspecs/12067\\_div/12067\\_div.HTML](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](http://h18000.www1.hp.com/products/quickspecs/12069_div/12069_div.HTML)  
(Smart Array 642)

[http://h18000.www1.hp.com/products/quickspecs/10429\\_div/10429\\_div.HTML](http://h18000.www1.hp.com/products/quickspecs/10429_div/10429_div.HTML)  
(SCSI Adapter)

[http://h18000.www1.hp.com/products/quickspecs/11555\\_div/11555\\_div.HTML](http://h18000.www1.hp.com/products/quickspecs/11555_div/11555_div.HTML)  
(U320 Adapter)

<b>Communications</b>	HP NC150T PCI 4-port Gigabit 1000T Combo Switch Adapter	367132-B21
	HP NC310F PCI-X 1000SX Gigabit Server Adapter	368169-B21
	HP NC1020 PCI Single Port 1000T Gigabit Server Adapter	353377-B21
	HP NC6170 PCI-X Dual Port 1000SX Gigabit Server Adapter	313879-B21
	HP NC7170 PCI-X Dual Port 1000T Gigabit Server Adapter	313881-B21
	HP NC7771 PCI-X Single Port 1000T Gigabit Server Adapter	290563-B21
	<b>NOTE:</b> Any Ethernet network interface controller (NIC) (except the NC1020) on the option list can be used for redundancy with the embedded NC7782 Network Controller. When teaming with other NICs or with the embedded NIC, the lack of Jumbo Frames and LSO features on the NC1020 will cause high end NICs to have those features disabled. (e.g. incompatibility issues with the other option NICs for that platform).	
	HP NC570C PCI-X Dual-port 4x Fabric Adapter	376158-B21
	HP 24-Port 4x Fabric Copper Switch	376227-B21
	HP 1m 4x Fabric Copper Cable	376232-B21
HP 3m 4x Fabric Copper Cable	376232-B22	
HP 5m 4x Fabric Copper Cable	376232-B23	

<b>Redundant Options</b>	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) (WW)	355892-B21

<b>Management Options</b>	iLO Advanced Pack	263825-B21
	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

## Options

Security	HP/Atalla AXL600L SSL Accelerator Card for ProLiant Servers	524545-B21
	AXL300 Accelerator PCI for ProLiant Servers	227933-B21

## Tape Drives

**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:

### *Hot Plug Tape Drives*

HP StorageWorks DAT 40 Tape Drive, Internal Hot-Plug (Carbon)	Q1546A
HP StorageWorks DAT 72 Tape Drive, Internal Hot-Plug (Carbon)	Q1529A

### *External, Rack-Mount, and Array Module Ultrium Tape Drives*

HP StorageWorks Ultrium 215 Tape Drive, Internal (Carbon)	Q1543A
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**NOTE:** No internal tape drives fit inside the DL380 (except hot plug tape). The internal drive shown here is for the 1U and 3U Rack-Mount Kits.

HP StorageWorks Ultrium 215 Rack-Mount (Carbon) - Single drive installed in a 1U rack-mount kit (supports one additional half-height tape drive)	A7444A
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HP StorageWorks Ultrium 215 Tape Drive, External (Carbon)	Q1545A
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HP StorageWorks Ultrium 215 Array Module (Carbon) - Offline hot-swap drive for Tape Array 5300	C7492B
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HP StorageWorks Ultrium 230 Tape Drive, Internal (Carbon)	Q1515A
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**NOTE:** No internal tape drives fit inside the DL380 (except hot plug tape). The internal drive shown here is for the 3U or 5U Rack-Mount Kit

HP StorageWorks Ultrium 230 Tape Drive, External (Carbon)	Q1517A
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HP StorageWorks Ultrium 230, Rack-Mount (Carbon) - Single drive installed in a 3U rack-mount kit	350545-B21
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HP StorageWorks Ultrium 230 Array Module (Carbon) - Offline hot-swap drive for Tape Array 5300	C7470B
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HP StorageWorks Ultrium 448 Tape Drive, External (Carbonite)	DW017A
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HP StorageWorks Ultrium 448, Rack-mount (Carbonite) - Single drive installed in a 1U rack-mount kit	DW028A
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HP StorageWorks Ultrium 460 Tape Drive, External (Carbon)	Q1520A
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HP StorageWorks Ultrium 460, Rack-mount (Carbon) - Single drive installed in a 3U rack-mount kit	350546-B21
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HP StorageWorks Ultrium 460 Array Module (Carbon) - Offline hot-swap drive for Tape Array 5300	Q1512B
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HP StorageWorks Ultrium 960 Tape Drive, Internal (Carbonite)	Q1538A
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HP StorageWorks Ultrium 960 Tape Drive, External (Carbonite)	Q1539A
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HP StorageWorks Ultrium 960 Rack-Mount (Carbonite) - Single drive installed in a 3U rack-mount kit	Q1595A
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## Options

**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](http://h18006.www1.hp.com/products/quickspecs/11739_div/11739_div.html)  
 (Worldwide)  
[http://h18006.www1.hp.com/products/quickspecs/11739\\_na/11739\\_na.html](http://h18006.www1.hp.com/products/quickspecs/11739_na/11739_na.html)  
 (North America)  
[http://h18006.www1.hp.com/products/quickspecs/12128\\_div/12128\\_div.html](http://h18006.www1.hp.com/products/quickspecs/12128_div/12128_div.html)  
 (Worldwide)  
[http://h18006.www1.hp.com/products/quickspecs/12128\\_na/12128\\_na.html](http://h18006.www1.hp.com/products/quickspecs/12128_na/12128_na.html)  
 (North America)

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>.

### External, Rack-Mount, and Array Module DAT Drives

HP StorageWorks DAT 72 Rack-Mount (Carbon) - Single drive installed in a 1U rack-mount kit (supports one additional half-height tape drive)	A7443A
HP StorageWorks DAT 72 Tape Drive, External (Carbon)	Q1523A
HP StorageWorks DAT 72 Array Module (Carbon) - Offline hot-swap drive for Tape Array 5300	Q1524B

**NOTE:** Please see the DAT Tape Drive QuickSpecs for controllers, media, and other options:

[http://h18000.www1.hp.com/products/quickspecs/11883\\_div/11883\\_div.HTML](http://h18000.www1.hp.com/products/quickspecs/11883_div/11883_div.HTML)  
 (Worldwide)  
[http://h18000.www1.hp.com/products/quickspecs/11883\\_na/11883\\_na.HTML](http://h18000.www1.hp.com/products/quickspecs/11883_na/11883_na.HTML)  
 (North America)

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

### Rack-Mount Tape Drive Enclosures

HP StorageWorks 1U Rack-Mount Kit	A7445A
<b>NOTE:</b> The 1U Rack-mount Kit can support up to 2 half-height tape drives and compatible with multiple Single-Ended and LVD SCSI tape drives including DAT 24, DAT40, DAT72, DLT VS 80, and Ultrium 215 tape drives.	
HP StorageWorks 3U Rack-Mount Kit	274338-B21
<b>NOTE:</b> The 3U Rack-Mount Kit can support up to 2 full-height or 4 half-height tape drives and compatible with multiple Single-Ended and LVD SCSI tape drives including DAT, DLT VS80, SDLT 320, Ultrium 215, Ultrium 230, and Ultrium 460 Tape Drives.	
HP StorageWorks 5U Rack-Mount Kit	274339-B21
<b>NOTE:</b> The 5U Rack-Mount Kit can support up to 4 full-height tape drives and is compatible with SDLT 320, Ultrium 230, and Ultrium 460 tape drives.	
<b>NOTE:</b> Please see the Rack-Mount Tape Drive Kits QuickSpecs for additional information regarding these kits: <a href="http://h18000.www1.hp.com/products/quickspecs/10854_div/10854_div.HTML">http://h18000.www1.hp.com/products/quickspecs/10854_div/10854_div.HTML</a> (Worldwide) <a href="http://h18000.www1.hp.com/products/quickspecs/10854_na/10854_na.HTML">http://h18000.www1.hp.com/products/quickspecs/10854_na/10854_na.HTML</a> (North America)	
HP StorageWorks Tape Array 5300	C7508A

## Options

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

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

[http://h18000.www1.hp.com/products/quickspecs/11878\\_div/11878\\_div.HTML](http://h18000.www1.hp.com/products/quickspecs/11878_div/11878_div.HTML)  
(Worldwide)

[http://h18000.www1.hp.com/products/quickspecs/11878\\_na/11878\\_na.HTML](http://h18000.www1.hp.com/products/quickspecs/11878_na/11878_na.HTML)  
(North America)

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

LVD Cable Kit, VHDCI/HD68 168048-B21

**NOTE:** For use with the 3U Rack-mount Kit and 5U Rack-mount Kit only.

LVD Cable Kit, HD68/HD68 242381-B21

**NOTE:** For use with the 3U Rack-mount Kit and 5U Rack-mount Kit only.

## Tape Autoloaders

### DAT Autoloader

HP StorageWorks DAT 72x6 Tape Autoloader, External (Carbon) Q1567A

**NOTE:** Please see the DAT 72x6 Tape Autoloader QuickSpecs for additional options such as host bus adapters, controllers and media:

[http://h18006.www1.hp.com/products/quickspecs/11905\\_div/11905\\_div.html](http://h18006.www1.hp.com/products/quickspecs/11905_div/11905_div.html)  
(Worldwide)

[http://h18006.www1.hp.com/products/quickspecs/11905\\_na/11905\\_na.html](http://h18006.www1.hp.com/products/quickspecs/11905_na/11905_na.html)  
(North America)

### HP StorageWorks 1/8 Tape Autoloader

1/8 Ultrium 460 Tape Autoloader, Tabletop AA927A

1/8 SDLT 320 Tape Autoloader, Tabletop AA926A

1/8 Ultrium 230 Tape Autoloader, Tabletop C9572CB

1/8 DLT VS80 Tape Autoloader, Tabletop C9264CB

1/8 Tape Autoloader Rack-mount Kit C9268R

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

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

<http://www.hp.com/go/ebs>

### HP StorageWorks SSL1016 Tape Autoloader

SSL1016 Ultrium 460 Tape Autoloader 330821-B21

SSL1016 SDLT 320 Tape Autoloader 330816-B21

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

<http://www.hp.com/go/ebs>.

## Tape Libraries

### HP StorageWorks MSL6000 Tape Library

MSL6030, 1 drive, 30 slots, Ultrium 460, RM 330731-B22

MSL6030, 2 drive, 30 slots, Ultrium 460, RM 330731-B23

MSL6030, 1 drive, 30 slots, Ultrium 460, RM with embedded FC router 330731-B24

## Options

MSL6030, 2 drive, 30 slots, Ultrium 460, RM with embedded FC router	330731-B25
MSL6060, 2 drive, 60 slot, Ultrium 460, RM	331196-B21
MSL6060, 2 drive, 60 slot, Ultrium 460, RM with embedded FC router	331196-B22

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

### **HP StorageWorks MSL5026S2 Tape Library**

MSL5026S2, 1 drive, 26 slots, SDLT 320, RM	293472-B22
MSL5026S2, 2 drive, 26 slots, SDLT 320, RM	293472-B23
MSL5026S2, 1 drive, 26 slots, SDLT 320, RM with embedded FC router	293472-B24
MSL5026S2, 2 drive, 26 slots, SDLT 320, RM with embedded FC router	293472-B25

**NOTE:** Please reference the [MSL5026S2 Tape Library QuickSpecs at http://www.hp.com/go/automation](http://www.hp.com/go/automation) for additional information needed to create a complete solution; reference current compatibility information at <http://www.hp.com/go/ebs>

### **HP StorageWorks MSL5052S2 Tape Library**

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

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

### **HP StorageWorks MSL5030 Tape Library**

MSL5030, 1 drive, 30 slots, Ultrium 230, RM	301897-B22
MSL5030, 2 drive, 30 slots, Ultrium 230, RM	301897-B23
MSL5030, 1 drive, 30 slots, Ultrium 230, RM with embedded FC router	301897-B24
MSL5030, 2 drive, 30 slots, Ultrium 230, RM with embedded FC router	301897-B25

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

### **HP StorageWorks MSL5060 Tape Library**

MSL5060, 2 drive, 60 slots, Ultrium 230, RM	301899-B22
MSL5060, 2 drive, 60 slots, Ultrium 230, RM with embedded FC router	301899-B23

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

### **HP StorageWorks ESL E-Series Tape Libraries**

ESL Extended 712e Tape Library, 0 drive, 712 LTO slots	AA934B
ESL Extended 630e Tape Library, 0 drive, 630 SDLT slots	AA935B

## Options

ESL Extended 322e Tape Library, 0 drive, 322 LTO slots	AA939B
ESL Extended 286e Tape Library, 0 drive, 286 SDLT slots	AA940B
ESL E-Series Ultrium 460 drive kit	AA937A
ESL E-Series Ultrium 460-FC drive kit	AA941A
ESL E-Series SDLT 320 drive kit	AA936A
ESL E-Series e2400-FC 2G Interface Controller	AA928A

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

### Magneto-Optical Jukeboxes

#### *HP StorageWorks 9.1 GB Mid-range Optical Jukeboxes*

300mx, 2 drive, 32 slot jukebox	C1150M
600mx, 4 drive, 64 slot jukebox	C1160M
700mx, 2 drive, 76 slot jukebox	C1170M

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

#### *HP StorageWorks 9.1 GB High-end Optical Jukeboxes*

1200mx, 4 drive, up to 128 slots	C1104M
1200mx, 6 drive, up to 128 slots	C1105M
2200mx, 4 drive, up to 238 slots	C1111M
2200mx, 6 drive, up to 238 slots	C1107M
2200mx, 10 drive, up to 238 slots	C1110M

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

### Ultra Density Optical Jukeboxes

1000ux, 2 drive, 32 slot jukebox	AA965A
1900ux, 4 drive, 64 slot jukebox	AA966A
1900ux, 4 mixed drive, 64 slot jukebox	AA968A
2300ux, 2 drive, 76 slot jukebox	AA967A
3800ux, 4 drive, 128 slot jukebox	AA969A
3800ux, 6 drive, 128 slot jukebox	AA970A
7100ux, 4 drive, 238 slot jukebox	AA973A
7100ux, 6 drive, 238 slot jukebox	AA971A
7100ux, 10 drive, 238 slot jukebox	AA972A
7100ux, 6 mixed drive, 238 slot jukebox	AA974A

**NOTE:** Please reference the Ultra Density Optical Jukebox QuickSpecs at <http://www.hp.com/go/optical> for additional information needed to create a complete solution

## Options

<p>HP StorageWorks Modular Smart Array 500</p>	<p>HP StorageWorks Modular Smart Array 500 Generation 2</p> <p><b>NOTE:</b> 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:  <a href="http://h18000.www1.hp.com/products/quickspecs/11956_na/11956_na.HTML">http://h18000.www1.hp.com/products/quickspecs/11956_na/11956_na.HTML</a>            (North America)  <a href="http://h18000.www1.hp.com/products/quickspecs/11956_div/11956_div.HTML">http://h18000.www1.hp.com/products/quickspecs/11956_div/11956_div.HTML</a>            (Worldwide)</p>	<p>335880-B21</p>
<hr/>		
<p>Cluster Options</p>	<p>ProLiant Cluster Starter Kit</p> <p><b>NOTE:</b> For additional information regarding the ProLiant Cluster Starter Kit please see the following QuickSpecs at:  <a href="http://h18000.www1.hp.com/products/quickspecs/11935_na/11935_na.html">http://h18000.www1.hp.com/products/quickspecs/11935_na/11935_na.html</a>            (North America)  <a href="http://h18000.www1.hp.com/products/quickspecs/11935_div/11935_div.html">http://h18000.www1.hp.com/products/quickspecs/11935_div/11935_div.html</a>            (Worldwide)</p> <p>ProLiant Cluster Kit with OpenView Storage Mirroring</p> <p><b>NOTE:</b> For additional information regarding the ProLiant Cluster Kit with OpenView Storage Mirroring please see the following QuickSpecs at:  <a href="http://h18000.www1.hp.com/products/quickspecs/11934_na/11934_na.html">http://h18000.www1.hp.com/products/quickspecs/11934_na/11934_na.html</a>            (North America)  <a href="http://h18000.www1.hp.com/products/quickspecs/11934_div/11934_div.html">http://h18000.www1.hp.com/products/quickspecs/11934_div/11934_div.html</a>            (Worldwide)</p> <p>ProLiant Cluster HA/F200 for the Entry Level SAN</p> <p>ProLiant Cluster HA/F200 for the Entry Level SAN (Japan)</p> <p><b>NOTE:</b> For additional information regarding the ProLiant Cluster for Entry Level SAN please see the following QuickSpecs at:  <a href="http://h18000.www1.hp.com/products/quickspecs/11932_na/11932_na.html">http://h18000.www1.hp.com/products/quickspecs/11932_na/11932_na.html</a>            (North America)  <a href="http://h18000.www1.hp.com/products/quickspecs/11932_div/11932_div.html">http://h18000.www1.hp.com/products/quickspecs/11932_div/11932_div.html</a>            (Worldwide)</p> <p>ProLiant Cluster HA/F500 for the Enterprise SAN</p> <p><b>NOTE:</b> For additional information regarding the ProLiant Cluster HA/F500 for Enterprise SAN please see the following QuickSpecs at:  <a href="http://h18000.www1.hp.com/products/quickspecs/11933_na/11933_na.html">http://h18000.www1.hp.com/products/quickspecs/11933_na/11933_na.html</a>            (North America)  <a href="http://h18000.www1.hp.com/products/quickspecs/11933_div/11933_div.html">http://h18000.www1.hp.com/products/quickspecs/11933_div/11933_div.html</a>            (Worldwide)</p> <p>HP Serviceguard for Linux ProLiant Cluster A.11.15 for SUSE SLES 8 / UnitedLinux 1.0 and Red Hat EL 3 (2 node license cluster kit).</p> <p>HP Serviceguard for Linux ProLiant Cluster A.11.16 for SUSE SLES 9 and Red Hat EL 3 (2 node license cluster kit)</p> <p>HP Serviceguard for Linux License A.11.15 for SUSE SLES 8 / UnitedLinux 1.0 and Red Hat EL 3 (single license version)</p> <p>HP Serviceguard for Linux A.11.16 for SUSE SLES9 and Red Hat EL 3 (single license version)</p>	<p>364023-B21</p> <p>364025-B21</p> <p>364026-B21</p> <p>364026-291</p> <p>364024-B21</p> <p>305199-B24</p> <p>305199-B25</p> <p>307754-B24</p> <p>307754-B25</p>

## Options

**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](http://h18000.www1.hp.com/products/quickspecs/11518_na/11518_na.html)  
(North America)

[http://h18000.www1.hp.com/products/quickspecs/11518\\_div/11518\\_div.html](http://h18000.www1.hp.com/products/quickspecs/11518_div/11518_div.html)  
(Worldwide)

External Storage - Rack	HP StorageWorks Modular Smart Array 20	335921-B21
	<b>NOTE:</b> Rack-mountable 12 (SATA) drive enclosure with U320 Host connectivity, redundant power supplies.	
	HP StorageWorks Modular Smart Array 20 Starter Kit	366172-B21
	<b>NOTE:</b> Rack-mountable 12 (SATA) drive enclosure with U320 Host connectivity, redundant power supplies. Includes Smart Array 6402/128 Controller.	
	<b>NOTE:</b> The Modular Smart Array Enclosure 20 Family supports the SATA 1.5Gb/s 1" Hot Plug Hard Drives.	
	HP StorageWorks Modular Smart Array 30 SB	302969-B21
	<b>NOTE:</b> Rack-mountable 14 drive enclosure with single bus, redundant power supplies	
	HP StorageWorks Modular Smart Array 30 DB	302970-B21
	<b>NOTE:</b> Rack-mountable 14 drive enclosure with dual bus, redundant power supplies	
	<b>NOTE:</b> The Modular Smart Array Enclosure 30 Family supports the Wide Ultra3, Ultra320 1" Hot Plug Hard Drives.	
StorageWorks Modular Smart Array 30 OpenView Storage Mirroring HA Kit - WW	359079-B21	
StorageWorks Modular Smart Array 30 OpenView Storage Mirroring HA Kit - Japan	359079-291	
Redundant Power Supply 499W for MSA30	338296-B21	
Ultra320 Single Bus I/O Module for MSA30	287484-B21	
Ultra320 Dual Bus I/O Module for MSA30	287483-B21	

HP StorageWorks Modular Smart Array 1500 cs	Modular Smart Array 1500 Controller Shelf	AA986A
	<b>NOTE:</b> Please see the StorageWorks Modular SAN Array 1500 cs QuickSpecs for additional options and configuration information at: <a href="http://www.hp.com/go/MSA1500cs">http://www.hp.com/go/MSA1500cs</a>	

HP StorageWorks Modular Smart Array 1000	HP StorageWorks Modular Smart Array 1000	201723-B22
	<b>NOTE:</b> Please see the Modular Smart Array 1000 QuickSpecs for additional options and configuration information at <a href="http://h18000.www1.hp.com/products/quickspecs/11033_na/11033_na.HTML">http://h18000.www1.hp.com/products/quickspecs/11033_na/11033_na.HTML</a> (North America) <a href="http://h18000.www1.hp.com/products/quickspecs/11033_div/11033_div.HTML">http://h18000.www1.hp.com/products/quickspecs/11033_div/11033_div.HTML</a> (Worldwide)	

## Options

Network Storage Router	M2402 2FCX 4SCSI LVD Network Storage Router	262653-B21	
	M2402 2FCX 4SCSI HVD Network Storage Router	262654-B21	
	M2402 4 channel LVD SCSI Module	262659-B21	
	M2402 4 channel HVD SCSI Module	262660-B21	
	M2402 2 channel FC Module	262661-B21	
<hr/>			
StorageWorks Options	StorageWorks 2 Gb, 64-bit/133 MHz PCI-X-to-Fibre Channel Host Bus Adapter for Windows 2000, Windows Server 2003 and Linux <b>NOTE:</b> FCA2214 2 Gb Fibre Channel Host Bus Adapter is a single channel, 64-bit/133 MHz PCI-X-to Fibre Channel Host Bus Adapter (HBA) with an embedded multi-mode optical interface	281541-B21	
	StorageWorks 2 Gb, 64-bit/133 MHz PCI-X to-Fibre Channel Host Bus Adapter for NetWare <b>NOTE:</b> FCA2210 2 Gb, Fibre Channel Host Bus Adapter is a single channel, 64-bit/133 MHz PCI-X-to-Fibre Channel Host Bus Adapter (HBA) with an embedded multi-mode optical interface.	281540-B21	
	FCA2408 - HP StorageWorks 2 Gb, 64-Bit/133 MHz Single Channel , PCI- X-to-Fibre Channel Host Bus Adapter for Windows® 2000 and Windows Server® 2003 <b>NOTE:</b> FCA2408 HP StorageWorks 2 Gb, 133 MHz PCI-X-to-Fibre Channel Host Bus Adapter (HBA) with optical small-form-factor (SFF) (LC) interface.	343073-B21	
	FCA2404DC - HP StorageWorks 2 Gb, Dual Channel, 133 MHz PCI-X-to-Fibre Channel Host Bus Adapter for Windows® 2000, and Windows Server 2003 <b>NOTE:</b> FCA2404DC HP StorageWorks 2 Gb Fibre Channel Host Bus Adapter is a dual channel, 133 MHz, PCI-X to Fibre Channel Host Bus Adapter (HBA) with an embedded multi-mode optical interface.	323264-B21	
	FCA2404 - StorageWorks 2 Gb, single channel, 133 MHz PCI-X-to-Fibre Channel Host Bus Adapter for Windows 2000, Windows NT and Windows Server 2003 <b>NOTE:</b> FCA2404 StorageWorks 2 Gb, Fibre Channel Host Bus Adapter is a single channel, multi-path failover, 133 MHz, PCI-X to Fibre Channel Host Bus Adapter (HBA) with an embedded multi-mode optical interface for ProLiant Server connects	305573-B21	
	StorageWorks 2 Gb, Dual Port, 64-Bit/133 MHz PCI-X-to-Fibre Channel Host Bus Adapter for W2K, Windows Server 2003 and Linux <b>NOTE:</b> FCA2214DC StorageWorks 2 Gb Dual Port, Fibre Channel Host Bus Adapter is a 64-bit/133 MHz, PCI-X-to Fibre Channel Host Bus Adapter (HBA) with an embedded multi-mode optical interface.	321835-B21	
	StorageWorks Director 2/64	286809-B21	
	StorageWorks SAN Switch 2/8-EL	322120-B21	
	StorageWorks SAN Switch 2/8-EL Upgrade	325888-B21	
	StorageWorks SAN Switch 2/16	322118-B21	
	<b>NOTE:</b> For additional information on Fibre Channel Host Bus Adapters and San Switches visit the following URL: <a href="http://h18000.www1.hp.com/storage/saninfrastructure.html">http://h18000.www1.hp.com/storage/saninfrastructure.html</a>		

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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>

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## Options

<b>Uninterruptible Power Systems - Rack</b>	HP UPS R1500 XR (100 to 127) (NA)	204404-001
	HP UPS R1500 XR (208 to 480) (Int'l)	204404-B31
	HP UPS R1500 XR (100 to 127) (Japan)	204404-291
	HP UPS R3000 XR (120V) (NA)	192186-001
	HP UPS R3000 XR (208V) (NA)	192186-002
	HP UPS R3000 XR (100V) (Japan)	192186-291
	HP UPS R3000 XR (208V) (Japan) HP UPS R3000 XR (200V) (Japan)	192186-292
	HP UPS R3000 XR (230V) (Int'l - detachable cord)	192186-B31
	HP UPS R3000 XR (230V) (16A IEC309 Plug)	192186-B32
	HP UPS R3000 XR (230V) (16A CEE 7/7 SCHUKO Plug)	192186-B33
	HP UPS R3000 XR (230V) (16A BS-546 Plug)	192186-AR1
	HP UPS R5500 XR, (5000VA, 4500 Watt), High Voltage (NA/Jpn)	326529-D71
	HP UPS R5500 XR, (6000VA, 5400 Watt), High Voltage (Int'l)	326529-B31
	HP UPS R12000 XR N+x (200-240V) (WW-hardwired)	207552-B22

**NOTE:** The UPS R12000 XR has a hardwired input and output connection.

<b>HP Power Distribution Unit with Power Monitoring</b>	HP Power Distribution Unit with Power Monitoring Model S2324 - dual input, 3 phase, 24A (NA/JPN)	370959-D71
	HP Power Distribution Unit with Power Monitoring Model S1324 - single input, 3 phase, 24A (NA/JPN)	370960-D71
	HP Power Distribution Unit with Power Monitoring Model S2140 - dual input, 1 phase, 40A (NA/JPN)	370961-D71
	HP Power Distribution Unit with Power Monitoring Model S1140 - single input, 1 phase, 40A (NA/JPN)	370962-D71
	HP Power Distribution Unit with Power Monitoring Model S2316 - dual input, 3 phase, 16A (INTL)	370963-B31
	HP Power Distribution Unit with Power Monitoring Model S1316 - single input, 3 phase, 16A (INTL)	370964-B31
	HP Power Distribution Unit with Power Monitoring Model S2132 - dual input, 1 phase, 32A (INTL)	370965-B31
	HP Power Distribution Unit with Power Monitoring Model S1132 - single input, 1 phase, 32A (INTL)	370966-B31

## Options

<p><b>Modular Power Distribution Units 1U/0U</b> (Up to 32 outlets) <b>NOTE:</b> 1U/0U mounting brackets shipped with the unit (optimized for 10000 and 9000 series racks).</p>	<p>HP Modular Power Distribution Units (mPDU), Low Volt Model, 24A (100-127 VAC) (NA, Japan) <b>NOTE:</b> This mPDU (252663-D71) may also be used to connect the low volt model of the UPS R3000 XR.</p> <p>HP Modular Power Distribution Units (mPDU), High Volt Model, 24A (200-240 VAC) (NA, Japan)</p> <p>HP Modular Power Distribution Units (mPDU), High Volt Model, 32A (200-240 VAC) (Int'l)</p> <p>HP Modular Power Distribution Units (mPDU), High Volt Model, 40A (200-240 VAC) (WW)</p> <p>HP Modular Power Distribution Units (mPDU), High Volt Model, 16A (200-240 VAC) (WW) <b>NOTE:</b> 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.</p> <p>HP Modular Power Distribution Unit (mPDU), High Volt Model, 40A, Attached Cord, (NA/JPN)</p> <p>HP Modular Power Distribution Unit (mPDU), High Volt Model, 40A, Attached Cord, (Int'l) <b>NOTE:</b> 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: <a href="http://h18000.www1.hp.com/products/quickspecs/11041_na/11041_na.HTML">http://h18000.www1.hp.com/products/quickspecs/11041_na/11041_na.HTML</a> (North America) <a href="http://h18000.www1.hp.com/products/quickspecs/11041_div/11041_div.HTML">http://h18000.www1.hp.com/products/quickspecs/11041_div/11041_div.HTML</a> (Worldwide)</p>	<p>252663-D71</p> <p>252663-D72</p> <p>252663-B31</p> <p>252663-B21</p> <p>252663-B24</p> <p>252663-D73</p> <p>252663-B32</p>
<p><b>USB Options</b></p>	<p>HP USB 2-Button Optical Scroll Mouse (Carbonite/Silver)</p> <p>USB 1.44-MB External Diskette Drive (Carbonite)</p> <p>256MB HP Drive Key II (USB 2.0)</p> <p>Multibay USB cradle</p> <p>Multibay USB cradle</p>	<p>DC172B</p> <p>DC141B</p> <p>PH657A</p> <p>DC373A#ABA</p> <p>DC373A#B13</p>
<p><b>Custom Builder</b></p>	<p>Please see the Enterprise Configurator for configuration assistance at: <a href="http://www.hp.com/products/configurator">http://www.hp.com/products/configurator</a>.</p>	
<p><b>Third Party Rack Adapter Kit</b> (for wide racks)</p>	<p>Rack Adapter Kit <b>NOTE:</b> Not required for most racks. This kit allows HP rack servers to fit in racks that are 24" wide.</p>	<p>332815-B21</p>
<p><b>Rack Shipping Kit</b></p>	<p>Shipping Kit for Round Hole Racks</p>	<p>371482-B21</p>

## Options

HP Rack 5000 Series (Graphite Metallic)	HP 5642 Rack-Unassembled	358254-B21
Rack Options for Rack 5000 Series	Stabilizer Kit for 5642 rack (Graphite Carbon) <b>NOTE:</b> The stabilizing kit is used to prevent rack from tipping over.	374493-B21
	Baying Kit for 5642 rack (Graphite Carbon) <b>NOTE:</b> The baying kit is used to join two or more HP 5642 racks.	374499-B21
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 10642 (42U) Rack Cabinet - Pallet	245161-B21
	HP 10642 (42U) Rack Cabinet - Shock Pallet	245161-B22
	HP 10642 (42U) Rack Cabinet - Crated	245161-B23
	HP 10636 (36U) Rack Cabinet - Pallet	245162-B21
	HP 10636 (36U) Rack Cabinet - Shock Pallet	245162-B22
	HP 10636 (36U) Rack Cabinet - Crated	245162-B23
	HP 10622 (22U) Rack Cabinet - Pallet	245163-B21
	HP 10622 (22U) Rack Cabinet - Shock Pallet	245163-B22
	HP 10622 (22U) Rack Cabinet - Crated	245163-B23
<p><b>NOTE:</b> -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</p> <p><b>NOTE:</b> It is mandatory to use a shock pallet in order to ship racks with equipment installed.</p> <p><b>NOTE:</b> Please see the Rack 10000 QuickSpecs for Technical Specifications such as height, width, depth, weight, and color:  <a href="http://h18000.www1.hp.com/products/quickspecs/10995_div/10995_div.HTML">http://h18000.www1.hp.com/products/quickspecs/10995_div/10995_div.HTML</a>            (Worldwide)  <a href="http://h18000.www1.hp.com/products/quickspecs/10995_na/10995_na.HTML">http://h18000.www1.hp.com/products/quickspecs/10995_na/10995_na.HTML</a>            (North America)</p> <p><b>NOTE:</b> For additional information regarding Rack Cabinets, please see the following URL: <a href="http://h18000.www1.hp.com/products/servers/proliantstorage/rack-options/index.html">http://h18000.www1.hp.com/products/servers/proliantstorage/rack-options/index.html</a>.</p>		

## Options

### Rack Options for HP Rack 10000 Series

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

HP Light kit for 10000 series rack	361589-B21
HP Plinth kit for 10000 series rack	251960-B21
TFT5600 Rack Keyboard Monitor	221546-xx1
TFT7210R Rack Mounted 17" Monitor	348373-B21

**NOTE:** For a complete list of Monitors please view the following URL: <http://h18004.www1.hp.com/products/monitors/>.

1U Rack Keyboard & Drawer (Carbon)	257054-xx1
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### Country Code Key for Keyboards

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

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

### HP KVM Switch Options

Server Console Switch (KVM), 0 x 1 x 8 port	336044-B21
Server Console Switch (KVM), 0 x 2 x 16 port	336045-B21
IP Console Switch Box (KVM/IP), 1 x 1 x 16	262585-B21
IP Console Switch Box (KVM/IP), 3 x 1 x 16	262586-B21
HP 1x4 USB/PS2 KVM Switch, RM (ALL)	371302-B21
HP 1x4 USB/PS2 KVM Switch, TT, (EURO)	371301-A21
HP 1x4 USB/PS2 KVM Switch, TT (UK)	371301-031
HP 1x4 USB/PS2 KVM Switch, TT, (AUST/NZ)	371301-011
HP 1x4 USB/PS2 KVM Switch, TT, (NA/JPN)	371301-D71
PS/2 Interface Adapter, 8 pack	262587-B21
PS/2 Interface Adapter, 1 pack	262588-B21
CAT5 KVM Expansion Module	262589-B21
Serial Interface adapter - 1 Pack with power supply	373035-B21
CAT5e Cable 3', 4 pack	263474-B21
CAT5e Cable 6', 8 pack	263474-B22
CAT5e Cable 12', 8 pack	263474-B23
CAT5e Cable 20', 4 pack	263474-B24
CAT5e Cable 40', 1 pack	263474-B25

**NOTE:** For additional information regarding HP KVM Switches and options, please see the following URL:

<http://h18004.www1.hp.com/products/servers/proliantstorage/rack-options/list.html#console>

## Options

<b>Service and Support Offerings</b> (HP Care Pack Services)	<b>Hardware Services On-site Service</b>	
	4-Hour On-site Service, 5-Day x 13-Hour Coverage, 3 Years	U4544A
	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	U4545A
	4-Hour On-site Service, 7-Day x 24-Hour Coverage, 3 Years, Electronic	U4545E
	<b>Hardware Services 6-Hour Call to Repair On-site Service</b>	
	6-Hour Call to Repair, On-site Service, 7-Day x 24-Hour Coverage, 3 Years	U4546A
	6-Hour Call to Repair, On-site Service, 7-Day x 24-Hour Coverage, 3 Years, Electronic	U4546E
	<b>Installation &amp; Start-up Services</b>	
	Hardware Installation	U4554A
	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.	U4555A
	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
	<b>Support Plus</b>	
	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.	U4556A
	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
	<b>Support Plus 24</b>	
	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.	U4557A
	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.	U6312A	
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.	U8334A	
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>

## Memory

**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 13-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 16-GB of memory is available with the removal of the standard 512-MB of memory and the optional installation of PC3200 Registered DDR SDRAM DIMM Memory Option Kit

**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	1GB	Empty	Empty	512MB	512MB	Empty	Empty	Empty	Empty
Optional	13GB	2GB	2GB	512MB	512MB	2GB	2GB	2GB	2GB
Maximum	16GB	2GB	2GB	2GB	2GB	2GB	2GB	2GB	2GB

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

## Storage



- 0 - 5 Six 1" Ultra320 SCSI hot plug hard drive bays
- A 1.44-MB Diskette Drive (optional)
- B 24x IDE CD-ROM (Universal Media Bay)
- C Six 1" 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

## Drive Support

	Quantity Supported	Position Supported	Controller
<b>Removable Media</b>			
1.44-MB Diskette Drive	1	A	Integrated IDE
IDE CD-ROM Drive	1	B	Integrated IDE
Slimline DVD-ROM (8x24x) Option Kit (Servers)	1	B	Integrated IDE

### Hard Drives

#### Ultra320 SCSI - Hot Plug Drives

	Quantity Supported	Position Supported	Controller
1-inch	Up to 6	0-5	Smart Array 6i Controller (integrated on system board)
300-GB 10,000 rpm			Smart Array 6402/128 Controller
146.8-GB 10,000 rpm			Smart Array 6404/256 Controller
72.8-GB 10,000 rpm			Smart Array 641 Controller
146.8-GB 15,000 rpm			Smart Array 642 Controller
72.8-GB 15,000 rpm			64-Bit/133-MHz Dual Channel Ultra320 SCSI Adapter
36.4-GB 15,000 rpm			

**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 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: <a href="http://www.hp.com/go/msa500">http://www.hp.com/go/msa500</a>
Modular Smart Array 1500 cs	Please see the <a href="#">Modular Smart Array 1500 cs QuickSpecs link below to determine configuration requirements</a>	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 <a href="#">Modular Smart Array 1000 QuickSpecs link below to determine configuration requirements</a>	External	Please see the Modular Smart Array 1000 QuickSpecs (URL below) for the latest list of supported HBAs
Modular Smart Array 1000:	<a href="http://h18000.www1.hp.com/products/quickspecs/11033_div/11033_div.HTML">http://h18000.www1.hp.com/products/quickspecs/11033_div/11033_div.HTML</a> (Worldwide)		
	<a href="http://h18000.www1.hp.com/products/quickspecs/11033_na/11033_na.HTML">http://h18000.www1.hp.com/products/quickspecs/11033_na/11033_na.HTML</a> (North America)		
Modular Smart Array 1500 cs:	<a href="http://www.hp.com/go/MSA1500cs">http://www.hp.com/go/MSA1500cs</a>		

### Maximum Storage Capacity – (Modular Smart Array SCSI Attached)

Internal	1.80 TB (6 x 300 GB Ultra320 1")
External	54.60 TB (13 x (14 x 300 GB Ultra320 1"))
Total	56.40 TB

### Tape Drives, Tape Autoloaders, & Tape Libraries

**NOTE:** For an up-to-date listing of the latest O/S Support details for each of the Tape Drives listed below, please see the following:  
[http://h18000.www1.hp.com/products/quickspecs/North\\_America/10233.html](http://h18000.www1.hp.com/products/quickspecs/North_America/10233.html) (North America)  
<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/North\\_America/10809.html](http://h18000.www1.hp.com/products/quickspecs/North_America/10809.html) (North America)  
<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:

Quantity Supported	Position Supported	Controller
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## Storage

<b>HP StorageWorks Tape Drives, Internal</b> Ultrium 215 Ultrium 230 Ultrium 448 Ultrium 460 Ultrium 960 DAT 72 Tape Drive DAT 40 Tape Drive DAT 24 Tape Drive DLT VS80 Tape Drive SDLT 320 Tape Drive	Up to 2		64-Bit/133MHz Dual Channel Ultra320 SCSI Adapter 64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
<b>HP StorageWorks Tape Drives, External</b> Ultrium 215 Ultrium 230 Ultrium 448 Ultrium 460 DAT 72 Tape Drive DAT 40 Tape Drive DAT 24 Tape Drive DLT VS80 Tape Drive SDLT 320 Tape Drive	Up to 2	External	64-Bit/133MHz Dual Channel Ultra320 SCSI Adapter 64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
<b>HP StorageWorks Tape Drives, External</b> Ultrium 960	1	External	64-Bit/133MHz Dual Channel Ultra320 SCSI Adapter 64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
<b>HP StorageWorks Rack-mount Tape Drive Enclosures</b> 1U Rack-Mount Kit 3U Rack-Mount Kit 5U Rack-Mount Kit	1 per SCSI channel	External	Smart Array 6402/128 Controller Smart Array 6404/256 Controller Smart Array 642 Controller
<b>HP StorageWorks Autoloaders, External</b> DAT 72x6 Tape Autoloader 1/8 Tape Autoloader SSL1016 Tape Autoloader	1 autoloader per SCSI channel	External	64-Bit/133MHz Dual Channel Ultra320 SCSI Adapter 64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS

## Storage

### HP StorageWorks Tape Libraries, External

MSL6060 (Ultrium 460 - based)  
MSL6030 (Ultrium 460 - based)  
MSL5026S2 (SDLT 320-based)  
MSL5052S2 (SDLT 320-based)  
MSL5030 (Ultrium 230 - based)  
MSL5060 (Ultrium 230 - based)

Please reference the [MSL Tape Library QuickSpecs](#) to determine configuration requirements

External

64-Bit/133MHz Dual Channel Ultra320 SCSI Adapter  
64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS

### HP StorageWorks ESL E-Series Tape Libraries

ESL 712e  
ESL 630e  
ESL 322e  
ESL 286e

Please reference the [ESL E-series Tape Libraries QuickSpecs](#) to determine configuration requirements

External

64-Bit/133MHz Dual Channel Ultra320 SCSI Adapter  
64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS

## Power Specifications

### Models with Hot Plug Power

Part Number	280127-001
Spare Kit	305447-001
Operational Input Voltage Range (V rms)	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	325	325	325	325	325	325
Nominal Input Current (A rms)	4.5	3.9	2.1	2.0	1.9	1.8
Max Rated Input Wattage Rating (Watts)	445	442	433	428	425	422
Max. Rated VA (Volt-Amp)	454	451	442	437	434	431
Efficiency (%)	73.1	73.6	75.1	75.9	76.4	77
Power Factor	0.98	0.98	0.98	0.98	0.98	0.98
Leakage Current (mA)	0.31	0.36	0.65	0.69	0.72	0.75
Maximum Inrush Current (A peak)	30	30	30	30	30	30
Maximum Inrush Current duration (milliseconds)	20	20	20	20	20	20

### Power Cords (Nema 5-15P to IEC320-C13)

Country	Standard Power Cord Part Number/Option Power Cord Part Number
JPN	139867-006/227100-291
US	163719-002/227099-001

### Power Cords (IEC320-C13 to IEC320-C14)

Country	Standard Power Cord Part Number/Option Power Cord Part Number
US	142263-003/142257-003
JPN	142263-003/142257-003
APD	142263-003/142257-003
EURO	142263-003/142257-003
PRC	142263-003/142257-003

### 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/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)

## Technical Specifications

<b>System Unit</b>	<b>Dimensions</b> (HxWxD) (with feet/bezel)	3.38 x 17.54 x 26.01 in (8.59 x 44.54 x 66.07 cm)
	<b>Weight</b> (approximate)	Maximum 60 lb (27.22 kg) No drives: 47.18 lb (20.41 kg)
	<b>Input Requirements</b> (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
	<b>BTU Rating</b>	2508 BTU/HR
	<b>Power Specifications</b>	To review typical system power ratings use the Active Answers Power Calculator which is available via the online tool located at URL: <a href="http://h30099.www3.hp.com/configurator/powercalcs.asp">http://h30099.www3.hp.com/configurator/powercalcs.asp</a> . 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.)
	<b>SCSI Connectors</b>	One external VHDCI connector
	<b>Power Supply Output Power</b> (per power supply)	Rated Steady-State Power 575W  Maximum Peak Power 575W
	<b>Temperature Range</b> <b>NOTE:</b> 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)  Shipping -40° to 158° F (-40° to 70° C)
	<b>Maximum Wet Bulb Temperature</b>	82.4° F (28° C)
	<b>Relative Humidity</b> (non-condensing) <b>NOTE:</b> 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%

## Technical Specifications

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	Ultra 320, 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 <b>NOTE:</b> The ProLiant DL380 G4 external SCSI port can only be used if PORT 1 of the system board is NOT connected to the internal SCSI backplane.
	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

<b>NC7782 Dual Port PCI-X Gigabit NIC(embedded) 10/100/1000 WOL (Wake On LAN)</b>	<b>Network Interface</b>	10Base-T/100Base-TX/1000Base-TX	
	<b>Compatibility</b>	IEEE 802.3 10Base-T	
		IEEE 802.3ab 1000Base-T	
		IEEE 802.3u 100Base-TX	
	<b>Data Transfer Method</b>	64-bit bus-master PCI-X	
	<b>Network Transfer Rate</b>	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
<b>Connector</b>	Two RJ-45		
<b>Cable Support</b>	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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