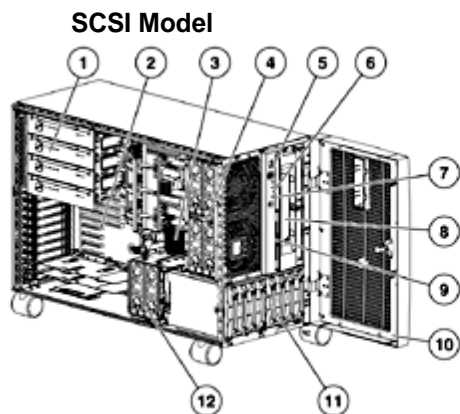
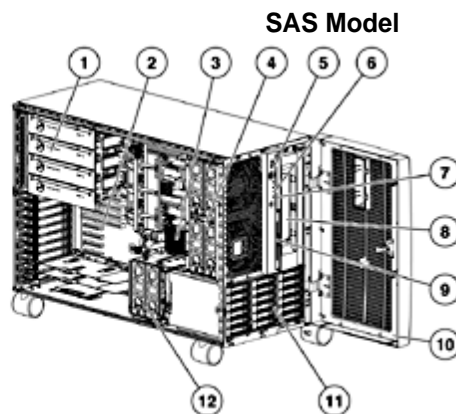


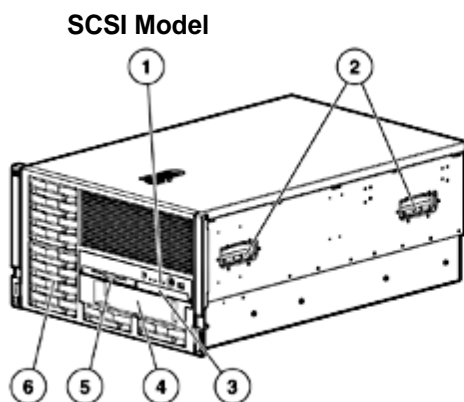
### Overview



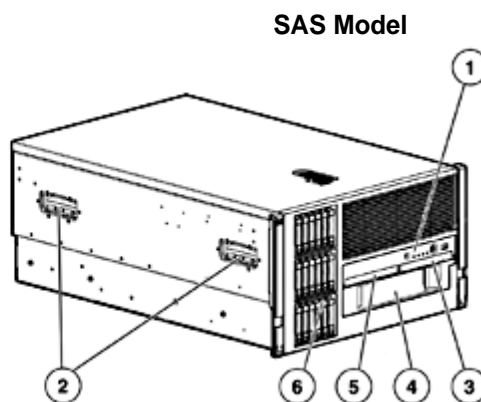
1. Four Memory Boards
2. Ten PCI slots
3. Four Intel Xeon Processors
4. Four Hot Plug Fans
5. USB (on front)
6. Front Panel LEDs - Diagnostic Lighting
7. High Speed IDE Slimline DVD Drive



8. 5.25-inch Removable Media Bay (optional)
9. 1.44-MB Diskette Drive (optional)
10. Front Bezel
11. Ultra320 Hot Plug Drive Bays (8+2 Standard) or Hot Plug Drive SFF SAS Bays (18 Standard)
12. Two Hot Plug Fans



1. Front Panel LEDs - Diagnostic Lighting
2. Rack handles
3. High Speed IDE Slimline DVD Drive
4. 5.25-inch Removable Media Bay (optional)



5. 1.44-MB Diskette Drive (optional)
6. Ultra320 Hot Plug Drive Bays (8+2 Standard) or Hot Plug Drive SFF SAS Bays (18 Standard)

### What's New

- Support for Dual-core 64-bit Intel® Xeon™ Processors
- Maximum 64 GB of memory with 4 GB dual-rank DIMMs

### At A Glance

The HP ProLiant ML570 G3 server is the industry's first 4 processor expansion server that offers not only exceptional performance, but increased reliability with hot-plug RAID memory, powerful management capabilities, and unmatched

### Overview

internal expansion.

With expansion capabilities featuring up to 64GB max memory, support for up to 10x1" hot-plug Ultra 320 SCSI hard drives or 18 Small Form Factor (SFF) SAS drives, and up to 10 PCI I/O slots, the ProLiant ML570 G3 is a truly expandable and reliable server for a data center or remote enterprise environment. The ML570 G3 now supports Intel's new Xeon dual core processor technology providing performance gains for multi-threaded applications, for example database, financial services, and supply-chain management.

- **Processors:**

- Intel Xeon Processors 7040 (3.00 GHz/2x2MB), 3.33 GHz/8MB, 3.00 GHz/8MB, 7020 (2.66 GHz/2x1MB), 2.83 GHz/4MB, 3.66 GHz/1MB or 3.16 GHz/1MB
- 667 MHz dual independent front-side bus
- Intel E8500 chipset

- **Memory:**

- 1 GB (2 x 512 MB) standard, 2 GB (4 x 512 MB) standard on 2P models
- Maximum 64 GB of 2-way interleaved PC2-3200R Registered ECC SDRAM Memory with Advanced ECC capabilities
- Advanced Memory Protection now including Hot-plug RAID Memory

- **Storage Controller:**

- SCSI models: Integrated Dual Channel Ultra320 SCSI Adapter
- SAS Models: HP Smart Array P600/256 BBWC Controller
  - The existing embedded SCSI controller can be used for a tape drive in the removable media bay or external storage connect

- **Internal Drive Support:**

- Ultra320 compatible SCSI Drive Cage standard (standard duplex backplane 8 + 2) in SCSI models
- SFF SAS Drive Cage standard (18 drives) in SAS models
- Internal mass storage capacity up to 3.00TB (8 x 300GB + 2 x 300GB U320 hot plug drives) or 2.628TB (18 x 146GB hot plug SFF SAS drives)

- **Network Controller:**

- Embedded NC7782 PCI-X Gigabit Server Adapter

- **Expansion Slots:**

- 10 Total: (4) 64-bit/100 MHz PCI-X slots, hot-plug: (2) full length; (2) half length; (2) 64-bit/133MHz PCI-X slots, hot-plug; (4) PCI-Express x4 slots

- **USB Ports:**

- 3 Total: (1) front; (2) rear accessible ports

- **Redundancy:**

- Optional hot plug redundant power supplies and cooling fans
- On 2P models, hot plug redundant fans and power supplies standard

- **Management:**

- Integrated Lights-Out industry leading remote management with new support for two-factor authentication, schema-free Microsoft Active Directory integration, Power Regulator p-state reporting, USB key virtual media and VLAN on the shared network port
- Integrated Remote Console and Automatic Server Recovery-2 (ASR-2)

- **Form Factor:**

- Denser form factor - 6U rack and tower models

- **Deployment/Serviceability:**

- Industry-standard PCI Hot Plug with Push Button Functionality
- New Quick Find Diagnostic Display provides location of degraded component
- Tool-free, spring loaded snap-on slide rails designed to accommodate both round and square hole racks

- **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

#### Processor

One of the following depending on Model

Dual-core Intel Xeon Processor at 3.00 GHz\2x2MB

Intel Xeon Processor at 3.33 GHz\8MB

Intel Xeon Processor at 3.00 GHz\8MB

Dual-core Intel Xeon Processor at 2.66 GHz\2x1MB

Intel Xeon Processor at 2.83 GHz\4MB

Intel Xeon Processor at 3.66 GHz\1MB

Intel Xeon Processor at 3.16 GHz\1MB

**NOTE:** 2P models ship standard with two processors while all other models ship with one processor as standard.

#### Cache Memory

One of the following depending on Model

8MB Integrated Level 3 cache (per processor)

**NOTE:** Available with 3.33 GHz, 3.00 GHz models only.

4MB Integrated Level 3 cache

**NOTE:** 2.83 GHz Model only.

2x2MB Integrated Level 2 cache

**NOTE:** Dual-core 3.00 GHz Model only.

2x1MB Integrated Level 2 cache

**NOTE:** Dual-core 2.66 GHz Model only.

1MB Integrated Level 2 cache

**NOTE:** 3.66 GHz, 3.16 GHz Models only.

#### Upgradeability

Upgradeable to quad processing

#### Chipset

Intel E8500 chipset

**NOTE:** For more information regarding Intel chipsets, please see the following URL:  
<http://www.intel.com/products/server/chipsets/>.

#### Memory Protection

Advanced ECC

Hot-Plug RAID Memory

Hot-Plug Mirrored Memory

Online Spare Memory

#### Memory

Type PC2-3200R MHz Registered ECC SDRAM DIMM Memory

Standard 2048 MB (4 x 512 MB)  
(2P models)

Standard 1024 MB (2 x 512 MB)  
(base models)

Maximum 64 GB

**NOTE:** For more information regarding Advanced Memory Protection, please see the following URL:

<http://h18000.www1.hp.com/products/servers/technology/memoryprotection.html>.

### Standard Features

**Network Controller** Embedded NC7782 PCI-X Gigabit Server Adapter

Expansion Slots	Slot Number	Bus Speed	Bus Number*	Device Number**	Hot Plug	PCI Voltage	Notes
	1	64-bit/100MHz PCI-X	7	1	no	3.3 Volt	
	2	64-bit/100MHz PCI-X	7	2	no	3.3 Volt	
	3	64-bit/100MHz PCI-X	3	1	no	3.3 Volt	
	4	64-bit/100MHz PCI-X	3	2	no	3.3 Volt	Supported RILOE slot
	5	PCI Express x4	11	1	no	N/A	
	6	PCI Express x4	14	1	no	N/A	
	7	PCI Express x4	17	1	no	N/A	
	8	PCI Express x4	20	1	no	N/A	
	9	64-bit/133MHz PCI-X	27	1	yes	3.3 Volt	Recommended Smart Array P600 Controller slot
	10	64-bit/133MHz PCI-X	24	1	yes	3.3 Volt	

**NOTES:**

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

\*\*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:** All PCI-X slots can only accept universal keyed PCI cards running at 3.3 volts.

**NOTE:** x8 PCI-Express cards are supported in all PCI-Express slots but will run at x4 speeds.

**Storage Controllers**

One of the following depending on Model

Integrated Dual Channel Ultra320 SCSI Adapter

HP Smart Array P600/256 BBWC Controller (standard in SAS models)

**NOTE:** For SAS/SATA drives and integrated Dual Channel Ultra320 SCSI Adapter can be used for tape drive in removable media bay or external storage support.

**Storage**

Diskette Drives	1.44 MB Slimline Drive (optional)
Optical Drive	8x/24x IDE (ATAPI) Slimline DVD-ROM Drive
Hard Drives	None

**Maximum Internal Storage Type**

Hot Plug SCSI	3.0TB	8 x 300GB + 2 x 300GB Ultra320
Hot Plug SAS	2.628TB	18 x 146GB SFF SAS

### Standard Features

<b>Interfaces</b>	Parallel	1
	Serial	1
	Pointing Device (Mouse)	1
	Graphics	1
	Keyboard	1
	iLO	1
	USB Ports	3 Total: 1 front; 2 rear
	<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>	
	Network RJ-45	2
	External SCSI	1

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<b>Graphics</b>	Integrated ATI RAGE XL Video Controller with 8MB Video Memory
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<b>Form Factor</b>	Tower or Rack (6U)
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<b>Product Demo</b>	To view the Product Demo, please see the following URL, then click on "PRODUCT TOUR": <a href="http://h18004.www1.hp.com/products/servers/proliantml570/index.html">http://h18004.www1.hp.com/products/servers/proliantml570/index.html</a> .
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<b>ProLiant Essentials Foundation Pack Software</b>	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.
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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

### Standard Features

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.
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 <a href="http://www.hp.com/servers/manage">http://www.hp.com/servers/manage</a>
Subscriber's Choice	Subscriber's Choice Driver and Support Alerts/Notifications is a web-based email subscription service that provides automatic delivery of software and driver change notifications for ProLiant products. Sign up at <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, linked from the SmartStart website at <a href="http://www.hp.com/servers/smartstart">http://www.hp.com/servers/smartstart</a> .
Survey Utility and diagnostics utilities	The most advanced configuration analysis, reporting and troubleshooting utilities used by HP and at your fingertips, available in SmartStart.
Optional ProLiant Essentials Value Packs	Optional software offerings that selectively extend the functionality of an Adaptive Infrastructure to address specific business problems and needs: <ul style="list-style-type: none"><li>• 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 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: <a href="http://www.hp.com/servers/rdp">http://www.hp.com/servers/rdp</a>.</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</li><li>• Performance Management Pack - a performance management solution that identifies and explains hardware performance</li></ul>

### Standard Features

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).
- Integrated Lights-Out Advanced Pack - upgrades the Integrated Lights-Out processor to full virtual presence and control with graphical console and virtual media.

Optional Remote Management Packs

**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>

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#### Industry Standard Compliance

ACPI 2.0 Compliant  
PCI 2.2 Compliant  
PXE Support  
WOL Support  
Physical Address Extension (PAE) Support  
Microsoft® Logo certifications

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### Standard Features

#### Availability

**Advanced Memory Protection Technology** – delivers unsurpassed memory protection and server availability:

- Advanced ECC Memory

ECC protection provides the ability to detect and correct single bit memory errors while Advanced ECC extends this coverage to include protection against multiple simultaneous errors on a DIMM. Advanced ECC detects and corrects up to 4 bit memory errors that occur within a single DRAM chip on a DIMM. Advanced ECC algorithms work in combination with industry standard ECC DIMMS.

#### Advanced Memory Protection Configurations

- Online Spare Memory

Offers a higher level of memory protection than Advanced ECC alone. The system is configured with a spare bank of memory. If the number of single-bit correctable errors on a bank exceeds the pre-defined error threshold, the failing bank will fail over to the Online Spare bank without intervention or server interruption. The failed memory can then be replaced at the user's convenience during a scheduled maintenance window.

- Hot Plug Mirrored Memory

Hot Plug Mirrored Memory is a fault-tolerant memory feature that provides a higher level of availability than Advanced ECC or Online Spare Memory because it protects against multi-bit errors and does not require any server downtime to replace failed DIMMs. Hot Plug Mirrored Memory requires that two memory boards be installed, one an exact mirror of the other, which run in parallel and provide protection against multi-bit memory errors. When configured for Hot Plug Mirrored Memory, the system writes to both memory boards, but reads from one. If a read error occurs, the system fails over to the redundant memory board. At that point the memory board containing the failed DIMMs can be hot replaced. Once the failed DIMMs are replaced and the memory board re-installed into the server, the system goes back to full mirrored status. All this occurs without bringing the server down.

- Hot Plug RAID Memory

Hot Plug RAID Memory (RAID Memory) provides a similar level of memory protection as Mirrored Memory but obtains this protection using less total memory. For example, in a RAID Memory configuration, 25% of the installed memory is not available to the operating system. In a Mirrored Memory configuration, however, 50% of the installed memory is not available to the operating system. RAID Memory protects the server against uncorrectable memory errors that would otherwise result in a server failure.

**NOTE:** All Advanced Memory Protection modes require the use of additional memory cards. All HP ProLiant ML570 G3 servers ship standard with a single memory board. Additional memory boards are optional (P/N 348107-B21).

**NOTE:** All Advanced Memory Protection modes are user configurable through the ROM-Based Setup Utility (RBSU) and viewable through Systems Insight Manager and the Integrated Management Log (IML).



### Standard Features

#### 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 Graphical Console:

- Microsoft Remote Desktop for Administrators integration
- Virtual media (floppy, CD, USB key, floppy images and ISO images)
- User access management via Directory Services
- Two-factor authentication

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#### 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)

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#### Security

Power-on password  
Hot plug keyboard password  
Diskette drive control  
Diskette boot control  
QuickLock, Network Server Mode  
Parallel and serial interface control  
Administrator's password  
Disk configuration lock  
Locking tower bezel door  
Lockable access hood

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### Standard Features

<b>Server Power Cords</b>	Tower Models	<ul style="list-style-type: none"><li>• -001US, -011AUS, -031UK, -041GR, -051FR, -291JPN, -371AP, -421EURO, -AA1PRC, all bins</li><li>• -201 BRZL (only 2.66 GHz, 2.83 GHz, 3.66 GHz and 3.16 GHz)</li><li>• US, Europe, UK, Germany, France, Brazil, Japan, and Australia tower models ship with one local power cord. Asia Pacific tower model ships with Japan, UK, and Europe power cords. PRC tower model ships with Japan, UK, and Australian power cords.</li></ul>
	Rack Models	<ul style="list-style-type: none"><li>• -001US, -291JPN, -371AP, -421EURO, -AA1PRC</li><li>• US and Japan rack models ship with one local power cord and one C19 to C14 jumper cable. Asia Pacific, Europe and PRC rack models ship with one C19 to C14 jumper cable.</li></ul>

**NOTE:** For HP ProLiant ML570 rack models, a C19 to C20 2.8m jumper cord ships standard and the Japan model also includes a local power cord. For HP ProLiant ML570 tower models, local power cord(s) are included. Please see the following power cord matrix for details:  
<http://www.hp.com/go/powercordmatrix>

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<b>UPS and PDU Power Cord Matrix</b>	Please see the UPS and PDU cable matrix that lists cable descriptions, requirements, and specifications for UPS and PDU units: <a href="ftp://ftp.compaq.com/pub/products/servers/ProLiantstorage/power-protection/powercordmatrix.pdf">ftp://ftp.compaq.com/pub/products/servers/ProLiantstorage/power-protection/powercordmatrix.pdf</a> .
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<b>Power Supply</b>	One 910W/1300W Hot Plug Power Supply ships standard on all Tower Models and on 1P Rack Models. Second power supply is needed for redundancy. Two 910W/1300W Hot Plug Power Supplies ship standard with the 2P models.
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<b>System Fans</b>	Three fans ship standard with three additional option fans for redundancy <b>NOTE:</b> 2P models ship standard with redundant fans.
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<b>Required Cabling</b>	For required cabling information, refer to the Web site at <a href="http://h18000.www1.hp.com/products/servers/ProLiantml570/">http://h18000.www1.hp.com/products/servers/ProLiantml570/</a> .
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<b>OS Support</b>	Microsoft Windows 2003 Server Microsoft Windows 2000 Server Red Hat Enterprise Linux SuSE Enterprise Linux Novell NetWare SCO OpenServer, UnixWare Sun Solaris Intel Platform Edition VMware Virtualization Software
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### Standard Features

**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 a listing of the latest drivers available for the HP ProLiant ML570 G3, 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 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 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/ProLiantml570/index.html>.

### Rack Kit

HP ProLiant ML570 G3 rack models have universal sliding rails which provide tool-free support for square and round hole racks (including Compaq/HP 7000, 9000, 10000, HP/E series and H9 series) with an adjustment range from 23 ¾" to 36" depth. The snap-on cable management arm is now ambidextrous.

### Telco Rack Support

Support for all 2-post Telco racks requires an additional option kit from Rack Solutions. The Rack Solutions brackets can be purchased at: <http://www.racksolutions.com/hp>.

### Standard Features

**HP Factory Express Capabilities** 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.  
<http://www.hp.com/products/configurator>.

### 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.

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

### Standard Features

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

#### SAS Models

**ML570R03 X3.00-8MB,2GB (2P) SAS**  
391120-xx1

<b>Processor</b>	(2) Intel Xeon Processors MP 3.00 GHz standard (up to four supported)
<b>Cache Memory</b>	8MB Integrated Level 3 Cache
<b>Memory</b>	2048 MB PC2-3200R registered ECC SDRAM (Standard) to 64 GB (Maximum) (2 x 1 interleaved memory and Advanced Memory Protection Technology) <b>NOTE:</b> Four memory boards would be required to configure up to 64 GB using 4 GB DIMMs.
<b>Network Controller</b>	Embedded NC7782 PCI-X Gigabit Server Adapter
<b>Storage Controller</b>	HP Smart Array P600/256 BBWC Controller <b>NOTE:</b> For SAS/SATA drives and integrated Dual Channel Ultra320 SCSI Adapter can be used for tape drive in removable media bay or external storage support.
<b>Hard Drive</b>	None ship standard
<b>Internal Storage</b>	2.628TB maximum (with optional hard drives)
<b>Power Supplies</b>	Two 910W/1300W Power Supplies standard (second power supply for redundancy)
<b>Optical Drive</b>	IDE Slimline DVD-ROM Drive
<b>Diskette Drive</b>	Optional
<b>Form Factor</b>	Rack (6U)

**ML570T03 X3.00-8MB, 1GB (1P) SAS**  
391113-xx1

<b>Processor</b>	(1) Intel Xeon Processors MP 3.00 GHz standard (up to four supported)
<b>Cache Memory</b>	8MB Integrated Level 3 Cache
<b>Memory</b>	1024 MB PC2-3200R registered ECC SDRAM (Standard) to 64 GB (Maximum) (2 x 1 interleaved memory and Advanced Memory Protection Technology) <b>NOTE:</b> Four memory boards would be required to configure up to 64 GB using 4 GB DIMMs.
<b>Network Controller</b>	Embedded NC7782 PCI-X Gigabit Server Adapter
<b>Storage Controller</b>	HP Smart Array P600/256 BBWC Controller <b>NOTE:</b> For SAS/SATA drives and integrated Dual Channel Ultra320 SCSI Adapter can be used for tape drive in removable media bay or external storage support.
<b>Hard Drive</b>	None ship standard
<b>Internal Storage</b>	2.628TB maximum (with optional hard drives)
<b>Power Supplies</b>	One 910W/1300W Power Supplies standard (second power supply for redundancy)
<b>Optical Drive</b>	IDE Slimline DVD-ROM Drive
<b>Diskette Drive</b>	Optional
<b>Form Factor</b>	Tower (6U)

### Models

#### SCSI Models

<b>ML570R03 X7040 2GB (2P)</b> 399364-xx1	<b>Processor</b>	(2) Dual-core 64-bit Intel Xeon Processors 3.00 GHz standard (up to four supported)
	<b>Cache Memory</b>	2 x 2MB Integrated Level 2 Cache
	<b>Memory</b>	2048 MB PC2-3200R registered ECC SDRAM (Standard) to 64 GB (Maximum) (2 x 1 interleaved memory and Advanced Memory Protection Technology) <b>NOTE:</b> Four memory boards would be required to configure up to 64 GB using 4 GB DIMMs.
	<b>Network Controller</b>	Embedded NC7782 PCI-X Gigabit Server Adapter
	<b>Storage Controller</b>	Integrated Dual Channel Ultra320 SCSI Adapter
	<b>Hard Drive</b>	None ship standard
	<b>Internal Storage</b>	3.00TB maximum (with optional hard drives)
	<b>Power Supplies</b>	Two 910W/1300W Power Supplies standard (second power supply for redundancy)
	<b>Optical Drive</b>	IDE Slimline DVD-ROM Drive
	<b>Diskette Drive</b>	Optional
<b>Form Factor</b>	Rack (6U)	

<b>ML570T03 X7040 1GB (1P)</b> 399363-xx1	<b>Processor</b>	(1) Dual-core 64-bit Intel Xeon Processors 3.00 GHz standard (up to four supported)
	<b>Cache Memory</b>	2 x 2MB Integrated Level 2 Cache
	<b>Memory</b>	1024 MB PC2-3200R registered ECC SDRAM (Standard) to 64 GB (Maximum) (2 x 1 interleaved memory and Advanced Memory Protection Technology) <b>NOTE:</b> Four memory boards would be required to configure up to 64 GB using 4 GB DIMMs.
	<b>Network Controller</b>	Embedded NC7782 PCI-X Gigabit Server Adapter
	<b>Storage Controller</b>	Integrated Dual Channel Ultra320 SCSI Adapter
	<b>Hard Drive</b>	None ship standard
	<b>Internal Storage</b>	3.00TB maximum (with optional hard drives)
	<b>Power Supplies</b>	One 910W/1300W Power Supplies standard (second power supply for redundancy)
	<b>Optical Drive</b>	IDE Slimline DVD-ROM Drive
	<b>Diskette Drive</b>	Optional
<b>Form Factor</b>	Tower (6U)	



### Models

<b>ML570R03 X7020 1GB (1P)</b> 399366-xx1	<b>Processor</b>	(1) Dual-core 64-bit Intel Xeon Processors 2.66 GHz standard (up to four supported)
	<b>Cache Memory</b>	2 x 1MB Integrated Level 2 Cache
	<b>Memory</b>	1024 MB PC2-3200R registered ECC SDRAM (Standard) to 64 GB (Maximum) (2 x 1 interleaved memory and Advanced Memory Protection Technology) <b>NOTE:</b> Four memory boards would be required to configure up to 64 GB using 4 GB DIMMs.
	<b>Network Controller</b>	Embedded NC7782 PCI-X Gigabit Server Adapter
	<b>Storage Controller</b>	Integrated Dual Channel Ultra320 SCSI Adapter
	<b>Hard Drive</b>	None ship standard
	<b>Internal Storage</b>	3.00TB maximum (with optional hard drives)
	<b>Power Supplies</b>	One 910W/1300W Power Supplies standard (second power supply for redundancy)
	<b>Optical Drive</b>	IDE Slimline DVD-ROM Drive
	<b>Diskette Drive</b>	Optional
	<b>Form Factor</b>	Rack (6U)

<b>ML570T03 X7020 1GB (1P)</b> 399365-xx1	<b>Processor</b>	(1) Dual-core 64-bit Intel Xeon Processors 2.66 GHz standard (up to four supported)
	<b>Cache Memory</b>	2 x 1MB Integrated Level 2 Cache
	<b>Memory</b>	1024 MB PC2-3200R registered ECC SDRAM (Standard) to 64 GB (Maximum) (2 x 1 interleaved memory and Advanced Memory Protection Technology) <b>NOTE:</b> Four memory boards would be required to configure up to 64 GB using 4 GB DIMMs.
	<b>Network Controller</b>	Embedded NC7782 PCI-X Gigabit Server Adapter
	<b>Storage Controller</b>	Integrated Dual Channel Ultra320 SCSI Adapter
	<b>Hard Drive</b>	None ship standard
	<b>Internal Storage</b>	3.00TB maximum (with optional hard drives)
	<b>Power Supplies</b>	One 910W/1300W Power Supplies standard (second power supply for redundancy)
	<b>Optical Drive</b>	IDE Slimline DVD-ROM Drive
	<b>Diskette Drive</b>	Optional
	<b>Form Factor</b>	Tower (6U)

### Models

<b>ML570R03 X3.33-8MB, 2GB (2P) 348140-xx1</b>	<b>Processor</b>	(2) Intel Xeon Processors MP 3.33 GHz standard (up to four supported)
	<b>Cache Memory</b>	8MB Integrated Level 3 Cache
	<b>Memory</b>	2048 MB PC2-3200R registered ECC SDRAM (Standard) to 64 GB (Maximum) (2 x 1 interleaved memory and Advanced Memory Protection Technology) <b>NOTE:</b> Four memory boards would be required to configure up to 64 GB using 4 GB DIMMs.
	<b>Network Controller</b>	Embedded NC7782 PCI-X Gigabit Server Adapter
	<b>Storage Controller</b>	Integrated Dual Channel Ultra320 SCSI Adapter
	<b>Hard Drive</b>	None ship standard
	<b>Internal Storage</b>	3.00TB maximum (with optional hard drives)
	<b>Power Supplies</b>	Two 910W/1300W Power Supplies standard (second power supply for redundancy)
	<b>Optical Drive</b>	IDE Slimline DVD-ROM Drive
	<b>Diskette Drive</b>	Optional
	<b>Form Factor</b>	Rack (6U)

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<b>ML570R03 X3.00-8MB, 2GB (2P) 348138-xx1</b>	<b>Processor</b>	(2) Intel Xeon Processors MP 3.00 GHz standard (up to four supported)
	<b>Cache Memory</b>	8MB Integrated Level 3 Cache
	<b>Memory</b>	2048 MB PC2-3200R registered ECC SDRAM (Standard) to 64 GB (Maximum) (2 x 1 interleaved memory and Advanced Memory Protection Technology) <b>NOTE:</b> Four memory boards would be required to configure up to 64 GB using 4 GB DIMMs.
	<b>Network Controller</b>	Embedded NC7782 PCI-X Gigabit Server Adapter
	<b>Storage Controller</b>	Integrated Dual Channel Ultra320 SCSI Adapter
	<b>Hard Drive</b>	None ship standard
	<b>Internal Storage</b>	3.00TB maximum (with optional hard drives)
	<b>Power Supplies</b>	Two 910W/1300W Power Supplies standard (second power supply for redundancy)
	<b>Optical Drive</b>	IDE Slimline DVD-ROM Drive
	<b>Diskette Drive</b>	Optional
	<b>Form Factor</b>	Rack (6U)

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### Models

<b>ML570R03 X2.83-4MB, 1GB (1P)</b> 348135-xx1	<b>Processor</b>	(1) Intel Xeon Processor MP 2.83 GHz standard (up to four supported)
	<b>Cache Memory</b>	4MB Integrated Level 3 Cache
	<b>Memory</b>	1024 MB PC2-3200R registered ECC SDRAM (Standard) to 64 GB (Maximum) (2 x 1 interleaved memory and Advanced Memory Protection Technology) <b>NOTE:</b> Four memory boards would be required to configure up to 64 GB using 4 GB DIMMs.
	<b>Network Controller</b>	Embedded NC7782 PCI-X Gigabit Server Adapter
	<b>Storage Controller</b>	Integrated Dual Channel Ultra320 SCSI Adapter
	<b>Hard Drive</b>	None ship standard
	<b>Internal Storage</b>	3.00TB maximum
	<b>Power Supplies</b>	One 910W/1300W Power Supply standard (second power supply for redundancy)
	<b>Optical Drive</b>	IDE Slimline DVD-ROM Drive
	<b>Diskette Drive</b>	Optional
<b>Form Factor</b>	Rack (6U)	

<b>ML570R03 X3.66-1MB, 1GB (1P)</b> 385943-xx1	<b>Processor</b>	(1) Intel Xeon Processor MP 3.66 GHz standard (up to four supported)
	<b>Cache Memory</b>	1MB Integrated Level 2 Cache
	<b>Memory</b>	1024 MB PC2-3200R registered ECC SDRAM (Standard) to 64 GB (Maximum) (2 x 1 interleaved memory and Advanced Memory Protection Technology) <b>NOTE:</b> Four memory boards would be required to configure up to 464 GB using 4 GB DIMMs.
	<b>Network Controller</b>	Embedded NC7782 PCI-X Gigabit Server Adapter
	<b>Storage Controller</b>	Integrated Dual Channel Ultra320 SCSI Adapter
	<b>Hard Drive</b>	None ship standard
	<b>Internal Storage</b>	3.00TB maximum
	<b>Power Supplies</b>	One 910W/1300W Power Supply standard (second power supply for redundancy)
	<b>Optical Drive</b>	IDE Slimline DVD-ROM Drive
	<b>Diskette Drive</b>	Optional
<b>Form Factor</b>	Rack (6U)	

### Models

<b>ML570R03 X3.16-1MB, 1GB (1P)</b> 375367-xx1	<b>Processor</b>	(1) Intel Xeon Processor MP 3.16 GHz standard (up to four supported)
	<b>Cache Memory</b>	1MB Integrated Level 2 Cache
	<b>Memory</b>	1024 MB PC2-3200R registered ECC SDRAM (Standard) to 64 GB (Maximum) (2 x 1 interleaved memory and Advanced Memory Protection Technology) <b>NOTE:</b> Four memory boards would be required to configure up to 64 GB using 4 GB DIMMs.
	<b>Network Controller</b>	Embedded NC7782 PCI-X Gigabit Server Adapter
	<b>Storage Controller</b>	Integrated Dual Channel Ultra320 SCSI Adapter
	<b>Hard Drive</b>	None ship standard
	<b>Internal Storage</b>	3.00TB maximum
	<b>Power Supplies</b>	One 910W/1300W Power Supply standard (second power supply for redundancy)
	<b>Optical Drive</b>	IDE Slimline DVD-ROM Drive
	<b>Diskette Drive</b>	Optional
	<b>Form Factor</b>	Rack (6U)

<b>ML570T03 X3.33-8MB, 1GB (1P)</b> 348139-xx1	<b>Processor</b>	(1) Intel Xeon Processor MP 3.33 GHz standard (up to four supported)
	<b>Cache Memory</b>	8MB Integrated Level 3 Cache
	<b>Memory</b>	1024 MB PC2-3200R registered ECC SDRAM (Standard) to 64 GB (Maximum) (2 x 1 interleaved memory and Advanced Memory Protection Technology) <b>NOTE:</b> Four memory boards would be required to configure up to 64 GB using 4 GB DIMMs.
	<b>Network Controller</b>	Embedded NC7782 PCI-X Gigabit Server Adapter
	<b>Storage Controller</b>	Integrated Dual Channel Ultra320 SCSI Adapter
	<b>Hard Drive</b>	None ship standard
	<b>Internal Storage</b>	3.00TB maximum
	<b>Power Supplies</b>	One 910W/1300W Power Supply standard (second power supply for redundancy)
	<b>Optical Drive</b>	IDE Slimline DVD-ROM Drive
	<b>Diskette Drive</b>	Optional
	<b>Form Factor</b>	Tower (6U)

### Models

<b>ML570T03 X3.00-8MB, 1GB (1P) 348137-xx1</b>	<b>Processor</b>	(1) Intel Xeon Processor MP 3.00 GHz standard (up to four supported)
	<b>Cache Memory</b>	8MB Integrated Level 3 Cache
	<b>Memory</b>	1024 MB PC2-3200R registered ECC SDRAM (Standard) to 64 GB (Maximum) (2 x 1 interleaved memory and Advanced Memory Protection Technology) <b>NOTE:</b> Four memory boards would be required to configure up to 64 GB using 4 GB DIMMs.
	<b>Network Controller</b>	Embedded NC7782 PCI-X Gigabit Server Adapter
	<b>Storage Controller</b>	Integrated Dual Channel Ultra320 SCSI Adapter
	<b>Hard Drive</b>	None ship standard
	<b>Internal Storage</b>	3.00TB maximum
	<b>Power Supplies</b>	One 910W/1300W Power Supply standard (second power supply for redundancy)
	<b>Optical Drive</b>	IDE Slimline DVD-ROM Drive
	<b>Diskette Drive</b>	Optional
	<b>Form Factor</b>	Tower (6U)

<b>ML570T03 X2.83-4MB, 1GB (1P) 348134-xx1</b>	<b>Processor</b>	(1) Intel Xeon Processor MP 2.83 GHz standard (up to four supported)
	<b>Cache Memory</b>	4MB Integrated Level 3 Cache
	<b>Memory</b>	1024 MB PC2-3200R registered ECC SDRAM (Standard) to 64 GB (Maximum) (2 x 1 interleaved memory and Advanced Memory Protection Technology) <b>NOTE:</b> Four memory boards would be required to configure up to 64 GB using 4 GB DIMMs.
	<b>Network Controller</b>	Embedded NC7782 PCI-X Gigabit Server Adapter
	<b>Storage Controller</b>	Integrated Dual Channel Ultra320 SCSI Adapter
	<b>Hard Drive</b>	None ship standard
	<b>Internal Storage</b>	3.00TB maximum
	<b>Power Supplies</b>	One 910W/1300W Power Supply standard (second power supply for redundancy)
	<b>Optical Drive</b>	IDE Slimline DVD-ROM Drive
	<b>Diskette Drive</b>	Optional
	<b>Form Factor</b>	Tower (6U)

### Models

<b>ML570T03 X3.66-1MB, 1GB (1P) 385942-xx1</b>	<b>Processor</b>	(1) Intel Xeon Processor MP 3.66 GHz standard (up to four supported)
	<b>Cache Memory</b>	1MB Integrated Level 2 Cache
	<b>Memory</b>	1024 MB PC2-3200R registered ECC SDRAM (Standard) to 64 GB (Maximum) (2 x 1 interleaved memory and Advanced Memory Protection Technology) <b>NOTE:</b> Four memory boards would be required to configure up to 64 GB using 4 GB DIMMs.
	<b>Network Controller</b>	Embedded NC7782 PCI-X Gigabit Server Adapter
	<b>Storage Controller</b>	Integrated Dual Channel Ultra320 SCSI Adapter
	<b>Hard Drive</b>	None ship standard
	<b>Internal Storage</b>	3.00TB maximum
	<b>Power Supplies</b>	One 910W/1300W Power Supply standard (second power supply for redundancy)
	<b>Optical Drive</b>	IDE Slimline DVD-ROM Drive
	<b>Diskette Drive</b>	Optional
	<b>Form Factor</b>	Tower (6U)

<b>ML570T03 X3.16-1MB, 1GB (1P) 375366-xx1</b>	<b>Processor</b>	(1) Intel Xeon Processor MP 3.16 GHz standard (up to four supported)
	<b>Cache Memory</b>	1MB Integrated Level 2 Cache
	<b>Memory</b>	1024 MB PC2-3200R registered ECC SDRAM (Standard) to 64 GB (Maximum) (2 x 1 interleaved memory and Advanced Memory Protection Technology) <b>NOTE:</b> Four memory boards would be required to configure up to 64 GB using 4 GB DIMMs.
	<b>Network Controller</b>	Embedded NC7782 PCI-X Gigabit Server Adapter
	<b>Storage Controller</b>	Integrated Dual Channel Ultra320 SCSI Adapter
	<b>Hard Drive</b>	None ship standard
	<b>Internal Storage</b>	3.00TB maximum
	<b>Power Supplies</b>	One 910W/1300W Power Supply standard (second power supply for redundancy)
	<b>Optical Drive</b>	IDE Slimline DVD-ROM Drive
	<b>Diskette Drive</b>	Optional
	<b>Form Factor</b>	Tower (6U)

### Models

#### Country Code Key

XX=00  
XX=01  
XX=03  
XX=04  
XX=05  
XX=20

#### TOWER MODELS

U.S. English  
Australia  
UK  
Germany  
France  
Brazil

**NOTE:** Valid for X7020, 3.0 GHz, 3.16 GHz, 3.33 GHz, 3.66 GHz, and 2.83 GHz speeds only.

XX=29  
XX=37  
XX=42  
XX=AA

Japan  
APD  
Europe  
PRC

#### RACK MODELS

U.S. English  
N/A  
N/A  
N/A  
N/A  
N/A

Japan  
APD  
Europe  
PRC



### Configuration Information - Factory Integrated Models (North America only)

**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.

**NOTE:** This section lists some of the steps required to configure a Factory Integrated Model. To ensure only valid configurations are ordered, HP recommends the use of an HP approved configurator. Contact your local sales representative for additional information.

### Step 1: Base Configuration (choose one of the following configurable models)

<b>Models</b>	HP ProLiant ML570 G3 Tower Chassis, NA	379933-405
	<b>Factory Integrated Model ships with:</b>	
	Embedded NC7782 PCI-X Gigabit Server Adapter	
	Ultra320 Controller (integrated on system board)	
	Ten Standard I/O Expansion slots	
	Tower models ship with one Hot Plug Power Supply and one local power cord.	
	Three Hot Plug Fans	
	Ultra320 Duplex Drive Cage (can be Simplex configured)	
	Integrated Lights-Out (iLO) Standard Management	
	Keyboard and Mouse	
	Tower (6U)	
	HP ProLiant ML570 G3 Rack Chassis, NA	379934-405
	<b>Factory Integrated Model ships with:</b>	
	Embedded NC7782 PCI-X Gigabit Server Adapter	
	Ultra320 Controller (integrated on system board)	
	Ten Standard I/O Expansion slots	
	Rack models ship with one Hot Plug Power Supply, and local power cord(s)	
	Three Hot Plug Fans	
	Ultra320 Duplex Drive Cage (can be Simplex configured)	
	Integrated Lights-Out (iLO) Standard Management	
	Rack (6U)	
	ML570T03 SAS Tower Chassis, NA	391224-405
	<b>Factory Integrated Model ships with:</b>	
	Embedded NC7782 PCI-X Gigabit Server Adapter	
	Ten Standard I/O Expansion slots	
	Tower models ship with one Hot Plug Power Supply and one local power cord	
	Three Hot Plug Fans	
	SFF SAS Drive Cage	
	Integrated Lights-Out (iLO) Standard Management	
	Keyboard and Mouse	
	Tower (6U)	
	ML570R03 SAS Rack Chassis, NA	391225-405

### Configuration Information - Factory Integrated Models (North America only)

**Factory Integrated Model ships with:**

- Embedded NC7782 PCI-X Gigabit Server Adapter
- Ten Standard I/O Expansion slots
- Rack models ship with one Hot Plug Power Supply, and local power cord(s)
- Three Hot Plug Fans
- SFF SAS Drive Cage
- Integrated Lights-Out (iLO) Standard Management
- Rack (6U)

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

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

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

<b>Processors</b>	X3.00-2x2MB 570 G3 FIO	399889-L21
	X2.66-2x1MB 570 G3 FIO	399888-L21
	X3.33-8MB 570 G3 FIO	348111-L21
	X3.00-8MB 570 G3 FIO	348110-L21
	X2.83-4MB 570 G3 FIO	348109-L21
	X3.66-1MB 570 G3 FIO	385903-L21
	X3.16-1MB 570 G3 FIO	375369-L21
	<b>NOTE:</b> Up to 3 additional xxxxx-B21 processors for each HP ProLiant ML570 server may be ordered. If selecting a Performance Pack option (404476-001, 380927-001 or 380928-001), a second processor (399889-B21, 348111-B21 or 348110-B21) is included and should not be ordered.	
<b>Base Memory</b>	8 GB (2 x 4 GB 2RANK) PC2-3200R 400MHz DDR2 with Advanced ECC and online spare memory capabilities	348106-B21
	4 GB (2 x 2 GB 2RANK) PC2-3200R 400MHz DDR2 with Advanced ECC and online spare memory capabilities	375004-B21
	4 GB (2 x 2 GB 1RANK) PC2-3200R 400MHz DDR2 with Advanced ECC and online spare memory capabilities	343057-B21
	2 GB (2 x 1 GB 1RANK) PC2-3200R 400MHz DDR2 with Advanced ECC and online spare memory capabilities	343056-B21
	1 GB (2 x 512 MB 1RANK) PC2-3200R 400MHz DDR2 with Advanced ECC and online spare memory capabilities	343055-B21

### Configuration Information - Factory Integrated Models (North America only)

<b>Optical Drive</b>	Slimline CD-RW/DVD-ROM 24X Combo Drive Option Kit (Servers)	331903-B21
	Slimline DVD-ROM Drive (8X/24X) Option Kit (Servers)	264007-B21

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### Step 3: Choose Additional Factory Integratable Options

The HP ProLiant ML570 G3 performance packs are necessary to configure a HP ProLiant ML570 G3 High Performance Model. HP ProLiant ML570 G3 High Performance models include the latest performance technologies and enterprise class availability features pre-installed for convenience and value. In addition to the standard features listed in Step 1, the High Performance Model includes the following:

- Second Intel Xeon Processor
- Redundant Power Supplies and Fans

ML570G3 X7040 Rack Optimized Pack (US)	404476-001
ML570G3 X3.33GHz/667-8MB Rack Optimized Pack (US)	390927-001
ML570G3 X3.00GHz/667-8MB Rack Optimized Pack (US)	390928-001

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### Step 4: 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 configurable. Please contact your local sales representative for additional information.

<b>HP ProLiant ML570 G3</b>	ProLiant Tower to Rack Conversion Kit	348112-B21
<b>Unique Options</b>	ProLiant Rack to Tower Conversion Kit	348113-B21

<b>Processor</b>	Dual-Core Intel Xeon 7040 (3.00GHz-2x2MB) Processor Option Kit	399889-B21
	<b>NOTE:</b> This processor option kit (PN 399889-B21) supports the HP ProLiant ML570 G3 and the HP ProLiant DL580 G3.	
	Dual-Core Intel Xeon 7020 (2.66GHz-2x1MB) Processor Option Kit	399888-B21
	<b>NOTE:</b> This processor option kit (PN 399888-B21) supports the HP ProLiant ML570 G3 and the HP ProLiant DL580 G3.	
	Intel Xeon MP X3.33 GHz-8MB Processor Option Kit	348111-B21
	<b>NOTE:</b> This processor option kit (PN 348111-B21) supports the HP ProLiant ML570 G3 and the HP ProLiant DL580 G3.	
	Intel Xeon MP X3.00 GHz-8MB Processor Option Kit	348110-B21
	<b>NOTE:</b> This processor option kit (PN 348110-B21) supports the HP ProLiant ML570 G3 and the HP ProLiant DL580 G3.	
Intel Xeon MP X2.83 GHz-4MB Processor Option Kit	348109-B21	
<b>NOTE:</b> This processor option kit (PN 348109-B21) supports the HP ProLiant ML570 G3 and the HP ProLiant DL580 G3.		
Intel Xeon MP X3.66 GHz-1MB Processor Option Kit	385903-B21	
<b>NOTE:</b> This processor option kit (PN 385903-B21) supports the HP ProLiant ML570 G3 and the HP ProLiant DL580 G3.		
Intel Xeon MP X3.16 GHz-1MB Processor Option Kit	375369-B21	
<b>NOTE:</b> This processor option kit (PN 375369-B21) supports the HP ProLiant ML570 G3 and the HP ProLiant DL580 G3.		
	<b>NOTE:</b> Processor mixing of different frequencies and cache sizes is not supported.	

<b>ProLiant Essentials Value Pack Software</b>	<b>ProLiant Essentials Intelligent Networking Pack</b>	
	ProLiant Essentials Intelligent Networking Pack - Windows Edition, Single Server License	436225-B21
	<b>NOTE:</b> For use with a single server. Contains one license with a unique license activation key and documentation.	
	<b>NOTE:</b> For additional ProLiant Intelligent Networking Pack License Kits please see the QuickSpecs at: <a href="http://h18000.www1.hp.com/products/quickspecs/12062_div/12062_div.HTML">http://h18000.www1.hp.com/products/quickspecs/12062_div/12062_div.HTML</a>	
	ProLiant Essentials Intelligent Networking Pack - Linux Edition, Single Server License	436229-B21
	<b>NOTE:</b> For additional ProLiant Intelligent Networking Pack - Linux License Kits please see the QuickSpecs at: <a href="http://h18000.www1.hp.com/products/quickspecs/12327_div/12327_div.HTML">http://h18000.www1.hp.com/products/quickspecs/12327_div/12327_div.HTML</a>	
	<b>ProLiant Essentials Performance Management Pack</b>	

### Options

ProLiant Essentials Performance Management Pack, Single-Server License	306696-B21
<b>NOTE:</b> For use with a single server. Contains one license with a unique license activation key, HP Management CD and documentation.	
<b>NOTE:</b> The most recent version of the software can always be downloaded at <a href="http://www.hp.com/products/pmp">http://www.hp.com/products/pmp</a> .	
<b>NOTE:</b> For additional ProLiant Performance Management Pack License Kits please see the QuickSpecs at: <a href="http://h18000.www1.hp.com/products/quickspecs/11925_div/11925_div.HTML">http://h18000.www1.hp.com/products/quickspecs/11925_div/11925_div.HTML</a>	
<b>ProLiant Essentials Rapid Deployment Pack Windows Edition Release</b>	
Rapid Deployment Pack, Single-Server License	267196-B21
<b>NOTE:</b> This license allows 1 server to be deployed and managed via RDP.	
Rapid Deployment Pack, Single-Server License (Japan)	267196-291
<b>NOTE:</b> This license allows 1 server to be deployed and managed via RDP.	
ProLiant Essentials Rapid Deployment Pack - Physical Media Kit	434559-B21
ProLiant Essentials Rapid Deployment Pack Flatpack - single-server license	434560-B21
<b>NOTE:</b> For additional ProLiant Essentials Rapid Deployment Pack License Kits please see the QuickSpecs at: <a href="http://h18000.www1.hp.com/products/quickspecs/11053_div/11053_div.HTML">http://h18000.www1.hp.com/products/quickspecs/11053_div/11053_div.HTML</a>	
<b>ProLiant Essentials Workload Management Pack</b>	
ProLiant Essentials Workload Management Pack, Single Server License	303284-B21
<b>NOTE:</b> For additional ProLiant Workload Management Pack License Kits please see the QuickSpecs at: <a href="http://h18000.www1.hp.com/products/quickspecs/11452_div/11452_div.HTML">http://h18000.www1.hp.com/products/quickspecs/11452_div/11452_div.HTML</a>	
<b>ProLiant Essentials Virtualization Management Software</b>	
ProLiant Essentials Virtual Machine Management Pack, Single-Server License	435661-B21
<b>NOTE:</b> For use with a single server. Contains one license with a unique license activation key and documentation.	
ProLiant Essentials Server Migration Pack, Single-Migration License	435663-B21
<b>NOTE:</b> Contains one license, enabling 1 server migration, with a unique license activation key and documentation.	
<b>NOTE:</b> 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.	
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
<b>NOTE:</b> For additional ProLiant Essentials Virtualization Management Software License Kits please see the QuickSpecs at: <a href="http://h18000.www1.hp.com/products/quickspecs/12328_div/12328_div.HTML">http://h18000.www1.hp.com/products/quickspecs/12328_div/12328_div.HTML</a>	
<b>ProLiant Essentials Vulnerability and Patch Management Pack</b>	
ProLiant Essentials Vulnerability and Patch Management Pack, Single-Server License	371645-B21
<b>NOTE:</b> For use with a single server. Contains one license with a unique license activation key and documentation.	
<b>NOTE:</b> For additional ProLiant Vulnerability and Patch Management Pack License Kits, please see the QuickSpecs at: <a href="http://h18000.www1.hp.com/products/quickspecs/12111_div/12111_div.HTML">http://h18000.www1.hp.com/products/quickspecs/12111_div/12111_div.HTML</a>	

### Options

**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>.

<b>Remote Management</b>	<b>Integrated Lights-Out Advanced Pack</b>	
	Integrated Lights-Out Advanced Pack, 1 server	263825-B21
	<b>Featuring:</b> Sophisticated virtual administration features for ultimate control of servers in the data centers and remote sites.	
	<b>NOTE:</b> For additional Integrated Light-Out Advanced Pack License Kits please see the QuickSpecs at: <a href="http://h18000.www1.hp.com/products/quickspecs/12326_div/12326_div.HTML">http://h18000.www1.hp.com/products/quickspecs/12326_div/12326_div.HTML</a>	
<b>Memory (DIMMs)</b>	8 GB PC2-3200R Registered ECC SDRAM Memory Kit (2 x 4096 MB) Dual Rank	348106-B21
	4 GB PC2-3200R Registered ECC SDRAM Memory Kit (2 x 2048 MB) Dual Rank	375004-B21
	4 GB PC2-3200R Registered ECC SDRAM Memory Kit (2 x 2048 MB) Single Rank	343057-B21
	2 GB PC2-3200R Registered ECC SDRAM Memory Kit (2 x 1024 MB)	343056-B21
	1 GB PC2-3200R Registered ECC SDRAM Memory Kit (2 x 512 MB)	343055-B21
	Hot-plug Memory Expansion Board	348107-B21
	<b>NOTE:</b> Four memory boards would be required to configure 48 GB of memory using 2 GB DIMMs.	
<b>Optical Drives</b>	Slimline DVD-ROM Drive (8X/24X) Option Kit (Servers)	264007-B21
	<b>NOTE:</b> This drive is supported in the removable media bay.	
	Slimline CD-RW/DVD-ROM Combo Drive Option Kit	331903-B21
	<b>NOTE:</b> This drive is supported in the DVD-ROM bay and floppy bay	
	HP DVD+R/RW 8X Slim	383975-B21
	Slimline CD-ROM Drive 24X	356963-B21
<b>Diskette Drive</b>	Slimline Floppy Diskette Drive Option Kit	390164-B21
<b>SAS Drive Cage</b>	ML570G3 SAS Drive Cage Option Kit	378101-B21

### Options

#### Hard Drives

##### Ultra320 SCSI – 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](http://h18000.www1.hp.com/products/quickspecs/11531_div/11531_div.HTML)  
(Worldwide)

##### Serial Attached SCSI (SAS) SFF 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:** 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](http://h18000.www1.hp.com/products/quickspecs/12244_div/12244_div.HTML)  
(Worldwide)

##### SATA Hot Plug

HP 120GB 1.5G SATA 5.4K SFF HDD	431786-B21
HP 60GB 1.5G SATA 5.4K SFF HDD	379306-B21

**NOTE:** SATA drives have a 1-year warranty. 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/11940\\_div/11940\\_div.HTML](http://h18000.www1.hp.com/products/quickspecs/11940_div/11940_div.HTML)  
(Worldwide)



### Options

#### Storage Controllers

##### SAS Controllers

##### Smart Array P600 Controller

HP Smart Array P600/256 BBWC Controller 337972-B21

**NOTE:** Included in SAS Server Models. Only needed with SAS Drive Cage Option Kit.

512MB DDR BBWC Upgrade 372538-B21

**NOTE:** Please see the following Controller QuickSpecs for additional information including Technical Specifications:

[http://h18000.www1.hp.com/products/quickspecs/12247\\_div/12247\\_div.HTML](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 HBA QuickSpecs for additional information:

[http://h18004.www1.hp.com/products/quickspecs/12617\\_div/12617\\_div.html](http://h18004.www1.hp.com/products/quickspecs/12617_div/12617_div.html)  
(SC44Ge HBA)

[http://h18004.www1.hp.com/products/quickspecs/12332\\_div/12332\\_div.html](http://h18004.www1.hp.com/products/quickspecs/12332_div/12332_div.html)  
(8 Internal Port SAS HBA)

##### SCSI Controllers

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.www1.hp.com/products/quickspecs/11587\\_div/11587\\_div.HTML](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](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/11943\\_div/11943\\_div.HTML](http://h18000.www1.hp.com/products/quickspecs/11943_div/11943_div.HTML)  
(Single Channel U320 SCSI G2 HBA)

### Options

<b>Communications</b>	HP NC110T PCI Express Gigabit Server Adapter	434905-B21
	HP NC310F PCI-X 1000SX Gigabit Server Adapter	368169-B21
	HP NC340T PCI-X 4-port 1000T Gigabit Server Adapter	391661-B21
	HP NC360T PCI Express Dual Port Gigabit Server Adapter	412648-B21
	HP NC373F PCI Express Multifunction Gigabit Server Adapter	394793-B21
	HP NC373T PCI Express Multifunction Gigabit Server Adapter	394791-B21
	HP NC510F PCIe 10 Gigabit Server Adapter	414126-B21
	<b>NOTE:</b> A minimum of 1 gigabyte (1 GB) of server memory is required per each NC510F adapter.	
	HP NC510C PCIe 10 Gigabit Server Adapter	414129-B21
<b>NOTE:</b> A minimum of 1 gigabyte (1 GB) of server memory is required per each NC510C adapter.		
HP NC7771 PCI-X 1000T Gigabit Server Adapter	290563-B21	

<b>Redundant Options</b>	Hot-plug Redundant Fan Kit	348108-B21
	<b>NOTE:</b> Includes three fans. Included in 2P models.	
	910W (low line), 1300W (high line) Hot Plug Redundant Power Supply US	348114-001
	910W (low line), 1300W (high line) Hot Plug Redundant Power Supply AUST	348114-011
	910W (low line), 1300W (high line) Hot Plug Redundant Power Supply EURO	348114-021
	910W (low line), 1300W (high line) Hot Plug Redundant Power Supply UK	348114-031
	910W (low line), 1300W (high line) Hot Plug Redundant Power Supply JPN2	348114-291
	910W (low line), 1300W (high line) Hot Plug Redundant Power Supply	348114-B21
<b>NOTE:</b> Includes C14 to C19 IEC cable.		

<b>Management Options</b>	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 (APD, Japan)	227251-371

### 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:

#### USB Tape Drives

HP StorageWorks DAT 72 USB Internal Tape Drive (Carbonite)	DW026A
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#### Ultrium Tape Drives

HP StorageWorks Ultrium 232 Internal Tape Drive (Carbonite)	DW064A
HP StorageWorks Ultrium 460 Internal Tape Drive (Carbon)	Q1518B
HP StorageWorks Ultrium 448 Internal Tape Drive (Carbonite)	DW016A
HP StorageWorks Ultrium 920 SCSI Internal Tape Drive	EH841A
HP StorageWorks Ultrium 960 Internal Tape Drive (Carbonite)	Q1538A

### 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/12128\\_div/12128\\_div.html](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>

#### DAT Drives

HP StorageWorks DAT 72 SCSI Internal Tape Drive (Carbon)

Q1522B

**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)

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 SCSI Rack-Mount kit

A7445B

**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.

HP StorageWorks 1U USB Rack-Mount Kit

A8007A

**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.

HP StorageWorks 3U Rack-mount kit

274338-B22

**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](http://h18000.www1.hp.com/products/quickspecs/10854_div/10854_div.HTML)  
(Worldwide)

### Options

<b>Tape Autoloaders</b>	<b>HP StorageWorks DAT Autoloader</b>	
	HP StorageWorks DAT 72x10 tape autoloader	AE313A
	<b>HP StorageWorks Tape 1/8 Autoloader</b>	
	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	AH166A
	<b>NOTE:</b> Required to install the 1/8 G2 Autoloaders in a standard 19-inch rack; includes rails and rackmount instructions	
	<b>NOTE:</b> Please reference the 1/8 Tape Autoloader QuickSpecs at <a href="http://www.hp.com/go/automation">http://www.hp.com/go/automation</a> for additional information needed to create a complete solution; reference current compatibility information at <a href="http://www.hp.com/go/ebs">http://www.hp.com/go/ebs</a>	

<b>Tape Libraries</b>	<b>HP StorageWorks MSL2024 Tape Library</b>	
	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
	<b>HP StorageWorks MSL4048 Tape Library</b>	
	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
	<b>HP StorageWorks MSL6000 Tape Library</b>	
	<b>Ultrium 960 technology</b>	
	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
	<b>Ultrium 460 technology</b>	
	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
	<b>NOTE:</b> Please reference the MSL2024, MSL4048, and MSL6000 Tape Library QuickSpecs at <a href="http://www.hp.com/go/automation">http://www.hp.com/go/automation</a> for additional information needed to create a complete solution; reference current compatibility information at <a href="http://www.hp.com/go/ebs">http://www.hp.com/go/ebs</a> .	

### Options

<b>HP Data Protector Express Software</b>	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](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).

<b>Cluster Options</b>	ProLiant Cluster Starter Kit	364023-B22
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**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](http://h18000.www1.hp.com/products/quickspecs/11935_div/11935_div.html)  
 (Worldwide)

	HP HA/F200 for Entry SAN Cluster	364026-B22
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**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](http://h18000.www1.hp.com/products/quickspecs/11932_div/11932_div.html)  
 (Worldwide)

	ProLiant Cluster HA/F500 for the Enterprise SAN	364024-B21
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**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](http://h18000.www1.hp.com/products/quickspecs/11933_div/11933_div.html)  
 (Worldwide)

	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
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	HP Serviceguard for Linux A.11.16 for SUSE SLES 9 & 10 and Red Hat EL 3 & 4 (single license version)	307754-B26
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	HP Serviceguard for Linux and Red Hat Global File System - 1 year subscription	T2798AA#001
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	HP Serviceguard for Linux and Red Hat Global File System - 3 years subscription	T2798AA#003
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**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](http://h18000.www1.hp.com/products/quickspecs/11518_div/11518_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>

### Options

<b>HP StorageWorks Modular Smart Array 20</b>	HP StorageWorks Modular Smart Array 20 <b>NOTE:</b> Rack-mountable 12 (SATA) drive enclosure with U320 Host connectivity, redundant power supplies.	335921-B21
	HP StorageWorks Modular Smart Array 20 Starter Kit <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 3.5" Hot Plug Hard Drives.	366172-B21
<b>HP StorageWorks Modular Smart Array 30</b>	HP StorageWorks Modular Smart Array 30 SB <b>NOTE:</b> Rack-mountable 14 drive enclosure with single bus, redundant power supplies	302969-B21
	HP StorageWorks Modular Smart Array 30 DB <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 Hot Plug Hard Drives.	302970-B21
<b>HP StorageWorks Modular Smart Array 50</b>	HP StorageWorks Modular Smart Array 50 Enclosure <b>NOTE:</b> Please see the Modular Smart Array 50 QuickSpecs for additional options and configuration information at: <a href="http://h18000.www1.hp.com/products/quickspecs/12245_div/12245_div.HTML">http://h18000.www1.hp.com/products/quickspecs/12245_div/12245_div.HTML</a> (Worldwide)	364430-B21
<b>HP StorageWorks Modular Smart Array 1000</b>	HP StorageWorks Modular Smart Array 1000 <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_div/11033_div.HTML">http://h18000.www1.hp.com/products/quickspecs/11033_div/11033_div.HTML</a> (Worldwide)	201723-B22
<b>HP StorageWorks Modular Smart Array 1500</b>	Modular Smart Array 1500 Controller Shelf <b>NOTE:</b> Please see the StorageWorks Modular SAN Array 1500 QuickSpecs for additional options and configuration information at: <a href="http://www.hp.com/go/MSA1500cs">http://www.hp.com/go/MSA1500cs</a>	AA986A

### Options

#### StorageWorks Options

**NOTE:** The following is a list of all Fibre Channel Host Bus Adapters for Windows and Linux. For detailed compatibility information please see: <http://h18006.www1.hp.com/storage/saninfrastructure/hba.html>

HP StorageWorks FC2142SR 4Gb PCI-e HBA	A8002A
HP StorageWorks FC2242SR Dual Channel 4 Gb PCI-e HBA	A8003A
HP StorageWorks FC1142SR 4Gb PCI-e HBA	AE311A
HP StorageWorks FC1242SR Dual Channel 4 Gb PCI-e HBA	AE312A
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

#### HP Uninterruptible Power Systems - Tower

HP, T1000 UPS NA	AF403A
HP, T1000 UPS JPN	AF404A
HP, T1000 UPS INTL	AF405A
HP, T1500 UPS NA	AF406A
HP, T1500 UPS JPN	AF407A
HP, T1500 UPS INTL	AF408A
HP, R/T 2200 UPS NA	AF409A
HP, R/T 2200 UPS JPN	AF410A
HP, R/T 2200 UPS INTL	AF411A

#### 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	AF414A
<b>NOTE:</b> Replaces non-RoHS compliant part numbers 192186-B31, 192186-B32, 192186-B33, 192186-AR1.	
HP R3000 VA UPS, 2U, L5-30, NA	AF422A
<b>NOTE:</b> Replaces non-RoHS compliant part number 192186-001.	
HP R3000 VA UPS, 2U, L6-20, NA	AF423A
<b>NOTE:</b> Replaces non-RoHS compliant part number 192186-002.	
HP R3000 VA UPS, 2U, L6-20, JPN	AF424A
<b>NOTE:</b> Replaces non-RoHS compliant part number 192186-292.	
HP R3000 VA UPS, 2U, L5-30, JPN	AF425A
<b>NOTE:</b> Replaces non-RoHS compliant part number 192186-291.	
HP R5500 VA UPS, INTL	AF416A
<b>NOTE:</b> Replaces non-RoHS compliant part number 326529-B31.	
HP R5500 VA UPS, NA/JPN	AF426A
<b>NOTE:</b> Replaces non-RoHS compliant part number 326529-D71.	



### Options

<b>HP Monitored Power Distribution Unit (PDU)</b>	<b>HP Monitored Power Distribution Unit: Full Rack Version</b>	
	HP 17.3 kVA S2324 Monitored PDU- dual input, 3U, 24A (NA/JPN) <b>NOTE:</b> Replaces non-RoHS compliant part number 370959-D71.	AF503A
	HP 8.3 kVA S1324 Monitored PDU- single input, 3U, 24A (NA/JPN) <b>NOTE:</b> Replaces non-RoHS compliant part number 370960-D71.	AF504A
	HP 16.6 kVA S2140 Monitored PDU- dual input, 1U, 40A (NA/JPN) <b>NOTE:</b> Replaces non-RoHS compliant part number 37061-D71.	AF505A
	HP 8.6 S1140 Monitored PDU- single input, 1U, 40A (NA/JPN) <b>NOTE:</b> Replaces non-RoHS compliant part number 370962-D71.	AF506A
	HP 22.1 kVA S2316 Monitored PDU- dual input, 3U, 16A (INTL) <b>NOTE:</b> Replaces non-RoHS compliant part number 370963-B31.	AF507A
	HP 11 kVA S1316 Monitored PDU- single input, 3U, 16A (INTL) <b>NOTE:</b> Replaces non-RoHS compliant part number 370964-B31.	AF508A
	HP 14.7 kVA S2132 Monitored PDU- dual input, 1U, 32A (INTL) <b>NOTE:</b> Replaces non-RoHS compliant part number 370965-B31.	AF509A
	HP 7.3kVA S1132 Monitored PDU- single input, 1U, 32A (INTL) <b>NOTE:</b> Replaces non-RoHS compliant part number 370966-B31.	AF510A
	<b>HP Monitored Power Distribution Unit: Half Rack Version</b>	
	HP 17.3 kVA S348 Monitored PDU- single input, 3-phase, 60A (NA/JPN)	AF916A
	HP 22 kVA S332 Monitored PDU- single input, 3-phase, 32A (INTL)	AF917A
	HP 4.9kVA S124 Monitored PDU- single input, 1U, 24A (NA/JPN)	AF914A
	HP 7.3kVA S132 Monitored PDU- single input, 1U, 32A (INTL) <b>NOTE:</b> Replaces non-RoHS compliant part number 370966-B31.	AF915A

<b>Modular PDUs 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).	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
	<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_div/11041_div.HTML">http://h18000.www1.hp.com/products/quickspecs/11041_div/11041_div.HTML</a> (Worldwide)	

### Options

<b>USB Options</b>	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
<b>Rack Conversion Kit</b>	ProLiant Tower to Rack Conversion Kit	348112-B21
	ProLiant Rack to Tower Conversion Kit	348113-B21
<b>HP Rack 5000 Series</b> (Graphite Metallic)	HP 5642 Rack-Unassembled <b>NOTE:</b> Please see the <a href="http://h18000.www1.hp.com/products/quickspecs/12074_div/12074_div.HTML">HP Rack 5642 QuickSpecs</a> for additional part numbers and Technical Specifications such as height, width, depth, weight, and color: <a href="http://h18000.www1.hp.com/products/quickspecs/12074_div/12074_div.HTML">http://h18000.www1.hp.com/products/quickspecs/12074_div/12074_div.HTML</a> (Worldwide) <b>NOTE:</b> For additional information regarding Rack Cabinets, please see the following URL: <a href="http://www.hp.com/go/rackandpower">www.hp.com/go/rackandpower</a> .	358254-B21
<b>HP Rack 10000 G2 Series</b> (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
	<b>NOTE:</b> It is mandatory to use a shock pallet when shipping racks with equipment installed.	
<b>NOTE:</b> Please see the <a href="http://h18000.www1.hp.com/products/quickspecs/12402_div/12402_div.HTML">Rack 10000 G2 QuickSpecs</a> for Technical Specifications such as height, width, depth, weight, and color: <a href="http://h18000.www1.hp.com/products/quickspecs/12402_div/12402_div.HTML">http://h18000.www1.hp.com/products/quickspecs/12402_div/12402_div.HTML</a> (Worldwide) <b>NOTE:</b> For additional information regarding Rack Cabinets, please see the following URL: <a href="http://www.hp.com/go/rackandpower">http://www.hp.com/go/rackandpower</a> .		

### Options

<b>HP Rack 10000 Series</b> (Graphite Metallic)	10642 (42U) Infrastructure Rack (Low Voltage)	379006-001
	10642 (42U) Infrastructure Rack (High Voltage)	379005-001
	HP Rack S10614 (14U) Rack Cabinet – Shock Pallet	292302-B22
	HP Rack 10842 (42U, 800mm wide) – Pallet	257415-B21
	HP Rack 10842 (42U, 800mm wide) – Shock Pallet	257415-B22
	HP Rack 10647 (47U) – Pallet	245160-B21
	HP Rack 10647 (47U) – Crated	245160-B23
	HP Rack 10622 (22U) – Pallet	245163-B21
	HP Rack 10622 (22U) – Shock Pallet	245163-B22
	HP Rack 10622 (22U) – Crated	245163-B23

**NOTE:** xxxxxx-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). 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. Not all HP equipment is qualified to be shipped in the Rack 10000 series

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

[http://h18000.www1.hp.com/products/quickspecs/10995\\_div/10995\\_div.HTML](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

### Options

1U Rackmount Keyboard with USB, SP	AG077A
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
<b>NOTE:</b> 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
<b>NOTE:</b> Cat5e cables are required to connect Interface Adapters to Console Switches. Cat5e cables can be found at the following URL: <a href="http://www.hp.com/go/kvm">http://www.hp.com/go/kvm</a> .	
HP 1x 4 Console Switch	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/kvm>.

### Options

<b>HP Serial Console Server Options</b>	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>.

### 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	U4591E
4-Hour On-site Service, 7-Day x 24-Hour Coverage, 3 Years, Electronic	U4592E
6-Hour Call to Repair, On-site Service, 7-Day x 24-Hour Coverage, 3 Years, Electronic	U4593E

#### **Installation & Start-up Services**

Hardware Installation, Electronic	U4601E
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	U4602E

#### **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	U4603E
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#### **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	U4604E
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	U6314E
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	U9237E

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

### Memory

**HP ProLiant ML570 G3 - 7040, 3.33 GHz and 3.00 GHz 1P Tower Models and all 7020, 2.83 GHz, 3.66 GHz, 3.16 GHz Models**

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

#### Standard Memory

1 GB PC2-3200R MHz Registered ECC SDRAM DIMM installed (2 x 512 MB SDRAM DIMM)

#### Standard Memory Plus Optional Memory

Up to 57 GB of memory is available with the optional installation of 4 GB DIMMs.

#### Standard Memory Replaced with Optional Memory

Up to 64 GB of memory is available with the removal of the standard 1024 MB of memory and the optional installation of 4 GB DIMMs.

- Loads:
  - Single rank (SR) DIMM => 1 load
  - Dual rank (DR) DIMM => 2 loads
- DIMMs must be installed in pairs on board.
  - Each DIMM pair must be identical, e.g. both SR or both DR, and same capacity, technology and density.
- Each HP ProLiant ML570 G3 memory board supports 8 loads, thus valid maximum DIMM configurations per memory board for the HP ProLiant ML570 G3 are:
  - 6 SR DIMMs = 6 loads, or
  - 4 DR DIMMs = 8 loads, or
  - 2 DR DIMMS + 4 SR DIMMs = 8 loads
- Advance Memory Protection support
  - Online Spare is supported with 1, 2, 3 or 4 boards
    - Each board can failover to its Online Spare Bank independent of the other memory boards.
    - The minimum valid Online Spare configuration for a memory board requires at least one bank of dual-rank DIMMs or two banks of single-rank DIMMs.
    - HP Recommends (for maximum memory usage efficiency):
      - If only single -rank DIMMs are used on a memory board, all DIMMs should be of the same size on that memory board.
      - If only dual-rank DIMMs are used on a memory board, all DIMMs should be of the same size on that memory board.
      - If a mixture of single- and dual-rank DIMMs are used on a memory board, the dual-rank DIMMs should be two times (2x) the size of any single-rank DIMM
  - Hot-Plug Mirrored Memory is supported with 2 or 4 boards
    - Memory boards within a mirrored pair must have the same amount of total memory. However, each board of the mirrored pair may have different DIMM configurations as long as they have equal total size.
    - The amount of memory between mirrored pairs can be different in quadboard Mirrored Memory mode.
  - Hot-Plug RAID Memory is only supported with 4 boards
    - All four memory boards must have the same amount of total memory. However, each board may have different DIMM configurations as long as they have equal total size

**NOTE:** This chart does not represent all possible memory configurations.

**NOTE:** Four memory boards would be required to configure up to 57GB or maximum memory using 4GB DIMMs.

### Memory

Memory		Slot					
		1	2	3	4	5	6
Standard	1 GB	512 MB	512 MB	Empty	Empty	Empty	Empty
Optional	57 GB	512 MB	512 MB	4 GB	4 GB	Empty	Empty
Maximum	64 GB	4 GB	4 GB	4 GB	4 GB	Empty	Empty
Memory		Slot					
		7	8	9	10	11	12
Standard	1 GB	Empty	Empty	Empty	Empty	Empty	Empty
Optional	57 GB	4 GB	4 GB	4 GB	4 GB	Empty	Empty
Maximum	64 GB	4 GB	4 GB	4 GB	4 GB	Empty	Empty
Memory		Slot					
		13	14	15	16	17	18
Standard	1 GB	Empty	Empty	Empty	Empty	Empty	Empty
Optional	57 GB	4 GB	4 GB	4 GB	4 GB	Empty	Empty
Maximum	64 GB	4 GB	4 GB	4 GB	4 GB	Empty	Empty
Memory		Slot					
		19	20	21	22	23	24
Standard	1 GB	Empty	Empty	Empty	Empty	Empty	Empty
Optional	57 GB	4 GB	4 GB	4 GB	4 GB	Empty	Empty
Maximum	64 GB	4 GB	4 GB	4 GB	4 GB	Empty	Empty

Following are memory options available from HP:

- 8 GB PC2-3200R Registered ECC SDRAM Memory Kit (2 x 4 GB) Dual Rank 348106-B21
- 4 GB PC2-3200R Registered ECC SDRAM Memory Kit (2 x 2 GB) Dual Rank 375004-B21
- 4 GB PC2-3200R Registered ECC SDRAM Memory Kit (2 x 2 GB) Single Rank 343057-B21
- 2 GB PC2-3200R Registered ECC SDRAM Memory Kit (2 x 1 GB) 343056-B21
- 1 GB PC2-3200R Registered ECC SDRAM Memory Kit (2 x 512 MB) 343055-B21
- Hot-plug Memory Expansion Board 348107-B21

#### HP ProLiant ML570 G3 - 7040, 3.33 GHz and 3.00 GHz 2P Rack Models

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

#### Standard Memory

2 GB PC2-3200R MHz Registered ECC SDRAM DIMM installed (4 x 512 MB SDRAM DIMM)

#### Standard Memory Plus Optional Memory

Up to 58 GB of memory is available with the optional installation of 4 GB DIMMs.

#### Standard Memory Replaced with Optional Memory

Up to 64 GB of memory is available with the removal of the standard 2GB of memory and the optional installation of 4 GB DIMMs.

**NOTE:** This chart does not represent all possible memory configurations.

**NOTE:** Four memory boards would be required to configure up to 58 GB or maximum memory using 4 GB DIMMs.



### Memory

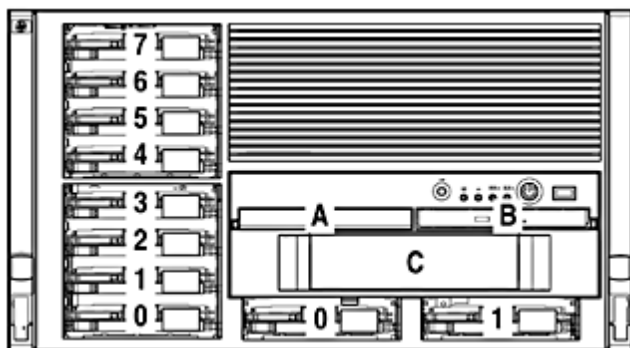
Memory		Slot					
		1	2	3	4	5	6
Standard	2 GB	512 MB	512 MB	512 MB	512 MB	Empty	Empty
Optional	58 GB	512 MB	512 MB	512 MB	512 MB	4 GB	4 GB
Maximum	64 GB	4 GB	4 GB	4 GB	4 GB	Empty	Empty
Memory		Slot					
		7	8	9	10	11	12
Standard	2 GB	Empty	Empty	Empty	Empty	Empty	Empty
Optional	58 GB	4 GB	4 GB	4 GB	4 GB	Empty	Empty
Maximum	64 GB	4 GB	4 GB	4 GB	4 GB	Empty	Empty
Memory		Slot					
		13	14	15	16	17	18
Standard	2 GB	Empty	Empty	Empty	Empty	Empty	Empty
Optional	58 GB	4 GB	4 GB	4 GB	4 GB	Empty	Empty
Maximum	64 GB	4 GB	4 GB	4 GB	4 GB	Empty	Empty
Memory		Slot					
		19	20	21	22	23	24
Standard	2 GB	Empty	Empty	Empty	Empty	Empty	Empty
Optional	58 GB	4 GB	4 GB	4 GB	4 GB	Empty	Empty
Maximum	64 GB	4 GB	4 GB	4 GB	4 GB	Empty	Empty

Following are memory options available from HP:

- 8 GB PC2-3200R Registered ECC SDRAM Memory Kit (2 x 4 GB) Dual Rank 348106-B21
- 4 GB PC2-3200R Registered ECC SDRAM Memory Kit (2 x 2 GB) Dual Rank 375004-B21
- 4 GB PC2-3200R Registered ECC SDRAM Memory Kit (2 x 2 GB) Single Rank 343057-B21
- 2 GB PC2-3200R Registered ECC SDRAM Memory Kit (2 x 1 GB) 343056-B21
- 1 GB PC2-3200R Registered ECC SDRAM Memory Kit (2 x 512 MB) 343055-B21
- Hot-plug Memory Expansion Board 348107-B21

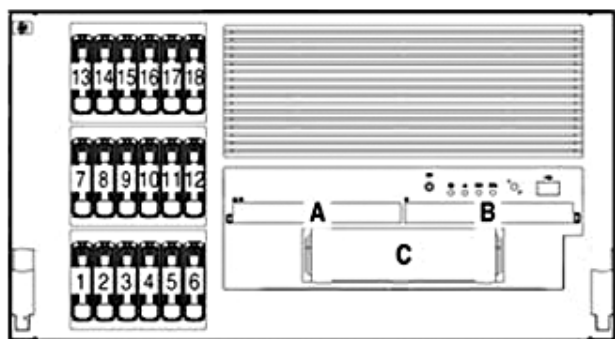


### Storage



#### 1-inch Drive Locations

- 0-7, 0-1    Ten Ultra320 SCSI Drive Bays (8 on one channel, 2 on another)
- A            1.44-MB Slimline Diskette Drive (optional)
- B            8x/24x IDE Slimline DVD-ROM
- C            One available removable media bay for storage. A half-height tape drive or a USB tape drive may be installed in the removable media bay.



#### SFF SAS Drive Locations

- 1-18        Eighteen SFF SAS Drive Bays
- A            1.44-MB Slimline Diskette Drive (optional)
- B            8x/24x IDE Slimline DVD-ROM
- C            One available removable media bay for storage. A half-height tape drive or a USB tape drive may be installed in the removable media bay.

## Drive Support

### Hard Drives

#### Ultra320 Hot Pluggable Drives

	Quantity Supported	Position Supported	Controller
300GB U320 10K	Up to 10	0-7 and 0-1	Integrated Dual Channel Ultra320 SCSI Adapter Smart Array 6402/128 Controller Smart Array 6404/256 Controller Smart Array 641 Controller Smart Array 642 Controller
146GB U320 10K			
72GB U320 10K			
300GB U320 15K			
146GB U320 15K			
72GB U320 15K			
36GB U320 15K			

**NOTE:** All U320 Universal Hard Drives are backward compatible to U2 or U3 speeds. U320 drives require an optional U320 Smart Array Controller or U320 SCSI HBA to support U320 transfer rates.

#### SFF SATA Hot Pluggable Drives

	Quantity Supported	Position Supported	Controller
120GB 1.5G SATA 5.4K	Up to 18	1-18	HP Smart Array P600/256 BBWC Controller
60GB 1.5G SATA 5.4K			

### Storage

#### SFF SAS Hot Pluggable Drives

	Quantity Supported	Position Supported	Controller
146GB 3G SAS 10K SP	Up to 18	1-18	HP Smart Array P600/256 BBWC Controller
72GB 3G SAS 10K SP			
72GB 3G SAS 15K SP			
36GB 3G SAS 10K SP			
36GB 3G SAS 15K SP			

**NOTE:** SAS Drives supported by the HP ProLiant ML570 G3 SAS Models only or with HP ProLiant ML570 G3 model upgraded SAS Drive Cage Option Kit.

#### External Storage

	Quantity Supported	Position Supported	Host Controller or Adapter
Modular Smart Array 30 Family	Up to 28	External	Smart Array 6402/128 Controller Smart Array 6404/256 Controller Smart Array 642 Controller
Modular Smart Array 50 Enclosure	Up to 2	External	HP Smart Array P600/256 BBWC Controller
Modular Smart Array 1000	Please see the Modular Smart Array 1000 QuickSpecs below to determine configuration requirements	External	Please see the Modular Smart Array 1000 QuickSpecs for the latest list of supported HBAs: <a href="http://www.hp.com/go/MSA1000">http://www.hp.com/go/MSA1000</a>
Modular Smart Array 1500 cs	Please see the Modular Smart Array 1500 cs QuickSpecs below to determine configuration requirements	External	Please see the Modular Smart Array 1500 cs QuickSpecs for the latest list of supported HBAs: <a href="http://www.hp.com/go/MSA1500cs">http://www.hp.com/go/MSA1500cs</a>

**Maximum Storage Capacity** – (ML570 10 Bay Hot Plug Ultra320 SCSI Drive Cage, 4 channel controller in 4 full-length PCI-X slots & MSA30 enclosures)

Internal	3.00TB ((10 x 300GB) Ultra320 SCSI Drives)
External	67.20TB hot plug SCSI storage (16 x (14 x 300GB Ultra320 SCSI Drives))
Total	70.20TB

### Storage

**Maximum Storage Capacity SAS Models** – (ML570 SFF SAS Drive Cage, 8 port SAS controller in 4 slots & MSA50 enclosures)

Internal	2.628TB ((18 x 146GB) SFF SAS Drives)
External	11.680TB hot plug SFF SAS storage (4 x (20 x 146GB SFF SAS Drives))
Total	14.308TB

### 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/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>

	Position Supported	Controller	Controller Part Number
<b>HP StorageWorks Tape Drives, Internal</b> DAT 24 USB DAT 40 USB DAT 72 USB	B or C	USB 2.0 Port	N/A
<b>HP StorageWorks Tape Drives, External</b> DAT 24 USB DAT 40 USB DAT 72 USB	External	USB 2.0 Port	N/A
<b>HP StorageWorks Tape Drives, Internal</b> Ultrium 232 Ultrium 448 Ultrium 920 DAT 40 DAT 72 DLT VS160	B or C	64-Bit/133-MHz Single Channel Ultra320 SCSI HBA G2	374654-B21
<b>HP StorageWorks Tape Drives, Internal</b> Ultrium 460 Ultrium 960 SDLT 600	B or C	64-Bit/133-MHz Single Channel Ultra320 SCSI HBA G2	374654-B21

### Storage

<b>HP StorageWorks Tape Drives, External</b> 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
<b>HP StorageWorks Autoloaders, External</b> DAT 72x10 Autoloader 1/8 G2 Tape Autoloader	External	64-Bit/133-MHz Single Channel Ultra320 SCSI HBA G2	374654-B21
<b>HP StorageWorks SCSI Rack-Mount Tape Drive Enclosures</b> 1U Rack-Mount Kit 3U Rack-Mount Kit	External	64-Bit/133-MHz Single Channel Ultra320 SCSI HBA G2	374654-B21
<b>HP StorageWorks USB Rack-Mount Tape Drive Enclosures</b> 1U Rack-Mount Kit	External	USB 2.0 Port	N/A
<b>HP StorageWorks Tape Libraries, External</b> 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	<a href="http://www.hp.com/go/ebs">Please consult the EBS connectivity matrix at <u>http://www.hp.com/go/ebs</u> for detailed connectivity information.</a>	N/A

### Power Specifications

<b>Part Number</b>	337867-001
<b>Spare Kit</b>	364360-001
<b>Operational Input Voltage Range (Vrms)</b>	90 to 264
<b>Frequency Range (Nominal) (Hz)</b>	47 to 63 (50/60)

<b>Nominal Input Voltage (Vrms)</b>	<b>100</b>	<b>115</b>	<b>208</b>	<b>220</b>	<b>230</b>	<b>240</b>
Max Rated Output Wattage Rating	910	910	1300	1300	1300	1300
Nominal Input Current (A rms)	11.9	10.2	7.7	7.3	6.9	6.6
Max Rated Input Wattage Rating (Watts)	1163	1148	1566	1566	1548	1548
Max. Rated VA (Volt-Amp)	1186	1172	1598	1598	1579	1579
Efficiency (%)	80	81	83	83	84	84
Power Factor	0.98	0.98	0.98	0.98	0.98	0.98
Leakage Current (mA)	0.43	0.50	0.90	0.96	1.00	1.04
Maximum Inrush Current (A peak)	100	100	100	100	100	100
Maximum Inrush Current duration (mS)	10	10	10	10	10	10

### System Specifications

To determine power specifications for various system configurations, please use the online HP Power Calculator Tool referenced below.

Power cord requirements	Tower model comes with local power cord	Option no. See chart below Spare no. See chart below
	Rack models come with PDU jumper cord and/or local power cord.	Option no. See chart below Spare no. See chart below

#### 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>

- Click on the Power Calculator for the server of interest. Example: ML570 G3

- There are certain Dual-core, lowline, max configurations that are not supported. All highline configurations are supported. Consult the Power Calculator to determine if your lowline configuration is supported.

### Power Specifications

<b>Standard Tower Model Power Cords</b>	<b>Description</b>	
Asia Pacific	CEE 7-VII to IEC320-C19	
	JIS C8303 to IEC320-C19	
	BS1363 to IEC320-C19	
Australia	AS/NZS 3112 to IEC320-C19	
Brazil	Nema 5-15P to IEC320-C19	
Europe	CEE 7-VII to IEC320-C19	
France	CEE 7-VII to IEC320-C19	
Germany	CEE 7-VII to IEC320-C19	
Japan	JIS C8303 to IEC320-C19	
UK	BS1363 to IEC320-C19	
USA	Nema 5-15P to IEC320-C19	
PRC	AS/NZS 3112 to IEC320-C19	
	JIS C8303 to IEC320-C19	
	BS1363 to IEC320-C19	
<b>Standard Rack Model Power Cords</b>	<b>Description</b>	
Asia Pacific	IEC320-C14 to IEC320-C19	
Europe	IEC320-C14 to IEC320-C19	
Japan	JIS C8303 to IEC320-C19	
	IEC320-C14 to IEC320-C19	
PRC	IEC320-C14 to IEC320-C19	
USA	Nema 5-15P to IEC320-C19	
	IEC320-C14 to IEC320-C19	
<b>Optional Country Power Cords and Jumper Cords</b>	<b>Description</b>	<b>Option Power Cord Part Number</b>
Australia/New Zealand	AS/NZS 3112 to IEC320-C19	305340-011
Denmark/Switzerland	IEC320-C19, Industrial	305340-081
Europe	CEE 7-VII to IEC320-C19	305340-021
Italy	IEC320-C19, Italy	305340-061
South Africa/India	IEC320-C19, SA	305340-AR1
UK	BS1363 to IEC320-C19	305340-031
US	Nema 5-15P to IEC320-C19	235603-001
US	Nema 6-20P to IEC320-C19	235604-001
US	IEC320-C19, 20A, 250V, US	340653-001
WW	IEC320-C14 to IEC320-C19 Jumper (10A, IEC, 6ft/2.0m)	313227-B21
WW	IEC320-C14 to IEC320-C19 Jumper (10A, IEC, 12ft/3.6m)	313228-B21
WW	IEC320-C19 to IEC320-C20 Jumper (16A, IEC, 8ft/2.5m)	295633-B22

### Technical Specifications

<b>System Unit</b>	<b>Tower Dimensions</b> (HxWxD) (with feet/bezel)	20 x 11.1 x 28.8 in (50.8 x 28.2 x 73.2 cm)								
	<b>Rack Dimensions</b> (HxWxD) (with bezel)	11.1 x 19.0 x 28.0 in (28.2 x 48.3 x 71.1 cm)								
	<b>Maximum Weight</b>	137 lb (62.14 kg)								
	<b>Input Requirements</b> (per power supply)	<table border="0"> <tr> <td>Range Input Voltage</td> <td>100 to 127 VAC/200 to 240 VAC</td> </tr> <tr> <td>Rated Input Frequency</td> <td>47 to 63 Hz</td> </tr> <tr> <td>Input Power</td> <td>1163W @ 110 VAC; 1598W @ 200 VAC</td> </tr> <tr> <td>Rated Input Current</td> <td>12A / 8A</td> </tr> </table>	Range Input Voltage	100 to 127 VAC/200 to 240 VAC	Rated Input Frequency	47 to 63 Hz	Input Power	1163W @ 110 VAC; 1598W @ 200 VAC	Rated Input Current	12A / 8A
Range Input Voltage	100 to 127 VAC/200 to 240 VAC									
Rated Input Frequency	47 to 63 Hz									
Input Power	1163W @ 110 VAC; 1598W @ 200 VAC									
Rated Input Current	12A / 8A									
	<b>BTU Rating</b>	BTU/hr (max) 5457 BTU/hr								
	<b>SCSI Connectors</b>	Two internal HD68 connectors (supporting Ultra320) One external VHDCI connector (supporting Ultra320) One SCSI knockout								
	<b>Power Supply Output Power</b> (per power supply)	<table border="0"> <tr> <td>Rated Steady-State Power</td> <td>910W/1300W</td> </tr> <tr> <td>Maximum Peak Power</td> <td>960W/1420W for 10 sec max</td> </tr> </table>	Rated Steady-State Power	910W/1300W	Maximum Peak Power	960W/1420W for 10 sec max				
Rated Steady-State Power	910W/1300W									
Maximum Peak Power	960W/1420W for 10 sec max									
	<b>Temperature Range</b>	<table border="0"> <tr> <td>Operating</td> <td>50° to 95° F (10° to 35° C)</td> </tr> <tr> <td>Non-operating</td> <td>-20° to 140° F (-29° to 60° C)</td> </tr> <tr> <td>Shipping</td> <td>-22° to 122° F (-30° to 50° C)</td> </tr> </table>	Operating	50° to 95° F (10° to 35° C)	Non-operating	-20° to 140° F (-29° to 60° C)	Shipping	-22° to 122° F (-30° to 50° C)		
Operating	50° to 95° F (10° to 35° C)									
Non-operating	-20° to 140° F (-29° to 60° C)									
Shipping	-22° to 122° F (-30° to 50° C)									
	<b>Relative Humidity</b> (non-condensing)	<table border="0"> <tr> <td>Operating</td> <td>10% to 70%</td> </tr> <tr> <td>Non-operating</td> <td>5% to 95%</td> </tr> </table>	Operating	10% to 70%	Non-operating	5% to 95%				
Operating	10% to 70%									
Non-operating	5% to 95%									
	<b>Maximum Wet Bulb Temperature</b>	101.7° F (38.7° C)								
	<b>Acoustic Noise</b>	<p>Listed are the declared A-WEIGHTED SOUND POWER (LWAd) and average bystander position A-WEIGHTED SOUND PRESSURE LEVEL (LpAm) when the product is operating in a 23°C ambient environment. Noise emissions were measured in accordance with ISO 7779 (ECMA 74, 7th edition) and declared in accordance with ISO 9296 (ECMA 109).</p> <p>Idle and Operating (Maximum configuration): LWAd = 7.5 Bels, Average Bystander LpAm = 56 dBA (Note 1)</p> <p><b>NOTE:</b> The values listed apply to both the tower and 6U rack configurations. Maximum configuration tested included four Xeon MP processors, ten SCSI hard drives, two power supplies, and six inlet fans.</p>								

### Technical Specifications

<b>Slimline CD-RW/DVD-ROM 8X/24X Combo Drive (Multibay)</b>	<b>Disk</b>	Disk formats	DVD (single and double layer), DVD-5, DVD-9, DVD-10, DVD-R, CD-ROM Mode 1 & 2, CD-DA, CD-XA (mode 2, Form 1 & 2), CD-I (Mode 2, Form 1 & 2), CD-I ready, CD-Bridge, CD-R, Photo CD( single and multi-session)
		Capacity	4.7 GB (DVD-5), 8.5 GB (DVD-9), 9.4 GB (DVD-10), 550MB (Mode 1, 12 cm), 640 MB (Mode 2, 12 cm), 180 MB (8 cm)
	<b>Block Size</b>	Mode 0	2352 bytes
		Mode 1	2352, 2340, 2336, 2048 bytes
		Mode 2	2352, 2340, 2336, 2048 bytes
		DVD	2048 bytes
	<b>Access Times (typical)</b>	Random	<110 ms CD <180 ms DVD
		Full-Stroke	<200 ms CD <300 ms DVD
	<b>Diameter</b>	12 cm, 8 cm (4.70 in, 3.15 in)	
	<b>Thickness</b>	1.2 mm (0.05 in)	
<b>Track pitch</b>	0.74 $\mu$ m (3.15 x 10 <sup>-7</sup> in) DVD-ROM 1.6 $\mu$ m (6.3 x 10 <sup>-7</sup> in) CD-ROM		
<b>Data Transfer Rate</b>	Sustained	4463 - 10,800 KB/2 (8x CAV DVD mode), 150 KB/s (sustained 1x CD-ROM), 1552 - 3600 KB/s (24x CAV CD-ROM)	
	Burst	16.6 MB/s with DMA support	
<b>Cache Buffer</b>			
<b>Start-up Time (typical)</b>	< 10 seconds		
<b>Stop Time</b>	< 5 seconds (single); < 30 seconds (multi-session)		
<b>Laser Parameters</b>	Type	Semiconductor Laser GaAs	
	Wave Length	700 $\pm$ 25 nm	
	Divergence angle	53.5 $^{\circ}$ $\pm$ 1.5 $^{\circ}$	
<b>Output Power</b>	0.14 mW		
<b>Operating Conditions</b>	Temperature	41 $^{\circ}$ to 118 $^{\circ}$ F (5 $^{\circ}$ to 45 $^{\circ}$ C)	
	Humidity	5% to 90%	
<b>Dimensions</b>	(HxWxD, maximum)	0.5 x 5.2 x 5.2 in (12.7 x 132.08 x 132.08 mm)	
	Weight	0.75 lb (0.34 kg)	



### Technical Specifications

<b>Embedded NC7782 PCI-X Gigabit Server Adapter</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)		
1000Base-TX		Category 5 or higher UTP; up to 328 ft (100 m)		
<hr/>				
<b>Smart Array P600 Controller</b> (SAS models only)	<b>Disk Drive and Enclosure Protocol Support</b>	3 Gbps SAS (Serial Attached SCSI) 1.5 Gbps SATA (Serial AT Attachment)		
	<b>Architecture</b>	1.5 Gb SATA		
	<b>SAS Connectors</b>	1 internal SFF8484 & 1 external SFF8470 / internal SFF8484 shared x4 Wide SAS Ports 12 Gbps per x4 Wide SAS Port (4 x 3 Gbps)		
	<b>Data Transfer Method</b>	64-bit wide, PCIX 133 MHz (1 GB/s maximum bandwidth)		
	<b>PCI Bus Speed</b>	PCIX-133 and 3.3 volt PCI compatibility only		
	<b>Memory Bus Speed</b>	DDR-266 and 72 bit wide bus		
	<b>PCI</b>	64-bit, 133-MHz PCI-X (1 GB/s maximum bandwidth)		
	<b>Simultaneous Drive Transfer Ports</b>	PCI-X and 3.3 volt PCI compatibility only		
	<b>Port Transfer Rate</b>	2 x4 Wide SAS Ports		
	<b>Software upgradeable Firmware</b>	12 Gb/s per x4 Wide SAS Port (4 x 3 Gb/s)		
	<b>Cache Memory</b>	Yes		
	<b>Logical Drives Supported</b>	256 MB Read/Write (512-MB module upgrade available); ECC protection, battery-backed, and removable		
	<b>Maximum Capacity</b>	Up to 32 logical drives Up to 2.2 TB per logical drive		
	<b>Memory Addressing</b>	2.7 TB (38 x 72 GB) 64-bit, supporting servers memory greater than 4 GB		

### Technical Specifications

<b>RAID Support</b>	RAID 6 (Advanced Data Guarding) RAID 5 (Distributed Data Guarding) RAID 1+0 (Striping & Mirroring) RAID 0 (Striping)
<b>Upgradeable Firmware Disk Drive and Enclosure Protocol Support</b>	4-MB flashable ROM 3 Gb SAS and 1.5 Gb SATA

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<b>Integrated Dual Channel Ultra320 SCSI Adapter</b>	<b>Drives Supported</b>	Up to 15 SCSI devices per channel
	<b>Data Transfer Method</b>	64-bit PCI bus-master
	<b>SCSI Channel Transfer Rate</b>	320 MB/s per channel
	<b>Maximum Transfer Rate per PCI Bus (peak)</b>	400 MB/s
	<b>SCSI Termination</b>	Active Termination
	<b>SCSI Connectors</b>	1 external (VHDCI), 2 internal (68-pin)

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