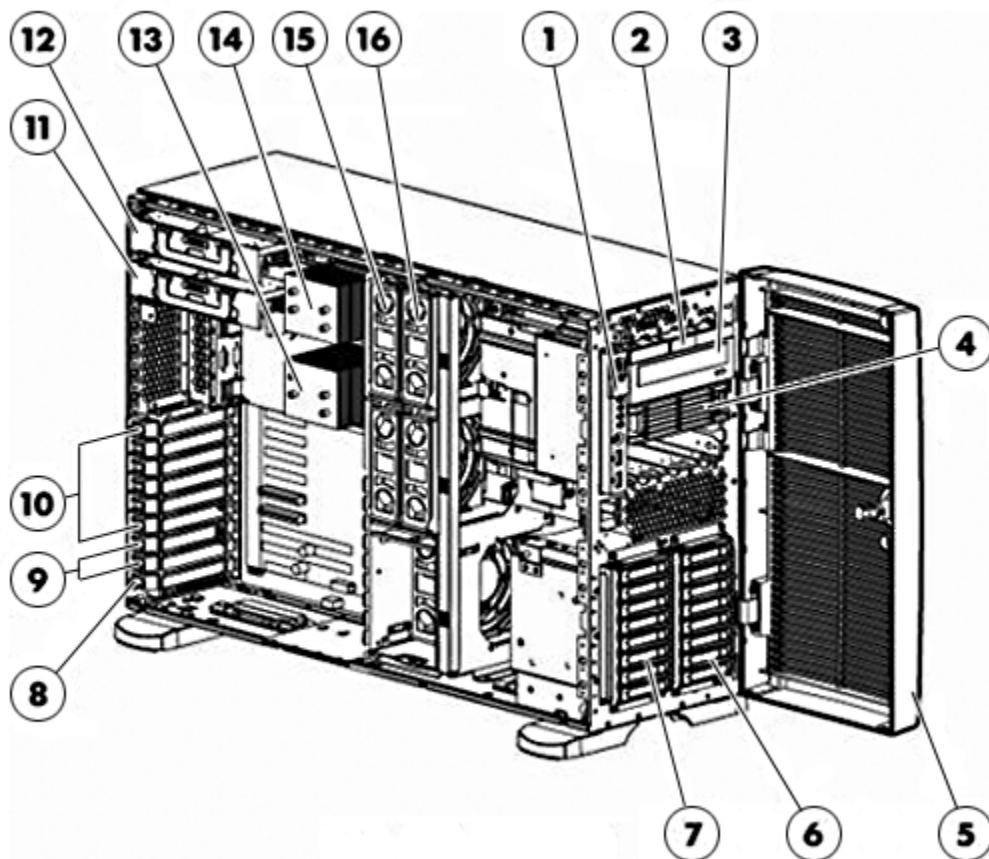


Overview

HP ProLiant ML370 G5 Tower

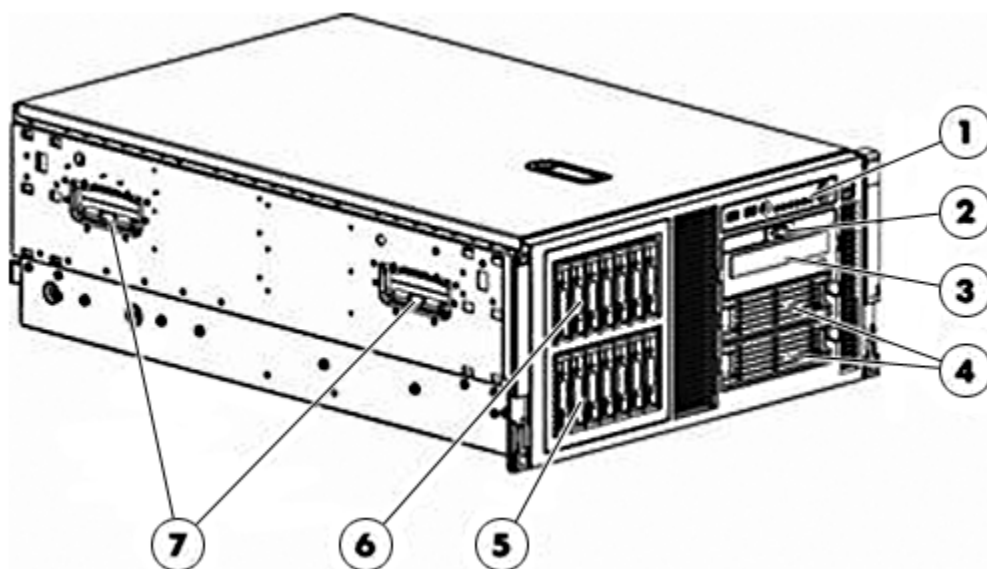


HP ProLiant ML370 G5 Tower call-outs

- | | |
|---|---|
| 1. System Insight Display (SID) | 10. (6) PCI-Express x4 Slot |
| 2. Media Bay Spacer (Tower)/Video Connector (Rack) | 11. (8) PC2-5300 Fully Buffered DIMM Slots per memory card - Standard |
| 3. DVD/CD-ROM Drive | 12. (8) PC2-5300 Fully Buffered DIMM Slots per memory card - Optional |
| 4. Removable Media Bays | 13. Dual-Core Intel Xeon processor - Optional |
| 5. Front Bezel (Tower Model Only) | 14. Dual-Core Intel Xeon processor - Standard (2 processors standard on all Performance Models) |
| 6. Hard Drive Bays 1-8 (Serial-attached SCSI (SAS) drives supported - SFF) | 15. (3) Hot Plug Redundant Fans - Standard |
| 7. Hard Drive Bays 9-16 - Optional Drive Cage (Serial-attached SCSI (SAS) drives supported - SFF) | 16. (3) Hot Plug Redundant Fans - Optional |
| 8. Integrated RAID Controller Slot | |
| 9. (2) PCI-X 64 Bit/133MHz Slot | |

Overview

HP ProLiant ML370 G5 Rack



HP ProLiant ML370 G5 Rack call-outs

1. System Insight Display (SID)
2. Video Connector
3. DVD/CD-ROM Drive
4. Removable Media Bays
5. Hard Drive Bays 1-8 (Serial-attached SCSI (SAS) drives supported - SFF)
6. Hard Drive Bays 9-16 - Optional Drive Cage (Serial-attached SCSI (SAS) drives supported - SFF)
7. Rack Handles

What's New

- Quad-Core Intel Xeon Processor 5300 Series with 1333MHz Front Side Bus

At A Glance

The flagship ML370 G5 provides industry-leading management, performance and availability in a dual processor expansion server engineered to excel in a variety of environments - from corporate work groups in growing businesses to critical remote sites requiring continuous accessibility and uptime.

- **Processors:**
 - Quad-core Intel® Xeon™ 5300 sequence processors with 8MB Level 2 cache (2MB per core) for blazing performance
 - Dual-core Intel Xeon 5100 & 5000 sequence processors with 4MB Level 2 cache (2MB per core) for blazing performance
 - Servers support up to 2 processors (2 processors standard on all Performance models)
 - Preconfigured Performance models save valuable deployment time at a discounted bundle price
 - Intel 5000P chipset
- **Memory:**
 - Maximum 64 GB of PC2-5300 Fully Buffered DIMMs (DDR2-667) running at 667MHz of 4:1 interleaved memory with Advanced ECC capabilities including Online Spare and Mirrored Memory (8 FB DIMMs per memory card; up to 2 supported)
 - NOTE:** Memory DIMMs in systems with the Front Side Bus (FSB) running at 1333 MHz will run at 667 MHz and in systems with a FSB running at 1066 MHz or 667 MHz the memory DIMMs will run at 533 MHz.
- **Storage Controller:**
 - Base Models: HP Smart Array P400/256MB Controller
 - Performance Models: HP Smart Array P400/512MB BBWC Controller
 - Entry Models: HP Smart Array E200/64MB Controller
- **Internal Drive Support:**
 - Up to (16) hot-plug Serial-attached SCSI (SAS) drives supported

Overview

- (8) drive bays in standard configurations
- Optional 8-bay drive cage available for maximum storage support (2nd drive bay cage will require additional SAS controller)
- Two open half-height media bays; supports full height or half height internal tape drive
- **Network Controller:**
 - Two embedded NC373i Multifunction Gigabit Server Adapters with TCP/IP Offload Engine, including support for Accelerated iSCSI through an optional ProLiant Essentials Licensing Kit
- **Expansion Slots:**
 - Nine total expansion slots
 - Eight available: (6) PCI-Express x4 and (2) PCI-X 64-Bit/133MHz
- **USB Ports:**
 - USB 2.0 support
 - Six total ports: (2) ports up front; (2) ports in back; (2) ports internal (one standard connection and one USB tape connection)
- **Redundancy:**
 - Optional Hot plug redundant power supplies and cooling fans
 - Hot plug redundant fans and power supplies included on all Performance models
- **Management:**
 - New Integrated Lights-Out 2 featuring Integrated Remote Console with KVM over IP performance over shared network access
 - HP Power Regulator for ProLiant, delivering integrated power monitoring and server level, policy based power management for industry leading energy efficiency and savings on system power and cooling costs
 - Automatic Server Recovery (ASR), ROM Based Setup Utility (RBSU), HP System Insight Manager, Status LEDs including system health and UID and SmartStart
 - Systems Insight Display for quick and easy server diagnostics (front drop-down panel)
- **Form Factor:**
 - 5U tower and rack models available (front VGA connection on rack models)
- **Deployment/Serviceability:**
 - Quick Deploy Rail System includes sliding universal rails, an ambidextrous cable management arm and quick release levers
 - Tool-less access to all system components for easy in-rack serviceability
- **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 SAS hard drives. SATA hard drives have a one-year warranty.

Standard Features

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

Processor	Quad-Core Intel Xeon Processor X5355 (2.66 GHz, 120 Watts, 1333 Front Side Bus (FSB))
One of the following depending on Model	Quad-Core Intel Xeon Processor E5345 (2.33 GHz, 80 Watts, 1333 FSB)
	Quad-Core Intel Xeon Processor E5335 (2.00 GHz, 80 Watts, 1333 FSB)
	Quad-Core Intel Xeon Processor E5320 (1.86 GHz, 80 Watts, 1066 FSB)
	Quad-Core Intel Xeon Processor E5310 (1.60 GHz, 80 Watts, 1066 FSB)
	Dual-Core Intel Xeon Processor 5160 (3.0 GHz, 80 Watts, 1333 FSB)
	Dual-Core Intel Xeon Processor 5150 (2.67 GHz, 65 Watts, 1333 FSB)
	Dual-Core Intel Xeon Processor 5140 (2.33 GHz, 65 Watts, 1333 FSB)
	Dual-Core Intel Xeon Processor 5130 (2.0 GHz, 65 Watts, 1333 FSB)
	Dual-Core Intel Xeon Processor 5120 (1.86 GHz, 65 Watts, 1066 FSB)
	Dual-Core Intel Xeon Processor 5110 (1.6 GHz, 65 Watts, 1066 FSB)
	Dual-Core Intel Xeon Processor 5080 (3.73 GHz, 130 Watts, 1066 FSB)
	Dual-Core Intel Xeon Processor 5060 (3.2 GHz, 130 Watts, 1066 FSB)
	Dual-Core Intel Xeon Processor 5050 (3.0 GHz, 95 Watts, 667 FSB)

NOTE: Up to 2 processors supported. Performance configurations include two processors.

Cache Memory	4MB (2 x 2MB) Level 2 cache (5000 series)
One of the following depending on Model	4MB (1 x 4MB) Level 2 cache (5100 series)
	8MB (2 x 4MB) Level 2 cache (5300 series)

Chipset	Intel 5000P Chipset
	NOTE: For more information regarding Intel chipsets, please see the following URL: http://www.intel.com/products/server/chipsets/ .

Upgradeability	Upgradeable to 2 processors
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Memory Protection	Advanced ECC, Online Spare and Mirroring
	NOTE: Mirroring requires optional 2nd memory card.

Memory	Type	PC2-5300 Fully Buffered DIMMs (DDR2-667) running at 533 MHz with 4:1 interleaving
One of the following depending on Model		NOTE: 4-way interleaving requires optional 2nd memory card.
	Standard (Entry Models)	1 GB (2 x 512 MB)
	Standard (Base Models)	2 GB (2 x 1 GB)
	Standard (Performance Models)	4 GB (4 x 1 GB)
	Maximum	64 GB (16 x 4 GB with 2 memory cards)
		NOTE: Memory DIMMs in systems with the Front Side Bus (FSB) running at 1333 MHz will run at 667 MHz and in systems with a FSB running at 1066 MHz or 667 MHz the memory DIMMs will run at 533 MHz.

Standard Features

Network Controller Two embedded NC373i Multifunction Gigabit Server Adapters with TCP/IP Offload Engine, including support for Accelerated iSCSI through an optional ProLiant Essentials Licensing Kit

Expansion Slots	Slot Number	Bus Speed	Bus Number*	Device Number**	PCI Voltage	Notes
	1	PCI Express x4	6	0	N/A	Reserved for integrated RAID controller
	2	64-bit/133MHz PCI-X	18	1	3.3 Volt	Shared bus with slot 3
	3	64-bit/133MHz PCI-X	18	2	3.3 Volt	Shared bus with slot 2
	4	PCI Express x4	14	0	N/A	
	5	PCI Express x4	11	0	N/A	Optional x8 if PCIE expander is installed in slot 4
	6	PCI Express x4	31	0	N/A	
	7	PCI Express x4	28	0	N/A	Optional x8 if PCIE expander is installed in slot 6
	8	PCI Express x4	25	0	N/A	
	9	PCI Express x4	22	0	N/A	Optional x8 if PCIE expander is installed in slot 8

NOTE: x8 cards are supported but will run at x4 speeds. X8 speed can be supported with optional PCIE x4/x8 expansion card option on select slots

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

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

Storage Controller One of the following depending on Model	Base Models	HP Smart Array P400/256MB Controller (RAID 0/1/1+0/5) Available upgrades: 512MB memory BBWC module for, or battery for battery-backed write cache (BBWC) RAID 0/1/1+0/5/6.
	Performance Models	HP Smart Array P400/512MB BBWC Controller (RAID 0/1/1+0/5/6)
	Entry Models	HP Smart Array E200/64MB Controller (RAID 0/1/1+0) Available upgrades: 128MB memory module for RAID 0/1/1+0/5, battery for battery-backed write cache (BBWC).

Storage	Diskette Drive	None standard
	Optical Drive	DVD-ROM Drive (Performance Models)
	One of the following depending on Model	48x IDE CD-ROM Drive (Base and Entry Models)
	Hard Drives	None standard

Maximum Internal Storage	Hot Plug Serial-Attached SCSI (SAS)	1.168TB	8 x 146GB with standard 8-bay hot plug Serial SCSI/ATA drive cage
		2.336TB	16 x 146GB with optional 2nd SAS drive cage

Standard Features

Remote Management Integrated Lights Out 2 (iLO2) Standard Management:

- Virtual Text Remote Console (pre OS-only)
- Remote Serial Console
- Virtual Power Button Control
- Virtual Unit ID control
- Integrated Remote Console
- Dedicated & full function shared network connectivity
- Embedded system health
- Browser, command line and scripted access
- Automatic IP Configuration via DHCP/DNS/WINS
- Industry Standard 128-bit Secure Sockets Layer (SSL) and Secure Shell security (SSH)
- OS independent hardware health status
- IML and iLO Event Logging
- Support for 12 user accounts with customizable access privilege

Intelligent Manageability

HP Systems Insight Manager

SmartStart

Management Agent

Redundant ROM

Remote Flash ROM

ROM-Based Setup Utility (RBSU)

Integrated Management Log

Automatic Server Recovery (ASR)

Dynamic Sector Repairing (with Smart Array controller)

Drive Parameter Tracking (with Smart Array controller)

Hot Spare Boot

NOTE: Upon the event of a failed processor in a multi-processing environment, the system will automatically reboot and attempt to use the remaining good processor.

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

Interfaces

Serial 1 (2nd serial and parallel port available via option Kit)

Pointing Device (Mouse) 1

VGA 1 (+1 front VGA on rack models)

Keyboard 1

Network RJ-45 2

iLO 2 remote 1

management port

USB 2.0 Ports 5 (2 on the rear, 2 on the front, 1 internal)

NOTE: Please see the following URL for additional information regarding USB support:

<http://h18004.www1.hp.com/products/servers/platforms/usb-support.html>

Dedicated USB 2.0 Port 1 (available for DAT USB tape connectivity)

NOTE: Internal USB ports are optimal for the attachment of HP DAT USB Internal Tape Drives

Graphics

Integrated ATI ES1000 1280 x 1024 x 16M color (32MB video standard)

Form Factor

Tower and Rack (5U) models available

Standard Features

ProLiant Essentials Foundation Pack Software

HP Systems Insight Manager

HP Systems Insight Manager (HP SIM) provides a unified, secure and extensible environment to centrally manage servers, storage and other infrastructure devices across multiple operating system platforms.

Through a single management view, HP SIM provides core management services that include device discovery and identification, event views, health monitoring, inventory data collection, software version control and reporting. HP SIM is built on industry standards and is extensible with value-added ProLiant Essentials, Integrity Essentials and Storage Essentials software to meet individual management needs. For more details on HP SIM visit <http://www.hp.com/go/hpsim>.

HP SIM provides organizations with the following benefits:

- Simplifies and consolidates infrastructure lifecycle management using task and query based functionality
- Provides the foundation for infrastructure automation and virtualization
- Enables IT management based on business processes not hardware platforms
- Lowers infrastructure maintenance cost and frees resources for innovation
- Maximizes resource utilization with virtualization technologies
- Provides a central point of integration between infrastructure and Enterprise management tools such as HP OpenView

SmartStart

SmartStart is a tool that simplifies server setup, providing a rapid way to deploy reliable and consistent server configurations. For more information, please visit the SmartStart Web site at <http://www.hp.com/servers/smartstart>.
SmartStart version supported (minimum): SmartStart 7.51

Insight Management Agents

Insight Management Agents should be installed on all HP servers to present system instrumentation, health and configuration information into HP Systems Insight Manager and the HP System Management Homepage. The HP System Management Homepage aggregates systems data from Insight Management Agents and other HP management tools, providing a consolidated browser-based interface for managing individual servers,

Insight Management Agents and The HP System Management Homepage are included on ProLiant Support Packs, and can also be installed using the server profiles provided with the ProLiant Essentials Rapid Deployment Pack. For additional information about the Management Agents and the HP System Management Homepage please visit the management Web site at <http://www.hp.com/servers/manage>.

Subscriber's Choice

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

ROMPaq, support software, and configuration utilities

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

Standard Features

Insight Diagnostics	The most advanced configuration analysis, reporting and troubleshooting utilities used by HP and at your fingertips, available in SmartStart.
Optional ProLiant Essentials Value Packs	<p>Optional software offerings that selectively extend the functionality of an Adaptive Infrastructure to address specific business problems and needs:</p> <ul style="list-style-type: none">• 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 7-day, 10-node trial licenses for evaluation purposes. RDP requires a license for each server deployed and is available for purchase with HP servers. For more information, visit: http://www.hp.com/servers/rdp.• Workload Management Pack - provides easier management of complex environments, improving overall server utilization and enabling Windows 2000 customers for the first time to confidently deploy multiple applications on a single multiprocessor ProLiant Server.• Performance Management Pack - identifies and explains hardware performance bottlenecks on ProLiant servers and attached options enabling users to better utilize their valuable resources.• Intelligent Networking Pack - detects and analyzes network bottlenecks or broken network linkages and steers traffic to the optimum route based on network conditions, plus it provides an extra layer of protection. The virus throttle feature of the solution slows the propagation of fast spreading virus• Vulnerability and Patch Management Pack - identifies and remediates software security vulnerabilities due to missing patches as well operating system configurations that can be exploited by viruses, worms, and other blended threats• Virtual Machine Management Pack - provides central management and control of virtual machines from Microsoft and VMware. Integrated approach provides the ability to manage both physical and virtual resources from a single management console.• Server Migration Pack - The Server Migration Pack automates the manual processes required for migrating servers between physical or virtual platforms (P2V, V2P, and V2V).• Accelerated iSCSI Pack - enables the embedded Multifunction network controller to serve as both a NIC and an iSCSI HBA providing access to SAN storage over the same connection used for networking. Processing of the protocol stack is offloaded to the NIC reducing CPU utilization and greatly improving the speed with which the requests are processed and sent to the network.• Remote Directory Memory Access (RDMA) Pack for Embedded Multifunction Gigabit Server Adapters - provides direct and faster communication between application buffers in separate servers for tasks that involves moving large amounts of data, such as network backups, database read/write, and high performance computing.
Optional Remote Management Packs	<ul style="list-style-type: none">• Integrated Lights-Out Advanced Pack - upgrades the iLO 2 processor with comprehensive remote control including Virtual KVM remote graphical console, virtual media (floppy, CD/DVD,

Standard Features

USB key), historical power reporting and enterprise security (directory services and two-factor authentication).

- Integrated Lights-Out Select Pack - upgrades the iLO 2 processor with virtual media (floppy, CD/DVD, USB key), historical power reporting and enterprise security (directory services and two-factor authentication) for servers managed using iLO 2 Standard remote consoles.
- Insight Power Manager (IPM) - upgrades the single-server remote management capabilities of iLO Select/Advanced to include centralized reporting and policy-based management of power consumption and thermal output provided by the Insight Power Manager. IPM unifies all of this functionality within a single user interface - HP Systems Insight Manager.
- Insight Control Environment - Includes a single product key to license the ProLiant Essentials Performance Management Pack, ProLiant Essentials Vulnerability and Patch Management Pack, and Insight Power Manager, plus separate product registration codes to license the ProLiant Essentials Rapid Deployment Pack and the iLO Advanced Pack.

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

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

Industry Standard Compliance

ACPI 1.0b Compliant
PCI 2.2 Compliant
WOL Support
Microsoft® Logo certifications
PXE Support

Security

Power-on password
Keyboard password
Diskette drive control
Diskette boot control
QuickLock, Network Server Mode
Parallel and serial interface control
Administrator's password
Disk configuration lock

Server Power Cords

110V NEMA -6ft. (1.83m) cord included in the United States; localized cables included with geographic specific models in other world regions. IEC 6 ft. (1.83m) cords also included with rack models.

Localized cables included with geographic specific models in other world regions.

NOTE: HP ProLiant ML370 a C13 to C14 2.8M jumper cord ships standard. If customers require a local power cord, they can check the power cord matrix for the appropriate country specific sku. Please see the following power cord matrix: <http://www.hp.com/go/powercordmatrix>.

Power Supply

800 Watt-CE Mark Compliant Hot Plug Power Supply (1000 Watt high line)
Optional second Power Supply provides redundant capability

NOTE: Please see the "Power Specifications" section later in this document for low line and high line requirements.

Standard Features

UPS and PDU Power Cord Matrix	Please see the UPS and PDU cable matrix that lists cable descriptions, requirements, and specifications for UPS and PDU units: ftp://ftp.compaq.com/pub/products/servers/ProLiantstorage/power-protection/powercordmatrix.pdf .
System Fans	Three hot-plug fans standard. Redundant fan kit includes three additional fans.
Required Cabling	For external storage cabling information, refer to the Web site at http://h18000.www1.hp.com/products/servers/ProLiantML370/ .
OS Support	<p>Microsoft Windows 2000 Server Windows Server 2003 Server Novell NetWare SCO OpenServer and OpenUNIX Red Hat Enterprise Linux SUSE Linux Enterprise Server VMware Virtualization Software</p> <p>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</p> <p>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</p> <p>NOTE: For an up-to-date listing of the latest drivers available for the HP ProLiant ML370 G5, please see: http://h18023.www1.hp.com/support/files/server/us/index.html</p> <p>NOTE: For more Linux OS support & certification information, please visit the ProLiant & BladeSystem Server Linux matrix http://h18004.www1.hp.com/products/servers/linux/hpLinuxcert.html</p> <p>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</p>
Rack Airflow Requirements	<p>Rack 10000 series Cabinets</p> <p>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</p> <p>CAUTION: If a third-party rack is used, observe the following additional requirements to ensure adequate airflow and to prevent damage to the equipment:</p> <ul style="list-style-type: none">• 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). <p>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.</p> <p>NOTE: For additional information, refer to the Setup and Installation Guide or the Documentation CD provided with the server, or to the server documentation located in the Support section at the following URL: http://h18000.www1.hp.com/products/servers/ProLiantdl380/index.html.</p>

Standard Features

Installation of HP ProLiant ML370 G5 servers with Round Hole, Third Party or Telco Racks

ProLiant rack mount servers and tower-to-rack kits include snap-on quick deploy side rails designed to accommodate both round and square hole rack rails. Telco rack solutions for ProLiant servers are available through the following URL: <http://www.racksolutions.com/hp>.

Factory Express Portfolio for Servers and Storage

HP Factory Express offers configuration, customization, integration and deployment services for HP servers and storage products. Customers can choose how their factory solutions are built, tested, integrated, shipped and deployed.

Factory Express offers service packages for simple configuration, racking, installation, complex configuration and design services as well as individual factory services, such as image loading, asset tagging, and custom packaging. HP products supported through Factory Express include a wide array of servers and storage: HP Integrity, HP ProLiant, HP ProLiant Server Blades, HP BladeSystem, HP 9000 servers as well as the MSA1000, VA7xxx, EVA, XP, rackable tape libraries and configurable network switches.

For more information on Factory Express services for your specific server model please contact your sales representative or go to <http://www.hp.com/go/factory-express>.

HP ProLiant Smart Buys (NA only)

The HP Smart Buy program offers mainstream business solutions at competitive prices with excellent availability and superior HP quality. It offers a wide range of industry-leading HP products at compelling prices, allowing you to receive richer configurations with additional options.

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

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.

Service and Support

This product is covered by a global limited warranty and supported by HP Services and a worldwide network of resellers and service providers. Hardware diagnostic support and repair is available for three years from date of purchase. Support for software and initial setup is available for 90 days from date of purchase. Additional support may be covered under the warranty or available for an additional fee. Enhancements to warranty services are available through HP Care Pack services or customized service agreements.

NOTE: Server Warranty includes 3 year Parts, 3 year Labor, 3-year on-site support. Additional information regarding worldwide limited warranty and technical support is available at: <http://h18004.www1.hp.com/products/servers/platforms/warranty/index.html>

HP Care Pack services include coverage for the HP branded hardware options qualified for the server, purchased at the same time or afterward, internal to the enclosure, as well as 22" and smaller external monitors and tower UPS options up to 3kVA; these items will be covered at the same service level and for the same coverage period as the server. Coverage of UPS Battery is not included, standard warranty terms & conditions apply. For servers or storage systems installed within a rack, service also covers all HP qualified rack options installed within the same rack.

HP services provide continuous care and support expertise with committed response designed to meet your IT and business needs.

Standard Features

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

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

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

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

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

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

- *Support Plus 24 - Onsite HW support 24x7, 4hr response and Microsoft O/S SW Tech support offsite, onsite at HP's discretion, 24x7 2hr response time incl. HP holidays*

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

- *Installation & Start-Up of a ProLiant server and Microsoft or Linux O/S per the Customer Description and/or Data Sheet. To be delivered on a scheduled basis 8am-5pm, M-F, excl. HP holidays*

NOTE: For a complete listing of service offerings and information visit:

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

<http://www.hp.com/go/proliant/carepack>

Models

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

<p>HP ML370 G5 Performance Models</p> <p>Tower Models: Quad-Core: ML370T05 E5345 433752-xx1 Dual-Core: ML370T05 5150 416619-xx1</p> <p>Rack Models: Quad-Core: ML370R05 E5345 433753-xx1 Dual-Core: ML370R05 5150 416620-xx1</p>	<p>Processor Two of the following depending on Model</p> <p>Cache Memory One of the following depending on Model</p> <p>Memory</p> <p>Network Controller</p> <p>Storage Controller</p> <p>Hard Drive</p> <p>Internal Storage</p> <p>Optical Drive</p> <p>Availability</p> <p>Form Factor One of the following depending on Model</p>	<p>(2) Quad-Core Intel Xeon Processor E5345 (2.33 GHz, 80 Watts, 1333 FSB) (2) Dual-Core Intel Xeon Processor 5150 (2.67 GHz, 65 Watts, 1333 FSB)</p> <p>8MB (2 x 4MB) Level 2 cache - 5300 Sequence 4MB (1 x 4MB) Level 2 cache - 5100 Sequence</p> <p>4 GB (4 x 1 GB); 2 memory cards (2 x 1GB ea.card)</p> <p>Embedded NC373i Multifunction Gigabit Server Adapters</p> <p>HP Smart Array P400/512MB BBWC Controller (RAID 0/1/1+0/5/6)</p> <p>None ship standard</p> <p>1.168TB maximum</p> <p>DVD-ROM Drive (diskette drive optional)</p> <p>Hot Plug Fully Redundant fans and Hot Plug supplies standard</p> <p>Tower Rack (5U), (8.75-inch)</p>
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<p>HP ML370 G5 Base Models</p> <p>Tower Models: Quad-Core: ML370T05 E5320 433750-xx1 ML370T05 E5335 437437-xx1</p> <p>Dual-Core: ML370T05 5150 417188-xx1 ML370T05 5140 417446-xx1 ML370T05 5060 410635-xx1</p> <p>Rack Models: Quad-Core: ML370R05 E5320 433751-xx1 ML370R05 E5335 437438-xx1</p> <p>Dual-Core: ML370R05 5150 417189-xx1 ML370R05 5140 417447-xx1 ML370R05 5060 410636-xx1</p>	<p>Processor(s) One of the following depending on Model</p> <p>Cache Memory One of the following depending on Model</p> <p>Memory</p> <p>Network Controller</p> <p>Storage Controller</p> <p>Hard Drive</p> <p>Internal Storage</p> <p>Optical Drive</p> <p>Availability</p> <p>Form Factor One of the following depending on Model</p>	<p>(1) Quad-Core Intel Xeon Processor E5320 (1.86 GHz, 80 Watts, 1066 FSB) (1) Quad-Core Intel Xeon Processor E5335 (2.00 GHz, 80 Watts, 1333 FSB) (1) Dual-Core Intel Xeon Processor 5150 (2.67 GHz, 65 Watts, 1333 FSB) (1) Dual-Core Intel Xeon Processor 5140 (2.33 GHz, 65 Watts, 1333 FSB) (1) Dual-Core Intel Xeon Processor 5060 (3.2GHz, 130 Watts, 1066 FSB)</p> <p>8MB (2 x 4MB) Level 2 cache - 5300 Sequence 4MB (1 x 4MB) Level 2 cache - 5100 Sequence 4MB (2 x 2MB) Level 2 cache - 5000 Sequence</p> <p>2 GB (2 x 1 GB); 1 memory card</p> <p>Embedded NC373i Multifunction Gigabit Server Adapters</p> <p>HP Smart Array P400/256MB Controller (RAID 0/1/1+0/5)</p> <p>None ship standard</p> <p>1.168TB maximum</p> <p>48x CD-ROM Drive (diskette optional)</p> <p>Redundant Power/Fans Optional</p> <p>Tower Rack (5U), (8.75-inch)</p>
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Models

HP ML370 G5 Entry Models	Processor	(1) Dual-Core Intel Xeon Processor 5120 (1.86 GHz, 65 Watts, 1066 FSB))
Tower Models: Dual-Core: ML370T05 5120 417444-xx1	Cache Memory	2x2MB Level 2 cache (4MB per processor) - 5100 Sequence
Rack Models: Dual-Core: ML370R05 5120 417445-xx1	Memory	1 GB (2 x 512 MB) Level 2 cache
	Network Controller	Embedded NC373i Multifunction Gigabit Server Adapters
	Storage Controller	HP Smart Array E200/64MB Controller (RAID 0/1/1+0)
	Hard Drive	None ship standard
	Internal Storage	1.168TB maximum
	Optical Drive	48x CD-ROM (diskette optional)
	Availability	Redundant Power/Fans Optional
	Form Factor	Tower
	One of the following depending on Model	Rack (5U), (8.75-inch)

Country Code Key

XX=00
XX=01
XX=03
XX=04
XX=05
XX=20
XX=29
XX=37
XX=42
XX=AA

Tower Code Key

U.S. English
Australia
UK
Germany
France
Brazil
Japan
APD
Europe
PRC

Rack Code Key

U.S. English
N/A
N/A
N/A
N/A
Brazil
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 (CTO) 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)

Models	<p>HP ML370 G5 Rack SAS CTO Chassis (North America) 400606-B21</p> <p>Factory Integrated Model ships with:</p> <ul style="list-style-type: none"> Two embedded NC373i Multifunction Gigabit Server Adapters Eight Hot Plug SAS Drive Bays 9 expansion slots - 7 PCI-Express x4 and 2 PCI-X 64-bit 133 MHz Integrated Lights-Out 2 (iLO2) 800 Watt-CE Mark Compliant Hot Plug Power Supply Three fans Rack (5U) <p>HP ML370 G5 Tower SAS CTO Chassis (North America) 400607-B21</p> <p>Factory Integrated Model ships with:</p> <ul style="list-style-type: none"> Two embedded NC373i Multifunction Gigabit Server Adapters Eight Hot Plug SAS Drive Bays 9 expansion slots - 7 PCI-Express x4 and 2 PCI-X 64-bit 133 MHz Integrated Lights-Out 2 (iLO2) 800 Watt-CE Mark Compliant Hot Plug Power Supply Three fans Keyboard 2-button Mouse Tower (5U)
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Step 1A: Choose SAS Controller (only one of the following)

SAS Controller	<p>Smart Array P400/256MB Controller 405132-B21</p> <p>NOTE: PCI Express</p> <p>HP Smart Array P400/512MB BBWC Controller 411064-B21</p> <p>NOTE: PCI Express</p> <p>HP Smart Array E200/64MB Controller 409180-B21</p> <p>NOTE: PCI Express</p> <p>HP Smart Array E200/128 BBWC Controller 411508-B21</p> <p>NOTE: PCI Express</p> <p>HP Smart Array P600/256 BBWC Controller 337972-B21</p> <p>NOTE: PCI-X . SA-P600 has internal and external connectors.</p>
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Configuration Information - Factory Integrated Models (North America only)

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

Processors	Quad-core Intel X5355 (2.66 GHz, 120 Watts, 1333 FSB) ML370 G5 FIO Kit	433104-L21
	Quad-core Intel E5345 (2.33 GHz, 80 Watts, 1333 FSB) ML370 G5 FIO Kit	433102-L21
	Quad-core Intel E5335 (2.00 GHz, 80 Watts, 1333 FSB) ML370G5 FIO Kit	437391-L21
	Quad-core Intel E5320 (1.86 GHz, 80 Watts, 1066 FSB) ML370 G5 FIO Kit	433098-L21
	Quad-core Intel E5310 (1.60 GHz, 80 Watts, 1066 FSB) ML370 G5 FIO Kit	433100-L21
	Dual-core Intel X5160 (3.0 GHz, 80 Watts, 1333 FSB) ML370G5 FIO Kit	416198-L21
	Dual-core Intel X5150 (2.67 GHz, 65 Watts, 1333 FSB) ML370G5 FIO Kit	416196-L21
	Dual-core Intel X5140 (2.33 GHz, 65 Watts, 1333 FSB) ML370G5 FIO Kit	416194-L21
	Dual-core Intel X5130 (2.0 GHz, 65 Watts, 1333 FSB) ML370G5 FIO Kit	416192-L21
	Dual-core Intel X5120 (1.86 GHz, 65 Watts, 1066 FSB) ML370G5 FIO Kit	416190-L21
	Dual-core Intel X5110 (1.6 GHz, 65 Watts, 1066 FSB) ML370G5 FIO Kit	416188-L21
	Dual-core Intel X5080 (3.73 GHz, 130 Watts, 1066 FSB) ML370G5 FIO Kit	403768-L21
	Dual-core Intel X5060 (3.2 GHz, 130 Watts, 1066 FSB) ML370G5 FIO Kit	400500-L21
	Dual-core Intel X5050 (3.0 GHz, 95 Watts, 667 FSB) ML370G5 FIO Kit	400376-L21
	NOTE: If High Performance Model features are desired, 2nd processor is included in the Performance Pack part numbers in Step 3 below.	
Base Memory	1 GB FBD PC2-5300 2 x 512 MB Kit	397409-B21
	2 GB FBD PC2-5300 2 x 1 GB Kit	397411-B21
	4 GB FBD PC2-5300 2 x 2 GB Kit	397413-B21
	8 GB FBD PC2-5300 2 x 4 GB Kit	397415-B21

Step 3: Choose Additional Factory Integratable Options

Optical Drives	CD-RW/DVD-ROM Combo Drive Option Kit	331346-B21
	HP DVD±R/RW 16X Half Height	383974-B21
	DVD-ROM Drive Option Kit	217053-B21
	CD-ROM 48X FIO	367920-B21
Performance Packs	The HP ProLiant ML370 G5 Performance Packs are necessary to configure a HP ProLiant ML370 G5 High Performance Model which includes the latest performance technologies and enterprise class availability features pre-installed for convenience and value. The Performance Pack includes a 2nd processor, redundant fan, power supply, and memory expansion board.	
	NOTE: Must also select 217503-B21 to achieve parity to ML370 G5 High Performance Models.	
	HP ML370G5 E5345 HPM FIO Perf Pack	436374-B21
	HP ML370G5 X5150 HPM FIO Perf Pack	430086-B21

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.

HP ProLiant ML370 Unique Options	ML370 G5 SAS SFF 8-bay Drive Cage Kit	401415-B21
	NOTE: 2nd drive cage requires a storage controller.	
	ML370 G5 Memory Board Kit	403766-B21
	NOTE: 2 Memory Boards required for support of 4:1 interleaving; 2 included with Performance models.	
	Tower to Rack Conversion ML370 G5 Kit	400899-B21
	X4/X8 PCIE Bus Expander	403724-B21
	Hot Plug Redundant Fan ML370 G5 Kit	400693-B21

ProLiant Essentials Value Pack Software	ProLiant Essentials Accelerated iSCSI Pack	
	ProLiant Essentials Accelerated iSCSI Pack, 1 License	407484-B22
	NOTE: For additional Accelerated iSCSI Pack License Kits, please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/12466_div/12466_div.HTML	
	ProLiant Essentials Intelligent Networking Pack	
	ProLiant Essentials Intelligent Networking Pack - Windows Edition, Single Server License	436225-B21
	NOTE: For use with a single server. Contains one license with a unique license activation key and documentation.	
	NOTE: For additional ProLiant Intelligent Networking Pack License Kits please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/12062_div/12062_div.HTML	
	ProLiant Essentials Intelligent Networking Pack - Linux Edition, Single Server License	436229-B21
	NOTE: For additional ProLiant Intelligent Networking Pack - Linux License Kits please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/12327_div/12327_div.HTML	
	ProLiant Essentials Performance Management Pack	
	ProLiant Essentials Performance Management Pack, No Media, Single-Server License	436770-B21
	NOTE: This option kit includes 1 license with a unique license activation key.	
	NOTE: The most recent version of the software can always be downloaded at http://www.hp.com/products/pmp .	
NOTE: For additional ProLiant Performance Management Pack License Kits please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/11925_div/11925_div.HTML		
ProLiant Essentials Rapid Deployment Pack		
Rapid Deployment Pack, Single-Server License	267196-B21	
NOTE: This license allows 1 server to be deployed and managed via RDP.		
Rapid Deployment Pack, Single-Server License (Japan)	267196-291	
NOTE: This license allows 1 server to be deployed and managed via RDP.		
NOTE: For additional ProLiant Essentials Rapid Deployment Pack License Kits please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/11053_div/11053_div.HTML		
ProLiant Essentials Server Migration Pack - Physical to ProLiant Edition		
HP ProLiant Essentials Server Migration Pack - Physical to ProLiant Edition. 1 Year Unlimited Migration Lic	412982-B21	

Options

NOTE: For additional ProLiant Essentials Physical to ProLiant Kits please see the QuickSpecs at:

http://h18000.www1.hp.com/products/quickspecs/12467_div/12467_div.HTML

ProLiant Essentials Workload Management Pack

ProLiant Essentials Workload Management Pack, Single Server License 303284-B21

NOTE: For additional ProLiant Workload Management Pack License Kits please see the QuickSpecs at:

http://h18000.www1.hp.com/products/quickspecs/11452_div/11452_div.HTML

ProLiant Essentials Virtualization Management Software

ProLiant Essentials Virtual Machine Management Pack, Single-Server License 435661-B21

NOTE: 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

NOTE: Contains one license, enabling 1 server migration, with a unique license activation key and documentation.

NOTE: This license allows 1 server to be migrated from a physical server to a virtual machine. Or this license can be used to migrate a virtual machine from one virtualization layer i.e. VMware GSX to a different virtualization layer such as VMware ESX or Microsoft Virtual Server 2005.

NOTE: For additional ProLiant Essentials Virtualization Management Software License Kits please see the QuickSpecs at:

http://h18000.www1.hp.com/products/quickspecs/12328_div/12328_div.HTML

HP ProLiant Essentials Remote Directory Memory Access (RDMA) Pack

HP ProLiant Essentials RDMA Pack for Embedded Multifunction Gigabit Server Adapters, 1 License 407478-B22

HP ProLiant Essentials RDMA Pack for Standup Multifunction Gigabit Server Adapters, 1 License 407481-B22

NOTE: For additional ProLiant Essentials RDMA Pack License Kits please see the QuickSpecs at:

http://h18000.www1.hp.com/products/quickspecs/12573_div/12573_div.HTML

ProLiant Essentials Vulnerability and Patch Management Pack

ProLiant Essentials Vulnerability and Patch Management Pack, Single-Server License 371645-B21

NOTE: For use with a single server. Contains one license with a unique license activation key and documentation.

NOTE: For additional ProLiant Vulnerability and Patch Management Pack License Kits, please see the QuickSpecs at:

http://h18000.www1.hp.com/products/quickspecs/12111_div/12111_div.HTML

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

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

Options

Remote Management	<p>Integrated Lights-Out Advanced Pack Integrated Lights-Out Advanced Pack, 1 server 263825-B21 Featuring: Sophisticated virtual administration features for ultimate control of servers in the data centers and remote sites. NOTE: For additional Integrated Light-Out Advanced Pack License Kits please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/12362_div/12362_div.HTML</p> <p>Integrated Lights-Out Select Pack Integrated Lights-Out Select Pack, 1 server License 413119-B21 Featuring: sophisticated remote control and security features for HP BladeSystem servers and ProLiant ML/DL servers in text console environments. NOTE: For additional Integrated Light-Out Select Pack License Kits please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/12362_div/12362_div.HTML</p> <p>HP Integrated Lights-Out (iLO) Power Management Pack HP iLO Power Management Pack, No Media Single-Server License 436210-B21 NOTE: This option kit includes 1 license for iLO Advanced and Insight Power Manager. NOTE: For additional Integrated Lights-Out Power Management Pack License Kits please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/12632_div/12632_div.HTML</p> <p>HP Insight Control Environment HP Insight Control Environment , No Media 1 License 436214-B21 NOTE: For additional Insight Control Environment License Kits please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/12631_div/12631_div.HTML</p> <p>HP Insight Power Manager (IPM) HP Insight Power Manager Pack, No Media, Single-Server License 433691-B21 NOTE: This option kit includes 1 license for Insight Power Manager. NOTE: For additional Insight Power Manager License Kits please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/12623_div/12623_div.HTML</p>
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Processor	<p>Quad-Core Intel Xeon Processor X5355 (2.66 GHz, 120 Watts, 1333 FSB) 433104-B21 Quad-Core Intel Xeon Processor E5345 (2.33 GHz, 80 Watts, 1333 FSB) 433102-B21 Quad-Core Intel Xeon Processor E5335 (2.00 GHz, 80 Watts, 1333 FSB) 437941-B21 Quad-Core Intel Xeon Processor E5320 (1.86 GHz, 80 Watts, 1066 FSB) 433098-B21 Quad-Core Intel Xeon Processor E5310 (1.60 GHz, 80 Watts, 1066 FSB) 433100-B21 Dual-Core Intel Xeon Processor 5160 (3.0 GHz, 80 Watts, 1333 FSB) 416198-B21 Dual-Core Intel Xeon Processor 5150 (2.67 GHz, 65 Watts, 1333 FSB) 416196-B21 Dual-Core Intel Xeon Processor 5140 (2.33 GHz, 65 Watts, 1333 FSB) 416194-B21 Dual-Core Intel Xeon Processor 5130 (2.0 GHz, 65 Watts, 1333 FSB) 416192-B21 Dual-Core Intel Xeon Processor 5120 (1.86 GHz, 65 Watts, 1066 FSB) 416190-B21 Dual-Core Intel Xeon Processor 5110 (1.6 GHz, 65 Watts, 1066 FSB) 416188-B21 Dual-Core Intel Xeon Processor 5080 (3.73 GHz, 130 Watts, 1066 FSB) 403768-B21 Dual-Core Intel Xeon Processor 5060 (3.2 GHz, 130 Watts, 1066 FSB) 400500-B21 Dual-Core Intel Xeon Processor 5050 (3.0 GHz, 95 Watts, 667 FSB) 400376-B21</p>
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Options

Memory	1 GB FBD PC2-5300 2 x 512 MB Kit	397409-B21
	2 GB FBD PC2-5300 2 x 1 GB Kit	397411-B21
	4 GB FBD PC2-5300 2 x 2 GB Kit	397413-B21
	8 GB FBD PC2-5300 2 x 4 GB Kit	397415-B21
	ML370 G5 Memory Board Kit	403766-B21
NOTE: 2 Memory Board required for support of 4:1 interleaving; 2 boards included on Performance models.		
<hr/>		
Internal Storage	ML370 G5 SAS SFF 8-bay Drive Cage Kit	401415-B21
	NOTE: Optional 2nd drive cage requires a dedicated storage controller.	
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Diskette Drive	Floppy Drive ML350/370 G5 Kit	409582-B21
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Optical Drives	CD-RW/DVD-ROM Combo Drive Option Kit	331346-B21
	HP DVD±R/RW 16X Half Height	383974-B21
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Serial Port Kit	Parallel/Serial Port ML370/350 G5 Kit	401222-B21
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Hard Drives	SFF SAS - Universal Hot Plug	
	HP 146GB 3G SAS 10K SFF SP HDD	431958-B21
	HP 72GB 3G SAS 10K SFF SP HDD	375861-B21
	HP 72GB 3G SAS 15K SFF SP HDD	431935-B21
	HP 36GB 3G SAS 10K SFF SP HDD	375859-B21
	HP 36GB 3G SAS 15K SFF SP HDD	431933-B21
	NOTE: Please see the SAS Hard Drive QuickSpecs for Technical Specifications such as capacity, height, width, interface, transfer rate, seek time, physical configuration, and operating temperature: http://h18000.www1.hp.com/products/quickspecs/12244_div/12244_div.HTML (Worldwide)	
	SFF 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/12091_div/12091_div.HTML (Worldwide)		
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Storage Controllers	SAS Controllers	
	Smart Array E200 Controller	
	HP Smart Array E200/64MB Controller	409180-B21
	HP Smart Array E200/128 BBWC Controller	411508-B21
	128-MB BBWC (Battery-Backed Write Cache) Enabler	351580-B21
NOTE: Supports the Smart Array E200 Controller, Smart Array 641 Controller, Smart Array 642 Controller.		
Smart Array E500 Controller		

Options

HP Smart Array E500/256MB Controller	435129-B21
Smart Array P400 Controller	
HP Smart Array P400/256MB Controller	405132-B21
NOTE: Supports RAID 0/1/5.	
HP Smart Array P400/512MB BBWC Controller	411064-B21
NOTE: Supports RAID 0/1/1+0/5/6.	
512MB Battery-backed cache upgrade	405148-B21
NOTE: Supports the Smart Array P400 Controller.	
Battery-backed write cache upgrade	383280-B21
NOTE: Supports the Smart Array P400 Controller.	
Smart Array P600 Controller	
HP Smart Array P600/256 BBWC Controller	337972-B21
NOTE: Supports external drive attach.	
Smart Array P800 Controller	
HP Smart Array P800/512 BBWC Controller	381513-B21
NOTE: Supports external drive attach.	
NOTE: Please see the following QuickSpecs for Technical Specifications and additional information:	
http://h18000.www1.hp.com/products/quickspecs/12460_div/12460_div.HTML (Smart Array E200 Controller)	
http://h18000.www1.hp.com/products/quickspecs/12700_div/12700_div.HTML (Smart Array E500 Controller)	
http://h18000.www1.hp.com/products/quickspecs/12400_div/12400_div.HTML (Smart Array P400 Controller)	
http://h18000.www1.hp.com/products/quickspecs/12247_div/12247_div.HTML (Smart Array P600 Controller)	
http://h18000.www1.hp.com/products/quickspecs/12616_div/12616_div.HTML (Smart Array P800 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/12332_div/12332_div.html (8 Internal Port SAS HBA)	
SCSI Controllers for External Drive/Storage Support	
Smart Array 6402/128 Controller	273915-B21
NOTE: Ultra320 SCSI.	
Smart Array 6404/256 Controller	273914-B21
NOTE: Ultra320 SCSI.	
Smart Array 642 Controller	291967-B21
NOTE: Ultra320 SCSI.	
128-MB BBWC (Battery-Backed Write Cache) Enabler	351580-B21
NOTE: Supports the Smart Array E200 Controller, Smart Array 641 Controller, Smart Array 642 Controller.	
256MB DDR, Battery-Backed Cache Upgrade Kit for SA-6400	273913-B21
NOTE: This 256MB DDR, Battery-Backed Cache upgrade kit supports the Smart Array 6400 series controller only.	
Ultra320 Expansion Module for SA-6402	273911-B21
64-Bit/133-MHz Single Channel Ultra320 SCSI HBA G2	374654-B21
SCSI HBA	
HP SC11Xe Host Bus Adapter	412911-B21
NOTE: Please see the following QuickSpecs for Technical Specifications and additional information:	

Options

http://h18000.www1.hp.com/products/quickspecs/11943_div/11943_div.HTML
(Single Channel Ultra320 SCSI HBA)

http://h18000.www1.hp.com/products/quickspecs/11587_div/11587_div.HTML
(Smart Array 6400 Series)

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

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

http://h18000.www1.hp.com/products/quickspecs/12566_div/12566_div.HTML
(SC11Xe HBA)

Communications	HP NC150T PCI 4-port Gigabit 1000T Combo Switch Adapter	367132-B21
	HP NC310F PCI-X 1000SX Gigabit Server Adapter	368169-B21
	HP NC320T PCI Express 1000T Gigabit Server Adapter	367047-B21
	HP NC340T PCI-X 4-port Gigabit Server Adapter	391661-B21
	HP NC360T PCI Express Dual Port Gigabit Server Adapter	412648-B21
	HP NC364T PCI Express Quad Port Gigabit Server Adapter	435508-B21
	HP NC373F PCI Express Multifunction Gigabit Server Adapter	394793-B21
	HP NC373T PCI Express Multifunction Gigabit Server Adapter	394791-B21
	HP NC380T PCI Express Dual Port Multifunction Gigabit Server Adapter	394795-B21
	HP NC510F PCIe 10 Gigabit Server Adapter	414126-B21
	NOTE: 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
NOTE: A minimum of 1 gigabyte (1 GB) of server memory is required per each NC510C adapter.		
HP NC1020 PCI 1000T Gigabit Server Adapter	353377-B21	

Redundant Options	Redundant Power Supply 350/370/380 G5 AU Kit	399771-011
	Redundant Power Supply 350/370/380 G5 EU Kit	399771-021
	Redundant Power Supply 350/370/380 G5 JP Kit	399771-291
	Redundant Power Supply 350/370/380 G5 Worldwide Kit	399771-B21
	Redundant Power Supply 350/370/380 G5 UK Kit	399771-031
	Redundant Power Supply 350/370/380 G5 US Kit	399771-001
	Hot Plug Redundant Fan ML370 G5 Kit	400693-B21

Options

Tape Drives

NOTE: A separate SCSI Controller is required for connecting SCSI tape drives to this server.

NOTE: For the complete listing of Tape Drive offerings, please see: <http://www.hp.com/products1/storage/compatibility/tapebackup/ISS/index.html>

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

USB Tape Drives

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

SAS Tape Drives

NOTE: Connecting hard drive cage and SAS tape to the same SAS Controller using split cable (supplied with tape drive) deactivates 1 of the hard drive bays. Actual hard drive bay deactivated depends on where split cable plugs into SAS drive connector. Example: 3x SAS cable connector plugged into SAS drive connector (5-8) on the back of the hard drive cage would mean drive bay 8 is deactivated.

HP StorageWorks Ultrium 448 SAS Internal Tape Drive DW085A

HP StorageWorks Ultrium 920 SAS Internal Tape Drive EH847A

NOTE: Please refer to the "Tape Drives, Tape Autoloaders & Tape Libraries" table in the Storage section of this document for a list of SAS controllers with tape support.

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

NOTE: Please see the HP StorageWorks Ultrium Tape Drive QuickSpecs for additional options such as controllers, media, and other related items:

http://h18006.www1.hp.com/products/quickspecs/11739_div/11739_div.html
(Worldwide)

http://h18006.www1.hp.com/products/quickspecs/12128_div/12128_div.html
(Worldwide)

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

Internal 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
(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>

Options

Tape Autoloaders	<p>HP StorageWorks DAT Autoloader HP StorageWorks DAT 72x10 tape autoloader AE313A</p> <p>HP StorageWorks 1/8 Tape Autoloader HP StorageWorks 1/8 Ultrium 960 Tape Autoloader AF204A 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</p> <p>NOTE: Required to install the 1/8 G2 Autoloaders in a standard 19-inch rack; includes rails and rackmount instructions</p> <p>1/8 Tape Autoloader Rackmount Kit C9268R NOTE: Required to install the unit in a standard 19-inch rack; includes rails and rackmount instructions.</p> <p>NOTE: Please reference the Tape Autoloader QuickSpecs at http://www.hp.com/go/automation for additional information needed to create a complete solution; reference current compatibility information at http://www.hp.com/go/ebs</p>
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Tape Libraries	<p>HP StorageWorks MSL2024 Tape Library HP StorageWorks MSL2024 1 Ultrium 960 Drive Library AG115A HP StorageWorks MSL2024 1 Ultrium 960 4GB FC Drive Library AG326E 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</p> <p>HP StorageWorks MSL4048 Tape Library HP StorageWorks MSL4048 1 Ultrium 448 Drive Library AG320A HP StorageWorks MSL4048 2 Ultrium 448 Drive Library AG321A HP StorageWorks MSL4048 1 Ultrium 920 Drive Library AH171A HP StorageWorks MSL4048 2 Ultrium 920 Drive Library AH172A HP StorageWorks MSL4048 1 Ultrium 960 Drive Library AG322A HP StorageWorks MSL4048 1 Ultrium 960 4GB FC Drive Library AG324E HP StorageWorks MSL4048 2 Ultrium 960 Drive Library AG323A HP StorageWorks MSL4048 2 Ultrium 960 4GB FC Drive Library AG325E</p> <p>HP StorageWorks MSL6000 Tape Library Ultrium 960 technology HP StorageWorks MSL6030 1 Ultrium 960 Dr LVDS Library AD606B HP StorageWorks MSL6030 1 Ultrium 960 Dr FC Library AD608B HP StorageWorks MSL6030 2 Ultrium 960 Dr LVDS Library AD607B HP StorageWorks MSL6030 2 Ultrium 960 Dr FC Library AD609B</p> <p>Ultrium 460 technology 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</p> <p>NOTE: Please reference the MSL2024, MSL4048 and MSL6000 Tape Library QuickSpecs at http://www.hp.com/go/automation for additional information needed to create a complete solution; reference current compatibility information at http://www.hp.com/go/ebs.</p>
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Options

HP Data Protector Express Software	HP DP Express Backup Server Upgrade for ProLiant Software	BB117AP
	HP DP Express Package for Microsoft Small Business Server	BB118AA

NOTE: 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).

NOTE: Please see the HP Data Protector Express QuickSpecs for additional information regarding the purchase of HP Data Protector Express software:
http://h18000.www1.hp.com/products/quickspecs/12337_div/12337_div.html
 (Worldwide)

Cluster Options	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
 (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
 (Worldwide)

NOTE: For configuration/certification options for the HP Parallel Database Cluster for Oracle RAC please go to:
<http://www.hp.com/solutions/highavailability/oracle>

	HP Serviceguard for Linux ProLiant Cluster A.11.16 for SUSE SLES 9 & 10 and Red Hat EL 3 & 4 (2 node license cluster kit)	305199-B26
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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
 (Worldwide)

NOTE: For configuration/certification options for HP Serviceguard for Linux please go to: <http://www.hp.com/info/sglx>

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 StorageWorks Modular Smart Array 20

HP StorageWorks Modular Smart Array 20	335921-B21
NOTE: Rack-mountable 12 (SATA) drive enclosure with U320 Host connectivity, redundant power supplies.	
HP StorageWorks Modular Smart Array 20 Starter Kit	366172-B21
NOTE: Rack-mountable 12 (SATA) drive enclosure with U320 Host connectivity, redundant power supplies. Includes Smart Array 6402/128 Controller.	
NOTE: The Modular Smart Array Enclosure 20 Family supports the SATA 1.5Gb/s 3.5" Hot Plug Hard Drives.	

HP StorageWorks Modular Smart Array 30

HP StorageWorks Modular Smart Array 30 SB	302969-B21
NOTE: Rack-mountable 14 drive enclosure with single bus, redundant power supplies.	
HP StorageWorks Modular Smart Array 30 DB	302970-B21
NOTE: Rack-mountable 14 drive enclosure with dual bus, redundant power supplies.	
NOTE: The Modular Smart Array Enclosure 30 Family supports the Wide Ultra3, Ultra320 Hot Plug Hard Drives.	

HP StorageWorks Modular Smart Array 50

HP StorageWorks Modular Smart Array 50 Enclosure	364430-B21
NOTE: Please see the Modular Smart Array 50 QuickSpecs for additional options and configuration information at http://h18000.www1.hp.com/products/quickspecs/12245_div/12245_div.HTML (Worldwide)	

HP StorageWorks Modular Smart Array 500

HP StorageWorks Modular Smart Array 500 Generation 2	335880-B21
NOTE: Please see the Modular Smart Array 500 Generation 2 QuickSpecs for additional information including configuration steps and additional options needed for a complete solution at: http://h18000.www1.hp.com/products/quickspecs/11956_div/11956_div.HTML (Worldwide)	

Options

HP StorageWorks Modular Smart Array 1000	HP StorageWorks Modular Smart Array 1000 NOTE: Please see the Modular Smart Array 1000 QuickSpecs for additional options and configuration information at http://h18000.www1.hp.com/products/quickspecs/11033_div/11033_div.HTML (Worldwide)	201723-B22
HP StorageWorks Modular Smart Array 1500 cs	Modular Smart Array 1500 Controller Shelf NOTE: Please see the StorageWorks Modular SAN Array 1500 cs QuickSpecs for additional options and configuration information at: http://www.hp.com/go/MSA1500cs	AA986A
Uninterruptible Power Systems - Rack Mountable	HP, R1.5kVA UPS, 1U, NA HP, R1.5kVA UPS, 1U, INTL HP, R1.5kVA UPS, 1U, JPN/TW HP R3000 VA UPS, 2U, DTC, INTL HP R3000 VA UPS, 2U, L5-30, NA HP R3000 VA UPS, 2U, L6-20, NA HP R3000 VA UPS, 2U, L6-20, JPN HP R3000 VA UPS, 2U, L5-30, JPN HP R5500 VA UPS, INTL HP R5500 VA UPS, NA/JPN	AF419A AF418A AF421A AF414A AF422A AF423A AF424A AF425A AF416A AF426A
HP Monitored Power Distribution Unit (PDU)	HP Monitored Power Distribution Unit: Full Rack Version 17.3 kVA Monitored PDU Model S2324 8.6 kVA Monitored PDU Model S1324 16.6 kVA Monitored PDU Model S2140 8.3 kVA Monitored PDU Model S1140 22 kVA Monitored PDU Model S2316 11 kVA Monitored PDU Model S1316 14.7 kVA Monitored PDU Model S2132 7.3 kVA Monitored PDU Model S1132 4.9kVA Monitored PDU model S124 7.3kVA Monitored PDU model S132	AF503A AF504A AF505A AF506A AF507A AF508A AF509A AF510A AF914A AF915A

Options

Modular Power Distribution Units 1U/0U (up to 32 outlets) NOTE: 1U/0U mounting brackets shipped with the unit (optimized for 10000 and 9000 series racks).	Fixed Cord Extension Bars	351655-B21
	NOTE: Two extension bar sticks; each with (7) C13 plugs.	
	Fixed Cord PDU (NA/JPN)	351655-D72
	NOTE: Four Fixed Cord Extension Bars, and one 24A, HV mPDU L6-30P core.	
	Fixed Cord PDU (INTL)	351655-B31
	NOTE: Four Fixed Cord Extension Bars, and one 32A, HV mPDU IEC-309 core.	
	HP Modular Power Distribution Units (mPDU), Low Volt Model, 24A (100-127 VAC) (NA, Japan)	252663-D71
	NOTE: This mPDU (252663-D71) may also be used to connect the low volt model of the UPS R3000 XR.	
	HP Modular Power Distribution Units (mPDU), High Volt Model, 24A (200-240 VAC) (NA, Japan)	252663-D72
	HP Modular Power Distribution Units (mPDU), High Volt Model, 32A (200-240 VAC) (Int'l)	252663-B31
	HP Modular Power Distribution Units (mPDU), High Volt Model, 40A (200-240 VAC) (WW)	252663-B21
	NOTE: This mPDU (252663-B21), 40A model has a hardwired input.	
HP Modular Power Distribution Units (mPDU), High Volt Model, 16A (200-240 VAC) (WW)	252663-B24	
HP Modular Power Distribution Units (mPDU), High Volt Model, 40A, Attached Cord (NA/JPN)	252663-D73	
HP Modular Power Distribution Units (mPDU), High Volt Model, 40A, Attached Cord (Int'l)	252663-B32	
NOTE: This PDU has a detachable input power cord and allows for adaptability to country specific power requirements. This model may also be used with the high volt UPSs R3000 XR and R6000 For North America, need to order cable PN 340653-001.		
NOTE: Please see the following Modular Power Distribution Unit (Zero-U/1U Modular PDUs) QuickSpecs for additional options including shorter jumper cables and country specific power cords: http://h18000.www1.hp.com/products/quickspecs/11041_div/11041_div.HTML (Worldwide)		

HP Rack 5000 Series (Graphite Metallic)	HP 5642 Rack-Unassembled NOTE: Please see the HP Rack 5642 QuickSpecs for additional part numbers and Technical Specifications such as height, width, depth, weight, and color: http://h18000.www1.hp.com/products/quickspecs/12074_div/12074_div.HTML (Worldwide) NOTE: For additional information regarding Rack Cabinets, please see the following URL: http://www.hp.com/go/rackandpower .	358254-B21
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Options

HP Rack 10000 G2 Series (Carbon/Graphite Metallic)	10642 G2 (42U) Rack Cabinet - Pallet	AF001A
	10642 G2 (42U) Rack Cabinet - Shock Pallet	AF002A
	10642 G2 (42U) Rack Cabinet - Crated	AF003A
	10642 G2 (42U) Rack Cabinet, with Extension - Shock Pallet	AF004A
	10636 G2 (36U) Rack Cabinet - Pallet	AF011A
	10636 G2 (36U) Rack Cabinet - Shock Pallet	AF012A
	10636 G2 (36U) Rack Cabinet - Crated	AF013A
	10636 G2 (36U) Rack Cabinet, with Extension - Shock Pallet	AF014A

NOTE: It is mandatory to use a shock pallet when shipping racks with equipment installed.

NOTE: Please see the Rack 10000 G2 QuickSpecs for Technical Specifications such as height, width, depth, weight, and color:

http://h18000.www1.hp.com/products/quickspecs/12402_div/12402_div.HTML
(Worldwide)

NOTE: For additional information regarding Rack Cabinets, please see the following URL: <http://www.hp.com/go/rackandpower>.

HP Rack 10000 Series (Graphite Metallic)	HP 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
(Worldwide)

NOTE: For additional information regarding Rack Cabinets, please see the following URL: <http://www.hp.com/go/rackandpower>.

Options

Keyboards and Monitors

TFT7210R Rack Mounted 17" Monitor	348373-B21
TFT7600 Rackmount Keyboard Monitor US	AG052A
TFT7600 Rackmount Keyboard Monitor UK	AG053A
TFT7600 Rackmount Keyboard Monitor GR	AG054A
TFT7600 Rackmount Keyboard Monitor FR	AG055A
TFT7600 Rackmount Keyboard Monitor IT	AG056A
TFT7600 Rackmount Keyboard Monitor SP	AG057A
TFT7600 Rackmount Keyboard Monitor DEN	AG058A
TFT7600 Rackmount Keyboard Monitor NOR	AG059A
TFT7600 Rackmount Keyboard Monitor SE/FI	AG060A
TFT7600 Rackmount Keyboard Monitor SWI	AG061A
TFT7600 Rackmount Keyboard Monitor PORT	AG062A
TFT7600 Rackmount Keyboard Monitor BEL	AG063A
TFT7600 Rackmount Keyboard Monitor JPN2	AG064A
TFT7600 Rackmount Keyboard Monitor RUS	AG065A
TFT7600 Rackmount Keyboard Monitor INTL	AG066A
1U Rackmount Keyboard with USB, US	AG072A
1U Rackmount Keyboard with USB, UK	AG073A
1U Rackmount Keyboard with USB, GR	AG074A
1U Rackmount Keyboard with USB, FR	AG075A
1U Rackmount Keyboard with USB, ITL	AG076A
1U Rackmount Keyboard with USB, SP	AG077A
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 Cabinets, please see the following URL: <http://www.hp.com/go/rackandpower>.

Options

HP KVM Switch Options	2x1x16 IP Console Switch with Virtual Media	AF601A
	4x1x16 IP Console Switch with Virtual Media	AF602A
	2x16 Server Console Switch with Virtual Media	AF600A
	PS/2 Virtual Media Interface Adapter, 1 pack	AF604A
	NOTE: Requires PS/2 and one USB port on server.	
	Server Console Switch (KVM), 0 x 1 x 8 port	336044-B21
	Server Console Switch (KVM), 0 x 2 x 16 port	336045-B21
	PS/2 Interface Adapter, 1 pack	262588-B21
	PS/2 Interface Adapter, 8 pack	262587-B21
	USB Interface Adapter, 1 pack	336047-B21
	Serial Interface adapter - 1 Pack with power supply	373035-B21
	NOTE: Cat5e cables are required to connect Interface Adapters to Console Switches. Cat5e cables can be found at the following URL:	
	http://www.hp.com/go/kvm .	
	HP 1x 4 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 .		

HP Serial Console Server Options	HP 16 Port Serial Console Server (worldwide)	AF101A
	HP 48 Port Serial Console Server (worldwide)	AF102A
	Serial Adapter, RJ45-DB9 DCE Female, 1 Pack	AF103A
	Serial Adapter, RJ45-DB9 DCE Female, 8 Pack	AF110A
	NOTE: Cat5e cables are required to connect Serial Adapters to Serial Console Servers. Additional Serial Adapters and Cat5e cables can be found at the following URL: http://www.hp.com/go/kvm.	
NOTE: For additional information regarding KVM switches, Serial Console servers, rack mount monitors, keyboards and all related options please see the following URL: http://www.hp.com/go/kvm.		

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	U4528E
	4-Hour On-site Service, 7-Day x 24-Hour Coverage, 3 Years, Electronic	U4529E
	Hardware Services 6-Hour Call to Repair On-site Service	
	6-Hour Call to Repair, On-site Service, 7-Day x 24-Hour Coverage, 3 Years, Electronic	U4530E
	Installation & Start-up Services	
	Hardware Installation, Electronic	U4538E
	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	U4539E
	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	U4540E

Options

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 U4541E

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 U6311E

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 U8333E

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

Memory

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

NOTE: Memory DIMMs in systems with the Front Side Bus (FSB) running at 1333 MHz will run at 667 MHz and in systems with a FSB running at 1066 MHz or 667 MHz the memory DIMMs will run at 533 MHz.

HP ProLiant ML370 G5 Models

Minimum Memory

1 GB PC2-5300 Fully Buffered DIMMs (DDR2-667) running at 533 MHz (2 x 512 MB)

Maximum Memory Replaced with Optional Memory

Up to 64 GB of memory is available with the removal of the standard 1 GB of memory. With 2 memory cards: 4 GB PC2-5300 Fully Buffered DIMMs (DDR2-667) running at 533 MHz (16 x 4 GB with 2 memory cards).

NOTE: Not all FB DIMM sizes available at product launch.

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

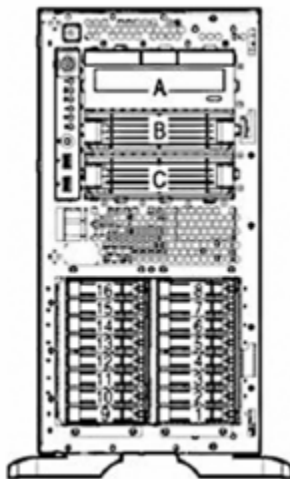
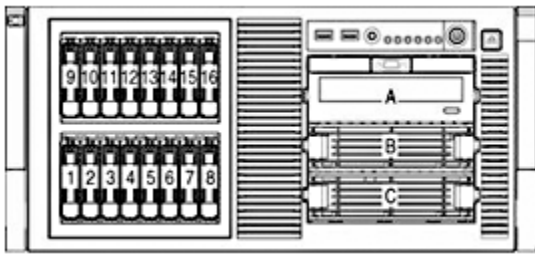
NOTE: Memory DIMMs in systems with the Front Side Bus (FSB) running at 1333 MHz will run at 667 MHz and in systems with a FSB running at 1066 MHz or 667 MHz the memory DIMMs will run at 533 MHz.

Memory			Slot							
			1	2	3	4	5	6	7	8
Standard	1 GB		512 MB	Empty	Empty	Empty	512 MB	Empty	Empty	Empty
Maximum	64 GB	1st card	4 GB	4 GB	4 GB	4 GB	4 GB	4 GB	4 GB	4 GB
		2nd card	4 GB	4 GB	4 GB	4 GB	4 GB	4 GB	4 GB	4 GB

Following are memory options available from HP:

- 1 GB FBD PC2-5300 2 x 512 MB Kit 397409-B21
- 2 GB FBD PC2-5300 2 x 1 GB Kit 397411-B21
- 4 GB FBD PC2-5300 2 x 2 GB Kit 397413-B21
- 8 GB FBD PC2-5300 2 x 4 GB Kit 397415-B21

Storage



A	DVD-ROM Drive (Performance Models)/48x IDE CD-ROM Drive (Base and Entry Models)
B, C	DVD-ROM Drive (Performance Models)/48x IDE CD-ROM Drive (Base and Entry Models)
1-16	(16) hot-plug Serial-attached SCSI (SAS) drives supported
A	DVD-ROM Drive (Performance Models)/48x IDE CD-ROM Drive (Base and Entry Models)
B, C	DVD-ROM Drive (Performance Models)/48x IDE CD-ROM Drive (Base and Entry Models)
1-16	(16) hot-plug Serial-attached SCSI (SAS) drives supported

Drive Support

	Quantity Supported	Position Supported	Controller
Removable Media			
IDE CD-ROM Drive	Up to 2	A, B	Integrated IDE
DVD-ROM Drive Option Kit (optional)	Up to 2	A, B	Integrated IDE

Hard Drives

Serial-ATA (SATA) - Hot Plug Drives

	Quantity Supported	Position Supported	Controller
120GB 1.5G SATA 5.4K	Up to 16	1-16	HP Smart Array E200/64MB Controller
60GB 1.5G SATA 5.4K			HP Smart Array E200/128 BBWC Controller
			HP Smart Array E500/256MB Controller
			HP Smart Array P400/256MB Controller
			HP Smart Array P400/512MB BBWC Controller
			HP Smart Array P600/256 BBWC Controller
			HP Smart Array P800/512 BBWC Controller

SFF SAS - Hot Plug Drives

	Quantity Supported	Position Supported	Controller
146GB 3G SAS 10K SP	Up to 16	1-16	HP Smart Array E200/64MB Controller
72GB 3G SAS 10K SP			HP Smart Array E200/128 BBWC Controller

Storage

72GB 3G SAS 15K SP
 36GB 3G SAS 10K SP
 36GB 3G SAS 15K SP

HP Smart Array E500/256MB Controller
 HP Smart Array P400/256MB Controller
 HP Smart Array P400/512MB BBWC Controller
 HP Smart Array P600/256 BBWC Controller
 HP Smart Array P800/512 BBWC Controller

External Storage

	Quantity Supported	Position Supported	Host Controller or Adapter
Modular Smart Array 20 Family	1 per external VHDCI SCSI connector	External	Smart Array 6402/128 Controller Smart Array 6404/256 Controller
Modular Smart Array 30 Family	1 per external VHDCI SCSI connector	External	Smart Array 6402/128 Controller Smart Array 6404/256 Controller Smart Array 642 Controller 64-Bit/133-MHz Dual Channel Ultra320 SCSI Adapter
Modular Smart Array 50 Enclosure	1 per external VHDCI SCSI connector	External	HP Smart Array P600/256 BBWC Controller
Modular Smart Array 500 G2 System	1	External	Smart Array 642 Controller (used as Host Bus Adapter) Please see the Modular Smart Array 500 G2 QuickSpecs for the latest list of supported HBAs: http://www.hp.com/go/msa500
Modular Smart Array 1500 cs or 1000	Please see the Modular Smart Array 1500 cs or Modular Smart Array 1000 QuickSpecs links to determine configuration requirements	External	Please see the Modular Smart Array 1000 QuickSpecs for the latest list of supported HBAs: http://www.hp.com/go/MSA1000 Please see the Modular Smart Array 1500 cs QuickSpecs for the latest list of supported HBAs: http://www.hp.com/go/MSA1500cs

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: SAS Tape Drives: Connecting hard drive cage and SAS tape to the same SAS Controller using split cable (supplied with tape drive) deactivates 1 of the hard drive bays. Actual hard drive bay deactivated depends on where split cable plugs into SAS drive connector. Example: 3x SAS cable connector plugged into SAS drive connector (5-8) on the back of the hard drive cage would mean drive bay 8 is deactivated.

NOTE: For complete listing of tape drive offerings see

<http://www.hp.com/products1/storage/compatibility/tapebackup/ISS/index.html>

Position Supported	Controller	Controller/HBA Option Kit Part Number
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Storage

HP StorageWorks Tape Drives, USB Internal DAT 24 USB DAT 40 USB DAT 72 USB	B-C	Internal USB 2.0 port	N/A
HP StorageWorks Tape Drives, USB External DAT 24 USB DAT 40 USB DAT 72 USB	External	USB 2.0 port	N/A
HP StorageWorks SCSI Tape Drives, Internal Ultrium 232 Ultrium 448 Ultrium 460 Ultrium 920 Ultrium 960 DAT 40 DAT 72 DLT VS160 SDLT 600	B-C	64-Bit/133-MHz Single Channel Ultra320 SCSI HBA G2	374654-B21
HP StorageWorks Tape Drives, SAS Internal Ultrium 448 SAS Ultrium 920 SAS	B-C	HP 8 Internal Port SAS HBA with RAID 0/1 HP Smart Array P400/256MB Controller HP Smart Array P400/512MB BBWC Controller NOTE: Please visit http://www.hp.com/go/connect for details about minimum SAS controller firmware version and SAS cabling requirements.	347786-B21 405132-B21 411064-B21
HP StorageWorks Tape Drives, SCSI External Ultrium 232 Ultrium 448 Ultrium 460 Ultrium 920 Ultrium 960 DAT 40 DAT 72 DLT VS160 SDLT 600	External	64-Bit/133-MHz Single Channel Ultra320 SCSI HBA G2	374654-B21
HP StorageWorks Tape Drives, SAS External Ultrium 448 SAS Ultrium 920 SAS	External	HP 8 Internal Port SAS HBA with RAID 0/1 HP Smart Array P400/256MB Controller HP Smart Array P400/512MB BBWC Controller NOTE: Please visit http://www.hp.com/go/connect for details about minimum SAS controller firmware version and SAS cabling requirements.	347786-B21 405132-B21 411064-B21

Storage

HP StorageWorks SCSI Rack-Mount Tape Drive Enclosures 1U Rack-Mount Kit 3U Rack-Mount Kit	External	64-Bit/133-MHz Single Channel Ultra320 SCSI HBA G2	374654-B21
HP StorageWorks USB Rack-Mount Tape Drive Enclosures 1U Rack-Mount Kit	External	USB 2.0 port	N/A
HP StorageWorks SAS Rack-Mount Tape Drive Enclosures 1U Rack-Mount Kit	External	HP 8 Internal Port SAS HBA with RAID 0/1 HP Smart Array P400/256MB Controller HP Smart Array P400/512MB BBWC Controller NOTE: Please visit http://www.hp.com/go/connect for details about minimum SAS controller firmware version and SAS cabling requirements.	347786-B21 405132-B21 411064-B21
HP StorageWorks Autoloaders, External DAT 72x10 Autoloader 1/8 Tape Autoloader	External	64-Bit/133-MHz Single Channel Ultra320 SCSI HBA G2	374654-B21
HP StorageWorks Tape Libraries, External MSL2024 (Ultrium 448 Ultrium 920 and 960-based) MSL4048 (Ultrium 448 and 960-based) MSL6000 (Ultrium 960 and 460-based) MSL6000 (SDLT 600-based)	External	Please consult the EBS connectivity matrix at http://www.hp.com/go/ebs for detailed connectivity information.	N/A

Power Specifications

Part Number	380622-001
Spare Kit	403781-001
Operational Input Voltage Range (V rms)	90 to 264
Frequency Range (Nominal) (Hz)	47 to 63 (50/60)

Nominal Input Voltage (Vrms)	100	120	208	220	230	240
Max Rated Output Wattage Rating	800	950	1000	1000	1000	1000
Nominal Input Current (A rms)	10.0	8.8	5.85	5.5	5.2	4.97
Max Rated Input Wattage Rating (Watts)	980	1035	1193	1186	1172	1169
Max. Rated VA (Volt-Amp)	1000	1056	1217	1210	1196	1193
Efficiency (%)	81.5	82	84	84	85	85.5
Power Factor	0.98	0.98	0.98	0.98	0.98	0.98
Leakage Current (mA)	0.44	0.52	0.91	0.96	1.00	1.04
Maximum Inrush Current (A peak)	30	30	30	30	30	30
Maximum Inrush Current duration (mS)	3	3	3	3	3	3

NOTES:

- The Active Answers Power Calculator should be used prior to deployment to determine the system power ratings. For proper operation, ensure the nominal input voltage selected (e.g. low line or high line) provides a max rated output wattage rating greater than the system power ratings.
- The Active Answers Power Calculator is available via the online tool located at URL: <http://h30099.www3.hp.com/configurator/powercalcs.asp>.
- To drill down to calculators:
 - Click on: "ProLiant Servers"
 - Click on the Server of interest. Example: ML370 G5
 - Click on: "Power Calculator" link. (You may need to scroll down to see it)

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

Technical Specifications

System Unit - Tower	Dimensions (H x W x D)	18.38 x 8.63 x 28.5 in (46.67 x 21.92 x 72.39 cm)
	Weight	Tower: 1 Processor, 1 hard drive cage, 1 Memory Board, 1 Power Supply, 1 Controller card, 3 fans 68 lbs (30.84 kg)
		Tower: 1 Processor, 1HDD, 1 Memory Board, 2 Power Supplies, 2 Controller cards, 6 fans 77 lbs (34.93 kg)
	Input Requirements	Range Line Voltage 100-132 VAC, 200-240 VAC Rated Input Voltage 7.5A (100VAC), 3.8A (200VAC) Rated Input Frequency 50 to 60 Hz Rated Input Current 735W Rated Input Power 1001W (100VAC)
	BTU Rating	3,420 BTU/HR
	Power Specifications	To review typical system power ratings use the Active Answers Power Calculator which is available via the online tool located at URL: http://h30099.www3.hp.com/configurator/powercalcs.asp . To drill down to calculators: - Click on: "ProLiant Servers" - Click on the Server of interest. Example: ML370 G5 - Click on: "Power Calculator" link. (You may need to scroll down to see it)
	Power Supply Output Power	Steady State Power 775W Maximum Peak Power 775W
	Maximum Wet Bulb Temperature	
	Shock	Operating: 2 G's Non-Operating: 15 G's
	Listed are the levels of shock the product can withstand with NO damage being incurred. The values represent a peak input acceleration during an 11ms half-sine shock pulse.	
	Vibration	Operating: Random vibration at 0.000075 G ² /Hz, 10Hz to 300Hz, (0.15 G's nominal) Non-Operating: Random vibration at 0.0005 G ² /Hz, 10Hz to 500Hz, (0.5 G's nominal)
	Listed are the levels of vibration the product can withstand with NO damage being incurred. The values represent a flat random vibration input acceleration profile across the given frequency range.	
	Environmental Requirements	System Inlet Temperature Operating: 10° to 35°C (50° to 95°F) at sea level with an altitude derating of 1.0°C per every 305m (1.8°F per every 1000ft) above sea level to a maximum of 3050m (10,000ft), no direct

Technical Specifications

sustained sunlight. Maximum rate of change is 10°C/Hr (18°F/Hr). The upper limit may be limited by the type and number of options installed. System performance may be reduced if operating with a fan fault or above 30°C (86°F).

Non-Operating: -30° to 60°C (-22° to 140°F). Maximum rate of change is 20°C/Hr (36°F/Hr).

Humidity

Operating: 10 to 90% relative humidity (Rh), 28°C (82.4°F) maximum wet bulb temperature, non-condensing.

Non-Operating: 5 to 95% relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb temperature, non-condensing.

Altitude

Operating: 3050 m (10,000 ft). This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 457 m/min (1500 ft/min).

Non-Operating: 9144 m (30,000 ft). Maximum allowable altitude change rate is 457 m/min (1500 ft/min).

Acoustic Noise - Redundant Configuration

Idle
(Fixed Disk Drives Spinning)
L WAd (BELS) 6.2
Average Bystander 43
L pAm (dBA)

Operating
(Random Seeks to Fixed Disks)
L WAd (BELS) 6.2
Average Bystander 43
L pAm (dBA)

Acoustic Noise - Non-Redundant Configuration

Idle
(Fixed Disk Drives Spinning)
L WAd (BELS) 6.3
Average Bystander 44
L pAm (dBA)

Operating
(Random Seeks to Fixed Disks)
L WAd (BELS) 6.3
Average Bystander 44
L pAm (dBA)

System Unit - Rack

Dimensions (H x W x D) 8.63 x 17.5 x 26.5 in (21.92 x 44.45 x 67.31 cm)

Weight

Rack (no skins): 1 59 lbs (26.76 kg)
Processor, 1 Hard drive cage, 1 Memory Board,



Technical Specifications

	1 Power Supply, 1 Controller card, 3 fans
	Rack (no skins): 1 68 lbs (30.84 kg)
	Processor, 2 Hard Drive cages, 1 Memory Board, 2 Power Supplies, 2 Controller cards, 6 fans
Input Requirements	Range Line Voltage 90 to 264 VAC Rated Input Voltage 100 to 240 VAC Rated Input Frequency 47 to 63 Hz Rated Input Current 10A (110 V) to 4.8A (220 V) Rated Input Power 1001W (100VAC)
BTU Rating	3,420 BTU/HR
Power Supply Output Power	Steady State Power 775W Maximum Peak Power 775W
Environmental Requirements	System Inlet Temperature Operating: 10° to 35°C (50° to 95°F) at sea level with an altitude derating of 1.0°C per every 305m (1.8°F per every 1000ft) above sea level to a maximum of 3050m (10,000ft), no direct sustained sunlight. Maximum rate of change is 10°C/Hr (18°F/Hr). The upper limit may be limited by the type and number of options installed. System performance may be reduced if operating with a fan fault or above 30°C (86°F). Non-Operating: -30° to 60°C (-22° to 140°F). Maximum rate of change is 20°C/Hr (36°F/Hr). Humidity Operating: 10 to 90% relative humidity (Rh), 28°C (82.4°F) maximum wet bulb temperature, non-condensing. Non-Operating: 5 to 95% relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb temperature, non-condensing. Altitude Operating: 3050 m (10,000 ft). This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 457 m/min (1500 ft/min). Non-Operating: 9144 m (30,000 ft). Maximum allowable altitude change rate is 457 m/min (1500 ft/min).
Maximum Wet Bulb Temperature	101.7° F (38.7° C)
Shock Listed are the levels of shock the product can withstand with NO damage being incurred.	Operating: 2 G's

Technical Specifications

The values represent a peak input acceleration during an 11ms half-sine shock pulse.

Vibration

Listed are the levels of vibration the product can withstand with NO damage being incurred.

The values represent a flat random vibration input acceleration profile across the given frequency range.

Acoustic Noise - Redundant Configuration

Non-Operating: 15 G's

Operating: Random vibration at 0.000075 G²/Hz, 10Hz to 300Hz, (0.15 G's nominal)

Non-Operating: Random vibration at 0.0005 G²/Hz, 10Hz to 500Hz, (0.5 G's nominal)

Idle
(Fixed Disk Drives Spinning)

L WAd (BELS) 6.2

Average Bystander 43

L pAm (dBA)

Operating
(Random Seeks to Fixed Disks)

L WAd (BELS) 6.2

Average Bystander 43

L pAm (dBA)

Acoustic Noise - Non-Redundant Configuration

Idle
(Fixed Disk Drives Spinning)

L WAd (BELS) 6.3

Average Bystander 44

L pAm (dBA)

Operating
(Random Seeks to Fixed Disks)

L WAd (BELS) 6.3

Average Bystander 44

L pAm (dBA)

Technical Specifications

Smart Array P400 Controller	Disk Drive and Enclosure Interface	3G SAS (Serial Attached SCSI) 1.5G SATA (Serial Advanced Technology Attachment)
	SAS Connectors	2 internal (SFF8484) x4 wide port connectors
	Cache Memory Speed	DDR2-533MHz with 40 or 72-bit wide bus provides up to 4.2 GB/s maximum bandwidth.
	Server Interface	x8 2.5G PCIe provides 2GB/s maximum bandwidth.
	SAS Speed	x8 3G SAS provides 2.4GB/s maximum bandwidth.
	Cache Memory	40-bit 256MB cache (72-bit 512MB module upgrades available); ECC protection, battery-backed, and transportable
	Logical Drives Supported	Up to 32 logical drives
	Maximum Logical Drive Capacity	3 TB (6 x 500GB)
	Host Memory Addressing	64-bit, supporting greater than 4GB server memory space
	RAID Support	RAID 6 with ADG (Advanced Data Guarding) requires Battery Backed Write Cache Upgrade RAID 5 (Distributed Data Guarding) RAID 1+0 (Striping & Mirroring) RAID 0 (Striping)

Smart Array E200 Controller	Disk Drive and Enclosure Interface	3G SAS (Serial Attached SCSI) 1.5G SATA (Serial Advanced Technology Attachment)
	SAS Connectors	2 internal (SFF8484) x4 wide port connectors
	Cache Memory Speed	DDR1-266 MHz provides up to 4.2 GB/s maximum bandwidth.
	Server Interface	x8 2.5G PCIe provides 2GB/s maximum bandwidth.
	SAS Speed	x8 3G SAS provides 2.4GB/s maximum bandwidth.
	Cache Memory	40-bit 256MB cache (72-bit 512MB module upgrades available); ECC protection, battery-backed, and transportable
	Logical Drives Supported	Up to 32 logical drives
	Maximum Logical Drive Capacity	3 TB (6 x 500GB)
	Host Memory Addressing	64-bit, supporting greater than 4GB server memory space
	RAID Support	RAID 6 with ADG (Advanced Data Guarding) requires Battery Backed Write Cache Upgrade RAID 5 (Distributed Data Guarding) RAID 1, 1+0 (Striping & Mirroring) RAID 0 (Striping)

Technical Specifications

Two embedded NC373i Network Interface Multifunction Gigabit Server Adapters	Network Interface	10Base-T/100Base-TX/1000Base-TX	
	Compatibility	IEEE 802.3 10Base-T IEEE 802.3ab 1000Base-T IEEE 802.3u 100Base-TX	
	Data Transfer Method	PCI Express, four lanes (x4)	
	Network Transfer Rate	10Base-T (Half-Duplex)	10 Mb/s
		10Base-T (Full-Duplex)	20 Mb/s
		100Base-TX (Half-Duplex)	100 Mb/s
		100Base-TX (Full-Duplex)	200 Mb/s
		1000BaseTX (Half and Full-Duplex)	2000 Mb/s
	Connector	RJ-45	
	Cable Support	10Base-T	Categories 3, 4 or 5 UTP; up to 328 ft (100 m)
		100Base-TX	Category 5 or higher UTP; up to 328 ft (100 m)
		1000Base-TX	Category 5 or higher UTP; up to 328 ft (100 m)

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