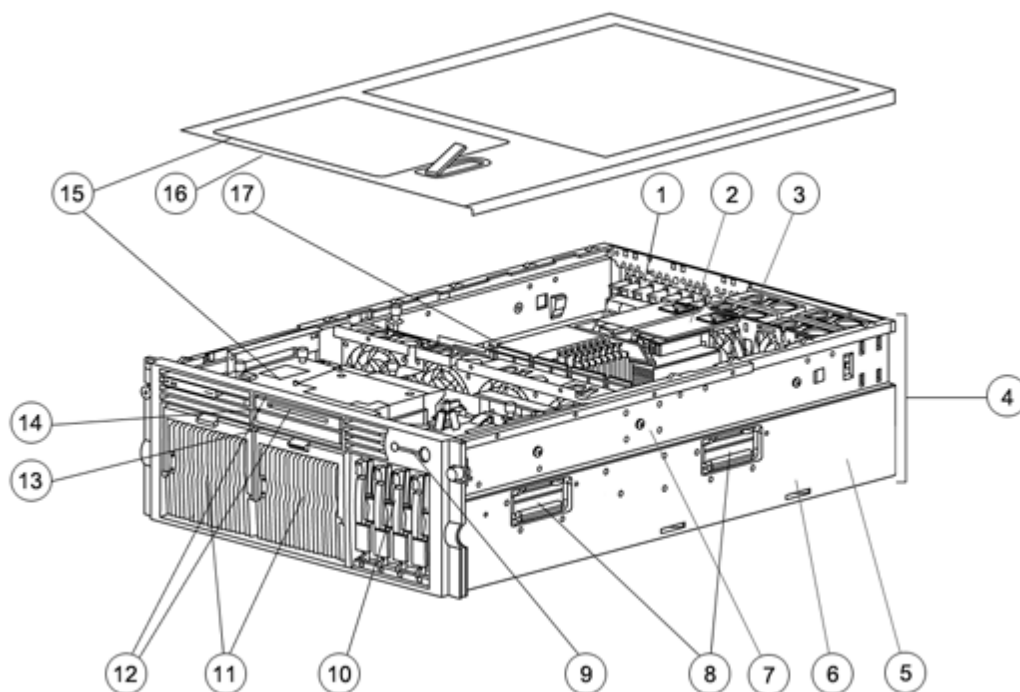


Overview



1. Eight 64-bit PCI-X I/O Slots (Six 100 MHz, two 133 MHz)
2. 2 or 4 processors/memory boards
3. 2 or 4 AMD Opteron 800 Series Processors
4. Up to 128 GB of PC2700 DDR SDRAM with Advanced ECC, running at 266 MHz, 64 GB of PC2700 running at 333 MHz or 32 GB of PC3200 running at 400 MHz
5. Hot Plug Redundant Fans (standard)
6. 4U (7" Height) Rack Form Factor
7. Tool-less "Snap In" rail solution
8. Server Lifting Handle
9. Front Panel LED Display (internal and external health, Unit ID light) and Power Button
10. Ultra320 Drive Cage, capable of simplex or duplex configuration, upgradeable to Small Form Factor (SFF) Serial Attached SCSI (SAS) drive technology
11. Dual 870-Watt Hot Plug Redundant Power Supplies (hi/lo line auto-sensing)
12. Two Universal Media Bays: 24X CD-ROM IDE and 1.44 MB Diskette Drive (standard)
13. Multi-Bay floppy and CD-ROM drives, standard on most models
14. QuickFind Diagnostic Display (viewable through the Top Access Panel)
15. Removable Top Access Panel
16. Integrated Lights-Out (iLO)- not shown
17. Dual Port NC7782 embedded NIC - not shown

What's New

- Support for Dual-Core AMD Opteron Model 885 processor, running at 2.6 GHz (two or four processors supported) with PC3200 or PC2700 memory

Overview

At A Glance

The ProLiant DL585, the best performing x86 4-processor server in the industry, now supports the new AMD Opteron Dual-Core processor further increasing the performance leadership of this system. Dual-Core AMD Opteron processors enable a huge boost in performance. Depending on the application and environment, customers can expect to see anywhere from 15 to 65% performance improvement in the same 4U chassis!

The DL585 was the first Tier 1 server in the industry supporting 4 AMD Opteron processors and the first platform which demonstrated Dual-Core Opteron processors in August 2004. It continues to maintain performance leadership, especially with a variety of 32-bit benchmarks. The 128GB memory footprint enables most applications to run faster or support more users than other systems. The DL585 combines AMD Opteron processor technology, best-in-class management and outstanding uptime features in an enterprise-class system ideal for large data center deployments.

- **Processors:**
 - AMD Opteron 800 series up to 2.6 GHz Dual-Core processors OR
 - AMD Opteron 800 series up to 2.8 GHz single core processors
 - Two or four total processors supported
 - AMD Opteron 8000 chipset supporting up to 1 GHz HyperTransport
- **Memory:**
 - 4 GB of PC3200 DDR SDRAM, running at 400 MHz, expandable to 32 GB
 - 2 GB of PC2700 DDR SDRAM, running at 333 MHz, expandable to 128 GB with support for PC2700 DDR with Advanced ECC SDRAM (64 GB running at 333 MHz or 128 GB running at 266 MHz)
- **Storage Controller:**
 - Integrated Smart Array 5i Plus Controller (Dual Channel, Ultra3) with 64 MB total memory on 5i Plus Memory Module
 - Transportable Battery-Backed Write Cache Enabler module
- **Internal Drive Support:**
 - Choice of Internal Hot Plug Drive Storage:
 - Up to 1.20TB (4 x 300GB Ultra320 SCSI hard drives)
 - Up to 1.168TB (8 x 146GB SFF SAS hot plug drives)
 - Or support for one DAT hot plug tape drive and two hot plug hard drives
 - Multi-Bay floppy and CD-ROM drives
- **Network Controller:**
 - Embedded NC7782 PCI-X Gigabit Server Adapter
- **Expansion Slots:**
 - Eight total full length slots: six 64-bit/100 MHz PCI-X; two 64-bit/133 MHz PCI-X
- **USB 1.0 Ports:**
 - Two total: 2 rear ports
- **Redundancy:**
 - Redundant hot plug power supplies and fans
- **Management:**
 - Integrated Lights-Out Standard Management (iLO) on system board
 - Innovative diagnostic lighting (QuickFind Diagnostic Display) for rapid response to service events
- **Form Factor:**
 - Delivering maximum performance in a versatile, rack optimized form factor
- **Deployment/Serviceability:**
 - Tool-less and virtually cable-less internal design
 - Rapid Deployment racking solution (rack rails and cable management)
- **Warranty:**
 - Protected by HP Services and a worldwide network of resellers and service providers. Three-year Next Business Day, on-site limited global warranty. Certain restrictions and exclusions apply. Pre-Failure Notification on processors, memory, and SCSI/SAS hard drives. SATA hard drives have a one-year warranty.

Standard Features

Processor Two or four of the following depending on Model	<p>AMD Opteron model 885, Dual-core running at 2.6 GHz (2 or 4 supported)</p> <p>AMD Opteron model 880, Dual-core running at 2.4 GHz (2 or 4 supported)</p> <p>AMD Opteron model 875, Dual-core running at 2.2 GHz (2 or 4 supported)</p> <p>AMD Opteron model 865, Dual-core running at 1.8 GHz (2 or 4 supported)</p> <p>AMD Opteron model 854, running at 2.8 GHz (2 or 4 supported)</p> <p>AMD Opteron model 852, running at 2.6 GHz (2 or 4 supported)</p> <p>AMD Opteron model 850, running at 2.4 GHz (2 or 4 supported)</p> <p>AMD Opteron model 848, running at 2.2 GHz (2 or 4 supported)</p>						
Cache Memory	1MB Integrated Level 2 Cache						
Upgradeability	<p>Upgradeable to quad processing</p> <p>Upgradeable to SAS drive technology</p>						
Chipset	AMD Opteron 8000 series chipset						
Memory Protection & Functionality	Advanced ECC						
Memory	<table border="0"> <tr> <td data-bbox="329 1062 595 1185">Type</td> <td data-bbox="595 1062 1478 1185"> <p>PC2100 DDR SDRAM, running at 266 MHz</p> <p>PC2700 DDR SDRAM, running at 333 MHz</p> <p>PC3200 DDR SDRAM, running at 400 MHz</p> </td> </tr> <tr> <td data-bbox="329 1185 595 1308">Standard One of the following depending on Model</td> <td data-bbox="595 1185 1478 1308"> <p>2 GB (2 x 512 MB x 2 Processor Boards) (PC2100 or PC2700 DDR SDRAM)</p> <p>4 GB (2 x 1024 MB x 2 Processor Boards) (PC3200 DDR SDRAM)</p> <p>8 GB (8 x 1024 MB x Processor Boards) (PC3200 DDR SDRAM)</p> </td> </tr> <tr> <td data-bbox="329 1308 595 1502">Maximum</td> <td data-bbox="595 1308 1478 1502"> <p>32 GB (PC3200 DDR SDRAM)</p> <p>128 GB (PC2700 DDR SDRAM)</p> <p>NOTE: PC2700 only supported on 2.4 GHz and faster single core models and all dual core models. Also PC3200 only supported on 2.6 GHz single core models and all dual core models.</p> </td> </tr> </table>	Type	<p>PC2100 DDR SDRAM, running at 266 MHz</p> <p>PC2700 DDR SDRAM, running at 333 MHz</p> <p>PC3200 DDR SDRAM, running at 400 MHz</p>	Standard One of the following depending on Model	<p>2 GB (2 x 512 MB x 2 Processor Boards) (PC2100 or PC2700 DDR SDRAM)</p> <p>4 GB (2 x 1024 MB x 2 Processor Boards) (PC3200 DDR SDRAM)</p> <p>8 GB (8 x 1024 MB x Processor Boards) (PC3200 DDR SDRAM)</p>	Maximum	<p>32 GB (PC3200 DDR SDRAM)</p> <p>128 GB (PC2700 DDR SDRAM)</p> <p>NOTE: PC2700 only supported on 2.4 GHz and faster single core models and all dual core models. Also PC3200 only supported on 2.6 GHz single core models and all dual core models.</p>
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Network Controller	Embedded NC7782 PCI-X Gigabit Server Adapter						

Standard Features

Expansion Slots	Bus speed	Bus number	Hot Plug	PCI Voltage
1	64-bit / 133 MHz PCI-X	5	No	3.3 Volt
2	64-bit / 133 MHz PCI-X	6	No	3.3 Volt
3	64-bit / 100 MHz PCI-X	7	No	3.3 Volt
4	64-bit / 100 MHz PCI-X	7	No	3.3 Volt
5	64-bit / 100 MHz PCI-X	8	No	3.3 Volt
6	64-bit / 100 MHz PCI-X	8	No	3.3 Volt
7	64-bit / 100 MHz PCI-X	3	No	3.3 Volt
8	64-bit / 100 MHz PCI-X	3	No	3.3 Volt

NOTE: All slots can accept universal keyed PCI cards.

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

Slots are enumerated differently based on the operating system. Microsoft operating systems enumerate from lowest to highest Device ID by bus (starting with the lowest bus).

Manageability

Integrated Lights-Out (iLO) Standard Management (ASIC on the System Board)

Storage Controllers

Smart Array 5i Plus Controller (integrated on system board), Dual Channel, Ultra3 (supports RAID 0, 1, 1+0, and 5 across internal hard disk drives) with 64 MB of memory.

- 64-MB total memory for code, transfer buffers, and read/write cache on the 5i Plus Memory Module
- Connector for Battery Backed Write Cache (BBWC) Enabler

NOTE: The Smart Array 5i Plus Controller is integrated on the system board and is designed to support the duplex/simplex drive cage. An external SCSI port is not available on the HP ProLiant DL585. External SCSI solutions require the addition of a PCI or PCI-X option card.

Storage Data Protection

The Battery-Backed Write Cache (BBWC) Enabler protects up to 64 MB write cache memory from hard boot, power, controller, or system board failures.

- Standard on all HP ProLiant DL585 Models
- Battery charge/life: Up to 72 hours/3 years
- Transportable data protection
- Increases overall controller performance

NOTE: Safely transport your write cache data to another HP ProLiant DL585 in the data center by removing the BBWC Enabler and 5i Plus Memory Module simultaneously (connected by short cable).

Storage

Diskette Drive	1.44 MB Diskette Drive (slimline) – ejectable for security and serviceability
Optical Drive	24x IDE CD-ROM Drive (slimline) – ejectable for security and serviceability
Hard Drives	None ship standard
Hard Disk Drive Backplane	Internal Wide Ultra3 backplane supports up to four hard disk drives and is easily configurable to support simplex (4x1) or duplex mode (2x2) Standard shipping configuration is the duplex mode.

NOTE: Optional SCSI cable assembly (PN 365483-B21) is required for connecting Smart Array Controller in a PCI slot to internal hard drive backplane. Duplex configuration requires two such kits.

Standard Features

Maximum Internal Storage Type	Hot Plug SCSI	1.20TB	4 x 300GB Ultra320 drives (internal hot plug Ultra3 or Ultra320 drive cage)
	Hot Plug SAS	1.168TB	8 x 146GB SFF SAS drives (internal hot plug)
Interfaces	Serial	1	
	Pointing Device (Mouse)	1	
	Graphics	1	
	Keyboard	1	
	USB 1.0 Ports	2 total: 2 rear	
	iLO Remote Management	1	
	Network RJ-45	2	
Graphics	Integrated 1280 x 1024, 16M color on PCI local bus, 8 MB of SDRAM video memory		
Form Factor	Rack (4U = 7 inches), ships with sliding rails and cable management system Space saving form factor (4U) provides space efficiencies while providing maximum deployment flexibility		
ProLiant Essentials Foundation Pack Software	HP Systems Insight Manager	<p>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.</p> <p>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.</p> <p>HP SIM provides organizations with the following benefits:</p> <ul style="list-style-type: none"> • Simplifies and consolidates infrastructure lifecycle management using task and query based functionality • Provides the foundation for infrastructure automation and virtualization • Enables IT management based on business processes not hardware platforms • Lowers infrastructure maintenance cost and frees resources for innovation • Maximizes resource utilization with virtualization technologies • Provides a central point of integration between infrastructure and Enterprise management tools such as HP OpenView 	

Standard Features

SmartStart	SmartStart is a tool that simplifies server setup, providing a rapid way to deploy reliable and consistent server configurations. For more information, please visit the SmartStart Web site at http://www.hp.com/servers/smartstart . SmartStart version supported (minimum): SmartStart 7.00.
Insight Management Agents	<p>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,</p> <p>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.</p>
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, linked from the SmartStart website at http://www.hp.com/servers/smartstart .
Survey Utility and diagnostics utilities	The most advanced configuration analysis, reporting and troubleshooting utilities used by HP and at your fingertips, available in SmartStart.
Optional ProLiant Essentials Value Packs	<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 10-node trial licenses for evaluation purposes. RDP requires a license for each server deployed and is available for purchase with HP servers. For more information, visit: http://www.hp.com/servers/rdp. • Workload Management Pack - provides easier management of complex environments, improving overall server utilization and enabling Windows® 2000 customers for the first time to confidently deploy multiple applications on a single multiprocessor ProLiant Server. • Performance Management Pack - a performance management solution that identifies and explains hardware performance bottlenecks on ProLiant servers and attached options enabling users to better utilize their valuable resources. • Intelligent Networking Pack - detects and analyzes network bottlenecks or broken network linkages and steers traffic to the optimum route

Standard Features

based on network conditions, plus it provides an extra layer of protection. The virus throttle feature of the solution slows the propagation of fast spreading virus.

- Vulnerability and Patch Management Pack - identifies and remediates software security vulnerabilities due to missing patches as well operating system configurations that can be exploited by viruses, worms, and other blended threats.
- Virtual Machine Management Pack - provides central management and control of virtual machines from Microsoft and VMware. Integrated approach provides the ability to manage both physical and virtual resources from a single management console.
- Server Migration Pack - The Server Migration Pack automates the manual processes required for migrating servers between physical or virtual platforms (P2V, V2P, and V2V).
- Integrated Lights-Out Advanced Pack - upgrades the Integrated Lights-Out processor to full virtual presence and control with graphical console and virtual media.

Optional Remote Management Packs

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

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

Industry Standard Compliance

ACPI 1.0a. Compliant
 PCI 2.2 Compliant
 PXE Support
 WOL Support
 Physical Address Extension (PAE) Support
 Microsoft® Logo certifications

Remote Management

Integrated Lights-Out (iLO) Standard Management

- Virtual Text Remote Console
- Virtual Power Button Control
- Dedicated LAN Connectivity
- Automatic IP Configuration via DHCP/DNS/WINS
- Industry Standard 128-bit Secure Sockets Layer (SSL) Security
- IML and iLO Event Logging
- Support for 12 user accounts with customizable access privileges

Integrated Lights-Out (iLO) Advanced Pack (supports Advanced features such as Graphical Remote Console and Virtual Floppy - available as a separate option)

Standard Features

Intelligent Manageability	<ul style="list-style-type: none"> Automatic Server Recovery-2 (ASR-2) HP Systems Insight Manager Redundant ROM Remote Flash ROM ROM-Based Setup Utility (RBSU) Integrated Management Log (IML) Dynamic sector repairing and drive parameter tracking (with Smart Array controllers) Redundant/adaptive load balancing NIC Support
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Availability	<ul style="list-style-type: none"> • Smart Array 5i Plus Controller with standard Battery Backed Write Cache (BBWC) Enabler provides transportable data protection and increases overall controller performance. Up to 64MB Battery Backed Write Cache protection available on all HP ProLiant DL585 models. • Up to four Ultra320 SCSI Hard Drives • Duplex or Simplex SCSI Backplane (Duplex configuration is standard) • Dual Hot Plug Redundant Power Supplies (standard) • PCI-X Technology (six 64-bit/100-MHz and two 64-bit/133 MHz PCI-X slots available) • Smart Array 5i Plus Controller with 64 MB of Battery Backed Write Cache (BBWC) Enabler provides transportable data protection and increases overall controller performance. • Fans are 7+1 hot plug redundant and individually removable.
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Serviceability	<ul style="list-style-type: none"> • Innovative Diagnostic Lighting • QuickFind Diagnostic Display - precisely depicts all major subsystems of the server (PCI-X I/O, Memory, CPU, Redundant Cooling, Interlock, Thermtrip) and gives instant visual indication of fault status. Located on top front of server. • Tool-less, virtually cable-less interior design <ul style="list-style-type: none"> ○ Tool-less access to interior of server ○ Two ejectable, Universal Media Bay media drives (diskette and CD-ROM standard with support for optional DVD-ROM drives) are removable without the use of tools ○ Front access power supplies ○ PCI Card Guides locks full length PCI cards in place during transit ○ SCSI Duplex/Simplex Drive Cage connects directly to system board - no cables. NOTE: Configure your SCSI Duplex/Simplex Drive Cage by means of simple switch (duplex to simplex) located on the cage itself. System ships standard in Duplex mode. ○ Eight individually removable fans connect without cables to the system board ○ Tool-less removal of system board • Quick Deploy Rails <ul style="list-style-type: none"> ○ Tool-less design "snap in" rail
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Security	<ul style="list-style-type: none"> Power-on password Keyboard password Diskette drive control Diskette boot control Network Server Mode Serial interface control Administrator's password Disk configuration lock Removable Diskette drive Removable CD-ROM drive
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Standard Features

Power Supply	Dual 870-Watt Hot Plug Redundant Power Supplies (hi/lo line auto-sensing)
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	Standard 8 Hot plug, redundant fans (individually removable) Maximum 8 Hot plug, redundant fans (individually removable) NOTE: A single cooling zone across the major server subsystems (Memory, I/O, CPU) providing 7x24 cooling in an N + 1 redundant configuration.
Required Cabling	For required cabling information, refer to the HP Web site at http://h18000.www1.hp.com/products/servers/proliantDL585/
OS Support - single core	Microsoft Windows 2000 Server Microsoft Windows 2000 Advanced Server Windows Server 2003, Standard Edition Windows Server 2003, Enterprise Edition Red Hat Enterprise Linux SUSE Linux Enterprise Server VMware Virtualization Software Solaris 10 32/64-bit NOTE: 2.2 GHz, 2.4 GHz and 2.6 GHz models. 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
OS Support - Dual-Core	Microsoft Windows 2000 Server (licensed by core) Microsoft Windows 2000 Advanced Server (licensed by core) Windows Server 2003, Standard Edition (licensed by processor socket) Windows Server 2003, Enterprise Edition (licensed by processor socket) Red Hat Enterprise Linux SUSE Linux Enterprise Server VMware Virtualization Software Solaris 10 32/64-bit NOTE: 1.8 GHz and 2.2 GHz models. NOTE: For more Linux OS support & certification information, please visit our the ProLiant & Bladesystem Server Linux matrix http://h18004.www1.hp.com/products/servers/linux/hpLinuxcert.html NOTE: For more complete and up-to-date information on how to buy server operating systems from HP please visit the OS product site at: http://h18004.www1.hp.com/products/servers/software/OEM.html . NOTE: For more information on HP's Certified and Supported ProLiant Servers, please visit the VMware Server Support Matrix at: http://h18004.www1.hp.com/products/servers/software/vmware/hpvmwarecert.html

Standard Features

Rack Airflow Requirements

Rack 10000 series Cabinets

The increasing power of new high-performance processor technology requires increased cooling efficiency for rack-mounted servers. The 10000 Series Racks provide enhanced airflow for maximum cooling, allowing these racks to be fully loaded with servers using the latest processors.

CAUTION: If a third-party rack is used, observe the following additional requirements to ensure adequate airflow and to prevent damage to the equipment:

- **Front and rear doors:** If your 42U server rack includes closing front and rear doors, you must allow 5,350 sq cm (830 square inches) 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 7 cm (2.75 inches).

CAUTION: Always use blanking panels to fill all remaining empty front panel U-spaces in the rack. This arrangement ensures proper airflow. Using a rack without blanking panels results in improper cooling that can lead to thermal damage.

NOTE: For additional information, refer to the Setup and Installation Guide or the Documentation CD provided with the server, or to the server documentation located in the Support section at the following URL: <http://www5.hp.com/products/servers/proliantdl585/index.html>.

Rack Mounting Requirements

HP ProLiant DL585 rack models provide tool-free support for square hole racks (including Compaq/HP 7000, 9000, 10000 and H9 series) with an adjustment range from 28" - 29" in depth.

Factory Express Portfolio for Servers and Storage

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

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

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

HP Enterprise Configurator

The HP eCo-Enterprise Configurator now provides factory default racking for our HP hardware portfolio. This approach is aligned with our strategic direction to meet the needs and expectations of our valued customers. If you require "custom" rack configuration, please contact HP's Customer Business Center or an Authorized Partner for assistance.

Standard Features

Service and Support

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

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

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

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

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

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

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

Continuous Care - Recommended service delivering cost-effective support options designed to 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>

Solutions

Solutions

Designed for enterprise customers with growing data centers and application and Internet service providers that require a rack optimized 4-processor server that delivers maximum performance and high availability for highly complex, business critical applications. Specifically, the HP ProLiant DL585 would be excellent for running the following types of applications:

Typical Usage:

- High Performance Computing (HPC)
- Electronic Design Automation (EDA)/Semiconductor
- Financial
- Large database applications
- ERP / CRM
- Petrochemical
- Life Science and Material Science
- Video Rendering

Models

Models (Dual-core)

DL585R01 2.6GHz-1MB, Processor(s) 2048MB (2P Dual-core) 407658-xx1		(2) AMD 885 Dual-core Opteron Processors at 2.6 GHz standard (2 or 4 supported)
Cache Memory		1-MB Integrated Level 2 Cache
Memory		2 GB of PC2700 DDR SDRAM (Standard) to 64 GB, running at 333 MHz, or 128 GB running at 266 MHz with Advanced ECC
Network Controller		Embedded NC7782 PCI-X Gigabit Server Adapter
Storage Controller		Smart Array 5i Plus Controller (Dual Channel, Ultra3) with Battery-Backed Write Cache Enabler (integrated on system board)
Manageability		Integrated Lights-Out (iLO) Standard management (integrated on system board)
Hard Drives		None ship standard
Internal Storage		1.20TB maximum (with optional hard drives)
Power Supply		Two 870W Hot Plug Redundant Power Supplies (low line or high line)
Optical Drive		24x IDE Universal Media Bay CD-ROM Drive
Form Factor		Rack 4U

DL585R01 2.6GHz-1MB, Processor(s) 4096MB (2P Dual-core) 407659-xx1		(2) AMD 885 Dual-core Opteron Processors at 2.6 GHz standard (2 or 4 supported)
Cache Memory		1-MB Integrated Level 2 Cache
Memory		4 GB of PC3200 DDR SDRAM (Standard) to 32 GB running at 400 MHz with Advanced ECC
Network Controller		Embedded NC7782 PCI-X Gigabit Server Adapter
Storage Controller		Smart Array 5i Plus Controller (Dual Channel, Ultra3) with Battery-Backed Write Cache Enabler (integrated on system board)
Manageability		Integrated Lights-Out (iLO) Standard management (integrated on system board)
Hard Drives		None ship standard
Internal Storage		1.20TB maximum (with optional hard drives)
Power Supply		Two 870W Hot Plug Redundant Power Supplies (low line or high line)
Optical Drive		24x IDE Universal Media Bay CD-ROM Drive
Form Factor		Rack 4U

Models

DL585R01 O2.4 GHz-1MB, 8GB (4P Dual-core) 399462-xx1 NOTE: Not available in NA	Processor(s)	(4) AMD 880 Dual-core Opteron Processors at 2.4 GHz standard (2 or 4 supported)
	Cache Memory	1-MB Integrated Level 2 Cache
	Memory	8 GB of PC3200 DDR SDRAM (Standard) to 32 GB running at 400 MHz with Advanced ECC
	Network Controller	Embedded NC7782 PCI-X Gigabit Server Adapter
	Storage Controller	Smart Array 5i Plus Controller (Dual Channel, Ultra3) with Battery-Backed Write Cache Enabler (integrated on system board)
	Manageability	Integrated Lights-Out (iLO) Standard management (integrated on system board)
	Hard Drives	None ship standard
	Internal Storage	1.20TB maximum (with optional hard drives)
	Power Supply	Two 870W Hot Plug Redundant Power Supplies (low line or high line)
	Optical Drive	24x IDE Universal Media Bay CD-ROM Drive
	Form Factor	Rack 4U

DL585R01 O2.4 GHz-1MB, 4096MB (2P Dual-core) 397842-xx1	Processor(s)	(2) AMD 880 Dual-core Opteron Processors at 2.4 GHz standard (2 or 4 supported)
	Cache Memory	1-MB Integrated Level 2 Cache
	Memory	4 GB of PC3200 DDR SDRAM (Standard) to 32 GB running at 400 MHz with Advanced ECC
	Network Controller	Embedded NC7782 PCI-X Gigabit Server Adapter
	Storage Controller	Smart Array 5i Plus Controller (Dual Channel, Ultra3) with Battery-Backed Write Cache Enabler (integrated on system board)
	Manageability	Integrated Lights-Out (iLO) Standard management (integrated on system board)
	Hard Drives	None ship standard
	Internal Storage	1.20TB maximum (with optional hard drives)
	Power Supply	Two 870W Hot Plug Redundant Power Supplies (low line or high line)
	Optical Drive	24x IDE Universal Media Bay CD-ROM Drive
	Form Factor	Rack 4U

Models

DL585R01 O2.4 GHz-1MB, 2048MB (2P Dual-core) 397841-xx1	Processor(s)	(2) AMD 880 Dual-core Opteron Processors at 2.4 GHz standard (2 or 4 supported)
	Cache Memory	1-MB Integrated Level 2 Cache
	Memory	2 GB of PC2700 DDR SDRAM (Standard) to 64 GB, running at 333 MHz, or 128 GB running at 266 MHz with Advanced ECC
	Network Controller	Embedded NC7782 PCI-X Gigabit Server Adapter
	Storage Controller	Smart Array 5i Plus Controller (Dual Channel, Ultra3) with Battery-Backed Write Cache Enabler (integrated on system board)
	Manageability	Integrated Lights-Out (iLO) Standard management (integrated on system board)
	Hard Drives	None ship standard
	Internal Storage	1.20TB maximum (with optional hard drives)
	Power Supply	Two 870W Hot Plug Redundant Power Supplies (low line or high line)
	Optical Drive	24x IDE Universal Media Bay CD-ROM Drive
Form Factor	Rack 4U	

DL585R01 O2.2 GHz-1MB, 4096MB (2P Dual-core) 383359-xx1	Processor(s)	(2) AMD 875 Dual-core Opteron Processors at 2.2 GHz standard (2 or 4 supported)
	Cache Memory	1 MB Integrated Level 2 Cache
	Memory	4 GB of PC3200 DDR SDRAM (Standard) to 32 GB running at 400 MHz with Advanced ECC
	Network Controller	Embedded NC7782 PCI-X Gigabit Server Adapter
	Storage Controller	Smart Array 5i Plus Controller (Dual Channel, Ultra3) with Battery-Backed Write Cache Enabler (integrated on system board)
	Manageability	Integrated Lights-Out (iLO) Standard management (integrated on system board)
	Hard Drives	None ship standard
	Internal Storage	1.20TB maximum (with optional hard drives)
	Power Supply	Two 870W Hot Plug Redundant Power Supplies (low line or high line)
	Optical Drive	24x IDE Universal Media Bay CD-ROM Drive
Form Factor	Rack 4U	

Models

DL585R01 O2.2 GHz-1MB, 2048MB (2P Dual-core) 383357-xx1	Processor(s)	(2) AMD 875 Dual-core Opteron Processors at 2.2 GHz standard (2 or 4 supported)
	Cache Memory	1 MB Integrated Level 2 Cache
	Memory	2 GB of PC2700 DDR SDRAM (Standard) to 64 GB, running at 333 MHz, or 128 GB running at 266 MHz with Advanced ECC
	Network Controller	Embedded NC7782 PCI-X Gigabit Server Adapter
	Storage Controller	Smart Array 5i Plus Controller (Dual Channel, Ultra3) with Battery-Backed Write Cache Enabler (integrated on system board)
	Manageability	Integrated Lights-Out (iLO) Standard management (integrated on system board)
	Hard Drives	None ship standard
	Internal Storage	1.20TB maximum (with optional hard drives)
	Power Supply	Two 870W Hot Plug Redundant Power Supplies (low line or high line)
	Optical Drive	24x IDE Universal Media Bay CD-ROM Drive
Form Factor	Rack 4U	

DL585R01 O1.8 GHz-1MB, 4096MB (2P Dual-core) 383358-xx1	Processor(s)	(2) AMD 865 Dual-core Opteron Processors at 1.8 GHz standard (2 or 4 supported)
	Cache Memory	1 MB Integrated Level 2 Cache
	Memory	4 GB of PC3200 DDR SDRAM (Standard) to 32 GB running at 400 MHz with Advanced ECC
	Network Controller	Embedded NC7782 PCI-X Gigabit Server Adapter
	Storage Controller	Smart Array 5i Plus Controller (Dual Channel, Ultra3) with Battery-Backed Write Cache Enabler (integrated on system board)
	Manageability	Integrated Lights-Out (iLO) Standard management (integrated on system board)
	Hard Drives	None ship standard
	Internal Storage	1.20TB maximum (with optional hard drives)
	Power Supply	Two 870W Hot Plug Redundant Power Supplies (low line or high line)
	Optical Drive	24x IDE Universal Media Bay CD-ROM Drive
Form Factor	Rack 4U	

Models

DL585R01 O1.8 GHz- 1MB, 2048MB (2P Dual- core) 383356-xx1	Processor(s)	(2) AMD 865 Dual-core Opteron Processors at 1.8 GHz standard (2 or 4 supported)
	Cache Memory	1 MB Integrated Level 2 Cache
	Memory	2 GB of PC2700 DDR SDRAM (Standard) to 64 GB, running at 333 MHz, or 128 GB running at 266 MHz with Advanced ECC
	Network Controller	Embedded NC7782 PCI-X Gigabit Server Adapter
	Storage Controller	Smart Array 5i Plus Controller (Dual Channel, Ultra3) with Battery-Backed Write Cache Enabler (integrated on system board)
	Manageability	Integrated Lights-Out (iLO) Standard management (integrated on system board)
	Hard Drives	None ship standard
	Internal Storage	1.20TB maximum (with optional hard drives)
	Power Supply	Two 870W Hot Plug Redundant Power Supplies (low line or high line)
	Optical Drive	24x IDE Universal Media Bay CD-ROM Drive
Form Factor	Rack 4U	

Models (single core)

DL585R01 O2.8 GHz- 1MB, 2048MB (2P) 397296-xx1	Processor(s)	(2) AMD 854 Opteron Processors at 2.8 GHz standard (2 or 4 supported)
	Cache Memory	1-MB Integrated Level 2 Cache
	Memory	2 GB of PC2700 DDR SDRAM (Standard) to 64 GB, running at 333 MHz, or 128 GB running at 266 MHz with Advanced ECC
	Network Controller	Embedded NC7782 PCI-X Gigabit Server Adapter
	Storage Controller	Smart Array 5i Plus Controller (Dual Channel, Ultra3) with Battery-Backed Write Cache Enabler (integrated on system board)
	Manageability	Integrated Lights-Out (iLO) Standard management (integrated on system board)
	Hard Drives	None ship standard
	Internal Storage	1.20TB maximum (with optional hard drives)
	Power Supply	Two 870W Hot Plug Redundant Power Supplies (low line or high line)
	Optical Drive	24x IDE Universal Media Bay CD-ROM Drive
Form Factor	Rack 4U	

Models

DL585R01 O2.8 GHz- 1MB, 4096MB (2P) 397299-xx1	Processor(s)	(2) AMD 854 Opteron Processors at 2.8 GHz standard (2 or 4 supported)
	Cache Memory	1-MB Integrated Level 2 Cache
	Memory	4 GB of PC3200 DDR SDRAM (Standard) to 32 GB running at 400 MHz with Advanced ECC
	Network Controller	Embedded NC7782 PCI-X Gigabit Server Adapter
	Storage Controller	Smart Array 5i Plus Controller (Dual Channel, Ultra3) with Battery-Backed Write Cache Enabler (integrated on system board)
	Manageability	Integrated Lights-Out (iLO) Standard management (integrated on system board)
	Hard Drives	None ship standard
	Internal Storage	1.20TB maximum (with optional hard drives)
	Power Supply	Two 870W Hot Plug Redundant Power Supplies (low line or high line)
	Optical Drive	24x IDE Universal Media Bay CD-ROM Drive
Form Factor	Rack 4U	

DL585R01 O2.6 GHz- 1MB, 4096MB (2P) 380125-xx1	Processor(s)	(2) AMD 852 Opteron Processors at 2.6 GHz standard (2 or 4 supported)
	Cache Memory	1 MB Integrated Level 2 Cache
	Memory	4 GB of PC3200 DDR SDRAM (Standard) to 32 GB running at 400 MHz with Advanced ECC
	Network Controller	Embedded NC7782 PCI-X Gigabit Server Adapter
	Storage Controller	Smart Array 5i Plus Controller (Dual Channel, Ultra3) with Battery-Backed Write Cache Enabler (integrated on system board)
	Manageability	Integrated Lights-Out (iLO) Standard management (integrated on system board)
	Hard Drives	None ship standard
	Internal Storage	1.20TB maximum (with optional hard drives)
	Power Supply	Two 870W Hot Plug Redundant Power Supplies (low line or high line)
	Optical Drive	24x IDE Universal Media Bay CD-ROM Drive
Form Factor	Rack 4U	

Models

DL585R01 O2.6 GHz-1MB, 2048MB (2P) 380124-xx1	Processor(s)	(2) AMD 852 Opteron Processors at 2.6 GHz standard (2 or 4 supported)
	Cache Memory	1 MB Integrated Level 2 Cache
	Memory	2 GB of PC2700 DDR SDRAM (Standard) to 64 GB running at 333 MHz or 128 GB running at 266 MHz with Advanced ECC
	Network Controller	Embedded NC7782 PCI-X Gigabit Server Adapter
	Storage Controller	Smart Array 5i Plus Controller (Dual Channel, Ultra3) with Battery-Backed Write Cache Enabler (integrated on system board)
	Manageability	Integrated Lights-Out (iLO) Standard management (integrated on system board)
	Hard Drives	None ship standard
	Internal Storage	1.20TB maximum (with optional hard drives)
	Power Supply	Two 870W Hot Plug Redundant Power Supplies (low line or high line)
	Optical Drive	24x IDE Universal Media Bay CD-ROM Drive
Form Factor	Rack 4U	

Country Code Key	XX=00	US
	XX=20	Brazil (NOTE: Valid for 2.2 GHz, 2.4 GHz, 2.6 GHz, and 2.8 GHz Models only)
	XX=29	Japan
	XX=37	A/P (NOTE: Valid for 2.4 GHz and 2.6 GHz Models only)
	XX=42	Europe (NOTE: Valid for 2.4 GHz and 2.6 GHz Models only)
	XX=AA	PRC
	XX=B2	WW (NOTE: Valid for 1.8 GHz, and 2.2 GHz single-core Models only)

Configuration Information - Factory Integrated Models (North America only)

NOTE: For Configure to Order requirements within EMEA region, please consult local Sales Contact.

NOTE: HP does not allow factory integration of options into standard models listed above.

Configure-to-order servers must start with a CTO Chassis.

NOTE: This product offering does not support HP Factory Express Server Configuration Level 1.

NOTE: FIO indicates that this option only available as a Factory Installable Option.

Step 1: Base Configuration

Models	HP ProLiant DL585 Rack CTO Chassis (North America)	390524-405
	Factory Integrated Models ship with:	
	1.44 MB Diskette Drive	
	Embedded NC7782 PCI-X Gigabit Server Adapter	
	Smart Array 5i Plus Controller (Dual Channel, Ultra3) with Battery-Backed Write Cache Enabler (integrated on system board)	
	Integrated Lights-Out (iLO) Standard management (integrated on system board)	
	Two 870W Hot Plug Redundant Power Supplies (low line or high line)	
	Rack 4U Form Factor	

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

Processors	AMD Opteron 885 2.6 GHz-1 MB Dual-core PC2700 Processor Option Kit	407660-L21
	NOTE: If four processors are desired, select one 407660-L21 and two 407660-B21.	
	AMD Opteron 885 2.6 GHz-1 MB Dual-core PC3200 Processor Option Kit	407661-L21
	NOTE: If four processors are desired, select one 407661-L21 and two 407661-B21.	
	AMD O880 2.4 GHz/1000 Dual-core 1 MB PC 3200 DL585 FIO BASE	397844-L21
	NOTE: If four processors are desired, select one 397844-L21 and two 397844-B21.	
	AMD O880 2.4 GHz/1000 Dual-core 1 MB PC 2700 DL585 FIO BASE	397843-L21
	NOTE: If four processors are desired, select one 397843-L21 and two 397843-B21.	
	AMD O854 2.8/1000 1 MB PC2700 DL585 FIO BASE	397820-L21
	NOTE: If four processors are desired, select one 397820-L21 and two 397820-B21.	
	AMD O875 2.2 GHz/1000 Dual-core 1 MB PC3200 DL585 FIO BASE	383393-L21
	NOTE: If four processors are desired, select one 383393-L21 and two 383393-B21.	
	AMD O854 2.8 GHz/1000 1 MB PC3200 DL585 FIO BASE	397821-L21
	NOTE: If four processors are desired, select one 397821-L21 and two 397821-B21.	
	AMD O875 2.2 GHz/1000 Dual-core 1 MB PC2700 DL585 FIO BASE	383391-L21
	NOTE: If four processors are desired, select one 383391-L21 and two 383391-B21.	
	AMD O865 1.8 GHz/1000 Dual-core 1 MB PC3200 DL585 FIO BASE	383392-L21
	NOTE: If four processors are desired, select one 383392-L21 and two 383392-B21.	
	AMD O865 1.8 GHz/1000 Dual-core 1 MB PC2700 DL585 FIO BASE	383390-L21
	NOTE: If four processors are desired, select one 383390-L21 and two 383390-B21.	

Configuration Information - Factory Integrated Models (North America only)

Base Memory	1 GB of PC2700 DDR SDRAM DIMM Memory (2 x 512 MB)	371047-B21
	2 GB of PC2700 DDR SDRAM DIMM Memory (2 x 1 GB)	371048-B21
	4 GB of PC2700 DDR SDRAM DIMM Memory (2 x 2 GB)	371049-B21
	2 GB of PC3200 DDR SDRAM DIMM Memory (2 x 1 GB)	376639-B21
	4 GB of PC3200 DDR SDRAM DIMM Memory (2 x 2 GB)	379300-B21
	8 GB of PC2700 DDR SDRAM DIMM Memory (2 x 4 GB)	395409-B21

NOTE: Memory must be ordered in like-pairs, i.e. two of the same size.

NOTE: For max memory performance with PC2700 (333 MHz), -002 or greater processor boards should be used in conjunction with no more than 6 PC2700 DIMMs per processor. 2.4 GHz SKUs and faster SKUs ship standard with -002 or greater processor boards.

Optical Drives	24x IDE Universal Media Bay CD-ROM Drive	339866-B21
	Slimline CD-RW/DVD-ROM 24X Combo Drive Option Kit	331903-B21
	Slimline DVD-ROM Drive (8X/24X) Option Kit (Servers)	264007-B21
	HP DVD±R/RW 8X Slim	383975-B21

Step 3: Choose Additional Options for Factory Integration

SAS Options	8-Bay SAS/SATA Cage Option Kit	379090-B21
	NOTE: May be ordered with a SAS/SATA Controller such as the Smart Array P600/256 BBWC Controller and the desired quantity of SFF SAS Universal Hard Drives/SFF SATA hard drives OR may be ordered with one of the following SAS Starter Kits.	
	SAS Starter Kit - 36GB	396221-B21
	NOTE: Includes HP Smart Array P600/256 BBWC Controller and (2) 36GB SFF SAS Universal Hard Drives.	
SAS Starter Kit - 72GB	396220-B21	
NOTE: Includes HP Smart Array P600/256 BBWC Controller and (2) 72GB SFF SAS Universal Hard Drives.		

Step 4: Choose Additional Options for Factory Integration

NOTE: Select from "Options" section below.

Options

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

ProLiant DL585 Unique Options	AMD Opteron 885 2.6 GHz-1 MB Dual-core PC2700 Processor Option Kit NOTE: This Opteron 885 2.6 GHz Dual-core PC2700 processor Option kit (PN 407660-B21) comes standard with the 011974-503 processor/memory board.	407660-B21
	AMD Opteron 885 2.6 GHz-1 MB Dual-core PC3200 Processor Option Kit NOTE: This Opteron 885 2.6 GHz Dual-core PC3200 processor Option kit (PN 407661-B21) comes standard with the 012567-501 processor/memory board.	407661-B21
	AMD Opteron 880 2.4 GHz-1 MB Dual-core PC3200 Processor Option Kit NOTE: This Opteron 880 2.4 GHz Dual-core PC3200 processor Option kit (PN 397844-B21) comes standard with the 012567-501 processor/memory board.	397844-B21
	AMD Opteron 880 2.4 GHz-1 MB Dual-core PC2700 Processor Option Kit NOTE: This Opteron 880 2.4 GHz Dual-core PC2700 processor Option kit (PN 397843-B21) comes standard with the 011974-503 processor/memory board.	397843-B21
	AMD Opteron 875 2.2 GHz-1 MB Dual-core PC3200 Processor Option Kit NOTE: This Opteron 875 2.2 GHz Dual-core PC3200 processor Option kit (PN 383393-B21) comes standard with the 012567-501 processor/memory board.	383393-B21
	AMD Opteron 875 2.2 GHz-1 MB Dual-core PC2700 Processor Option Kit NOTE: This Opteron 875 2.2 GHz Dual-core PC2700 processor Option kit (PN 383391-B21) comes standard with the 011974-503 processor/memory board.	383391-B21
	AMD Opteron 865 1.8 GHz-1 MB Dual-core PC3200 Processor Option Kit NOTE: This Opteron 865 1.8 GHz Dual-core PC3200 processor Option kit (PN 383392-B21) comes standard with the 012567-501 processor/memory board.	383392-B21
	AMD Opteron 865 1.8 GHz-1 MB Dual-core PC2700 Processor Option Kit NOTE: This Opteron 865 1.8 GHz Dual-core PC2700 processor Option kit (PN 383390-B21) comes standard with the 011974-503 processor/memory board.	383390-B21
	AMD Opteron 854 2.8 GHz-1 MB PC3200 processor Option Kit NOTE: This Opteron 854 2.8 GHz PC3200 processor Option kit (PN 397821-B21) comes standard with the 012567-501 processor/memory board.	397821-B21
	AMD Opteron 854 2.8 GHz-1 MB PC2700 processor Option Kit NOTE: This Opteron 854 2.8 GHz PC2700 processor Option kit (PN 397820-B21) comes standard with the 011974-503 processor/memory board.	397820-B21
	AMD Opteron 852 2.6 GHz-1 MB PC3200 Processor Option Kit NOTE: This Opteron 852 2.6 GHz PC3200 processor Option kit (PN 381477-B21) comes standard with the 012567-501 processor/memory board.	381477-B21
	AMD Opteron 852 2.6 GHz-1 MB PC2700 Processor Option Kit NOTE: This Opteron 852 2.6 GHz PC2700 processor Option kit (PN 381476-B21) comes standard with the 011974-503 processor/memory board.	381476-B21
	AMD Opteron 850 2.4 GHz-1 MB Processor Option Kit NOTE: This Opteron 850 2.4 GHz processor Option kit (PN 366725-B21) comes standard with the 011974-503 processor/memory board.	366725-B21
	AMD Opteron 848 2.2 GHz-1 MB Processor Option Kit NOTE: This Opteron 848 2.2 GHz processor Option kit (PN 359708-B21) comes standard with the 011974-503 processor/memory board.	359708-B21
	AMD Opteron 844 1.8 GHz-1 MB Processor Option Kit NOTE: This Opteron 844 1.8 GHz processor Option kit (PN 359707-B21) comes standard with the 011974-503 processor/memory board.	359707-B21
	NOTE: Must order two kits to expand the system from 2 to 4 processors	

Options

ProLiant Essentials Value Pack Software	ProLiant Essentials Intelligent Networking Pack	
	ProLiant Essentials Intelligent Networking Pack - Windows Edition, Single Server License NOTE: For use with a single server. Contains one license with a unique license activation key and documentation. NOTE: For additional ProLiant Intelligent Networking Pack License Kits please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/12062_div/12062_div.HTML	436225-B21
	ProLiant Essentials Intelligent Networking Pack - Linux Edition, Single Server License NOTE: For additional ProLiant Intelligent Networking Pack - Linux License Kits please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/12327_div/12327_div.HTML	436229-B21
	ProLiant Essentials Performance Management Pack	
	ProLiant Essentials Performance Management Pack, Single-Server License NOTE: For use with a single server. Contains one license with a unique license activation key, HP Management CD and documentation. NOTE: The most recent version of the software can always be downloaded at http://www.hp.com/products/pmp . NOTE: For additional ProLiant Performance Management Pack License Kits please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/11925_div/11925_div.HTML	306696-B21
	ProLiant Essentials Rapid Deployment Pack Windows Edition Release	
	Rapid Deployment Pack, Single-Server License NOTE: This license allows 1 server to be deployed and managed via RDP.	267196-B21
	Rapid Deployment Pack, Single-Server License (Japan) NOTE: This license allows 1 server to be deployed and managed via RDP.	267196-291
	ProLiant Essentials Rapid Deployment Pack - Physical Media Kit	434559-B21
	ProLiant Essentials Rapid Deployment Pack Flatpack - single-server license NOTE: For additional ProLiant Essentials Rapid Deployment Pack License Kits please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/11053_div/11053_div.HTML	434560-B21
	ProLiant Essentials Workload Management Pack	
	ProLiant Essentials Workload Management Pack, Single Server License 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	303284-B21
	ProLiant Essentials Virtualization Management Software	
	ProLiant Essentials Virtual Machine Management Pack, Single-Server License NOTE: For use with a single server. Contains one license with a unique license activation key and documentation.	435661-B21
	ProLiant Essentials Server Migration Pack, Single-Migration License NOTE: Contains one license, enabling 1 server migration, with a unique license activation key and documentation. NOTE: This license allows 1 server to be migrated from a physical server to a virtual machine. Or this license can be used to migrate a virtual machine from one virtualization layer i.e. VMware GSX to a different virtualization layer such as VMware ESX or Microsoft Virtual Server 2005.	435663-B21

Options

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

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

ProLiant Essentials Vulnerability and Patch Management Pack

ProLiant Essentials Vulnerability and Patch Management Pack, Single-Server License 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>.

Remote Management

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/11052_div/11052_div.HTML

Processor

AMD Opteron 885 2.6 GHz-1 MB Dual-core PC2700 Processor Option Kit 407660-B21

NOTE: This Opteron 885 2.6 GHz Dual-core PC2700 processor Option kit (PN 407660-B21) comes standard with the 011974-503 processor/memory board.

AMD Opteron 885 2.6 GHz-1 MB Dual-core PC3200 Processor Option Kit 407661-B21

NOTE: This Opteron 885 2.6 GHz Dual-core PC3200 processor Option kit (PN 407661-B21) comes standard with the 012567-501 processor/memory board.

AMD Opteron 880 2.4 GHz-1 MB Dual-core PC3200 Processor Option Kit 397844-B21

NOTE: This Opteron 880 2.4 GHz Dual-core PC3200 processor Option kit (PN 397844-B21) comes standard with the 012567-501 processor/memory board.

AMD Opteron 880 2.4 GHz-1 MB Dual-core PC2700 Processor Option Kit 397843-B21

NOTE: This Opteron 880 2.4 GHz Dual-core PC2700 processor Option kit (PN 397843-B21) comes standard with the 011974-503 processor/memory board.

AMD Opteron 875 2.2 GHz-1 MB Dual-core PC3200 Processor Option Kit 383393-B21

NOTE: This Opteron 875 2.2 GHz Dual-core PC3200 processor Option kit (PN 383393-B21) comes standard with the 012567-501 processor/memory board.

AMD Opteron 875 2.2 GHz-1 MB Dual-core PC2700 Processor Option Kit 383391-B21

NOTE: This Opteron 875 2.2 GHz Dual-core PC2700 processor Option kit (PN 383391-B21) comes standard with the 011974-503 processor/memory board.

AMD Opteron 865 1.8 GHz-1 MB Dual-core PC3200 Processor Option Kit 383392-B21

NOTE: This Opteron 865 1.8 GHz Dual-core PC3200 processor Option kit (PN 383392-B21) comes standard with the 012567-501 processor/memory board.

AMD Opteron 865 1.8 GHz-1 MB Dual-core PC2700 Processor Option Kit 383390-B21

NOTE: This Opteron 865 1.8 GHz Dual-core PC2700 processor Option kit (PN 383390-B21) comes standard with the 011974-503 processor/memory board.

Options

AMD Opteron 854 2.8 GHz-1 MB PC3200 processor Option Kit NOTE: This Opteron 854 2.8 GHz PC3200 processor Option kit (PN 397821-B21) comes standard with the 012567-501 processor/memory board.	397821-B21
AMD Opteron 854 2.8 GHz-1 MB PC2700 processor Option Kit NOTE: This Opteron 854 2.8 GHz PC2700 processor Option kit (PN 397820-B21) comes standard with the 011974-503 processor/memory board.	397820-B21
AMD Opteron 852 2.6 GHz-1 MB PC3200 Processor Option Kit NOTE: This Opteron 852 2.6 GHz PC3200 processor Option kit (PN 381477-B21) comes standard with the 012567-501 processor/memory board.	381477-B21
AMD Opteron 852 2.6 GHz-1 MB PC2700 Processor Option Kit NOTE: This Opteron 852 2.6 GHz PC2700 processor Option kit (PN 381476-B21) comes standard with the 011974-503 processor/memory board.	381476-B21
AMD Opteron 850 2.4 GHz-1 MB Processor Option Kit NOTE: This Opteron 850 2.4 GHz processor Option kit (PN 366725-B21) comes standard with the 011974-503 processor/memory board.	366725-B21
AMD Opteron 848 2.2 GHz-1 MB Processor Option Kit NOTE: This Opteron 848 2.2 GHz processor Option kit (PN 359708-B21) comes standard with the 011974-503 processor/memory board. NOTE: Must order two kits to expand the system from 2 to 4 processors	359708-B21

Memory (DIMMs)

1 GB of PC2100 DDR SDRAM DIMM Memory Kit (2 x 512 MB)	300679-B21
2 GB of PC2100 DDR SDRAM DIMM Memory Kit (2 x 1 GB)	300680-B21
4 GB of PC2100 DDR SDRAM DIMM Memory Kit (2 x 2 GB)	300682-B21
1 GB of PC2700 DDR SDRAM DIMM Memory (2 x 512 MB)	371047-B21
2 GB of PC2700 DDR SDRAM DIMM Memory (2 x 1 GB)	371048-B21
4 GB of PC2700 DDR SDRAM DIMM Memory (2 x 2 GB)	371049-B21
2 GB of PC3200 DDR SDRAM DIMM Memory (2 x 1 GB)	376639-B21
4 GB of PC3200 DDR SDRAM DIMM Memory (2 x 2 GB)	379300-B21
8 GB of PC2700 DDR SDRAM DIMM Memory (2 x 4 GB)	395409-B21
NOTE: The PC2700 DDR SDRAM DIMM Memory Kits are supported by the 2.4 GHz and faster models only.	
NOTE: For max memory PC2700 performance (333 MHz), -002 or greater processor boards must be used in conjunction with no more than 6 PC2700 DIMMs per processor board.	

Optical Drives

Slimline CD-RW/DVD-ROM Combo Drive Option Kit	331903-B21
Slimline DVD-ROM Drive (8X/24X) Option Kit (Servers)	264007-B21
HP DVD±R/RW 8X Slim	383975-B21

SAS Drive Cage

8-Bay SAS/SATA Cage Option Kit NOTE: The SAS/SATA Cage must be used in conjunction with a SAS/SATA Controller such as the Smart Array P600/256 BBWC Controller to upgrade all U320 models to SAS.	379090-B21
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Options

Hard Drives

Ultra320 - Universal Hot Plug

HP 300GB U320 10K Universal HDD	350964-B22
HP 146GB U320 10K Universal HDD	286716-B22
HP 72GB U320 10K Universal HDD	286714-B22
HP 300GB U320 15K Universal HDD	411089-B22
HP 146GB U320 15K Universal HDD	347708-B22
HP 72GB U320 15K Universal HDD	286778-B22
HP 36GB U320 15K Universal HDD	286776-B22

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

NOTE: Please see the Hard Drive QuickSpecs for Technical Specifications such as capacity, height, width, interface, transfer rate, seek time, physical configuration, and operating temperature:

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

SFF SATA Hard Disk Drives - Hot Plug

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

SFF SAS Hard Disk Drives - Hot Plug

HP 36GB 3G SAS 10K SFF SP HDD	375859-B21
HP 36GB 3G SAS 15K SFF SP HDD	431933-B21
HP 72GB 3G SAS 10K SFF SP HDD	375861-B21
HP 72GB 3G SAS 15K SFF SP HDD	431935-B21
HP 146GB 3G SAS 10K SFF SP HDD	431958-B21

NOTE: Please see the SFF 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)

Storage Controllers

SCSI Controllers

Smart Array 6402/128 Controller	273915-B21
Smart Array 6404/256 Controller	273914-B21
Smart Array 641 Controller	291966-B21
Smart Array 642 Controller	291967-B21

NOTE: The Smart Array 641 and 642 Controller must be placed in the 100MHz slots only.

128-MB BBWC (Battery-Backed Write Cache) Enabler	351580-B21
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NOTE: This 128MB BBWC supports the Smart Array 641 Controller and Smart Array 642 Controller.

Options

DL585 Cable Assembly, SCSI, Ultra3, LVDS	365483-B21
NOTE: All DL585 models ship standard with the integrated Smart Array 5i Plus Controller, which has been designed to deliver maximum performance and availability across the internal SCSI Duplex backplane.	
<ul style="list-style-type: none"> • The Ultra3 SCSI cable is required only if the customer chooses to bypass the Smart Array 5i Plus Controller and connect slot-based SCSI adapters or RAID controllers to the internal SCSI Duplex backplane. • Two cables are required to maintain the standard, duplexed configuration of the backplane. • One cable is required if the simplex configuration is chosen. • The backplane is easily configured to simplex mode by means of a simple switch (duplex to simplex) located on the top of the backplane itself. 	
Ultra320 Expansion Module for SA-6402	273911-B21
64-Bit/133-MHz Single Channel Ultra320 SCSI HBA G2	374654-B21
NOTE: Please see the following QuickSpecs for Technical Specifications and additional information:	
http://h18000.www1.hp.com/products/quickspecs/11587_div/11587_div.HTML (Smart Array 6400 Series)	
http://h18000.www1.hp.com/products/quickspecs/12067_div/12067_div.HTML (Smart Array 641)	
http://h18000.www1.hp.com/products/quickspecs/12069_div/12069_div.HTML (Smart Array 642)	
http://h18000.www1.hp.com/products/quickspecs/11943_div/11943_div.HTML (Single Channel U320 SCSI G2 HBA)	
SAS Controller	
Smart Array P600 Controller	
HP Smart Array P600/256 BBWC Controller	337972-B21
NOTE: The Smart Array P600 Controller supports internal and external Serial Attached SCSI and Serial ATA drives. It is supported in all HP ProLiant DL585 Models.	
NOTE: Internal usage of the Smart Array P600 Controller requires the 8-Bay SAS/SATA Drive Cage Option Kit.	
512 MB DDR BBWC Upgrade	372538-B21
NOTE: For Smart Array P600 Controller only.	
NOTE: Please see the following QuickSpecs for Technical Specifications and additional information:	
http://h18000.www1.hp.com/products/quickspecs/12247_div/12247_div.HTML (Smart P600 Controller)	
SAS HBA	
HP 8 Internal Port SAS HBA with RAID	347786-B21
NOTE: Please see the following QuickSpecs for additional information:	
http://h18004.www1.hp.com/products/quickspecs/12332_div/12332_div.html (SAS HBA)	

Options

Communications	HP NC150T PCI 4-port Gigabit 1000T Combo Switch Adapter	367132-B21
	HP NC310F PCI-X 1000SX Gigabit Server Adapter	368169-B21
	HP NC340T PCI-X 4-port 1000T Gigabit Server Adapter	391661-B21
	HP NC370T PCI-X Multifunction 1000T Gigabit Server Adapter	374191-B22
	HP NC1020 PCI 1000T Gigabit Server Adapter	353377-B21
	HP NC7771 PCI-X 1000T Gigabit Server Adapter	290563-B21

Tape Drives

NOTE: For a complete listing of HP Tape Drive offerings supported with this HP ProLiant server, please see:

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

NOTE: The following tape drives are recommended for use with this HP ProLiant server.

USB Tape Drives

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

NOTE: HP recommends combining this tape drive with the 1U USB Rack-Mount kit (A8007A) for a complete rack-mount solution.

Ultrium Tape Drives

HP StorageWorks Ultrium 232 Internal Tape Drive (Carbonite) DW064A

NOTE: HP recommends combining this tape drive with the 1U SCSI Rack-Mount kit (A7445B) for a complete rack-mount solution.

HP StorageWorks 3U SCSI Rack-mount kit with one Ultrium 460 (Carbon) 350546-B22

HP StorageWorks 1U SCSI Rack-mount kit with one Ultrium 448 SCSI Tape Drive (Carbonite) DW028B

HP StorageWorks 1U SCSI Rack-mount kit with one Ultrium 920 EH903A

HP StorageWorks 3U SCSI Rack-mount kit with one Ultrium 960 (Carbonite) Q1595B

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

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

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

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

Rack-Mount Tape Drive Enclosures

HP StorageWorks 1U SCSI Rack-Mount kit A7445B

NOTE: The 1U Rack-Mount Kit can support up to (2) half-height tape drives and is compatible with multiple Single-Ended and LVD SCSI tape drives including the DAT 24, DAT 40, DAT 72, DLT VS80, DLT VS160, Ultrium 215, Ultrium 232, Ultrium 448 and Ultrium 920 tape drives.

HP StorageWorks 1U USB Rack-Mount Kit A8007A

NOTE: The 1U USB Rack-Mount Kit can support up to (2) half-height tape drives and is compatible with the DAT 24 USB, DAT 40 USB and DAT 72 USB tape drives.

HP StorageWorks 3U Rack-mount kit 274338-B22

NOTE: The 3U Rack-mount Kit can support up to (2) full-height or (4) half-height tape drives and compatible with multiple LVD SCSI tape drives including DAT 40, DAT 72, DLT VS160, SDLT 320, SDLT 600, Ultrium 232, Ultrium 460, Ultrium 448, Ultrium 920 and Ultrium 960 tape drives.

Options

NOTE: Please see the Rack-Mount Tape Drive Kits QuickSpecs for additional information regarding these kits:
http://h18000.www1.hp.com/products/quickspecs/10854_div/10854_div.HTML
 (Worldwide)

Tape Autoloaders

HP StorageWorks DAT Autoloader

HP StorageWorks DAT 72x10 tape autoloader AE313A

HP StorageWorks 1/8 Tape Autoloader

HP StorageWorks 1/8 Ultrium 920 G2 Tape Autoloader AH165A

HP StorageWorks 1/8 Ultrium 448 G2 Tape Autoloader AH164A

HP StorageWorks 1/8 Ultrium 232 G2 Tape Autoloader AH163A

HP StorageWorks 1/8 G2 Tape Autoloader Rack Kit AH166A

NOTE: Required to install the 1/8 G2 Autoloaders in a standard 19-inch rack; includes rails and rackmount instructions

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

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

Tape Libraries

HP StorageWorks MSL2024 Tape Library

HP StorageWorks MSL2024 1 Ultrium 960 Drive Library AG115A

HP StorageWorks MSL2024 1 Ultrium 960 4GB FC Drive Library AG326B

HP StorageWorks MSL2024 1 Ultrium 920 Drive Library AH169A

HP StorageWorks MSL2024 2 Ultrium 920 Drive Library AH170A

HP StorageWorks MSL2024 1 Ultrium 448 Drive Library AG116A

HP StorageWorks MSL2024 2 Ultrium 448 Drive Library AG117A

HP StorageWorks MSL4048 Tape Library

HP StorageWorks MSL4048 1 Ultrium 448 Drive Library AG320A

HP StorageWorks MSL4048 2 Ultrium 448 Drive Library AG321A

HP StorageWorks MSL4048 1 Ultrium 920 Drive Library AH171A

HP StorageWorks MSL4048 2 Ultrium 920 Drive Library AH172A

HP StorageWorks MSL4048 1 Ultrium 960 Drive Library AG322A

HP StorageWorks MSL4048 1 Ultrium 960 4GB FC Drive Library AG324B

HP StorageWorks MSL4048 2 Ultrium 960 Drive Library AG323A

HP StorageWorks MSL4048 2 Ultrium 960 4GB FC Drive Library AG325B

HP StorageWorks MSL6000 Tape Library**Ultrium 960 technology**

HP StorageWorks MSL6030 1 Ultrium 960 Dr LVDS Library AD606B

HP StorageWorks MSL6030 1 Ultrium 960 Dr FC Library AD608B

HP StorageWorks MSL6030 2 Ultrium 960 Dr LVDS Library AD607B

HP StorageWorks MSL6030 2 Ultrium 960 Dr FC Library AD609B

Ultrium 460 technology

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

Options

HP StorageWorks MSL6030 2 Ultrium 460 Dr FC Library AD601B

NOTE: Please reference the MSL2024, MSL4048 and MSL6000 Tape Library QuickSpecs at <http://www.hp.com/go/automation> for additional information needed to create a complete solution; reference current compatibility information at <http://www.hp.com/go/ebs>.

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

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

NOTE: To obtain a free licensed copy of HP Data Protector Express for ProLiant edition software, please visit the "Protect Your Data" link accessible from your ProLiant server's System Management Homepage (SMH) software (SmartStart 7.5 or later).

Cluster Options ProLiant Cluster Starter Kit 364023-B22

NOTE: For additional information regarding the ProLiant Cluster Starter Kit please see the following QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/11935_div/11935_div.html (Worldwide)

HP HA/F200 for Entry SAN Cluster 364026-B22

NOTE: For additional information regarding the ProLiant Cluster for Entry Level SAN please see the following QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/11932_div/11932_div.html (Worldwide)

ProLiant Cluster HA/F500 for the Enterprise SAN 364024-B21

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

HP Serviceguard for Linux A.11.16 for SUSE SLES 9 & 10 and Red Hat EL 3 & 4 (single license version) 307754-B26

HP Serviceguard for Linux and Red Hat Global File System - 1 year subscription T2798AA#001

HP Serviceguard for Linux and Red Hat Global File System - 3 years subscription T2798AA#003

NOTE: For additional information regarding HP Serviceguard for Linux, please see the following QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/11518_div/11518_div.html (Worldwide)

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 information including configuration steps and additional options needed for a complete solution at:

http://h18000.www1.hp.com/products/quickspecs/12245_div/12245_div.HTML
(Worldwide)

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	HP, R1.5kVA UPS, 1U, NA AF419A HP, R1.5kVA UPS, 1U, INTL AF418A HP, R1.5kVA UPS, 1U, JPN/TW AF421A HP R3000 VA UPS, 2U, DTC, INTL AF414A NOTE: Replaces non-RoHs compliant part numbers 192186-B31, 192186-B32, 192186-B33, 192186-AR1. HP R3000 VA UPS, 2U, L5-30, NA AF422A NOTE: Replaces non-RoHs compliant part number 192186-001. HP R3000 VA UPS, 2U, L6-20, NA AF423A NOTE: Replaces non-RoHs compliant part number 192186-002. HP R3000 VA UPS, 2U, L6-20, JPN AF424A NOTE: Replaces non-RoHs compliant part number 192186-292. HP R3000 VA UPS, 2U, L5-30, JPN AF425A NOTE: Replaces non-RoHs compliant part number 192186-291. HP R5500 VA UPS, INTL AF416A NOTE: Replaces non-RoHs compliant part number 326529-B31. HP R5500 VA UPS, NA/JPN AF426A NOTE: Replaces non-RoHs compliant part number 326529-D71.	
HP Monitored Power Distribution Unit (PDU)	HP Monitored Power Distribution Unit: Full Rack Version HP 17.3 kVA S2324 Monitored PDU- dual input, 3U, 24A (NA/JPN) AF503A NOTE: Replaces non-RoHs compliant part number 370959-D71. HP 8.3 kVA S1324 Monitored PDU- single input, 3U, 24A (NA/JPN) AF504A NOTE: Replaces non-RoHs compliant part number 370960-D71. HP 16.6 kVA S2140 Monitored PDU- dual input, 1U, 40A (NA/JPN) AF505A NOTE: Replaces non-RoHs compliant part number 37061-D71. HP 8.6 S1140 Monitored PDU- single input, 1U, 40A (NA/JPN) AF506A NOTE: Replaces non-RoHs compliant part number 370962-D71. HP 22.1 kVA S2316 Monitored PDU- dual input, 3U, 16A (INTL) AF507A NOTE: Replaces non-RoHs compliant part number 370963-B31. HP 11 kVA S1316 Monitored PDU- single input, 3U, 16A (INTL) AF508A NOTE: Replaces non-RoHs compliant part number 370964-B31. HP 14.7 kVA S2132 Monitored PDU- dual input, 1U, 32A (INTL) AF509A NOTE: Replaces non-RoHs compliant part number 370965-B31.	

Options

HP 7.3kVA S1132 Monitored PDU- single input, 1U, 32A (INTL)	AF510A
NOTE: Replaces non-RoHs compliant part number 370966-B31.	
HP Monitored Power Distribution Unit: Half Rack Version	
HP 17.3 kVA S348 Monitored PDU- single input, 3-phase, 60A (NA/JPN)	AF916A
HP 22 kVA S332 Monitored PDU- single input, 3-phase, 32A (INTL)	AF917A
HP 4.9kVA S124 Monitored PDU- single input, 1U, 24A (NA/JPN)	AF914A
HP 7.3kVA S132 Monitored PDU- single input, 1U, 32A (INTL)	AF915A
NOTE: Replaces non-RoHs compliant part number 370966-B31.	

Modular Power	3.6kVA Model - mPDU, 16A, High (WW)	252663-B24
Distribution Units 1U/0U	2.8 kVA Model - mPDU, 24A, Low (NA/JPN)	252663-D71
(Up to 32 outlets)	4.9kVA Model - mPDU, 24A, High (NA/JPN)	252663-D72
NOTE: 1U/0U mounting brackets shipped with the unit (optimized for 10000 and 9000 series racks).	7.3kVA Model - mPDU, 32A, High (INTL)	252663-B31
	8.3kVA Model - mPDU, 40A, High (WW)	252663-B21
	8.3kVA Model - mPDU, 40A, High (power cord attached) (NA/JPN)	252663-D73
	9.2kVA Model - mPDU, 40A, High (power cord attached) (INTL)	252663-B32
	8.3kVA Model - mPDU 40A, High (core only) (NA/JPN)	252663-D75
	9.2kVA Model - mPDU 40 A, High (core only) (Int'l)	252663-B34
	8.3kVA Model - mPDU 32A, High (core only) (Int'l)	252663-B33
	4.9kVA Model - mPDU 24A, High (core only) (NA/JPN)	252663-D74
	NOTE: Please see the following Modular Power Distribution Unit (Zero-U/1U Modular PDUs) QuickSpecs for additional options including shorter jumper cables and country specific power cords: http://h18000.www1.hp.com/products/quickspecs/11041_div/11041_div.HTML (Worldwide)	

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

Third Party Rack Kit	3rd Party Rack Kit (ALL)	287528-B21
	NOTE: The rack kit (PN 287528-B21) provides support for any rack, square hole or round hole, (including HP Rack System /E and HP Systems), with an adjustment range from 23 ½" - 34" deep.	
	NOTE: The Third party rack kit is required for round hole racks or for square hole racks that do not conform to the adjustment range of the standard rail that ships with the server.	

Options

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																										
HP Rack 10000 G2 Series (Carbon/Graphite Metallic)	<table border="0"> <tbody> <tr><td>10642 G2 (42U) Rack Cabinet - Pallet</td><td>AF001A</td></tr> <tr><td>10642 G2 (42U) Rack Cabinet - Shock Pallet</td><td>AF002A</td></tr> <tr><td>10642 G2 (42U) Rack Cabinet - Crated</td><td>AF003A</td></tr> <tr><td>10642 G2 (42U) Rack Cabinet, with Extension - Shock Pallet</td><td>AF004A</td></tr> <tr><td>10636 G2 (36U) Rack Cabinet - Pallet</td><td>AF011A</td></tr> <tr><td>10636 G2 (36U) Rack Cabinet - Shock Pallet</td><td>AF012A</td></tr> <tr><td>10636 G2 (36U) Rack Cabinet - Crated</td><td>AF013A</td></tr> <tr><td>10636 G2 (36U) Rack Cabinet , with Extension - Shock Pallet</td><td>AF014A</td></tr> <tr><td>10622 G2 (22U) Rack Cabinet - Pallet</td><td>AF021A</td></tr> <tr><td>10622 G2 (22U) Rack Cabinet - Shock Pallet</td><td>AF022A</td></tr> <tr><td>10842 G2 (42U) 800mm Wide Rack Cabinet - Pallet</td><td>AF041A</td></tr> <tr><td>10842 G2 (42U) 800mm Wide Rack Cabinet - Shock Pallet</td><td>AF042A</td></tr> <tr><td>10647 G2 (47U) Rack Cabinet - Pallet</td><td>AF031A</td></tr> </tbody> </table> <p>NOTE: It is mandatory to use a shock pallet when shipping racks with equipment installed.</p> <p>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)</p> <p>NOTE: For additional information regarding Rack Cabinets, please see the following URL: http://www.hp.com/go/rackandpower.</p>	10642 G2 (42U) Rack Cabinet - Pallet	AF001A	10642 G2 (42U) Rack Cabinet - Shock Pallet	AF002A	10642 G2 (42U) Rack Cabinet - Crated	AF003A	10642 G2 (42U) Rack Cabinet, with Extension - Shock Pallet	AF004A	10636 G2 (36U) Rack Cabinet - Pallet	AF011A	10636 G2 (36U) Rack Cabinet - Shock Pallet	AF012A	10636 G2 (36U) Rack Cabinet - Crated	AF013A	10636 G2 (36U) Rack Cabinet , with Extension - Shock Pallet	AF014A	10622 G2 (22U) Rack Cabinet - Pallet	AF021A	10622 G2 (22U) Rack Cabinet - Shock Pallet	AF022A	10842 G2 (42U) 800mm Wide Rack Cabinet - Pallet	AF041A	10842 G2 (42U) 800mm Wide Rack Cabinet - Shock Pallet	AF042A	10647 G2 (47U) Rack Cabinet - Pallet	AF031A	
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HP Rack 10000 Series (Graphite Metallic)	<table border="0"> <tbody> <tr><td>Rack, HP Infrastructure 42U (HV)</td><td>379005-001</td></tr> <tr><td>Rack, HP Infrastructure 42U (LV)</td><td>379006-001</td></tr> <tr><td>HP Rack S10614 (14U) Rack Cabinet – Shock Pallet</td><td>292302-B22</td></tr> <tr><td>HP Rack 10842 (42U, 800mm wide) – Pallet</td><td>257415-B21</td></tr> <tr><td>HP Rack 10842 (42U, 800mm wide) – Shock Pallet</td><td>257415-B22</td></tr> <tr><td>HP Rack 10647 (47U) – Pallet</td><td>245160-B21</td></tr> <tr><td>HP Rack 10647 (47U) – Crated</td><td>245160-B23</td></tr> <tr><td>HP Rack 10622 (22U) – Pallet</td><td>245163-B21</td></tr> <tr><td>HP Rack 10622 (22U) – Shock Pallet</td><td>245163-B22</td></tr> <tr><td>HP Rack 10622 (22U) – Crated</td><td>245163-B23</td></tr> </tbody> </table> <p>NOTE: xxxxx-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). xxxxx-B23 (crated) used for air shipments of empty racks.</p>	Rack, HP Infrastructure 42U (HV)	379005-001	Rack, HP Infrastructure 42U (LV)	379006-001	HP Rack S10614 (14U) Rack Cabinet – Shock Pallet	292302-B22	HP Rack 10842 (42U, 800mm wide) – Pallet	257415-B21	HP Rack 10842 (42U, 800mm wide) – Shock Pallet	257415-B22	HP Rack 10647 (47U) – Pallet	245160-B21	HP Rack 10647 (47U) – Crated	245160-B23	HP Rack 10622 (22U) – Pallet	245163-B21	HP Rack 10622 (22U) – Shock Pallet	245163-B22	HP Rack 10622 (22U) – Crated	245163-B23							
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HP Rack 10622 (22U) – Crated	245163-B23																											

Options

NOTE: It is mandatory to use a shock pallet in order to ship racks with equipment installed.

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

http://h18000.www1.hp.com/products/quickspecs/10995_div/10995_div.HTML

(Worldwide)

NOTE: For additional information regarding Rack Cabinets, please see the following

URL: <http://www.hp.com/go/rackandpower>.

Keyboards and Monitors	TFT7210R Rack Mounted 17" Monitor	348373-B21
	TFT7600 Rackmount Keyboard Monitor US	AG052A
	TFT7600 Rackmount Keyboard Monitor UK	AG053A
	TFT7600 Rackmount Keyboard Monitor GR	AG054A
	TFT7600 Rackmount Keyboard Monitor FR	AG055A
	TFT7600 Rackmount Keyboard Monitor IT	AG056A
	TFT7600 Rackmount Keyboard Monitor SP	AG057A
	TFT7600 Rackmount Keyboard Monitor DEN	AG058A
	TFT7600 Rackmount Keyboard Monitor NOR	AG059A
	TFT7600 Rackmount Keyboard Monitor SE/FI	AG060A
	TFT7600 Rackmount Keyboard Monitor SWI	AG061A
	TFT7600 Rackmount Keyboard Monitor PORT	AG062A
	TFT7600 Rackmount Keyboard Monitor BEL	AG063A
	TFT7600 Rackmount Keyboard Monitor JPN2	AG064A
	TFT7600 Rackmount Keyboard Monitor RUS	AG065A
	TFT7600 Rackmount Keyboard Monitor INTL	AG066A
	1U Rackmount Keyboard with USB, US	AG072A
	1U Rackmount Keyboard with USB, UK	AG073A
	1U Rackmount Keyboard with USB, GR	AG074A
	1U Rackmount Keyboard with USB, FR	AG075A
	1U Rackmount Keyboard with USB, ITL	AG076A
	1U Rackmount Keyboard with USB, SP	AG077A
	1U Rackmount Keyboard with USB, DEN	AG078A
	1U Rackmount Keyboard with USB, NOR	AG079A
	1U Rackmount Keyboard with USB, SE/FI	AG080A
	1U Rackmount Keyboard with USB, SWI	AG081A
	1U Rackmount Keyboard with USB, PORT	AG082A
	1U Rackmount Keyboard with USB, BEL	AG083A
	1U Rackmount Keyboard with USB, JPN2	AG084A
	1U Rackmount Keyboard with USB, RUS	AG085A
	1U Rackmount Keyboard with USB, INTL	AG086A

NOTE: For additional information regarding Rack Options, please see the following

URL: <http://www.hp.com/go/rackandpower>.

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 Server Console Switch (ALL)	AF611A
	PS2 Server Console Cable, 6 ft, 2 pack	AF612A
USB Server Console Cable, 6 ft, 2 pack	AF613A	
NOTE: For additional information regarding KVM switches, Serial Console servers, rack mount monitors, keyboards and all related options please see the following URL: http://www.hp.com/go/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 .		

Options

Service and Support Offerings (HP Care Pack Services)	Hardware Services On-site Service	
	4-Hour On-site Service, 5-Day x 13-Hour Coverage, 3 Years, Electronic	U4607E
	4-Hour On-site Service, 7-Day x 24-Hour Coverage, 3 Years, Electronic	U4608E
	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	U4609E
	Installation & Start-up Services	
	Hardware Installation, Electronic	U4617E
	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	U4618E
	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	U4619E
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	U4620E	
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	U6316E	
Onsite HW support 24x7, 4hr response and Red Hat AS Linux SW Tech support offsite, onsite at HP's discretion, 24x7 2hr response time incl. HP holidays, Electronic	U9239E	

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

Memory

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

HP ProLiant DL585 2P Models

Standard Memory

4 GB PC3200 Double Data Rate (DDR) SDRAM (Registered SDRAM) memory running at 400 MHz or

2 GB PC2100 Double Data Rate (DDR) SDRAM (Registered SDRAM) memory running at 266 MHz or

2 GB PC2700 Double Data Rate (DDR) SDRAM (Registered SDRAM) memory running at 333 MHz with Advanced ECC

Rules:

- Must install a minimum of 2 DIMMs in the processor memory board in slot 2
- DIMMs on a processor memory board must be installed in pairs and in bank order
- All DIMMs on a processor memory board must be of the same size (512 MB, 1 GB, or 2 GB)
- Each processor memory board can have different amounts of memory, ex. Processor memory board 2 = (4) 1 GB, Processor memory board 1 = (2) 512 MB, Processor memory board 4 = no memory
- PC2700 memory support requires -002 or greater processor boards
- 333 MHz memory performance requires no more than 6 PC2700 DIMMs per processor board; any more will result in the memory slowing down to 266 MHz
- PC3200 memory, running at 400 MHz will be supported on a PC3200-only processor board (012567-001) with 4 DIMM slots, resulting in a system max of 32 GB with 4 processors

The following memory options are available from HP:

- 1 GB of PC2100 DDR SDRAM DIMM Memory Kit (2 x 512 MB) 300679-B21
- 2 GB of PC2100 DDR SDRAM DIMM Memory Kit (2 x 1 GB) 300680-B21
- 4 GB of PC2100 DDR SDRAM DIMM Memory Kit (2 x 2 GB) 300682-B21
- 1 GB of PC2700 DDR SDRAM DIMM Memory (2 x 512 MB) 371047-B21
- 2 GB of PC2700 DDR SDRAM DIMM Memory (2 x 1 GB) 371048-B21
- 4 GB of PC2700 DDR SDRAM DIMM Memory (2 x 2 GB) 371049-B21
- 2 GB of PC3200 DDR SDRAM DIMM Memory (2 x 1 GB) 376639-B21
- 4 GB of PC3200 DDR SDRAM DIMM Memory (2 x 2 GB) 379300-B21
- 8 GB of PC2700 DDR SDRAM DIMM Memory (2 x 4 GB) 395409-B21

Standard Memory Configuration								
Total Memory = 2 GB								
	1	2	3	4	5	6	7	8
Board 1	512 MB	512 MB	Empty	Empty	Empty	Empty	Empty	Empty
Board 2	512 MB	512 MB	Empty	Empty	Empty	Empty	Empty	Empty
Board 3 (optional)	Not installed	–	–	–	–	–	–	–
Board 4 (optional)	Not installed	–	–	–	–	–	–	–

Examples of other optional configurations include, but are not limited to:

Memory

Example #1: Optional Memory Configuration

Standard Memory plus Optional Processor Memory Boards and Processors

Total Memory = 32 GB

	1	2	3	4	5	6	7	8
Board 1	512 MB	512 MB	512 MB	512 MB	512 MB	512 MB	512 MB	512 MB
Board 2	512 MB	512 MB	512 MB	512 MB	512 MB	512 MB	512 MB	512 MB
Board 3 (optional)	2 GB	2 GB	2 GB	2 GB	2 GB	2 GB	2 GB	2 GB
Board 4 (optional)	1 GB	1 GB	1 GB	1 GB	1 GB	1 GB	1 GB	1 GB

Example #2: Optional Memory Configuration

Standard Memory plus Optional Processor Memory Boards and Processors

Total Memory = 8 GB

	1	2	3	4	5	6	7	8
Board 1	512 MB	512 MB	512 MB	512 MB	Empty	Empty	Empty	Empty
Board 2	512 MB	512 MB	512 MB	512 MB	Empty	Empty	Empty	Empty
Board 3 (optional)	512 MB	512 MB	512 MB	512 MB	Empty	Empty	Empty	Empty
Board 4 (optional)	512 MB	512 MB	512 MB	512 MB	Empty	Empty	Empty	Empty

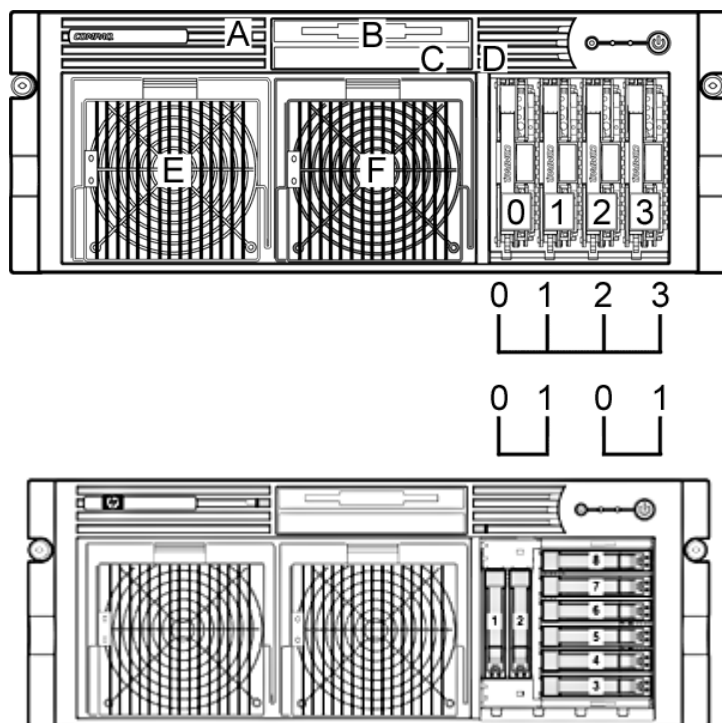
Example #3: Maximum Memory Configuration

Maximum Memory (Standard replaced with Optional Memory and Optional Memory Board)

Total Memory = 64 GB

	1	2	3	4	5	6	7	8
Board 1	2 GB	2 GB	2 GB	2 GB	2 GB	2 GB	2 GB	2 GB
Board 2	2 GB	2 GB	2 GB	2 GB	2 GB	2 GB	2 GB	2 GB
Board 3 (optional)	2 GB	2 GB	2 GB	2 GB	2 GB	2 GB	2 GB	2 GB
Board 4 (optional)	2 GB	2 GB	2 GB	2 GB	2 GB	2 GB	2 GB	2 GB

Storage



- A Diskette Drive eject button
- B Ejectable: 1.44 MB Diskette Drive (Slimline)
- C Ejectable: 24x IDE CD-ROM (Slimline)
- D CD-ROM Drive eject button
- E 870 Watt (low line or high line) Redundant Hot Plug Power Supply
- F 870 Watt (low line or high line) Primary Hot Plug Power Supply
- 0-3 Wide Ultra3 Drive Cage (Duplex or Simplex configurable). Duplex is standard shipping configuration
- 1-8 SFF SAS Internal Drive cage

Drive Support

	Quantity Supported	Position Supported	Controller
Ejectable Slimline Drives			
1.44-MB slimline Diskette Drive	Up to 1	B	Integrated
IDE slimline CD-ROM Drive	Up to 1	C	Integrated IDE
Slimline DVD-ROM Drive (8X/24X) Option Kit	Up to 1	B or C	Integrated IDE

Storage

Hard Drives

Ultra320 Hot Pluggable Drives

	Quantity Supported	Position Supported	Controller
300GB U320 10K	Up to 4	0-3	Smart Array 5i Plus Controller (integrated on system board)
146GB U320 10K			Smart Array 6402/128 Controller
72GB U320 10K			Smart Array 6404/256 Controller
300GB U320 15K			Smart Array 641 Controller
146GB U320 15K			Smart Array 642 Controller
72GB U320 15K			
36GB U320 15K			

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

SATA - Hot Plug Drives

	Quantity Supported	Position Supported	Controller
60GB 1.5G SATA 5.4K	8	1, 2, 7, 5, 3, 8, 6, 4 (should be populated in this order)	HP Smart Array P600/256 BBWC Controller

SFF SAS - Hot Plug Drives

	Quantity Supported	Position Supported	Controller
146GB 3G SAS 10K SP	8	1, 2, 7, 5, 3, 8, 6, 4 (should be populated in this order)	HP Smart Array P600/256 BBWC Controller
72GB 3G SAS 10K SP			
72GB 3G SAS 15K SP			
36GB 3G SAS 10K SP			
36GB 3G SAS 15K SP			

External Storage

	Quantity Supported	Position Supported	Host Controller or Adapter
Modular Smart Array 20 Family	1 per SCSI VHDCI connector	External	Smart Array 6402/128 Controller Smart Array 6404/256 Controller
Modular Smart Array 30 Family	Up to 13	External	Smart Array 6402/128 Controller Smart Array 6404/256 Controller Smart Array 642 Controller
Modular Smart Array 50 Enclosure	2 per connector (supports 1+1 cascading)	External	HP Smart Array P600/256 BBWC Controller

Storage

Modular Smart Array 1000	Please see the Modular Smart Array 1000 QuickSpecs below to determine configuration requirements	External	Please see the Modular Smart Array 1000 QuickSpecs (URL below) for the latest list of supported HBAs
Modular Smart Array 1500 cs	Please see the Modular Smart Array 1500 cs QuickSpecs below to determine configuration requirements	External	Please see the Modular Smart Array 1500 cs QuickSpecs (URL below) for the latest list of supported HBAs

Modular Smart Array 1000:

http://h18000.www1.hp.com/products/quickspecs/11033_div/11033_div.HTML (Worldwide)

Modular Smart Array 1500 cs: <http://www.hp.com/go/MSA1500cs>

Maximum Storage Capacity – (External Enclosure Attached)

Internal	1.20TB (4 x 300GB Ultra320 SCSI Drives)
External	84.0TB (20 x (14 x 300GB Ultra320 SCSI Drives))
Total	85.2TB

Tape Drives, Tape Autoloaders, and 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 & Tape Libraries listed below, please see the following:

<http://h18000.www1.hp.com/products/quickspecs/Division/10809.html> (Worldwide)

NOTE: For complete listing of tape drive offerings see:

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

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

	Position Supported	Controller	Part Number
HP StorageWorks Tape Drives, External	External	USB 2.0 Port	N/A
DAT 24 USB			
DAT 40 USB			
DAT 72 USB			

Storage

HP StorageWorks Tape Drives, External Ultrium 232 Ultrium 448 Ultrium 460 Ultrium 920 Ultrium 960 DAT 40 DAT 72 DLT VS160 SDLT 600	External	64-Bit/133-MHz Single Channel Ultra320 SCSI HBA G2	374654-B21
HP StorageWorks Autoloaders, External DAT 72x10 Autoloader 1/8 G2 Tape Autoloader	External	64-Bit/133-MHz Single Channel Ultra320 SCSI HBA G2	374654-B21
HP StorageWorks SCSI Rack-Mount Tape Drive Enclosures 1U Rack-Mount Kit 3U Rack-Mount Kit	External	64-Bit/133-MHz Single Channel Ultra320 SCSI HBA G2	374654-B21
HP StorageWorks USB Rack-Mount Tape Drive Enclosures 1U Rack-Mount Kit	External	USB 2.0 Port	N/A
HP StorageWorks Tape Libraries, External MSL2024 (Ultrium 448, Ultrium 920 and 960-based) MSL4048 (Ultrium 448, Ultrium 920 and 960-based) MSL6000 (Ultrium 960 and 460-based) MSL6000 (SDLT 600-based)	External	Please consult the EBS connectivity matrix at <u>http://www.hp.com/go/ebs</u> for detailed connectivity information.	N/A

Power Specifications

Part Number	384413-001 (870W)
Spare Kit	192201-002 (870W)
Operational Input Voltage Range (Vrms)	90 to 264
Frequency Range (Nominal) (Hz)	47 to 63 (50/60)

System Specifications

DL585 Fully Configured

4 processors, 32 memory modules, 4 hard drives, 8 PCI-X expansion cards, 8 hot plug fans, and 2 hot plug power supplies.

Power Supply Specification	Part number		192147-001			
	Spare Kit		278535-B21			
Operational Input Voltage Range (Vrms)	90 - 264					
Frequency Range (Nominal) (Hz)	47 - 63 (50 / 60)					
Nominal Input Voltage (Vrms)	100	115	208	220	230	240
Max Rated Output Wattage Rating	870	870	870	870	870	870
Nominal Input Current (A rms)	12.0	10.4	5.7	5.3	5.1	4.9
Max Rated Input Wattage Rating (Watts)	1192	1184	1160	1145	1145	1145
Max. Rated VA (Volt-Amp)	1204	1196	1184	1168	1168	1168
Efficiency (%)	73	73.5	75	76	76	76
Power Factor	0.99		0.98			
Leakage Current (mA)	0.43	0.50	0.90	0.96	1.00	1.04
Max. Inrush Current (A peak)	25	25	25	25	25	25
Max. Inrush Current duration (mS)	3					
System Specifications DL585 Fully Configured	Processor	Memory	HDD	PCI	PS	
	4	32	4	8	2	
Nominal Input Voltage (Vrms)	100	115	208	220	230	
Fully Loaded System Input Wattage (W)	1135	1096	1059	1055	1050	
Fully Loaded System Input Current (A rms)	11.4	9.6	5.2	4.9	4.7	
Fully Loaded System Thermal (BTU-Hr)	3870	3736	3611	3596	3582	
Fully Loaded System VA (Volt-Amp)	1141	1101	1080	1076	1072	
System Leakage with all power supplies loaded (mA)	0.87	1.00	1.81	1.91	2.00	
System Inrush Current with all power supplies loaded (A)	50	50	50	50	50	
Power cord requirements	Nema 5-15P to IEC320-C19					
	Option no. 235603-001 / Spare no: 237457-001					
	PDU Jumper Cord IEC320-C19 to IEC320-C20					
	Option no 295633-B21. / Spare no.: 295508-001					

Power Specifications

***NOTE:** - To review typical system power ratings use the Active Answers Power Calculator which is available via the online tool located at url:

<http://h30099.www3.hp.com/configurator/calc/Power%20Calculator%20Catalog.xls>

To drill down to calculators:

- Click on: "ProLiant Servers"
- Click on the Server of interest. Example: DL585
- Click on: "Power Calculator" link. (You may need to scroll down to see it)

Nominal Input Voltage (Vrms)	100	115	208	220	230	240
Fully Loaded System Input Wattage (W)	954	928	890	890	890	879
Fully Loaded System Input Current (A rms)	10	8.5	4.4	4.1	4.0	3.7
Fully Loaded System Thermal (BTU- Hr)	3253	3163	3063	3063	3063	2996
Fully Loaded System VA (Volt-Amp)	1004	976	909	909	909	897
System Leakage with all power supplies loaded (mA)	.87	1.00	1.81	1.91	2.00	2.09
System Inrush Current with all power supplies loaded (A)	50	50	50	50	50	50
Power cord requirements	Nema 5-15P to IEC320-C19			Option no./Spare no: 235603-001/237457-001		
	PDU Jumper Cord IEC320-C19 to IEC320-C20			Option no./Spare no: 295633-B21/295508-001		
	PDU Jumper Cord IEC320-C14 to IEC320-C19			Option no./Spare no: 291034-001/292241-001		

NOTES:

* To review typical system power ratings use the Active Answers Power Calculator which is available via the online tool located at URL: <http://h30099.www3.hp.com/configurator/powercalcs.asp>.

To drill down to calculators:

- Click on: "ProLiant Servers"
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- Click on: "Power Calculator" link (You may need to scroll down to see it.)

Power Cords	Power Cord Part Number
Country	
US	295529-001
AUST	295529-011
EURO	295529-021
UK	295529-031
Japan	295529-291

Technical Specifications

System Unit Rack	Chassis Footprint (HxWxD)	6.94 x 19 x 26.5 in (17.6 x 48.3 x 67.3 cm)		
	Weight	66 lb (29.9 kg)		
	No hard drives installed, one power supply			
	Input Requirements	Rated Input Voltage	100 to 120 VAC/200 to 240 VAC	
		Rated Input Frequency	50 to 60 Hz	
		Input Power	1135W @ 110 VAC/1125W @ 220 VAC	
		Rated Input Current	12A (100 VAC), 9.8A (120 VAC), 4.9A (220 VAC)	
	Max BTU Rating	4070 BTU		
	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: <ul style="list-style-type: none"> • Click on: "ProLiant Servers" • Click on the Server of interest. Example: DL585 • Click on: "Power Calculator" link (You may need to scroll down to see it.) 		
Power Supply Output Power (per power supply)	Rated Steady-State Power	800W/800W (lowline/highline)		
	Maximum Peak Power	800W/800W (lowline/highline)		
Temperature Range	Operating	50° to 95° F (10° to 35° C)		
	Non-operating	-20° to 140° F (-29° to 60° C)		
	Shipping	-22° to 122° F (-30° to 50° C)		
Relative Humidity (non-condensing)	Operating	10% to 70%		
	Non-operating	5% to 95%		
Maximum Wet Bulb Temperature	101.7° F (38.7° C)			
Acoustic Noise	NOTE: Listed are the declared A-weighted sound power levels LWAd and the declared average bystander position sound pressure levels LpAm when operating in a 23° C ambient environment. Noise emissions were measured in accordance with ECMA 74 and declared in accordance with ECMA 109.			
	Idle (Fixed Disk Drives Spinning)			
		L WAd (BELS)	7.3	
		L pAm (dBA)	55	
	Operating Minimum (Random Seeks to Fixed Disks)			
		L WAd (BELS)	7.3	
		L pAm (dBA)	55	
	NOTE: These values apply to 4U rack configuration with the Health Driver Fan Control active. Configuration tested included 2 AMD Opteron 2.2 GHz processors, 1 15 krpm hard drive, 2 power supplies, 4 memory/IO fans and 4 CPU fans.			

Technical Specifications

24X Max (or higher) IDE CD-ROM Drive Slim Line	Disk	Applicable Disk	CD-DA, CD-ROM (Mode 1 and 2) CD-XA, CD-I (Mode 2, Form 1 and 2) Photo CD (Single and Multi-session) Mixed Mode (Audio and Data combined)
		Capacity	540 MB (Mode 1, 12 cm) 650 MB (Mode 2, 12 cm)
		Diameter	4.7 x 3.15 in (12 x 8 cm)
		Rotational Speed	4200 rpm maximum
		Center Hole	0.6 in/15 mm diameter
		Thickness	1.2 mm
		Track Pitch	1.6 μ m
	Block Size	Mode 1	2,048
		Mode 2	2,340, 2,336, 1,024 bytes
		CD-DA	2,352 bytes
		CD-XA	2,328 bytes
	Interface	IDE (ATAPI)	
	Access Times (typical)	Random	100 ms
		Full-Stroke	2000 ms
	Audio Output Level	Line-Out	0.7 Vrms at 47 kOhms
		Headphone	0.6 Vrms at 32 kOhms (maximum volume)
	Data Transfer Rate	Sustained	150 KB/s (sustained 1X)
		Burst	2100 to 3600 KB/s
	Cache Buffer	128 KB	
	Start-up Time (typical)	< 7seconds	
	Stop Time	< 4seconds	
	Laser Parameters	Type	Semiconductor Laser GaAlAs
		Wave Length	780 \pm 25 nm
		Divergence Angle	53.5 $^{\circ}$ \pm 1.5 $^{\circ}$
		Output Power	0.14 mW
	Operating Conditions	Temperature	41 $^{\circ}$ to 113 $^{\circ}$ F (5 $^{\circ}$ to 45 $^{\circ}$ C)
		Humidity	10% to 80%
	Dimensions	(HxWxD, maximum)	1.69 x 5.75 x 8.19 in (4.29 x 15 x 20.8 cm)
		Weight	2.66 lb (1.2 kg)

Slimline CD-RW/DVD-ROM 24X Combo Drive (Multibay)

Shipping Dimensions

13.88 x 11.38 x 9.25 in (35.26 x 28.91 x 23.50 cm)

Shipping Weight

5 lb (2.27 kg)

Disk

Applicable Disk

DVD-ROM

DVD-R (Read Only)

2.6 GB/side DVD-RAM (Read Only)

5.2 GB/side DVD-RAM (Read Only)

CD-ROM Mode-1 data disc

CD-ROM Mode-2 data disc

CD Audio disc

Technical Specifications

		CD-Extra	
		CD-RW	
		CD-R	
		CD Text	
		PhotoCD	
		CD-I (mode 2)	
		CD-I Ready	
		CD-Bridge	
	Capacity	DVD-ROM	DVD-SL 4.7 GB/side
			DVD-DL 8.5 GB/side
			Double Sided 9.40 GB/side
		DVD-R	3.95 GB/side
		DVD-RAM	2.6 GB/side and 5.2 GB/
		CD-ROM	Mode-1 650 MB (550 MB)
			Mode-2 742 MB (640 MB)
	Block Size	DVD	2,048 bytes
		CD	2,352 (Mode-0)
			2352, 2340, 2336, 2048 bytes (Mode-1)
			2352, 2340, 2336, 2048 bytes (Mode-2)
	Diameter	120 mm, 80 mm (with adapter at vertical mounting mode)	
Loading Mechanism	Tray type		
Interface	EIDE (ATAPI)		
Access Times (typical)	Random	DVD-ROM < 120 ms, CD-ROM < 110 ms	
	Full-Stroke	DVD-ROM < 240 ms, CD-ROM < 160 ms	
Audio Output Level (typical)	Line-out	CD 0.7 Vrms at 47 Kohms Load	
Data Transfer Rate (sustained)	DVD-ROM	Single Layer	10.8 MB/sec. Max.
	DVD-RAM	2.77 MB/sec. Max	
	CD-ROM	7.2 MB/sec. Max.	
Cache Buffer	2 MB		
Spin-up Time (typical)	less than 10 seconds		
MTBF	120,000 Power On Hours (POH)		
Ambient Temperature	Operating	-22° to 140° F (-30° to 60° C)	
Relative Humidity	Operating	10% to 80%	
	Storage/Transportation	5% to 95%	
Dimensions	(HxWxD, maximum)	0.5 x 5.04 x 5.1 in (12.7x128x129.4 mm)	
Option Kit Contents	DVD-ROM drive with installation guide, warranty card, registration card		

Technical Specifications

Integrated Lights-Out Standard (integrated on system board)	Architecture	32-bit PCI-based health and remote management ASIC (Application Specific Integrated Circuit)
	Processor	32-bit RISC processor core running at 66 MHz
	Upgradeability	Option firmware upgradeable via flash ROM.
	Video Support	Utilizes the host server's embedded video chip. Supports VGA/SVGA, 640 x 480 (256 to 16.7M colors), 800 x 600 (256 to 16.7M colors), 1024 x 768 (256 to 65K colors), 1280 x 1024 (256 colors)
	Interfaces	One Ethernet network connection (10/100 Mb/s)
	Memory	2-MB Flash ROM 8-MB SDRAM
	Operating System Support	Windows 2000 Server Windows 2000 Advanced Server Red Hat 7.x SuSE 7.0
	Client Browser Support	Microsoft Internet Explorer 5.5 or later.
	iLO Standard Features	Virtual Text Remote Console Virtual Power Button Control Dedicated LAN Connectivity Automatic IP Configuration via DHCP/DNS/WINS Industry Standard 128-bit Secure Sockets Layer (SSL) Security IML and iLO Event Logging Support for up to 12 user accounts with customizable access privileges
	iLO Advanced Features (optional)	Virtual Graphical Remote Console Virtual Floppy Drive

Integrated Smart Array 5i Plus Controller	Data Compatible with all Smart Array Controllers	Yes
	Instant Upgrades to other Smart Array Controllers	Yes
	Consistent Software Manageability Tools	Yes
	PCI-X Bus	64-bit, 100 MHz (integrated on system board)
	PCI-X Peak Data Transfer Rate	800 MB/s
	SCSI Protocols Supported	Ultra3, Ultra2
	SCSI Peak Data Transfer Rate	160 MB/s per channel
	NOTE: For ProLiant servers having TWO internal drive bays on separate SCSI ports: SCSI Peak Data Transfer Rate is 320 MB/s total; 160 MB/s per channel and Channels is 2.	
	Channels	2 (only one connected)
	NOTE: For ProLiant servers having two internal drive bays on separate SCSI ports: SCSI Peak Data Transfer Rate is 320 MB/s total; 160 MB/s per channel and Channels is 2.	
	SCSI Ports (external/internal)	0/1

Technical Specifications

NOTE: For ProLiant servers having two internal drive bays on separate SCSI ports: SCSI Peak Data Transfer Rate is 320 MB/s total; 160 MB/s per channel and Channels is 2.

Drives Supported 2
(maximum)

NOTE: Maximum is the total number of internal drives on each specific ProLiant server.

Cache 64 MB Read and/or Write Cache

Battery-Backed Write Cache Yes, with installation of Battery-Backed Write Cache Enabler, up to 64 MB Cache

RAID Support 0, 1, 1+0, 5

Logical Drives (maximum) Maximum = total number of drives

Online Configuration Yes

Online Capacity Expansion Yes

Logical Drive Capacity Extension Yes

Online Stripe Size Migration Yes

Online RAID Level Migration Yes

Online Spare Support Yes

Automatic Data Recovery Yes

Drive Roaming Yes

Redundant Controllers No

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

Network Interface 10/100/1000-T

Compatibility IEEE 802.3 10Base-T
IEEE 802.3ab 1000Base-T
IEEE 802.3u 100Base-TX

Data Transfer Method 64-bit/133MHz PCI-X

Network Transfer Rate

10Base-T (Half-Duplex)	10 Mb/s
10Base-T (Full-Duplex)	20 Mb/s
100Base-TX (Half-Duplex)	100 Mb/s
100Base-TX (Full-Duplex)	200 Mb/s
1000Base-TX (Half and Full-Duplex)	2000 Mb/s

Connector RJ-45

Cable Support 10Base-T Category 3, 4 or 5 UTP up to 328 ft (100 m)
10/100/1000Base-T Category 5 UTP (2 pair); up to 328 ft (100 m)

Technical Specifications

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