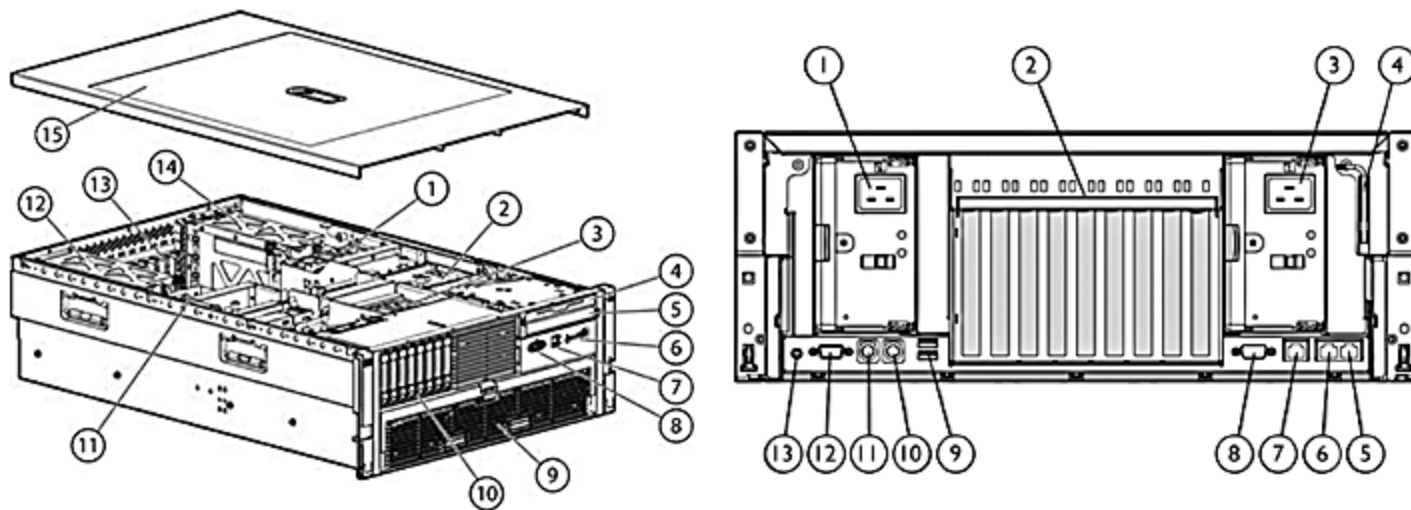


Overview



Front View:

1. Hot Plug Redundant Fans (standard)
2. System Insight Display
3. Hot Plug Redundant Fans (standard)
4. 1.44 MB Diskette Drive bay
5. DVD/CD-RW drive (standard)
6. Front Panel LED Display (internal and external health, Unit ID light) and Power Button
7. Two USB ports
8. One video port
9. Front accessible processor / memory cage
10. Eight bay Small Form Factor (SFF) Serial Attached SCSI (SAS) drive cage
11. 4U (7" Height) Rack Form Factor
12. Hot Plug Redundant Power Supply
13. Nine PCI I/O Slots (2 64-bit/100MHz PCI-X, 4 PCI-Express x4, 3 PCI-Express x8)
14. Hot Plug Redundant Power Supply
15. Removable Top Access Panel

Rear View:

1. Redundant hot-plug power supply (optional)
2. PCI Express and PCI-X non-hot-plug expansion slots
3. Hot-plug power supply (primary)
4. T-15 Torx screwdriver
5. NIC connector 2
6. NIC connector 1
7. Integrated Lights-Out 2 (iLO 2) connector
8. Serial connector
9. USB connectors (two)
10. Mouse connector
11. Keyboard connector
12. Video connector
13. Rear UID button and LED

At A Glance

Powered by Latest AMD Opteron® Six-Core Processors DL585 G6 is positioned as the leading performance 4P multi-core rack mount server with the expansion capabilities to make it ideal for server virtualization, server consolidation, multi-tiered enterprise application, and corporate infrastructure applications.

- **Processors:**
 - Six-Core AMD Opteron™ 8400 Series Processors
 - Up to 6MB shared L3 cache
 - Up to 2.8GHz clock speed
- **Memory:**
 - Up to 256 GB of memory
 - 32 slots of PC2-6400 registered DIMMs up to 800MHz
- **Storage Controller:**
 - HP Smart Array P410/512 MB BBWC Controller(RAID 0/1/1+0/5/5+0)
 - Available upgrades: 256MB, 512MB with BBWC, Battery kit upgrade (for the 256MB cache), 512MB, 1G with FBWC, and Smart Array Advanced Pack (SAAP)
- **Internal Drive Support:**
 - Up to 4TB internal storage (8 x 500GB SAS/SATA)
 - Slimline optical drive bay, DVD/CD-RW standard on some models
- **Network Controller:**
 - Two embedded NC371i Multifunction Gigabit Network Adapters with TCP/IP Offload Engine, including support for Accelerated iSCSI through an optional Licensing Kit
- **Expansion Slots:**
 - 9 total slots: (3) x8 PCI-Express; (4) x4 PCI-Express; (2) PCI-X (100MHz)
 - One slot populated with the HP Smart Array P410 Controller
- **Ports:**
 - USB: (5) Total USB 2.0 Ports: (2) front; (2) rear; (1) internal
 - Video: One front and one rear video ports

Overview

- **Redundancy:**
 - Redundant hot plug power supplies and fans
- **Infrastructure Management:**
 - Convenient slide-out Systems Insight Display for quick and easy front view server diagnostics, along with status LEDs, Automatic Server Recovery (ASR), ROM Based Setup Utility (RBSU)
 - HP Integrated Lights-Out 2 (iLO 2) management processor for simplified server setup, health monitoring and recovery, power and thermal control, and lights-out remote administration.
 - HP Insight Control, a product option, delivers essential infrastructure management that can help save time and money by making it easy to deploy, migrate, monitor, control and optimize your IT infrastructure through a single, simple management console. Insight Control supports both Windows and Linux-based central management servers.
 - HP Insight Dynamics for ProLiant, a product option, is an integrated command center that enables IT Staff personnel to continuously analyze and optimize a converged infrastructure, while automating and reducing the cost of common data center tasks by as much as 40 percent. This ultimately enables them to dynamically keep pace with the organization's changing business requirements.
- **Operating Systems and Virtualization Software Support for ProLiant Servers:**
 - Supports Windows, RHEL, SLES, OEL, Solaris, VMware, and HP Citrix Essentials for XenServer
- **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)
 - Customer Self Repair (CSR): HP products are designed with many CSR parts to minimize repair time and allow for greater flexibility in performing defective parts replacement
- **Warranty:**
 - This product is covered by a global limited warranty and supported by HP Services and a worldwide network of HP Authorized Channel Partners resellers. 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. Enhancements to warranty services are available through HP Care Pack services or customized service agreements. Hard drives have either a one year or three year warranty; refer to the specific hard drive QuickSpecs for details.
NOTE: Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response. Warranty repairs may be accomplished through the use of Customer Self Repair (CSR) parts. These parts fall into two categories: 1) Mandatory CSR parts are designed for easy replacement. A travel and labor charge will result when customers decline to replace a Mandatory CSR part; 2) Optional CSR parts are also designed for easy replacement but may involve added complexity. Customers may choose to have HP replace Optional CSR parts at no charge. Additional information regarding worldwide limited warranty and technical support is available at: <http://h18004.www1.hp.com/products/servers/platforms/warranty/index.html>.

Standard Features

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

Processor

Two or four of the following depending on model

Six-Core Processors

AMD Opteron™ processor Model 8439SE (2.8 GHz, 105W ACP)

AMD Opteron™ processor Model 8425HE (2.1 GHz, 55W ACP)

AMD Opteron™ processor Model 8435 (2.6 GHz, 75W ACP)

AMD Opteron™ processor Model 8431 (2.4 GHz, 75W ACP)

NOTE: Processor wattage references reflect Average CPU Power (ACP). For more information on ACP visit: <http://www.amd.com/powernow>.

Cache Memory

6 MB Level 3 cache memory

Upgradeability

Upgradeable to quad (4) processors

Chipset

NVIDIA NForce Professional 2200 and 2050 chipsets, and AMD-8132 chipset

Memory Protection

Advanced ECC capabilities

Memory

Type	REG PC2-6400 DIMMs (DDR2-800)
Standard	16 GB (8 x 2 GB)
Maximum	256 GB (32 x 8 GB)

Network Controller

Two embedded NC371i Multifunction Gigabit Network Adapters with TCP/IP Offload Engine, including support for Accelerated iSCSI through an optional Licensing Kit

Expansion Slots

Expansion Slots #	Technology	Bus Width	Connector Width	Bus Number	Device No.	Form Factor	Notes
1	PCI-X	64-bit	N/A	66	1	Full height or half length	
2	PCI-X	64-bit	N/A	66	2	Full length, full height	
3	PCI-Express	x4	x8	73	0	Full length, full height	100MHz
4	PCI-Express	x4	x8	76	0	Full length, full height	100MHz
5	PCI-Express	x8	x16	70	0	Full length, full height	
6	PCI-Express	x4	x8	79	0	Full length, full height	100MHz
7	PCI-Express	x8	x16	2	0	Full length, full height	100MHz
8	PCI-Express	x8	x16	5	0	Full length, full height	Reserved slot for Smart Array P410 Controller
9	PCI-Express	x4	x8	8	0	Full height or half length	

Storage Controller

HP Smart Array P410/512 MB BBWC Controller (RAID 0/1/1+0/5/5+0)
 Available upgrades: 256MB, 512MB with BBWC, 512MB with FBWC, 1G with FBWC, Battery kit upgrade (for the 256MB cache), and Smart Array Advanced Pack (SAAP)

Standard Features

Storage Data Protection

The Battery-Backed Write Cache (BBWC) Enabler for the Smart Array P410 Controller protects up to 512-MB write cache memory from hard boot, power, controller, or system board failures.

- Standard on most HP ProLiant DL585 G6 models
- Battery charge/life: Up to 48 hours/3 years
- Transportable data protection
- Increases overall controller performance

NOTE: Safely transport your write cache data to another HP ProLiant DL585 G6 in the data center by removing the BBWC and Smart Array P410 Controller Memory Module simultaneously.

Storage

Diskette Drive	1.44MB Diskette Drive bay available
Optical Drive	Slimline DVD/CD-RW Drive Standard on some models - ejectable for security and serviceability
Hard Drives	None standard
Hard Disk Drive Backplane	Internal SAS backplane supports up to eight SFF hard disk drives

Maximum Internal Storage

Hot Plug SFF SAS	4.0 TB	8 x 500GB SFF SAS (internal hot plug)
Hot Plug SFF SATA	4.0 TB	8 x 500GB SFF SATA (internal hot plug)

Interfaces

Serial	1
Pointing Device (Mouse)	1
Video	1 front, 1 rear
Keyboard	1
USB 2.0 Ports	2 front, 2 rear, 1 internal
iLO 2 Remote Management port	1
Network RJ-45 (Ethernet)	2

Graphics

Integrated ATI RN-50 1600x1280x64K 16M color (32 MB DDR1 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

HP Insight Management Control Software

HP Insight Foundation Managing the growing number of servers can be complex and expensive for your organization. IT managers need to address changing business needs with tools that meet the challenges of managing today's complex Datacenters.

HP provides management solutions that are designed to simplify a server's installation, configuration and maintenance throughout the entire server lifecycle. This provides the customer with higher levels of operational efficiency and highly reliable systems:

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

The foundation pack includes:

- HP SmartStart
- HP Management
- HP ProLiant Firmware Maintenance

ProLiant Onboard Administrator

HP ProLiant Onboard Administrator (powered by the HP Integrated Lights-Out 2 management processor) simplifies server setup, health monitoring, power and thermal control, and lights-out remote administration of ProLiant ML, DL, and BL servers. HP ProLiant Onboard Administrator functions without additional software, and can be accessed from any location via a web browser. It works hand-in-hand with HP Systems Insight Manager, Insight Control suites, and the Insight Dynamics-VSE suite helping customers unlock the value of the ProLiant platform and deliver the highest possible quality of IT service to the business. See www.hp.com/go/ProLiantOA

HP Insight Control

HP Insight Control, a product option, delivers essential infrastructure management that can help save time and money by making it easy to deploy, migrate, monitor, remote control, and optimize your IT

Standard Features

infrastructure through a single, simple management console.

Two versions of Insight Control are available, to serve environments requiring either a Linux-based or a Windows-based central management server: HP Insight Control for Linux, and HP Insight Control. See www.hp.com/go/insightcontrol

HP Insight Control includes one year of 24 x 7 HP Software Technical Support and Update Service ensuring rapid access to HP support staff and proactive delivery of software updates. For more information about this service, please visit: <http://www.hp.com/services/insight>.

HP Insight Dynamics for ProLiant

HP Insight Dynamics for ProLiant, a product option, is an integrated command center that enables IT Staff personnel to continuously analyze and optimize a converged infrastructure, while automating and reducing the cost of common data center tasks by as much as 40 percent. As a powerfully integrated by design toolkit to accelerate complex technology projects and simplify daily operations that ultimately enable IT Staff personnel to dynamically keep pace with the organizations changing business requirements. It enables them to plan capacity and power continuously, balance across physical and virtual resources, and ensure cost-effective high availability. It also enables IT organizations to provision infrastructure consistently and automatically from pools of shared resources using a self-service portal. Resources provisioned can range from a single virtual machine to complex multi-tier environments and their associated physical and virtual resource requirements. In addition to the previous functional benefits, it also provides a cost-effective disaster recovery for physical and virtual environments that works with HP StorageWorks Continuous Access software for both the Enterprise Virtual Array and the XP storage array allowing application environments to be reactivated in minutes with the touch of a button to a remote location.

NOTE: For more information, visit: <http://www.hp.com/go/insightdynamics>

Industry Standard Compliance

ACPI 1.0a. Compliant
 PCI 2.2 Compliant
 PXE Support
 WOL Support (with embedded NC371i Multifunction Gigabit Network Adapters)
 Physical Address Extension (PAE) Support
 Microsoft® Logo certifications
 USB 2.0 Support

Intelligent Manageability

HP Systems Insight Manager software
 SmartStart
 Redundant ROM
 Remote Flash ROM
 Management Agents
 Integrated Management Log (IML)
 Automatic Server Recovery-2 (ASR-2)
 ROM-Based Setup Utility (RBSU)
 Dynamic Sector Repairing (with Smart Array Controllers)
 Drive Parameter Tracking (with Smart Array Controllers)
 Pre-Failure Warranty (covers processors, SAS hard drives and memory)
 Redundant/adaptive load balancing NIC Support

Availability

- Smart Array P410 Controller with Battery Backed Write Cache (BBWC) provides transportable data protection and increases overall controller performance.
- Up to 512MB Battery Backed Write Cache protection available on HP ProLiant DL585 G6 models.
- Up to eight hot-plug SFF SAS Hard Drives
- Dual Hot-Plug Redundant Power Supplies
- Hot-Plug Redundant Fans (standard)
- Fans are N+1 hot plug redundant and individually removable

Standard Features

Serviceability

- System Insight Display - precisely depicts all major subsystems of the server (PCI I/O, Memory, CPU, Redundant Cooling, Interlock, Thermal) and gives instant visual indication of fault status. Located on top front of server, beneath lid.
- Tool-less, virtually cable-less interior design
 - Tool-less access to interior of server
 - Two ejectable, slimline Media Bay media drives (DVD/CD-RW standard) are removable without the use of tools
 - Front accessible processors and memory
 - PCI Card Guides locks full length PCI cards in place during transit
 - Six individually removable fans connect without cables to the system board
 - Tool-less removal of system board
- Quick Deploy Rails
- Tool-less design "snap in" rail

Security

Power-on password
 Keyboard password
 Diskette drive control enable/disable
 Diskette boot control enable/disable
 External USB port enable/disable
 Network Server Mode
 Serial interface control
 Administrator's password
 Removable optical drive

Server Power Cords

The HP ProLiant DL585 G6 servers ship standard worldwide with a 6-foot IEC 320-C14 to IEC320-C19 jumper cord. Japanese models also include a 3.6 meter lowline (100V) power cord. If you require a local power cord, please check the Power Specifications below for the appropriate country-specific power cord, or consult the Power Cord Matrix:
<http://www.hp.com/products/powercords>

UPS and PDU Power Cord Matrix

Please see the UPS and PDU cable matrix's on the HP Power Protection and Management page. Under Power Cords, click on the "HP Power Cord Matrix" link. That link will list cable descriptions, requirements, and specifications for UPS and PDU units. Please see the following link:
www.hp.com/products/powercords.

Power Supply

910W (low line), 1300W (high line) with 12V main output. Size is 2.8"(H) X 4.9"(W) X 7.5"(L).
NOTE: One Hot Plug Power Supply ships with Standard Models (optional Redundant Hot Plug Power Supply Option Kit available). High Performance models ship with two Hot Plug Power Supplies.

System Fans

6 Hot plug, redundant fans (individually removable)

Operating Systems and [Microsoft Windows Server](#)

Virtualization Software [Microsoft Windows Server Hyper-V](#)

Support for ProLiant Servers

[Red Hat Enterprise Linux \(RHEL\)](#)
[SUSE Linux Enterprise Server \(SLES\)](#)
[Oracle Enterprise Linux \(OEL\)](#)
[Solaris](#)
[VMware](#)
[HP Citrix Essentials for XenServer](#)

NOTE: For more information on HP's Certified and Supported ProLiant Servers for OS and Virtualization Software and latest listing of software drivers available for your server, please visit our Support Matrix at: www.hp.com/go/ossupport and our driver download site www.hp.com/support/DL585G6

Standard Features

Rack Airflow Requirements

Rack 10000 G2 series Cabinets

The increasing power of new high-performance processor technology requires increased cooling efficiency for rack-mounted servers. The 10000 G2 Series Racks provide enhanced airflow for maximum cooling, allowing these racks to be fully loaded with servers using the latest processors.

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

- **Front and rear doors:** If your 42U server rack includes closing front and rear doors, you must allow 830 square inches (5,350 sq cm) of holes evenly distributed from top to bottom to permit adequate airflow (equivalent to the required 64 percent open area for ventilation).
- **Side:** The clearance between the installed rack component and the side panels of the rack must be a minimum of 2.75 inches (7 cm).

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

NOTE: For additional information, refer to the Setup and Installation Guide or the Documentation CD provided with the server, or to the server documentation located in the Support section at the following URL: www.hp.com/servers/dl385-g6.

Rack Kit

Quick deploy rail system provides tool-free support for racks with square or round mounting holes (including Compaq/HP 7000, 9000, 10000 G2 and HP series), with an adjustment range of 24" - 36". The ambidextrous cable management arm can be mounted on either the left or right side for improved cable management.

Telco Rack Support

Support for all 2-post Telco racks requires the use of the standard rack kit and an additional option kit from Rack Solutions at: <http://www.hp.com/go/rackandpower>

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 MSAXxxx, 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 eConfigure 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. For additional information please visit: <http://www.hp.com/products/configurator>

HPC Interconnects

NOTE: High Performance Computing (HPC) interconnect technologies are available for this server under the Cluster Platform product portfolio. These high-speed interconnects are fully supported by HP when they are part of these configure to order clusters. Solutions can be defined with a lot of flexibility with the help of configuration tools. Please visit the following URL to configure HPC Clusters with InfiniBand or Gigabit Ethernet Interconnects:

<http://www.hp.com/techservers/clusters/ucp/index.html>

InfiniBand

PCI-Express adapters

Standard Features

Solutions

Designed for enterprise customers running compute- or I/O intensive database and transaction applications, as well as data centers using virtualization and consolidation to reduce server sprawl, the rack optimized 4-processor HP ProLiant DL585 G6 server delivers maximum performance and high availability for highly complex, business critical applications. Specifically, the HP ProLiant DL585 G6 would be excellent for running the following types of applications:

Typical Usage:

- x86 virtualization and consolidation projects
- Electronic Design Automation (EDA)/Semiconductor
- Financial
- Large database applications
- ERP / CRM
- Petrochemical
- Life Science and Material Science
- Video Rendering

Service and Support

HP Care Pack Services provide total care and support expertise with committed response designed to meet your IT and business needs.

HP Care Pack services include coverage for the HP branded hardware options qualified for the server that are purchased at the same time or afterward and internal to the enclosure. It also includes the 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 and 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.

To fully capitalize 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.

Recommended Service - simplify ProLiant solution implementation, maintenance, and management.

- **Support** - 3-Year 4-Hour response 24x7 Same Business Day Coverage only
- **Service** - Installation and Start up only

Enhanced Service - optimize service level to increase IT performance and availability.

- **Support** - 3-Year Support Plus 24 only

Refer to the information on "Installation & Start-Up" for service on 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, excluding HP holidays.

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

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

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

Models

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

NOTE: Not all models are available in all regions. Check with your local country HP offices for availability.

Performance Models

HP ProLiant DL585 G6 8439SE 2.8GHz Six Core 4P 16GB 512BBWC Rack Server 539842-xx1	Processors	AMD Opteron™ 8439SE processor Model (2.8 GHz, 105W ACP)
	Cache Memory	6MB shared L3 cache per processor
	Memory	16GB (8 x 2GB)
	Network Controller	Two embedded NC371i Multifunction Gigabit Network Adapters
	Storage Controller	Smart Array P410/512 MB BBWC Controller (Raid 0,1,1+0, 5, 5+0)
	Hard Drives	None ship standard
	Internal Storage	Up to 4TB of internal storage
	Optical Drive	Slimline DVD/CD-RW Drive (8X/24X) (ejectable)
	Power Supply	Redundant standard on performance models
	Form Factor	Rack 4U

HP ProLiant DL585 G6 8439SE 2.8GHz Six Core 4P 16GB 512BBWC ICE Rack Server 577143-xx1	Processors	AMD Opteron™ 8439SE processor Model (2.8 GHz, 105W ACP)
	Cache Memory	6MB shared L3 cache per processor
	Memory	16GB (8 x 2GB)
	Network Controller	Two embedded NC371i Multifunction Gigabit Network Adapters
	Storage Controller	Smart Array P410/512 MB BBWC Controller (Raid 0,1,1+0, 5, 5+0)
	Hard Drives	None ship standard
	Internal Storage	Up to 4TB of internal storage
	Optical Drive	Slimline DVD/CD-RW Drive (8X/24X) (ejectable)
	Power Supply	Redundant standard on performance models
	Insight Control	HP Insight Control Environment No Media single server license, including 1 year of 24x7 Technical Support and Updates
Form Factor	Rack 4U	

HP ProLiant DL585 G6 8431 2.4GHz Six Core 4P 16GB 512BBWC Rack Server 539843-xx1	Processors	AMD Opteron™ processor Model 8431 (2.4 GHz, 75W ACP)
	Cache Memory	6MB shared L3 cache per processor
	Memory	16GB (8 x 2GB)
	Network Controller	Two embedded NC371i Multifunction Gigabit Network Adapters
	Storage Controller	Smart Array P410/512 MB BBWC Controller (Raid 0,1,1+0, 5, 5+0)
	Hard Drives	None ship standard
	Internal Storage	Up to 4TB of internal storage
	Optical Drive	Slimline DVD/CD-RW Drive (8X/24X) (ejectable)
	Power Supply	Redundant standard on performance models
	Form Factor	Rack 4U

Country Code Key	xx=00	US
	xx=20	Brazil
	xx=29	Japan
	xx=37	A/P
	xx=42	Europe
	xx=AA	PRC

Configuration Information - Factory Integrated Models

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

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

Step 1: Base Configuration

HP Models	HP ProLiant DL585 G6 Rack CTO Chassis	574409-B21
	Factory Integrated Models ship with:	
	Two embedded NC371i Multifunction Gigabit Network Adapters	
	Integrated Lights-Out 2 (iLO 2) Standard management	
	Six (6) Redundant Hot Plug Fans	
	One Hot Plug Power Supply	
	Rack 4U Form Factor	

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

HP Processors	Six-Core Processors	
	AMD Opteron™ 8431 six-core processor (2.4 GHz, 75W ACP) 2p option kit, FIO	539848-L21
	AMD Opteron™ 8435 six-core processor (2.6 GHz, 75W ACP) 2p option kit, FIO	572373-L21
	AMD Opteron™ 8439SE six-core processor (2.8 GHz, 105W ACP) 2p option kit, FIO	539847-L21
	AMD Opteron™ 8425HE six-core processor (2.1 GHz, 55W ACP) 2p option kit, FIO	539849-L21

HP Memory	HP 2GB (2x1GB) Single Rank PC2-6400 (DDR2-800) Registered Memory Kit	497763-B21
	HP 4GB (2x2GB) Single Rank PC2-6400 (DDR2-800) Registered Memory Kit	497765-B21
	HP 8GB (2x4GB) Dual Rank PC2-6400 (DDR2-800) Registered Memory Kit	497767-B21
	HP 8GB (2x4GB) Dual Rank x4 PC2-6400 (DDR2-800) Registered Low Power Memory Kit	504351-B21
	HP 16GB (2x8GB) Dual Rank PC2-5300 (DDR2-667) Registered Memory Kit	408855-B21
	HP 64GB (8x8GB) Dual Rank PC2-5300 (DDR2-667) Registered Memory Kit	495605-B21
	NOTE: Memory must be installed in like-pairs, i.e. two of the same size.	
	NOTE: Memory bus speeds will operate as follows: 2-4 DIMMs at 800MHz; 6 at 667MHz; 8 at 533MHz.	

HP Storage Controllers	HP Smart Array P410/256 MB Controller	462862-B21
	HP Smart Array P410/512 MB with BBWC Controller	462864-B21
	HP Smart Array P410/ZM FIO Controller	462860-B21
	HP Smart Array P410/256 FIO Cntrlr w/Battery	491195-B21

HP Optical Drives	NOTE: Optical drives are ejectable.	
	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

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

HP Insight Software	HP Insight Control, No Media 1-Server License Factory-Integratable Option (FIO) including 1 year of 24x7 Technical Support and Updates	582765-B21
	HP Insight Control for Linux, No Media 1-Server License Factory-Integratable Option (FIO) including 1 year of 24x7 Technical Support and Updates	TC203A

Core Options

NOTE: Some options may not be available for factory integration. Please contact an HP sales representative for additional information.

HP Unique Options	HP DL585 Video Power Cable	576444-B21
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HP Processors

Six-Core Processors

AMD Opteron™ 8431 2.40GHz Six Core 75 Watts DL585 G6 Processor Option Kit	539848-B21
AMD Opteron™ 8435 2.60GHz Six Core 75 Watts DL585 G6 Processor Option Kit	572373-B21
AMD Opteron™ 8425HE 2.10GHz Six Core 55 Watts DL585 G6 Processor Option Kit	539849-B21
AMD Opteron™ 8439SE 2.80GHz Six Core 105 Watts DL585 G6 Processor Option Kit	539847-B21

HP Memory

Registered DIMMs

HP 2GB (2x1GB) Single Rank PC2-6400 (DDR2-800) Registered Memory Kit	497763-B21
HP 4GB (2x2GB) Single Rank PC2-6400 (DDR2-800) Registered Memory Kit	497765-B21
HP 8GB (2x4GB) Dual Rank PC2-6400 (DDR2-800) Registered Memory Kit	497767-B21
HP 8GB (2x4GB) Dual Rank x4 PC2-6400 (DDR2-800) Registered Low Power Memory Kit	504351-B21
HP 16GB (2x8GB) Dual Rank PC2-5300 (DDR2-667) Registered Memory Kit	408855-B21
HP 64GB (8x8GB) Dual Rank PC2-5300 (DDR2-667) Registered Memory Kit	495605-B21

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

NOTE: Memory bus speeds will operate as follows: 2-4 DIMMs at 800MHz; 6 at 667MHz; 8 at 533MHz.

HP Optical Drives

NOTE: Optical drives are ejectable.

HP 8X/24X Slimline DVD-ROM Drive	264007-B21
HP 8X Slim DVD+RW Drive	383975-B21
HP Slimline CD-RW/DVD-ROM 24X Carbon Combo Drive	331903-B21

HP Hard Drives

SAS Hot Plug SFF (2.5-inch) Enterprise (ENT) Drives

HP 300GB 6G SAS 10K rpm SFF (2.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	507127-B21
HP 300GB 3G SAS 10K rpm SFF (2.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	492620-B21
HP 146GB 6G SAS 15K rpm SFF (2.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	512547-B21
HP 146GB 3G SAS 15K rpm SFF (2.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	504062-B21
HP 146GB 6G SAS 10K rpm SFF (2.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	507125-B21
HP 146GB 3G SAS 10K rpm SFF (2.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	418367-B21
HP 72GB 6G SAS 15K rpm SFF (2.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	512545-B21
HP 72GB 3G SAS 15K rpm SFF (2.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	418371-B21

NOTE: Please see the QuickSpecs for Technical Specifications and additional information:

http://h18000.www1.hp.com/products/quickspecs/12244_div/12244_div.html
(Worldwide)

SAS Hot Plug SFF (2.5-inch) Midline (MDL) Drives

HP 500GB 6G SAS 7.2K rpm SFF (2.5-inch) Dual Port Midline 1yr Warranty Hard Drive	507610-B21
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SATA Hot Plug SFF (2.5-inch) Entry (ETY) Drives

HP 250GB 3G SATA 5.4K rpm SFF (2.5-inch) Entry 1yr Warranty Hard Drive	460355-B21
HP 120GB 1.5G SATA 5.4K rpm SFF (2.5-inch) Entry 1yr Warranty Hard Drive	458924-B21

Core Options

NOTE: SATA drives have a 1 year warranty. Please see the QuickSpecs for Technical Specifications and additional information:

http://h18000.www1.hp.com/products/quickspecs/13021_div/13021_div.html
(Worldwide)

SATA Hot Plug SFF (2.5-inch) Midline (MDL) Drives

HP 500GB 3G SATA 7.2K rpm SFF (2.5-inch) Midline 1yr Warranty Hard Drive	507750-B21
HP 160GB 3G SATA 7.2K rpm SFF (2.5-inch) Midline 1yr Warranty Hard Drive	530888-B21

NOTE: SATA drives have a 1 year warranty. Please see the QuickSpecs for Technical Specifications and additional information:

http://h18000.www1.hp.com/products/quickspecs/13021_div/13021_div.html
(Worldwide)

SATA Hot Plug Midline (MDL) Solid State Drives

HP 60GB 3G SATA SFF (2.5-inch) Midline 1yr Warranty Solid State Drive	572071-B21
HP 120GB 3G SATA SFF (2.5-inch) Midline 1yr Warranty Solid State Drive	572073-B21

NOTE: The components of a storage subsystem (e.g. the drive, the HBA/controller, firmware, and the server backplane) should operate at the same data transfer rate or the system bandwidth will be negotiated down to an acceptable level for all components.

HP Networking

Gigabit Ethernet Adapters

HP NC112T PCI Express Gigabit Server Adapter	503746-B21
HP NC360T PCI-E Dual Port Gigabit Server Adapter	412648-B21
HP NC364T PCI-E Quad Port Gigabit Server Adapter	435508-B21
NOTE: There is a maximum of five NC364T PCI Express Quad Port Gigabit Server Adapter NICs allowed in this server.	
HP NC373F PCI-E Multifunction 1000SX Gigabit Svr Adapter	394793-B21
HP NC373T PCI-E Multifunction Gigabit Server Adapter	394791-B21
HP NC375T PCI Express Quad Port Gigabit Server Adapter	538696-B21
HP NC382T PCI Express Dual Port Multifunction Gigabit Server Adapter	458492-B21

10 Gigabit Ethernet Adapters

NOTE: No more than two 10GbE I/O devices are supported in a single ProLiant server.

NOTE: A minimum of two Gigabytes (2 GB) of server memory is required per each adapter.

NOTE: Direct Attach Cable (DAC) for copper environments or fiber transceivers and cables for fiber-optic environments must be purchased separately.

HP NC522SFP Dual Port 10GbE Gigabit Server Adapter	468332-B21
HP NC550SFP Dual Port 10GbE Server Adapter	581201-B21

NOTE: Please see the QuickSpecs for Technical Specifications and additional information: www.hp.com/go/ProLiantNICs.

HP InfiniBand

HP InfiniBand 4X DDR PCI-E Dual Port Host Adapter	409376-B21
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HP Power Supplies

CAUTION: Many HP ProLiant Servers now offer new power options, including Common Slot Power Supplies. These power supplies come in multiple power ratings and higher efficiency levels to offer the Right Size solution to fit your configuration. This provides improved power delivery and the advantage of reclaiming lost power. Prior to making a power supply selection it is "highly recommended" that the "HP Power Advisor" is run to determine the right size power supply for your server configuration. The HP Power Advisor is located at "www.hp.com/go/proliant-energy-efficient" In ProLiant Servers that have more than one power slot (bay), only same size power supplies are recommended. If non-matched power supplies are inserted you will get errors and operation will fail.

910W (low line), 1300W (high line) Hot Plug Redundant Power Supply US - includes Nema 5-15P to IEC320-C19 power cord	348114-001
910W (low line), 1300W (high line) Hot Plug Redundant Power Supply - includes C14 to C19 IEC power jumper cable	348114-B21

NOTE: If you require a local power cord, please check the Power Specifications below for the appropriate country-specific power cord, or consult the Power Cord Matrix: <http://www.hp.com/go/powercordmatrix>

Additional Options

HP Insight Software	HP Insight Control	
	HP Insight Control including 1yr 24x7 Technical Support and Updates Single Server License	452148-B22
	HP Insight Control suite, No Media, Electronic License including 1 year of 24x7 Technical Support and Updates	T9074BAE
	HP Insight Control, Electronic License for bundling with ProLiant ML/DL server, including 1 year of 24x7 Technical Support and Updates	TC278AAE
	HP Insight Software Media Kit	436222-B21
	<p>NOTE: Insight Software DVD media without licenses. Contains HP Systems Insight Manager, HP Insight Control, HP Insight Dynamics, HP Insight Control for Microsoft System Center, and Virtual Connect Enterprise Manager software. Uses an integrated installer to perform quick and accurate software installation and updates.</p> <p>NOTE: Electronic and Flexible-Quantity licenses can be used to purchase multiple licenses with a single activation key.</p> <p>NOTE: Electronic software is available in all countries except China and Japan. Customers in China and Japan should order the physical equivalent.</p> <p>NOTE: Customer will receive a license entitlement certificate. The license entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). Includes one year of 24 x 7 HP Software Technical Support and Update Service.</p> <p>NOTE: Licenses ship without media. The HP Insight Control Media Kit can be ordered separately, or can be downloaded at: http://www.hp.com/go/insightupdates.</p> <p>NOTE: For additional license options please see the Insight Control QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/12631_div/12631_div.html</p>	
	HP Insight Control for Linux	
	HP Insight Control for Linux, 1-server license, including one year of 24x7 Technical Support and Updates, Electronic	TC213AAE
	HP Insight Control for Linux, No Media, 1-Server license, including one year of 24x7 Technical Support and Updates	TC209A
	HP Insight Control for Linux, Media pack (DVD) - No licenses included	TC208A
	<p>NOTE: Media pack DVD contains the ISO image for HP Insight Control for Linux, HP Systems Insight Manager, HP Insight Control power management, HP Insight Control virtual machine management, and an integrated installer. Servers must be acquired separately.</p> <p>NOTE: Licenses ship without media. The Media Kit for Insight Control for Linux can be ordered separately, or can be downloaded at: http://www.hp.com/go/ic-linux (click on Download button).</p> <p>NOTE: Electronic software is available in all countries except China and Japan. Customers in China and Japan should order the physical equivalent.</p> <p>NOTE: Electronic and Flexible-Quantity licenses can be used to purchase multiple licenses with a single set of activation keys.</p> <p>NOTE: For additional License Kits, including electronic licensing options, please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/13019_div/13019_div.html</p>	
	HP Integrated Lights-Out (iLO) Advanced	
	HP iLO Advanced including 1yr 24x7 Technical Support and Updates Single Server License	512485-B21
	HP iLO Advanced including 1yr 24x7 Technical Support and Updates Electronic License	TA850AAE
	<p>NOTE: This license allows 1 server to be deployed and managed via HP iLO Advanced. Customer will receive a printed license entitlement certificate via physical shipment. The license entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). Includes one year of 24 x 7 HP Software Technical Support Service.</p> <p>NOTE: Electronic software is available in all countries except China and Japan. Customers in China and Japan should order the physical equivalent.</p> <p>NOTE: For additional license kits, including electronic delivery options, please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/12362_div/12362_div.html</p>	

Additional Options

HP I/O Accelerator Options	<p>HP 160GB SLC PCIe ioDrive 600278-B21</p> <p>NOTE: A low-profile PCI bracket is included for use in low-profile slots.</p> <p>HP 320GB MLC PCIe ioDrive 600279-B21</p> <p>NOTE: A low-profile PCI bracket is included for use in low-profile slots.</p> <p>HP 320GB SLC PCIe ioDrive Duo 600281-B21</p> <p>HP 640GB MLC PCIe ioDrive Duo 600282-B21</p> <p>NOTE: Please see the QuickSpecs for Technical Specifications and additional information: http://h18000.www1.hp.com/products/quickspecs/13587_div/13587_div.html (Worldwide)</p>
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HP Storage Controllers SAS Controllers

Smart Array P800 Controller

HP Smart Array P800/512 BBWC Controller 381513-B21

Smart Array P212 Controller

HP Smart Array P212/256 Controller 462834-B21

HP Smart Array P212/Zero Memory Controller 462828-B21

Smart Array P410 Controller

HP Smart Array P410/512 BBWC Controller 462864-B21

HP Smart Array P410/256 Controller 462862-B21

HP P410 with 512MB Flash Backed Cache Controller 578230-B21

HP P410 with 1GB Flash Backed Cache Controller 572532-B21

Smart Array P411 Controller

HP Smart Array P411/512 BBWC Controller 462832-B21

HP Smart Array P411/256 Controller 462830-B21

HP P411 with 512MB Flash Backed Cache Controller 578229-B21

HP P411 with 1GB Flash Backed Cache Controller 572531-B21

Smart Array P812 Controller

HP Smart Array P812/1G Flash Backed Cache Controller 487204-B21

Optional Upgrades

HP Internal SAS/SATA Multi-Lane A Cable 389647-B21

HP Mini SAS to 8484 32in/35in Cable Assembly 496016-B21

HP 8484 to Mini SAS 33in Cable Assembly 591734-B21

NOTE: Cable for use connecting the Smart Array P800 Controller to internal hard disk drives on select HP ProLiant G6 Servers.

HP 1GB Flash Backed Cache 534562-B21

HP 512MB Flash Backed Write Cache 534916-B21

HP Smart Array Advanced Pack No Media 1-Server license including 1yr 24x7 Technical Support 516471-B21

NOTE: This part number can be used to purchase a single license or to order multiple licenses with a single activation key. Customers will receive a license entitlement certificate via e-mail. The license entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). Include one year of 24x7 HP Software Technical Support Services.

NOTE: Please see the QuickSpecs for Technical Specifications and additional information:

http://h18000.www1.hp.com/products/quickspecs/12616_div/12616_div.html
 (Smart Array P800 Controller)

http://h18000.www1.hp.com/products/quickspecs/13203_div/13203_div.html
 (Smart Array P212 Controller)

http://h18000.www1.hp.com/products/quickspecs/13201_div/13201_div.html
 (Smart Array P410 Controller)

http://h18000.www1.hp.com/products/quickspecs/13202_div/13202_div.html
 (Smart Array P411 Controller)

http://h18000.www1.hp.com/products/quickspecs/13558_div/13558_div.html
 (Smart Array P812 Controller)

http://h18000.www1.hp.com/products/quickspecs/13200_div/13200_div.html
 (Smart Array Advanced Pack)

SAS HBA

HP SC08e 6Gb 2-ports Ext PCIe SAS HBA 614988-B21

NOTE: This is a 2 x4 External Port HBA

NOTE: This is only approved for the HP StorageWorks P2000 G3 SAS Modular Smart Array.

Additional Options

NOTE: Please see the QuickSpecs for Technical Specifications and additional information:

http://h18004.www1.hp.com/products/quickspecs/13651_div/13651_div.html
(SC08e 6Gb HBA)

SCSI HBA

HP SC11Xe Host Bus Adapter 412911-B21

NOTE: Please see the following QuickSpecs for Technical Specifications and additional information:

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

HP U320e SCSI Host Bus Adapter AH627A

NOTE: Please refer to the HBA QuickSpecs for additional information at:

<http://www.hp.com/products/hba>.

HP Cable Options HP DL585 Video Power Cable 576444-B21

HP Power Cords HP DL580G2 C19-C14 12ft Power Cord 313228-B21

Tape Backup

NOTE: For the complete range of StorageWorks tape drives, autoloaders, libraries and media see: <http://www.hp.com/go/tape>. For hardware and software compatibility of HP StorageWorks tape backup products see:

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

HP StorageWorks DAT 320 USB Tape Drive in 1U USB Rack Kit AP835A

HP StorageWorks DAT 320 SAS Internal Tape Drive AJ830A

NOTE: For installation into 1U SAS rack kit (AE459B) or 3U SAS rack kit (AG576B). No peripheral bay available for installation into the server. Connection using HP P212 Smart Array Controller SAS (462828-B21) recommended.

HP StorageWorks LTO-3 Ultrium 920 SAS Internal Tape Drive EH847A

NOTE: For installation into 1U SAS rack kit (AE459B) or 3U SAS rack kit (AG576B). No peripheral bay available for installation into the server. Connection using HP P212 Smart Array Controller SAS (462828-B21) recommended.

HP StorageWorks LTO-4 Ultrium 1760 Internal Tape Drive EH919A

NOTE: For installation into 1U SAS rack kit (AE459B) or 3U SAS rack kit (AG576B). No peripheral bay available for installation into the server. Connection using HP P212 Smart Array Controller SAS (462828-B21) recommended.

HP StorageWorks LTO-4 Ultrium 1840 Internal Tape Drive EH860A

NOTE: For installation into 3U SAS rack kit (AG576B). No peripheral bay available for installation into the server. Connection using HP P212 Smart Array Controller SAS (462828-B21) recommended.

HP StorageWorks LTO-5 Ultrium 3280 Internal Tape Drive EH899A

NOTE: For installation into 3U SAS rack kit (AG576B). No peripheral bay available for installation into the server. Connection using HP P212 Smart Array Controller SAS (462828-B21) recommended.

HP StorageWorks 1/8 G2 LTO-5 Ultrium 3000 SAS Tape Autoloader BL536A

NOTE: Requires HP 1U Tape Autoloader Rack Kit (AH166A) for rack installation. Connection using HP P212 Smart Array Controller SAS (462828-B21) recommended.

HP StorageWorks MSL2024 Tape Library with one LTO-5 Ultrium 3000 SAS Drive BL537A

NOTE: Connection using HP P212 Smart Array Controller SAS (462828-B21) recommended.

HP StorageWorks MSL4048 Tape Library with one LTO-4 Ultrium 3000 SAS Drive BL538A

NOTE: Connection using HP P212 Smart Array Controller SAS (462828-B21) recommended.

HP StorageWorks MSL8096 Tape Library with one LTO-5 Ultrium 3000 SAS Drive BL539A

NOTE: Connection using HP P212 Smart Array Controller SAS (462828-B21) recommended.

Additional Options

Disk Backup

NOTE: For the complete range of StorageWorks D2D Backup Systems see: <http://www.hp.com/go/d2d>. For the complete range of StorageWorks RDX drives and media see: <http://www.hp.com/go/rdx>. For hardware and software compatibility of HP StorageWorks disk backup products see: <http://www.hp.com/go/connect>.

HP StorageWorks D2D Backup Systems with Backup Data Deduplication

HP StorageWorks D2D2504i Backup System EJ002B

NOTE: 3.0TB of useable network disk backup capacity. Network connected appliance with connectivity using the iSCSI protocol. If the server requires a hardware iSCSI initiator, the QLogic QLA4050 Host Bus Adapter is recommended.

HP StorageWorks D2D4009i Backup System EH939A

NOTE: 7.5TB of useable network disk backup capacity. Network connected appliance with connectivity using the iSCSI protocol. If the server requires a hardware iSCSI initiator, the QLogic QLA4050 Host Bus Adapter is recommended.

HP StorageWorks D2D4112fc Backup System EH993B

NOTE: 9.0TB (expandable to 18.0TB) of useable network disk backup capacity. Fibre Channel SAN connected appliance. Direct server attach is not supported, requires connection via SAN fabric.

HP StorageWorks RDX Removable Disk Backup Systems USB

HP StorageWorks RDX500 Internal Removable Disk Backup System AJ934A

NOTE: For installation into 1U USB Rack-Mount Kit (A8007A). No peripheral bay available for drive installation into the server. 500GB of disk capacity per data cartridge.

HP StorageWorks RDX750 Internal Removable Disk Backup System AW577A

NOTE: For installation into 1U USB Rack-Mount Kit (A8007A). No peripheral bay available for drive installation into the server. 750GB of disk capacity per data cartridge.

HP 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>

Brocade Fibre Channel HBAs

HP StorageWorks 81B PCI-e FC HBA Single Port AP769A

HP StorageWorks 82B PCI-e FC HBA Dual Port AP770A

HP StorageWorks 41B 4Gb PCI-e FC HBA AP767A

HP StorageWorks 42B 4Gb Dual-Port PCI-e FC HBA AP768A

Emulex Fibre Channel HBAs

HP StorageWorks 81E PCI-e FC HBA Single Port AJ762A

HP StorageWorks 82E PCI-e FC HBA Dual Port AJ763A

HP StorageWorks FC2142 4Gb PCI-e HBA A8002A

HP StorageWorks FC2242 Dual Channel 4Gb PCI-e HBA A8003A

QLogic Fibre Channel HBAs

HP StorageWorks 81Q PCI-e FC HBA Single Port AK344A

HP StorageWorks 82Q PCI-e FC HBA Dual Port AJ764A

HP StorageWorks FC1142 4Gb PCI-e HBA AE311A

HP StorageWorks FC1242 Dual Channel 4Gb PCI-e HBA AE312A

Additional Options

HP Modular Smart Array	MSA SAN Storage Arrays	
	HP StorageWorks 60 Modular Smart Array	418408-B21
	NOTE: Please see the QuickSpecs for additional options and configuration information at: http://h18000.www1.hp.com/products/quickspecs/12627_div/12627_div.html	
	HP StorageWorks 70 Modular Smart Array	418800-B21
	Disk Enclosures	
	HP StorageWorks D2700 Disk Enclosure	AJ941A
	NOTE: Please see the QuickSpecs for additional options and configuration information at: http://h18000.www1.hp.com/products/quickspecs/13404_div/13404_div.html (Worldwide)	

HP Uninterruptible Power Systems	HP Rack-mountable UPS	
	HP R/T3000 Uninterruptible Power System (UPS)	
	HP R/T3000 UPS, High voltage, NA/JPN	AF453A
	HP R/T3000 UPS, High voltage, detachable inlet cord INTL	AF454A
	NOTE: Please see the QuickSpecs for additional information: http://h18000.www1.hp.com/products/quickspecs/13417_div/13417_div.html (Worldwide)	
	HP Rack-Mountable R5500 UPS	
	HP R5500 VA UPS, INTL	AF416A
	HP R5500 VA UPS, NA/JPN	AF426A
	NOTE: Please see UPS QuickSpecs for additional information: http://h18000.www1.hp.com/products/quickspecs/11871_div/11871_div.html (Worldwide)	
	NOTE: For additional information on HP Uninterruptible Power Systems please go to: www.hp.com/servers/rackups .	

HP Power Distribution Units	HP Monitored Power Distribution Unit: Half Rack Version	
	HP 4.9 kVA S124 Monitored PDU- single input, 1Ø, 24A (NA/JPN)	AF914A
	HP 7.3 kVA S132 Monitored PDU- single input, 1Ø, 32A (INTL)	AF915A
	NOTE: Please see the following QuickSpecs for additional information: http://h18000.www1.hp.com/products/quickspecs/12118_div/12118_div.html (Worldwide)	
	HP Monitored Power Distribution Unit: Full Rack Version	
	HP 8.6 kVA S1324 Monitored PDU- single input, 3Ø, 24A (NA/JPN)	AF504A
	HP 8.3 S1140 Monitored PDU- single input, 1Ø, 40A (NA/JPN)	AF506A
	HP 11 kVA S1316 Monitored PDU- single input, 3Ø, 16A (INTL)	AF508A
	HP 7.3 kVA S1132 Monitored PDU- single input, 1Ø, 32A (INTL)	AF510A
	NOTE: Please see the following QuickSpecs for additional information: http://h18000.www1.hp.com/products/quickspecs/12118_div/12118_div.html (Worldwide)	
	Modular Power Distribution Units 1U/0U (Up to 32 outlets)	
	NOTE: 1U/0U mounting brackets shipped with the unit (optimized for 10000 and 9000 series racks).	
	HP Modular Power Distribution Units (mPDU), High Volt Model, 24A (200-240 VAC) (NA, Japan)	252663-D72
8.3kVA Model - mPDU, 40A, High (power cord attached) (NA/JPN)	252663-D73	
HP Modular Power Distribution Units (mPDU), High Volt Model, 32A (200-240 VAC) (Int'l)	252663-B31	
HP Modular Power Distribution Units (mPDU), High Volt Model, 16A (200-240 VAC) (WW)	252663-B24	
NOTE: This PDU has a detachable input power cord and allows for adaptability to country specific power requirements.		
NOTE: For additional information on HP Power Distribution Units including accessories please go to: www.hp.com/go/pdu (Worldwide)		

Additional Options

HP Rack Series

Rack 10000 G2 series

10642 G2 (42U) Rack Cabinet - Pallet	AF001A
10642 G2 (42U) Rack Cabinet - Shock Pallet	AF002A

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

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

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

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

HP Rack Options

Keyboards and Monitors

HP TFT7600 Rackmount Keyboard 17in US Monitor	AG052A
HP TFT7600 Rackmount Keyboard 17in UK Monitor	AG053A
HP TFT7600 Rackmount Keyboard 17in DE Monitor	AG054A
HP TFT7600 Rackmount Keyboard 17in FR Monitor	AG055A
HP TFT7600 Rackmount Keyboard 17in IT Monitor	AG056A
HP TFT7600 Rackmount Keyboard 17in ES Monitor	AG057A
HP TFT7600 Rackmount Keyboard 17in DK Monitor	AG058A
HP TFT7600 Rackmount Keyboard 17in NO Monitor	AG059A
HP TFT7600 Rackmount Keyboard 17in SE/FI Monitor	AG060A
HP TFT7600 Rackmount Keyboard 17in CH Monitor	AG061A
HP TFT7600 Rackmount Keyboard 17in PT Monitor	AG062A
HP TFT7600 Rackmount Keyboard 17in BE Monitor	AG063A
HP TFT7600 Rackmount Keyboard 17in JP Monitor	AG064A
HP TFT7600 Rackmount Keyboard 17in RU Monitor	AG065A
HP TFT7600 Rackmount Keyboard 17in Intl Monitor	AG066A
HP TAA TFT7600 Rackmount Keyboard 17in US Monitor	AG067A
HP 1U US Rackmount Keyboard with USB	AG072A
HP 1U UK Rackmount Keyboard with USB	AG073A
HP 1U DE Rackmount Keyboard with USB	AG074A
HP 1U FR Rackmount Keyboard with USB	AG075A

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

HP Server Console Switches

HP Server console switch 0x2x8	AF616A
HP Server console switch 0x2x16	AF617A

NOTE: Please see the QuickSpecs for Technical Specifications and additional information:

http://h18000.www1.hp.com/products/quickspecs/11834_div/11834_div.html
(Worldwide)

HP Server Console Switch G2 with Virtual Media & CAC

0x2x16 KVM Server Console G2 Switch with Virtual Media and CAC	AF618A
0x2x32 KVM Server Console G2 Switch with Virtual Media and CAC	AF619A

NOTE: Please see the QuickSpecs for Technical Specifications and additional information:

http://h18000.www1.hp.com/products/quickspecs/13475_div/13475_div.html
(Worldwide)

HP IP Console Switch G2 with Virtual Media & CAC

1x1Ex8 KVM IP Console Switch G2 with Virtual Media and CAC	AF620A
2x1Ex16 KVM IP Console Switch G2 with Virtual Media and CAC	AF621A
4x1Ex32 KVM IP Console Switch G2 with Virtual Media and CAC	AF622A

NOTE: Please see the QuickSpecs for Technical Specifications and additional information:

http://h18000.www1.hp.com/products/quickspecs/13474_div/13474_div.html
(Worldwide)

Additional Options

HP USB and SD Options	<p>HP 2GB USB Flash Media Drive Key Kit 608447-B21</p> <p>NOTE: HP qualified blank USB key for use with HP ProLiant servers that support the VMware virtualization environment and other HP value-add software like SmartStart. HP recommends this industry standard USB flash device for use with VMware ESXi. USB device must be installed in the internal slot of the ProLiant server for use with VMware ESXi. Refer to HP VMware Getting Started Guide for installation instructions.</p> <p>HP USB 2-Button Optical Scroll Mouse DC172B</p> <p>HP USB Standard Keyboard US DT528A#ABA</p>
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HP Care Pack Services Hardware Services On-site Service

HP 3 year 4 hour 13x5 ProLiant DL58x Hardware Support	U4607E
HP 3 year 4 hour 24x7 ProLiant D58x Hardware Support	U4608E
Hardware Services 6-Hour Call to Repair On-site Service	
HP 3 year 6 hour 24x7 Call to Repair ProLiant DL58x Hardware Support	U4609E
Installation & Start-up Services	
HP Install ProLiant DL58x Service	U4617E
HP Startup ProLiant DL58x Service	U4618E
Support Plus	
HP 3 year Support Plus Microsoft ProLiant DL58x Service	U4619E
Support Plus 24	
HP 3 year Support Plus 24 Microsoft ProLiant DL58x Service	U4620E
HP 3 year Support Plus 24 SuSE ProLiant DL58x Service	U6316E
NOTE: For more information, customer/resellers can contact: http://www.hp.com/services/carepack .	

Memory

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

HP ProLiant DL585 G6 Models

Standard Memory

16 GB PC2-6400 DDR2 SDRAM memory running at 800 MHz

DIMMs must be installed in pairs.

- DIMM installed on the same memory bank must have the same part number.
- DIMMs installed in different banks can be of different sizes.
- DIMMs must be installed in decreasing capacity with the largest DIMMs installed in the banks furthest away from each processor.
- DIMM banks are active only when the corresponding processor socket is populated.

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

NOTE: Memory bus speeds will operate as follows: 2-4 DIMMs at 800MHz; 6 at 667MHz; 8 at 533MHz.

Standard Memory Configuration (2.2GHz model)								
Total Memory = 4 GB								
	1 (Slot furthest from processor)	2	3	4	5	6	7	8 (Slot closest to processor)
Processor 1 Memory Bus	1 GB	1 GB	Empty	Empty	Empty	Empty	Empty	Empty
Processor 2 Memory Bus	1 GB	1 GB	Empty	Empty	Empty	Empty	Empty	Empty
Processor 3 Memory Bus	Empty	Empty	Empty	Empty	Empty	Empty	Empty	Empty
Processor 4 Memory Bus	Empty	Empty	Empty	Empty	Empty	Empty	Empty	Empty
Standard Memory Configuration (2.3GHz model)								
Total Memory = 8 GB								
	1 (Slot furthest from processor)	2	3	4	5	6	7	8 (Slot closest to processor)
Processor 1 Memory Bus	1 GB	1 GB	Empty	Empty	Empty	Empty	Empty	Empty
Processor 2 Memory Bus	1 GB	1 GB	Empty	Empty	Empty	Empty	Empty	Empty
Processor 3 Memory Bus	1 GB	1 GB	Empty	Empty	Empty	Empty	Empty	Empty
Processor 4 Memory Bus	1 GB	1 GB	Empty	Empty	Empty	Empty	Empty	Empty
Standard Memory Configuration (2.4GHz and 2.5GHz models)								
Total Memory = 16 GB								
	1 (Slot furthest from processor)	2	3	4	5	6	7	8 (Slot closest to processor)
Processor 1 Memory Bus	2 GB	2 GB	Empty	Empty	Empty	Empty	Empty	Empty
Processor 2 Memory Bus	2 GB	2 GB	Empty	Empty	Empty	Empty	Empty	Empty
Processor 3 Memory Bus	2 GB	2 GB	Empty	Empty	Empty	Empty	Empty	Empty
Processor 4 Memory Bus	2 GB	2 GB	Empty	Empty	Empty	Empty	Empty	Empty

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

Memory

Example #1: Optional Memory Configuration with DIMM mixing								
Standard Memory plus Optional Memory and Processors								
Total Memory = 34 GB								
	1	2	3	4	5	6	7	8
Processor 1 Memory Bus	2 GB	2 GB	1 GB	1 GB	512 MB	512 MB	512 MB	512 MB
Processor 2 Memory Bus	2 GB	2 GB	1 GB	1 GB	512 MB	512 MB	512 MB	512 MB
Processor 3 Memory Bus	2 GB	2 GB	2 GB	2 GB	1 GB	1 GB	512 MB	512 MB
Processor 4 Memory Bus	1 GB	1 GB	1 GB	1 GB	1 GB	1 GB	512 MB	512 MB

Example #2: Optional Memory Configuration with Partial Bus Population								
Standard Memory plus Optional Memory and Processors								
Total Memory = 8 GB								
	1	2	3	4	5	6	7	8
Processor 1 Memory Bus	512 MB	512 MB	512 MB	512 MB	Empty	Empty	Empty	Empty
Processor 2 Memory Bus	512 MB	512 MB	512 MB	512 MB	Empty	Empty	Empty	Empty
Processor 3 Memory Bus	512 MB	512 MB	512 MB	512 MB	Empty	Empty	Empty	Empty
Processor 4 Memory Bus	512 MB	512 MB	512 MB	512 MB	Empty	Empty	Empty	Empty

Example #3: Maximum Memory Configuration								
Maximum Memory (Standard replaced with Optional Memory)								
Total Memory = 256 GB								
	1	2	3	4	5	6	7	8
Processor 1 Memory Bus	8 GB	8 GB	8 GB	8 GB	8 GB	8 GB	8 GB	8 GB
Processor 2 Memory Bus	8 GB	8 GB	8 GB	8 GB	8 GB	8 GB	8 GB	8 GB
Processor 3 Memory Bus	8 GB	8 GB	8 GB	8 GB	8 GB	8 GB	8 GB	8 GB
Processor 4 Memory Bus	8 GB	8 GB	8 GB	8 GB	8 GB	8 GB	8 GB	8 GB

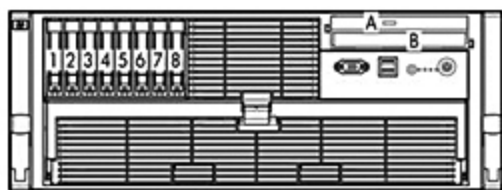
The following memory options are available from HP:

Memory	HP 2GB (2x1GB) Single Rank PC2-6400 (DDR2-800) Registered Memory Kit	497763-B21
	HP 4GB (2x2GB) Single Rank PC2-6400 (DDR2-800) Registered Memory Kit	497765-B21
	HP 8GB (2x4GB) Dual Rank PC2-6400 (DDR2-800) Registered Memory Kit	497767-B21
	HP 8GB (2x4GB) Dual Rank x4 PC2-6400 (DDR2-800) Registered Low Power Memory Kit	504351-B21
	HP 16GB (2x8GB) Dual Rank PC2-5300 (DDR2-667) Registered Memory Kit	408855-B21
	HP 64GB (8x8GB) Dual Rank PC2-5300 (DDR2-667) Registered Memory Kit	495605-B21

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

NOTE: Memory bus speeds will operate as follows: 2-4 DIMMs at 800MHz; 6 at 667MHz; 8 at 533MHz.

Storage



- A Ejectable: Slimline Diskette or Optical Drive (Optional)
- B Ejectable: Slimline Optical Drive (DVD/CD-RW Standard)
- 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	A or B Based on Boot Device Selector Switch	Integrated
IDE Slimline DVD-ROM Drive (8X/24X)	Up to 2	A or B	Integrated IDE
IDE Slimline CD-RW/DVD-ROM Combo Drive	Up to 2	A or B	Integrated IDE
IDE DVD±R/RW 8X Drive	Up to 2	A or B	Integrated IDE

Hard Drives

NOTE: The components of a storage subsystem (e.g. the drive, the HBA/controller, firmware, and the server backplane) should operate at the same data transfer rate or the system bandwidth will be negotiated down to an acceptable level for all components.

NOTE: Hard drives have either a one year or three year warranty; refer to the specific hard drive QuickSpecs for details.

SAS Hot Plug SFF (2.5-inch) Enterprise (ENT) Drives

	Quantity Supported	Position Supported	Controller
300GB 6G SAS 10K DP	Up to 8	1-8	HP Smart Array P800/512 BBWC Controller
300GB 3G SAS 10K DP			HP Smart Array P212/Zero Memory Controller
146GB 6G SAS 15K DP			HP Smart Array P212/ 256 MB Controller
146GB 3G SAS 15K DP			HP Smart Array P410/256 MB Controller
146GB 6G SAS 10K DP			HP Smart Array P410/512 MB BBWC Controller
146GB 3G SAS 10K DP			HP Smart Array P410/512 MB FBWC Controller
72GB 6G SAS 15K DP			HP Smart Array P410/1G FBWC Controller
72GB 3G SAS 15K DP			HP Smart Array P411/256 MB Controller
			HP Smart Array P411/512 MB BBWC Controller
			HP Smart Array P411/512 MB FBWC Controller
	HP Smart Array P411/1G FBWC Controller		
	HP Smart Array P812/1G Flash Backed Cache Controller		

SAS Hot Plug SFF (2.5-inch) Midline (MDL) Drives

	Quantity Supported	Position Supported	Controller
500GB 6G SAS 7.2K DP	Up to 8	1-8	HP Smart Array P800/512 BBWC Controller
			HP Smart Array P212/Zero Memory Controller
			HP Smart Array P212/ 256 MB Controller
			HP Smart Array P410/256 MB Controller
			HP Smart Array P410/512 MB BBWC Controller
			HP Smart Array P410/512 MB FBWC Controller
			HP Smart Array P410/1G FBWC Controller
			HP Smart Array P411/256 MB Controller
			HP Smart Array P411/512 MB BBWC Controller
			HP Smart Array P411/512 MB FBWC Controller
	HP Smart Array P411/1G FBWC Controller		
	HP Smart Array P812/1G Flash Backed Cache Controller		

SATA Hot Plug SFF (2.5-inch) Entry (ETY) Drives

Storage

	Quantity Supported	Position Supported	Controller
250GB 3G SATA 5.4K	Up to 8	1-8	HP Smart Array P800/512 BBWC Controller
120GB 1.5G SATA 5.4K			HP Smart Array P212/Zero Memory Controller
			HP Smart Array P212/ 256 MB Controller
			HP Smart Array P410/256 MB Controller
			HP Smart Array P410/512 MB BBWC Controller
			HP Smart Array P410/512 MB FBWC Controller
			HP Smart Array P410/1G FBWC Controller
			HP Smart Array P411/256 MB Controller
			HP Smart Array P411/512 MB BBWC Controller
			HP Smart Array P411/512 MB FBWC Controller
			HP Smart Array P411/1G FBWC Controller
			HP Smart Array P812/1G Flash Backed Cache Controller

SATA Hot Plug Midline (MDL) Solid State Drives

	Quantity Supported	Position Supported	Controller
60GB 3.0G SATA SSD	Up to 8	1-8	HP Smart Array P212/Zero Memory Controller
120GB 3.0G SATA SSD			HP Smart Array P212/ 256 MB Controller
			HP Smart Array P410/256 MB Controller
			HP Smart Array P410/512 MB BBWC Controller
			HP Smart Array P410/512 MB FBWC Controller
			HP Smart Array P410/1G FBWC Controller
			HP Smart Array P411/256 MB Controller
			HP Smart Array P411/512 MB BBWC Controller
			HP Smart Array P411/512 MB FBWC Controller
			HP Smart Array P411/1G FBWC Controller
			HP Smart Array P812/1G Flash Backed Cache Controller

External Storage

	Quantity Supported	Position Supported	Host Controller or Adapter
50 Modular Smart Array	Up to 4	External	HP Smart Array P800/512 BBWC Controller
60 Modular Smart Array	Up to 4	External	HP Smart Array P212/Zero Memory Controller
			HP Smart Array P212/ 256 MB Controller
	Up to 8		HP Smart Array P800/512 BBWC Controller
			HP Smart Array P411/256 MB Controller
			HP Smart Array P411/512 MB BBWC Controller
			HP Smart Array P411/512 MB FBWC Controller
			HP Smart Array P411/1G FBWC Controller
70 Modular Smart Array	Up to 2	External	HP Smart Array P212/Zero Memory Controller
			HP Smart Array P212/ 256 MB Controller
	Up to 4		HP Smart Array P800/512 BBWC Controller
			HP Smart Array P411/256 MB Controller
			HP Smart Array P411/512 MB BBWC Controller
			HP Smart Array P411/512 MB FBWC Controller
			HP Smart Array P411/1G FBWC Controller
D2700 Disk Enclosure	Up to 2	External	HP Smart Array P212/ 256 MB Controller
	Up to 4		HP Smart Array P411/256 MB Controller
			HP Smart Array P411/512 MB BBWC Controller
			HP Smart Array P411/512 MB FBWC Controller
			HP Smart Array P411/1G FBWC Controller

Maximum Storage Capacity - (External Enclosures Attached)

Internal	4.0TB (8 x 500GB)
External	1.120TB (56 MSA60 enclosures @ 20 drives per enclosure x 1 TB SATA)
Total	5.120TB

Tape and Disk-Based Backup

NOTE: For the complete range of StorageWorks tape drives, autoloaders, libraries and media, including the internal fitting models, see: <http://www.hp.com/go/tape>. For the complete range of StorageWorks D2D Backup Systems see: <http://www.hp.com/go/d2d>. For the complete range of StorageWorks RDX drives and media see: <http://www.hp.com/go/rdx>. For hardware and software compatibility of HP StorageWorks disk and tape backup products see: <http://www.hp.com/go/connect>.

Storage

	Position Supported	Controller	Controller Part Number
HP StorageWorks SCSI Tape Drives LTO-1 Ultrium 232 LTO-2 Ultrium 448 LTO-3 Ultrium 920 LTO-3 Ultrium 960 LTO4 Ultrium 1760 LTO-4 Ultrium 1840 DAT 40 DAT 72 DAT 160 1U Rack-Mount Kit 3U Rack-Mount Kit	External	HP SC11Xe Host Bus Adapter NOTE: Please check the full compatibility information at: http://www.hp.com/go/connect	412911-B21
HP StorageWorks USB Tape Drives DAT 40 DAT 72 DAT 160 DAT 320 1U USB Rack-Mount Kit	External	USB 2.0 Port	N/A
HP StorageWorks SAS Tape Drives DAT 160 DAT 320 LTO-2 Ultrium 448 LTO-3 Ultrium 920 LTO-4 Ultrium 1760 LTO-4 Ultrium 1840 LTO-5 Ultrium 3000 LTO-5 Ultrium 3280 1U Rack-Mount Kit 3U Rack-Mount Kit	External	HP Smart Array P212/Zero Memory Controller NOTE: Please check the full compatibility information at: http://www.hp.com/go/connect	462828-B21
HP StorageWorks SCSI Tape Autoloaders DAT 72x10 Autoloader 1/8 G2 Autoloader	External	HP SC11Xe Host Bus Adapter NOTE: Please check the full compatibility information at: http://www.hp.com/go/connect	412911-B21
HP StorageWorks SCSI Tape Libraries, External MSL2024 MSL4048 MSL8096 MSL6000	External	HP U320e SCSI Dual Channel Controller NOTE: Please check the full compatibility information at: http://www.hp.com/go/connect	AH627A
HP StorageWorks SAS Tape Autoloaders and Libraries 1/8 G2 Autoloader MSL2024 MSL4048 MSL8096	External	HP Smart Array P212/Zero Memory Controller NOTE: Please check the full compatibility information at: http://www.hp.com/go/connect	462828-B21
HP StorageWorks Fibre Channel Tape Libraries MSL2024 MSL4048 MSL8096 MSL6000	External	Please consult the EBS connectivity matrix at: http://www.hp.com/go/ebs for connectivity information and the supported Fibre Channel HBAs shown in this QuickSpecs.	N/A
HP StorageWorks USB RDX Removable Disk Backup System RDX160 RDX320	External	USB 2.0 Port	N/A



Storage

RDX500
RDX750

HP StorageWorks D2D Backup Systems, iSCSI D2D2503i D2D4004i	External	Embedded Network Controller. If the server requires a hardware iSCSI initiator, the QLogic QLA4050 Host Bus Adapter is recommended.	N/A
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HP StorageWorks D2D Backup Systems, Fibre Channel D2D4000fc	External	Direct server attach is not supported, requires connection via SAN fabric. See: http://www.hp.com/go/connect	N/A
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Power Specifications

Part number 348114-001
Operational Input Voltage Range (Vrms) 90 to 264
Frequency Range (Nominal) (Hz) 47 to 63 (50/60)

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

NOTE: To review typical system power ratings use the HP Power Advisor which is available online located at url: www.hp.com/go/proliant-energy-efficient or www.hp.com/go/hppoweradvisor

- Click on: "ProLiant Servers"
- Click on the Server of interest. Example: DL585 G6
- Click on: "Power Calculator" link. (You may need to scroll down to see it)
- There are certain Dual-core, lowline, max configurations that are not supported. All highline configurations are supported. Consult the Power Calculator to determine if your lowline configuration is supported.

Standard Rack Model Power Cords / Jumper Cords	Description
Asia Pacific	IEC320-C14 to IEC320-C19 Jumper Cord
Europe	IEC320-C14 to IEC320-C19 Jumper Cord
Japan	JIS C8303 to IEC320-C19 IEC320-C14 to IEC320-C19 Jumper Cord
PRC	IEC320-C14 to IEC320-C19 Jumper Cord
USA	IEC320-C14 to IEC320-C19 Jumper Cord

Technical Specifications

System Unit	Dimensions (H x W x D) 6.94 x 19 x 26.5 in (17.6 x 48.3 x 67.3 cm) (with bezel)									
	Weight (approximate)	Maximum 95 lb (43 kg) (all hard drives, power supplies, and processors installed)								
		Minimum 79 lb (36 kg) (one hard drive, power supply, and processor installed)								
	Input Requirements (per power supply)	Rated Line Voltage 90 - 132 VAC, 180 - 264 VAC								
		Rated Input Current 12 A (at 100 VAC), 8 A (at 200 VAC)								
		Rated Input Frequency 47 to 63 Hz								
		Rated Input Power 1161 W (at 100 VAC), 1598 W (at 200 VAC)								
	BTU Rating	Maximum 3985 BTU/hr (at 100 VAC), 5457 BTU/hr (at 200 VAC)								
	Power Specifications	NOTE: To review typical system power ratings use the HP Power Advisor which is available online located at url: www.hp.com/go/proliant-energy-efficient or www.hp.com/go/hppoweradvisor <ul style="list-style-type: none"> ● Click on the system of interest. Example: DL585 G6 ● Follow the instructions of the next screens 								
	Power Supply Output (per power supply)	Rated Steady-State Power 910 W (at 100 VAC), 1300 W (at 200 VAC)								
		Maximum Peak Power 960 W (at 100 VAC), 1420 W (at 200 VAC)								
	System Inlet Temperature	Operating 10° to 35°C (50° to 95°F) at sea level with an altitude derating of 1.0°C per every 305 m (1.8°F per every 1000 ft) above sea level to a maximum of 3050 m (10,000 ft), no direct sustained sunlight. Maximum rate of change is 10°C/hr (18°F/hr). The upper limit may be limited by the type and number of options installed. System performance may be reduced if operating with a fan fault or above 30°C (86°F).								
		Non-operating -30° to 60°C (-22° to 140°F). Maximum rate of change is 20°C/hr (36°F/hr).								
	Relative Humidity (non-condensing)	Operating 10 to 90% relative humidity (Rh), 28°C (82.4°F) maximum wet bulb temperature, non-condensing.								
		Non-operating 5 to 95% relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb temperature, non-condensing.								
	Altitude	Operating 3050 m (10,000 ft). This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 457 m/min (1500 ft/min).								
		Non-operating 9144 m (30,000 ft). Maximum allowable altitude change rate is 457 m/min (1500 ft/min).								
	Acoustic Noise	Listed are the declared A-Weighted sound power levels (LWAd) and declared average bystander position A-Weighted sound pressure levels (LpAm) when the product is operating in a 23°C ambient environment. Noise emissions were measured in accordance with ISO 7779 (ECMA 74) and declared in accordance with ISO 9296 (ECMA 109). Idle <table border="0" style="margin-left: 20px;"> <tr> <td style="padding-left: 20px;">L WAd</td> <td>7.7 B</td> </tr> <tr> <td style="padding-left: 20px;">L pAm</td> <td>58 dBA</td> </tr> </table> Operating <table border="0" style="margin-left: 20px;"> <tr> <td style="padding-left: 20px;">L WAd</td> <td>7.7 B</td> </tr> <tr> <td style="padding-left: 20px;">L pAm</td> <td>58 dBA</td> </tr> </table>	L WAd	7.7 B	L pAm	58 dBA	L WAd	7.7 B	L pAm	58 dBA
L WAd	7.7 B									
L pAm	58 dBA									
L WAd	7.7 B									
L pAm	58 dBA									
	Emissions	FCC Rating Class A								

Technical Specifications

Classification (EMC)	Normative Standards	CISPR 22; EN55022; EN55024; FCC CFR 47, Pt 15; ICES-003; CNS13438; GB9254; K22;K24; EN 61000-3-2; EN 61000-3-3; EN 60950-1; IEC 60950-1
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NOTE: Product conformance to cited product specifications is based on sample (type) testing, evaluation, or assessment. This product or family of products is eligible to bear the appropriate compliance logos and statements.

Slimline CD-RW/DVD-ROM 24X Combo Drive	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 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/
		Block Size	CD-ROM	Mode-1 650 MB (550 MB) Mode-2 742 MB (640 MB)
		Diameter	DVD	2,048 bytes
			CD	2,352 (Mode-0) 2352, 2340, 2336, 2048 bytes (Mode-1) 2352, 2340, 2336, 2048 bytes (Mode-2)
	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%	

Technical Specifications

Dimensions	(HxWxD, maximum)	0.5 x 5.04 x 5.1 in (12.7 x 128 x 129.4 mm)
Option Kit Contents	DVD-ROM drive with installation guide, warranty card, registration card	

Integrated Lights-Out 2 Architecture Standard

(integrated on system board)

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 and Virtualization Software Support	Microsoft Windows Server Windows Server 2008 Hyper-V Red Hat Enterprise Linux (RHEL) SUSE Linux Enterprise Server (SLES) Oracle Enterprise Linux (OEL) Solaris 10 for x86/x64 based systems VMware XenSource

NOTE: For more information on HP's Certified and Support Operating System & Virtualization Software, visit our Support Matrix at: www.hp.com/go/ossupport
For our driver download page: www.hp.com/support/DL585G6

Client Browser Support

Microsoft Internet Explorer 7
Microsoft Internet Explorer 6
Firefox 3.5 (on supported Windows and Linux systems)
Firefox 3.0 (on supported Windows and Linux systems)

iLO 2 Standard Features

Virtual Text Remote Console
Virtual KVM
Virtual Power Button Control
Virtual UID Control
Power Regulator Control
Dedicated LAN Connectivity
Secure access using web browser
Secure access using Secure Shell (SSH) client
Serial connectivity
Automatic IP Configuration via DHCP/DNS/WINS
Industry Standard 128-bit Secure Sockets Layer (SSL) Security
IML and iLO2 Event Logging
Support for up to 12 user accounts with customizable access privileges

iLO Advanced Features

(optional Advanced licensed purchase)

Virtual Graphical Remote Console
Virtual Floppy/USB Key drive
Virtual CD-ROM drive
Directory Services Integration
Processor States Reporting
Terminal Services Integration
NOTE: For more information on how to purchase the HP iLO Advanced optional licensed features, visit the iLO QuickSpecs located: www.hp.com/go/iLO

Technical Specifications

Smart Array P410 Controller	Disk Drive and Enclosure Interface - Transfer rate	6Gb/s SAS (Serial Attached SCSI) 3Gb/s SATA (Serial ATA)
	SAS Connectors	2 internal (Mini-SAS) x8 wide port connectors
	Cache Memory Speed	DDR2-800MHz with 40 or 72-bit wide bus provides up to 4.2 GB/s maximum bandwidth.
	Server Interface	x8 5G PCIe 2.0 provides 4GB/s maximum bandwidth.
	SAS Speed	x8 3G SAS provides 2.4GB/s maximum bandwidth.
	Cache Memory	40-bit 256MB ECC protected cache (72-bit 512MB BBWC module upgrades available); transportable with battery-backed upgrade
	Logical Drives Supported	Up to 64 logical drives
	Maximum Logical Drive Capacity	Greater than 2TB
	Host Memory Addressing	64-bit, supporting greater than 4GB server memory space
	RAID Support	RAID 6, 6+0 (Advanced Data Guarding) NOTE: The minimum of 256 MB cache, battery kit, and Smart Array Advanced Pack License Key upgrade is required to enable RAID 6, 6+0 RAID 5, 5+0 (Distributed Data Guarding) NOTE: The 256 MB is required to enable RAID 5, 5+0 support of the Smart Array P410i RAID 1+0 (Striping & Mirroring) RAID 0 (Striping)

Two embedded NC371i Multifunction Gigabit Server Adapters	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	PCI Express, four lanes (x4)
	Controller	BCM5706
	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 Categories 3, 4, or 5 UTP; up to 328 ft (100 m) 10/100/1000 Base-TX Category 5 UTP up to 328 ft (100 m)

Environment-friendly Products and Approach	End-of-life Management and Recycling	<p>Hewlett-Packard offers end-of-life HP product return, trade-in, and recycling programs in many geographic areas. For trade-in information, please go to: http://www.hp.com/go/green. To recycle your product, please go to: http://www.hp.com/go/green or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.</p> <p>The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: http://www.hp.com/go/green. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.</p>
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Technical Specifications

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