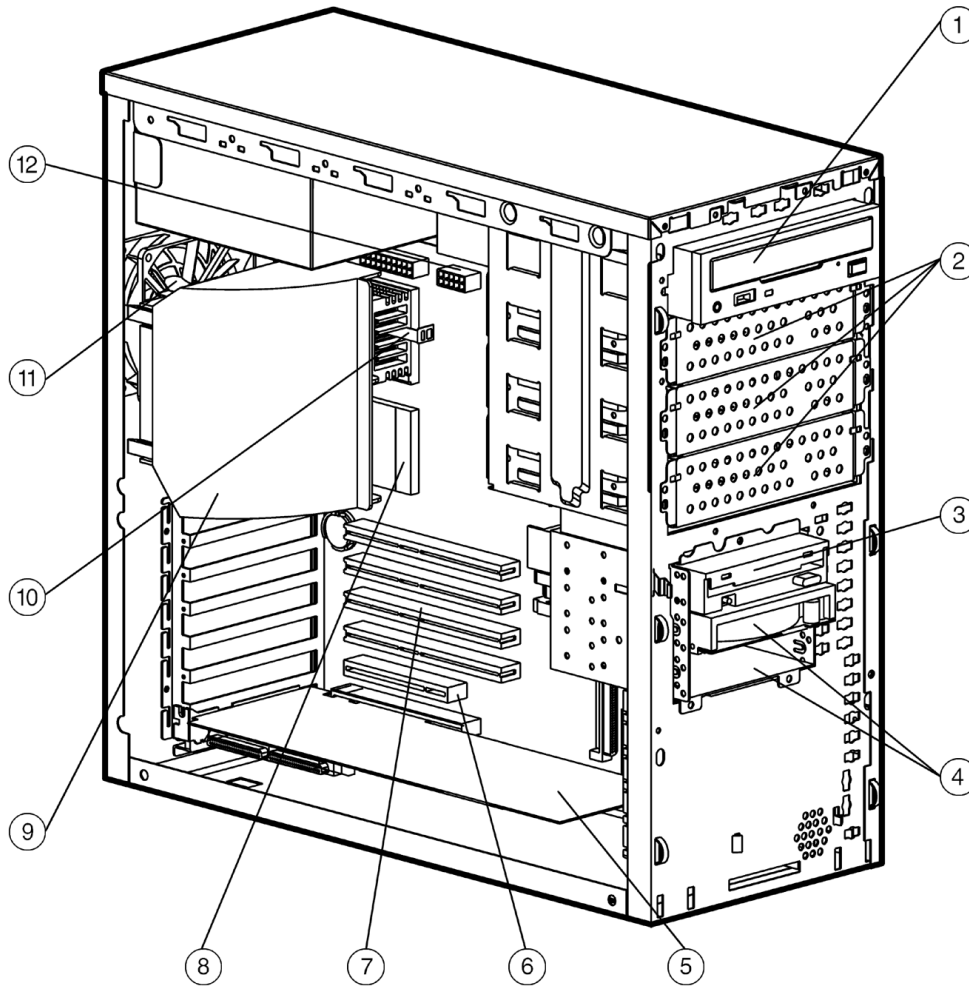


Overview



- 1. 40X Max IDE CD-ROM Drive
- 2. Removable Media Bays (1.6" each)
- 3. 1.44MB Floppy Drive
- 4. Two 1" Non-Hot Plug Drive Bays
- 5. Server Feature Board
- 6. One 32-bit/33MHz PCI Slot

- 7. Four 64-bit/33MHz PCI Slots
- 8. Sockets for Processor #2 (Unpopulated)
- 9. Baffle
- 10. Processor #1 (Populated)
- 11. System Fan
- 12. Power Supply Connector

Overview

At A Glance

- Supports up to 2 Intel® Pentium III 1.40 GHz FC-PGA (Flip Chip-Pin Grid Array) processors
- Two USB ports
- ROM Based Setup Utility (RBSU) and PXE support
- ServerWorks LE 3.0 Chipset with 133-MHz FSB
- 512-KB second level ECC cache standard (full speed)
- 128-MB PC133-MHz Registered ECC SDRAM DIMM memory standard, expandable to 4 GB
- Five total slots available: four 64-bit/33MHz PCI, one 32-bit/33MHz PCI
- Compaq NC3163 Fast Ethernet NIC (embedded) PCI 10/100 WOL (Wake On LAN)
- Integrated Dual Channel Ultra ATA/100 Adapter with Integrated ATA RAID 0, 1, & 1 + 0 (ATA Models) or Integrated Dual Channel Wide Ultra3 SCSI Adapter (SCSI Models)
- Support for up to five 1" Wide Ultra3 NHP SCSI hard drives or four 1" ATA NHP Drives (depending on Model)
- Internal storage capacity of up to 402.8 GB (3 x 36.4-GB non-hot-plug + 2 x 146.8-GB hot plug 1" HD) (SCSI Models) with optional Drive Cage
- Internal storage capacity of up to 320 GB (4 x 80-GB 1" ATA/100 drives) (ATA Models)
- Integrated ATI Rage XL with 8MB SDRAM video
- 300W Power Supply
- Compaq Insight Manager, SmartStart and Automatic Server Recovery-2 (ASR-2)
- Protected by HP Services, including a one-year, limited warranty, Next Business Day 1 year on-site limited Global warranty and Pre-Failure Warranty, which covers processors, memory, and hard drives — Certain restrictions and exclusions apply. Consult the HP Customer Support Center at 1-800-345-1518 for details.

Standard Features

Processor	Intel Pentium III processor 1.40 GHz		
Cache Memory	Integrated 512-KB Level 2 ECC cache (full speed)		
Chipset	ServerWorks LE 3.0 Chipset with 133-MHz Front Side Bus NOTE: For more information regarding ServerWorks, please see the following URL: http://www.serverworks.com/products/overview.html .		
Memory	Standard	128 MB (PC133-MHz ECC Registered SDRAM DIMM memory)	
	Maximum	4 GB	
Network Controller	Compaq NC3163 Fast Ethernet NIC (embedded) PCI 10/100 WOL (Wake On LAN)		
Expansion Slots	I/O (5 Total, 5 Available)	PCI Voltage:	
	64-bit/33MHz PCI	4	3.3 volts
	32-bit/33MHz PCI	1	5.0 volts
Storage Controllers	Integrated Dual Channel Wide Ultra3 SCSI Adapter (SCSI Models) OR Integrated Dual Channel Ultra ATA-100 IDE Adapter with Integrated ATA RAID 0, 1, & 1 + 0 (ATA Models)		
Storage	Diskette Drives	1.44 MB	
	CD-ROM	40x IDE CD-ROM Drive	
	Hard Drives	One of the following: None (1) 18.2-GB Wide Ultra3 SCSI 10,000 rpm 1" Drive (SCSI Models only) (1) 40-GB ATA/100 7200 rpm 1" Drive (ATA 1.26-GHz and higher Models only)	
	Maximum Internal Storage with Optional Hot Plug Drive Cage (SCSI Models)	402.8 GB (3 x 36.4 GB non-hot-plug + 2 x 146.8 GB hot plug) (internal drive bays, and optional hot plug drive cage)	
	Maximum Internal Storage (ATA Models)	320 GB (4 x 80.0 GB) (internal drive bays and removable media bays)	
Interfaces	Parallel	1	
	Serial	2	
	Pointing Device (Mouse)	1	
	Graphics	1	
	Keyboard	1	
	USB	2	
		NOTE: Please see the following URL for additional information regarding USB support: http://h18004.www1.hp.com/products/servers/platforms/usb-support.html .	
	Network RJ-45 (Ethernet)	1	
Graphics	Integrated ATI RAGE XL Video Controller with 8MB SDRAM Video Memory		

Standard Features

Form Factor Tower (5U) (Tower to Rack Enabling Option Kit (PN 238547-B22) available)

**ProLiant Essentials
Foundation Pack
Software**

Insight Manager 7 Insight Manager 7 helps maximize system uptime and performance and reduces the cost of maintaining the IT infrastructure by providing proactive notification of problems before those problems result in costly downtime and reduced productivity. Insight Manager 7 is easy to set up and provides rapid access to detailed fault and performance information gathered by the Management Agents. One-click-access to the Remote Insight Lights Out Edition board allows systems administrators to take full graphical control of ProLiant servers in remote locations or lights-out data centers. Finally, Insight Manager 7 in concert with the Version Control Agents and Version Control Repository Manager enables systems administrators to version manage and update system software across groups of Compaq ProLiant servers.

Management Agents The Management Agents form the foundation for HP's Intelligent Manageability strategy. They provide direct, browser-based access to in-depth instrumentation built into HP servers, workstations, desktops, and portables, and send alerts to Insight Manager 7 and other enterprise management applications in case of subsystem or environmental failures. For additional information about the Management Agents and other management products from HP, please visit the management Web site at <http://www.hp.com/servers/manage>.

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 5.20

ActiveUpdate ActiveUpdate is a web-based application that keeps IT managers directly connected to HP for proactive notification and delivery of the latest software updates.

ROMPaq, support software, and configuration utilities The latest software, drivers, and firmware fully optimized and tested for your ProLiant server and options.

Survey Utility and diagnostics utilities The most advanced configuration analysis, reporting and troubleshooting utilities used by Compaq and at your fingertips.

Optional ProLiant Essentials Value Packs Optional software offerings that selectively extend the functionality of an Adaptive Infrastructure to address specific business problems and needs:

- Rapid Deployment Pack – an automated solution for multi-server deployment and provisioning, enabling companies to quickly and easily adapt to changing business demands.
- 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.
- Recovery Server Option Pack – entry-level high availability software that will provide reliable protection and increased uptime against server hardware and operating system failures.
- 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..

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

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

Standard Features

Industry Standard Compliance

ACPI V1.0b Compliant
PCI 2.2 Compliant
PXE Support
WOL Support
Microsoft® Logo certifications

Manageability

Insight Manager 7
Redundant ROM
Remote Flash ROM
Automatic Server Recovery-2 (ASR-2)
Drive Parameter Tracking (with Smart Array Controller)
Dynamic Sector Repairing (with Smart Array Controller)
Pre-Failure Warranty (covers processors, memory and hard drives)

Security

Power-on password
Setup password
Diskette boot control
Power switch security
Intruder Alert Message

Server Power Cords

One Lowline power cord ships standard

Power Supply

300 Watts, PFC (Power Factor Correcting)

System Fans

1 non-hot plug; non-redundant fan shipped standard. 1 fan total supported.

Required Cabling

For required cabling information, refer to the Web site at <http://h18000.www1.hp.com/products/servers/ProLiantML330/>.

OS Support

Microsoft Windows NT® Server 4.0 and Microsoft Windows NT Server 4.0 Terminal Server Edition
Microsoft BackOffice Small Business Server 2000
Microsoft Windows 2000 Server
Novell NetWare 5.1 Novell NetWare Small Business Suite 5.1
Novell Netware 6
LINUX (Red Hat, SuSE, Caldera eServer) (SCSI Models only)

NOTE: For a more complete and up-to-date listing of supported OS's and versions, please visit our OS Support Matrix at: <ftp://ftp.compaq.com/pub/products/servers/os-support-matrix-310.pdf>.

NOTE: For an up-to-date listing of the latest drivers available for the Compaq ProLiant ML330, please see: <http://h18023.www1.hp.com/support/files/server/us/index.html>.

Standard Features

Rack Airflow Requirements

- Rack 9000 and 10000 series Cabinets
The increasing power of new high-performance processor technology requires increased cooling efficiency for rack-mounted servers. The Compaq 9000 Series Rack and the 10000 Series Racks provides enhanced airflow for maximum cooling, allowing these racks to be fully loaded with servers using the latest processors.
- Rack 7000 series Cabinets
When installing a server with processors running at speeds of 550 MHz or greater in Compaq Rack 7000 series racks with glass doors (165753-001 (42U), and 163747-001 (22U)), the new processor technology requires the installation of Compaq's new High Airflow Rack Door Inserts (327281-B21 (42U), 327281-B22 (42U 6 pack), or 157847-B21 (22U)) to promote enhanced airflow for maximum cooling.

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

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

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

NOTE: For additional information, refer to the Setup and Installation Guide or the Documentation CD provided with the server, or to the server documentation located in the Support section at the following URL:

<http://h18000.www1.hp.com/products/servers/ProLiantml330/index.html>.

Service and Support

HP Services provides a one-year, limited warranty, including Pre-Failure Warranty (coverage of hard drives, memory and processors) fully supported by a worldwide network of resellers and service providers. HP technical assistance is available 7x24, toll free in the United States and Canada. Telephone support services may be covered under warranty or available for an additional fee.

NOTE: Limited Warranty includes 1 year Parts, 1 year Labor, 1-year on-site support.

A full range of HP Care Pack packaged hardware and software services:

- Installation and start up
- Extended coverage hours and enhanced response times
- System management and performance services
- Availability and recovery services

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

Please see the following URL regarding Warranty Information For Your HP Products:

<http://h18004.www1.hp.com/products/servers/platforms/warranty/index.html>.

For additional information regarding Worldwide Limited Warranty and Technical Support, please see the following URL:

<ftp://ftp.compaq.com/pub/supportinformation/ejourney/176738.pdf>.

NOTE: Certain restrictions and exclusions apply. Consult the Customer Support Center at 1-800-345-1518 for details.

Models

ML330T02 P1400-512KB 128MB, 40GB, ATA 267621-xx2	Processor	(1) Intel Pentium III 1.40 GHz (standard)
	Cache Memory	Integrated 512-KB Level 2 cache (full speed)
	Memory	128 MB (Standard) to 4 GB (Maximum) PC133-MHz ECC Registered SDRAM DIMM
	Network Controller	Compaq NC3163 Fast Ethernet NIC (embedded) PCI 10/100 WOL
	Storage Controller	Integrated Dual Channel Ultra ATA-100 IDE Adapter with Integrated ATA RAID 0,1, & 1+0
	Hard Drive	40 GB Ultra ATA/100
	Internal Storage	320 GB maximum (with optional hard drives)
	Optical Drive	40x IDE (ATAPI) CD-ROM Drive
	Form Factor	Tower (5U) (Tower to Rack Enabler Option Kit available)

ML330T02 P1400-512KB 128MB, 18GB, SCSI 267622-002	Processor	(1) Intel Pentium III 1.40 GHz (standard)
	Cache Memory	Integrated 512-KB Level 2 cache (full speed)
	Memory	128 MB (Standard) to 4 GB (Maximum) PC133-MHz ECC Registered SDRAM DIMM
	Network Controller	Compaq NC3163 Fast Ethernet NIC (embedded) PCI 10/100 WOL
	Storage Controller	Integrated Dual Channel Ultra3 SCSI Adapter
	Hard Drive	(1) 18.2 GB Wide Ultra3 SCSI 10,000 rpm 1" Drive
	Internal Storage	402.8 GB maximum (with optional hot plug drive cage and optional hard drives)
	Optical Drive	40x IDE (ATAPI) CD-ROM Drive
	Form Factor	Tower (5U) (Tower to Rack Enabler Option Kit available)

ML330T02 P1400-512KB 128MB, SCSI 267622-001	Processor	(1) Intel Pentium III 1.40 GHz (standard)
	Cache Memory	Integrated 512-KB Level 2 cache (full speed)
	Memory	128 MB (Standard) to 4 GB (Maximum) PC133-MHz ECC Registered SDRAM DIMM
	Network Controller	Compaq NC3163 Fast Ethernet NIC (embedded) PCI 10/100 WOL
	Storage Controller	Integrated Dual Channel Ultra3 SCSI Adapter
	Hard Drive	(None standard)
	Internal Storage	402.8 GB maximum (with optional hot plug drive cage and optional hard drives)
	Optical Drive	40x IDE (ATAPI) CD-ROM Drive
	Form Factor	Tower (5U) (Tower to Rack Enabler Option Kit available)

Country Code Key	XX=00	NA
	XX=01	Australia
	XX=03	UK
	XX=04	Germany
	XX=34	Austria
	XX=05	France
	XX=29	Japan
	XX=37	AP
	XX=42	Euro
	XX=AA	PRC

Options

ProLiant Essentials Value Pack Software	Rapid Deployment Pack, 1 User, V1.x NOTE: This license allows 1 server to be managed and deployed via the Deployment Server.	267196-B21
	Rapid Deployment Pack, 1 User, V1.x (Japan) NOTE: This license allows 1 server to be managed and deployed via the Deployment Server.	267196-291
	Rapid Deployment Pack, 10 Users, V1.x NOTE: This license allows 10 servers to be managed and deployed via the Deployment Server.	269817-B21
	Rapid Deployment Pack, 10 Users, V1.x (Japan) NOTE: This license allows 10 servers to be managed and deployed via the Deployment Server.	269817-291
	ProLiant Essentials Workload Management Pack 2.0 (Featuring Compaq Resource Partitioning Manager version 2.0)	303284-B21
	ProLiant Essentials Recovery Server Option Pack	280189-B21
	ProLiant Essentials Performance Management Pack Flexible License 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 .	306697-B21
Software	HP digital asset protection	302316-001
	Red Hat Linux Advanced Server 2.1 Basic (English)	311811-B21
	Red Hat Linux 8.0 Professional (English)	311813-001
NetServer to ProLiant integrations services	HP NetServer to ProLiant integration and assessment service NOTE: HP identifies current levels of NetServer support, services, and management. This service helps maximize customer's ability to add ProLiant platforms into their current environment.	304164-002
	HP TopTools to Insight Manager 7 installation and startup service NOTE: Provides on-site review, installation and configuration services for Insight Manager 7. HP will also re-create, as closely as possible, the views and reports from the customer's current TopTools configuration. This service assures a smooth transition to the ProLiant Essentials software.	304163-002
	HP NetServer to ProLiant Essentials Rapid Deployment Pack installation and startup service NOTE: Install and configure Rapid Deployment Pack in a test environment, then deploy a server image to a maximum of 250 systems in the production environment. This service helps to assure successful system deployment.	304162-002
Processors	Pentium III P1400-512 KB Processor Option Kit NOTE: The Pentium III P1400-512K Processor Option Kit is supported by the ProLiant ML330 Generation 2 (G2), ProLiant ML350 Generation2 (G2), and ProLiant ML370 Generation 2 (G2) servers.	231118-B21
	Pentium III P1266-512KB Processor Option Kit NOTE: The Pentium III P1266-512K Processor Option Kit is supported by the ProLiant ML330 Generation 2 (G2), ProLiant ML350 Generation2 (G2), and ProLiant ML370 Generation 2 (G2) servers.	231117-B21
	Pentium III P1133-512KB Processor Option Kit NOTE: The Pentium III P1133-512K Processor Option Kit is supported by the ProLiant ML330 Generation 2 (G2), ProLiant ML350 Generation2 (G2), and ProLiant ML370 Generation 2 (G2) servers.	238888-B21
	Pentium III P1000-256KB Processor Option Kit	245037-B21

Options

Memory (DIMMs)	1024-MB PC133-MHz Registered ECC SDRAM DIMM Memory Option Kit	128280-B21
	512-MB PC133-MHz Registered ECC SDRAM DIMM Memory Option Kit	128279-B21
	256-MB PC133-MHz Registered ECC SDRAM DIMM Memory Option Kit	128278-B21
	128-MB PC133-MHz Registered ECC SDRAM DIMM Memory Option Kit	128277-B21

Optical Drives	CD-RW/DVD-ROM Combo Drive Option Kit	331346-B21
----------------	--------------------------------------	------------

Internal Storage	ML3xx Two Bay Hot Plug SCSI Drive Cage NOTE: This Drive Cage has one 1" drive bay and one 1.6" drive bay.	244059-B21
------------------	---	------------

Hard Drives

Ultra320 SCSI – Universal Hot Plug (SCSI Models only)

NOTE: These Hot Plug Drives are for use in conjunction with the ML3xx Two Bay Hot Plug SCSI Drive Cage (PN 244059-B21).

36.4GB 10,000 rpm, U320 Universal Hard Drive, 1"	286713-B22
72.8GB 10,000 rpm, U320 Universal Hard Drive, 1"	286714-B22
146.8GB 10,000 rpm, U320 Universal Hard Drive, 1"	286716-B22
18.2GB 15,000 rpm, U320 Universal Hard Drive, 1"	286775-B22
36.4GB 15,000 rpm, U320 Universal Hard Drive, 1"	286776-B22
72.8GB 15,000 rpm, U320 Universal Hard Drive, 1"	286778-B22

Ultra320 SCSI – Non-Hot Plug (SCSI Models only)

36.4GB 10,000 rpm, U320 Non-Hot Plug Hard Drive, 1"	271832-B21
---	------------

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.

ATA 100 – Non-Hot Plug (ATA Models only)

80-GB ATA/100 7,200 rpm Drive (1")	278424-B21
40-GB ATA/100 7,200 rpm Drive (1")	230534-B21

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

U320 Hard Drive QS:

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

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

ATA100 Hard Drive QS:

http://h18000.www1.hp.com/products/quickspecs/11361_div/11361_div.HTML (Worldwide)

http://h18000.www1.hp.com/products/quickspecs/11361_na/11361_na.HTML (North America)

Options

Storage Controllers – SCSI Drives

NOTE: The following Storage Controllers are qualified for SCSI drives only. They do not support the ATA Drives.

Compaq RAID LC2 Controller	188044-B21
Compaq RAID LC2 Controller (Japan)	188044-291
Smart Array 532 Controller	225338-B21
Smart Array 532 Controller (Japan)	225338-291
Smart Array 5302/128 Controller	283552-B21
Smart Array 5302/128 Controller (Japan)	283552-291
Smart Array 6402/128 Controller	273915-B21
256MB DDR, Battery-Backed Cache Upgrade Kit for SA-6400	273913-B21
NOTE: This 256-MB Battery-Backed Cache upgrade kit supports the Smart Array 6400 series controller only.	
Smart Array 641 Controller	291966-B21
Smart Array 642 Controller	291967-B21
64 MB Battery Backed Write Cache Enabler	291969-B21
NOTE: This 64 MB BBWC supports the Smart Array 641 Controller and Smart Array 642 Controller.	
64-bit/66-MHz Single Channel Wide Ultra3 SCSI Adapter	154457-B21
64-Bit/133-MHz Dual Channel Ultra320 SCSI Adapter	268351-B21
64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS	284688-B21

NOTE: Please see the following Controller or SCSI Adapter QuickSpecs for Technical Specifications such as PCI Bus, PCI Peak Data Transfer Rate, SCSI Protocols supported, SCSI Peak Data Transfer Rate, Channels, SCSI Ports, Drives supported, Cache, RAID support, and additional information:

- http://h18000.www1.hp.com/products/quickspecs/10652_div/10652_div.HTML (RAID LC2)
- http://h18000.www1.hp.com/products/quickspecs/10851_div/10851_div.HTML (Smart Array 532)
- http://h18000.www1.hp.com/products/quickspecs/10640_div/10640_div.HTML (Smart Array 5300 Series)
- http://h18000.www1.hp.com/products/quickspecs/11563_div/11563_div.HTML (Smart Array 641)
- http://h18000.www1.hp.com/products/quickspecs/11563_div/11563_div.HTML (Smart Array 642)
- http://h18000.www1.hp.com/products/quickspecs/10429_div/10429_div.HTML (SCSI Adapter)
- http://h18000.www1.hp.com/products/quickspecs/11555_div/11555_div.HTML (U320 Adapter)

Wireless HAP Solution

Compaq WL410 Wireless SMB Access Point (US)	191811-001
Compaq WL410 Wireless SMB Access Point (Australia)	191811-011
Compaq WL410 Wireless SMB Access Point (Europe)	191811-021
Compaq WL410 Wireless SMB Access Point (UK)	191811-031
Compaq WL410 Wireless SMB Access Point (Japan)	191811-291
Compaq WL410 Wireless SMB Access Point (China)	191811-AA1
Compaq WL410 Wireless SMB Access Point (Korea)	191811-AD1
Compaq WL410 Wireless SMB Access Point (S. Africa)	191811-AR1

Communications

Compaq NC3123 Fast Ethernet NIC PCI 10/100 WOL	174830-B21
Compaq NC3133 Fast Ethernet Module 100 FX Upgrade Module for NC3134 and NC3131	338456-B25
Compaq NC6136 Gigabit Server Adapter, 64-bit/66-MHz, PCI, 1000 SX	203539-B21
Compaq NC7770 PCI-X Gigabit Server Adapter	244948-B21

NOTE: Any NC31XX, NC61XX, or NC71XX NIC can be used for redundancy with the embedded NC3163 Network Controller.

Agere/Lucent V.92 Data+Fax Modem	DC131A
----------------------------------	--------

Options

Management Options	Remote Insight Lights-Out Edition II (NA, LA)	227251-001
	Remote Insight Lights-Out Edition II (EMEA)	227251-021
	Remote Insight Lights-Out Edition II (ROW)	227251-371
	Compaq Remote Insight Lights-Out Edition (NA, LA)	157866-001
	Compaq Remote Insight Lights-Out Edition (EMEA)	157866-021
	Compaq Remote Insight Lights-Out Edition (ROW)	157866-371

Monitors

Essential Series

Compaq S9500 CRT Monitor (19-inch, Carbon/Silver)	261615-XXX
Compaq S7500 CRT Monitor (17-inch, Carbon/Silver)	261606-XXX
Compaq S5500 CRT Monitor (15-inch Carbon/Silver)	261602-XXX
Compaq TFT1501 Flat Panel Monitor (15-inch, Carbon/Silver, North America)	301042-003
Compaq TFT1501 Flat Panel Monitor (15-inch, Carbon/Silver, Outside North America)	P4825D-XXX
Compaq TFT1701 Flat Panel Monitor (17-inch, Carbon/Silver, North America)	292847-003
Compaq TFT1701 Flat Panel Monitor (17-inch, Carbon/Silver, Outside North America)	P9019A-XXX

Advantage Series

Compaq V7550 CRT Color Monitor (17-inch, Carbon/Silver)	261611-XXX
Compaq TFT1720 Flat Panel Monitor (17-inch, Carbon/Silver, North America)	295926-003
Compaq TFT1720 Flat Panel Monitor (17-inch, Carbon/Silver, outside North America)	D5064D-XXX
Compaq FT1720M Flat Panel Monitor (17-inch, Carbon/Silver, includes speaker, USB port, headphone, North America)	301958-003
Compaq TFT1720M Flat Panel Monitor (17-inch, Carbon/Silver, includes speaker, USB port, headphone, outside North America)	D5064P-XXX
Compaq TFT1520 Flat Panel Monitor (15-inch, Carbon/Silver, North America)	295925-003
Compaq TFT1520 Flat Panel Monitor (15-inch, Carbon/Silver, outside North America)	D5063D-XXX
Compaq TFT1520M Flat Panel Monitor (15-inch, Carbon/Silver includes speaker, USB port, headphone, North America)	301957-003
Compaq TFT1520M Flat Panel Monitor (15-inch, Carbon/Silver includes speaker, USB port, headphone, outside North America)	D5063P-XXX

Options

Performance Series

HP P930 CRT Monitor (19-inch, Flat-screen, Carbon/Silver, North America)	302268-003
HP P930 CRT Monitor (19-inch, Flat-screen, Carbon/Silver, Outside North America)	P909W-XXX
HP P1130 CRT Monitor (21-inch, Flat-screen, Carbon/Silver, North America)	302270-003
HP P1130 CRT Monitor (21-inch, Flat-screen, Carbon/Silver, Outside North America)	P4819-XXX
HP L1825 Flat Panel Monitor (18-inch, Carbon/Silver, North America)	303486-003
HP L1825 Flat Panel Monitor (18-inch, Carbon/Silver, Outside North America)	P9021W-XXX
HP L2025 Flat Panel Monitor (20-inch, Carbon/Silver, North America)	303102-003
HP L2025 Flat Panel Monitor (20-inch, Carbon/Silver, Outside North America)	P4831W-XXX
Compaq TFT1825 Flat Panel Monitor (18-inch, Carbon/Silver, North America)	296751-003
Compaq TFT1825 Flat Panel Monitor (18-inch, Carbon/Silver, Outside North America)	P9021A-XXX
Compaq TFT2025 Flat Panel Monitor (20-inch, Carbon/Silver, North America)	285550-003
Compaq TFT2025 Flat Panel Monitor (20-inch, Carbon/Silver, Outside North America)	P4831D-XXX

Rackmount Flat Panel Monitors

TFT5110R Flat Panel Monitor (Carbon) (1U rack mountable)	281683-B21
TFT5010R Flat Panel Monitor (NA) (2U rack mountable)	217248-001
TFT5010R Flat Panel Monitor (Int'l) (2U rack mountable)	217248-B31
TFT5010R Flat Panel Monitor (Japan) (2U rack mountable)	217248-291

Options

Tape Drives

NOTE: To run any external SCSI-based devices, the customer needs to purchase an Internal to External Cable Option kit for SCSI models or a SCSI controller for ATA Models. IDE Tape Drives should be connected to the IDE ports on the Mother Board not the Server Feature Board.

NOTE: The SCSI Cable Kit (PN 273463-B21) is required when installing an internal tape drive and a SCSI Controller.

Internal AIT IDE Tape Drives

AIT 35 GB, IDE Tape Drive, Internal

246627-B22

NOTE: The AIT 35 GB, IDE Tape Drive (246627-B22) ships bundled with the following software "AIT 35 GB, IDE Tape Drive with Retrospect Backup Software Bundle".

NOTE: Please see the AIT 35-GB IDE Tape Drive QuickSpecs for additional options such as cassettes and for an up-to-date listing of the latest O/S Support details, please see the following:

http://h18000.www1.hp.com/products/quickspecs/11013_div/11013_div.HTML (Worldwide)

http://h18000.www1.hp.com/products/quickspecs/11013_na/11013_na.HTML (North America)

Internal and External DAT Tape Drives

Internal 12/24-GB DAT Drive (Opal)

295513-B22

Internal 12/24-GB DAT Drive (Opal) (Japan)

295513-292

NOTE: Please see the 12/24-GB DAT Drive QuickSpecs for additional options such as cassettes and for an up-to-date listing of the latest O/S Support details, please see the following:

http://h18000.www1.hp.com/products/quickspecs/10239_div/10239_div.HTML (Worldwide)

http://h18000.www1.hp.com/products/quickspecs/10239_na/10239_na.HTML (North America)

HP StorageWorks 20/40-GB DAT DDS-4 Tape Drive, Internal (Carbon) (WW)

157769-B22

HP StorageWorks 20/40-GB DAT DDS-4 Tape Drive, External (Carbon) (NA)

157770-002

HP StorageWorks 20/40-GB DAT DDS-4 Tape Drive, External (Int'l) (Carbon)

157770-B32

HP StorageWorks 20/40-GB DAT DDS-4 Tape Drive, External (Japan) (Carbon)

157770-292

NOTE: Please see the 20/40-GB DAT Tape Drive QuickSpecs for additional options such as host bus adapters, controllers, cassettes, and for an up-to-date listing of the latest O/S Support details, please see the following:

http://h18000.www1.hp.com/products/quickspecs/10426_div/10426_div.HTML (Worldwide)

http://h18000.www1.hp.com/products/quickspecs/10426_na/10426_na.HTML (North America)

Options

Internal and External AIT Tape Drives

HP StorageWorks Internal AIT 35-GB, LVD Tape Drive (Carbon)	216884-B21
HP StorageWorks External AIT 35-GB, LVD Tape Drive (Carbon) (NA)	216885-001
HP StorageWorks External AIT 35-GB, LVD Tape Drive (Carbon) (Int'l)	216885-B31
HP StorageWorks External AIT 35-GB, LVD Tape Drive (Carbon) (Japan)	216885-291

NOTE: Please see the [AIT 35-GB, LVD Tape Drive QuickSpecs](#) for additional options such as adapters, controllers, and cassettes, and for an up-to-date listing of the latest O/S Support details, please see the following:

http://h18000.www1.hp.com/products/quickspecs/10712_div/10712_div.HTML (Worldwide)

http://h18000.www1.hp.com/products/quickspecs/10712_na/10712_na.HTML (North America)

HP StorageWorks AIT 50-GB Tape Drive, Internal (Carbon) (WW)	157766-B22
HP StorageWorks AIT 50-GB Tape Drive, External (Carbon) (NA)	157767-002
HP StorageWorks AIT 50-GB Tape Drive, External (Int'l) (Carbon)	157767-B32
HP StorageWorks AIT 50-GB Tape Drive, External (Japan) (Carbon)	157767-292
HP StorageWorks Rackmount AIT 50-GB, 3U (Single Drive)	274333-B21

NOTE: Please see the [AIT 50-GB Tape Drive QuickSpecs](#) for additional options such as adapters, controllers, and cassettes, and for an up-to-date listing of the latest O/S Support details, please see the following:

http://h18000.www1.hp.com/products/quickspecs/10425_div/10425_div.HTML (Worldwide)

http://h18000.www1.hp.com/products/quickspecs/10425_na/10425_na.HTML (North America)

HP StorageWorks Internal AIT 100-GB Tape Drive (Carbon)	249189-B21
HP StorageWorks External AIT 100-GB Tape Drive (Carbon)	249160-001
HP StorageWorks External AIT 100-GB Tape Drive (Carbon) (Int'l)	249160-B31

NOTE: Please see the [AIT 100-GB Tape Drive QuickSpecs](#) for additional options such as adapters, controllers, and cassettes, and for an up-to-date listing of the latest O/S Support details, please see the following:

http://h18000.www1.hp.com/products/quickspecs/11062_div/11062_div.HTML (Worldwide)

http://h18000.www1.hp.com/products/quickspecs/11062_na/11062_na.HTML (North America)

External DLT/SDLT Tape Drives

HP StorageWorks 40/80-GB DLT Tape Drive, External (Carbon) (NA)	146197-B22
HP StorageWorks 40/80-GB DLT Tape Drive, External (Carbon) (Japan)	146197-293
HP StorageWorks Rackmount DLT 40/80, 3U (Single Drive)	274332-B21
HP StorageWorks Rackmount DLT 40/80, Dual-Drive, 3U (Two Drives)	274335-B21
HP StorageWorks Rackmount DLT 40/80, Tape Array III, 5U (Four Drives)	274337-B21

NOTE: Please see the [40/80-GB DLT Drive QuickSpecs](#) for additional options such as host bus adapters, controllers, cassettes, and for an up-to-date listing of the latest O/S Support details, please see the following:

http://h18000.www1.hp.com/products/quickspecs/10658_div/10658_div.HTML (Worldwide)

http://h18000.www1.hp.com/products/quickspecs/10658_na/10658_na.HTML (North America)

Internal and External DLT VS Tape Drives

HP StorageWorks DLT VS 40/80 Tape Drive, Internal (carbon) WW	280129-B21
HP StorageWorks DLT VS 40/80 Tape Drive, External (carbon) NA	280129-B22
HP StorageWorks DLT VS 40/80 Tape Drive, External (carbon) INTL	280129-B31
HP StorageWorks DLT VS 40/80 Tape Drive, External (carbon) Japan	280129-291

NOTE: Please see the [40/80-GB DLT VS Drive QuickSpecs](#) for additional options such as host bus adapters, controllers, cassettes, and for an up-to-date listing of the latest O/S Support details, please see the following:

http://h18000.www1.hp.com/products/quickspecs/11403_div/11403_div.HTML (Worldwide)

http://h18000.www1.hp.com/products/quickspecs/11403_na/11403_na.HTML (North America)

Options

External SuperLoader

DLT1 1280 SuperLoader

268664-B21

NOTE: Please see the StorageWorks DLT1 1280 SuperLoader QuickSpecs for additional options and for an up-to-date listing of the latest O/S Support details, please see the following:

http://h18000.www1.hp.com/products/quickspecs/11330_div/11330_div.HTML (Worldwide)

http://h18000.www1.hp.com/products/quickspecs/11330_na/11330_na.HTML (North America)

Internal and External HP StorageWorks Ultrium 230 Tape Drive for ProLiant

HP StorageWorks LTO Ultrium 230 Tape Drive, External (Carbon) NA

Q1516A

HP StorageWorks LTO Ultrium 230 Tape Drive, External (Carbon) Int'l

Q1517A

NOTE: Please see the HP StorageWorks LTO Ultrium Tape Drive QuickSpecs for additional options such as controllers, and other related items, and for an up-to-date listing of the latest O/S Support details, please see the following:

http://h18000.www1.hp.com/products/quickspecs/11415_div/11415_div.HTML (Worldwide)

http://h18000.www1.hp.com/products/quickspecs/11415_na/11415_na.HTML (North America)

Internal and External HP StorageWorks Ultrium 460 Tape Drive for ProLiant

HP StorageWorks Ultrium 460 Tape Drive for ProLiant, External (Carbon) NA

Q1519A

HP StorageWorks Ultrium 460 Tape Drive for ProLiant, External (Carbon) Int'l

Q1520A

NOTE: Please see the HP StorageWorks Ultrium 460 Tape Drives for ProLiant QuickSpecs for additional options such as data and cleaning cartridges, and for an up-to-date listing of the latest O/S Support details, please see the following:

http://h18000.www1.hp.com/products/quickspecs/11530_div/11530_div.HTML (Worldwide)

http://h18000.www1.hp.com/products/quickspecs/11530_na/11530_na.HTML (North America)

Internal and External DAT Autoloader

20/40-GB DAT 8 Cassette Autoloader External (Opal)

166505-001

20/40-GB DAT 8 Cassette Autoloader External (Opal) (Int'l)

166505-B31

20/40-GB DAT 8 Cassette Autoloader External (Opal) (Japan)

166505-291

NOTE: Please see the 20/40-GB DAT DDS-4 8 Cassette Autoloader QuickSpecs for additional options such as adapters, controllers, and cassettes, and for an up-to-date listing of the latest O/S Support details, please see the following:

http://h18000.www1.hp.com/products/quickspecs/10518_div/10518_div.HTML (Worldwide)

http://h18000.www1.hp.com/products/quickspecs/10518_na/10518_na.HTML (North America)

AIT Autoloader

HP StorageWorks AIT 35 GB Autoloader, Rackmount (Carbon) (NA)

280349-001

HP StorageWorks AIT 35 GB Autoloader, Rackmount (Carbon) (Int'l)

280349-B31

HP StorageWorks AIT 35 GB Autoloader Tabletop (Carbon) (NA)

292355-001

HP StorageWorks AIT 35 GB Autoloader, Tabletop (Carbon) (Int'l)

292355-B31

NOTE: Please see the AIT 35-GB Autoloader QuickSpecs for additional options such as adapters, controllers, and cassettes, and for an up-to-date listing of the latest O/S Support details, please see the following:

http://h18000.www1.hp.com/products/quickspecs/11404_div/11404_div.HTML (Worldwide)

http://h18000.www1.hp.com/products/quickspecs/11404_na/11404_na.HTML (North America)

HP StorageWorks 1/8 Autoloader

HP StorageWorks 1/8 Autoloader, Tabletop, Ultrium 230

C9572CB

HP StorageWorks 1/8 Autoloader, Tabletop, DLT VS80

C9264CB

HP StorageWorks 1/8 Autoloader, Rackmount kit

C9266R

NOTE: Please see the 1/8 Autoloader QuickSpecs for additional options such as adapters, controllers, and cassettes, and for an up-to-date listing of the latest O/S Support details, please see the following:

http://h18000.www1.hp.com/products/quickspecs/11496_div/11496_div.HTML (Worldwide)

http://h18000.www1.hp.com/products/quickspecs/11496_na/11496_na.HTML (North America)

SSL1016 tape autoloader

SSL1016 DLT1 tape autoloader (includes two 8-cartridge magazines and a barcode reader)

330815-B21

NOTE: Please see the SSL1016 DLT1 tape autoloader Quick Specs for additional information:

Options

http://h18000.www1.hp.com/products/quickspecs/11626_na/11626_na.HTML (North America)	
http://h18000.www1.hp.com/products/quickspecs/11626_div/11626_div.HTML (Worldwide)	
SSL1016 SDLT160/320 tape autoloader (includes 2 8-cartridge magazines and a barcode reader)	330816-B21
NOTE: Please see the SSL1016 SDLT160/320 tape autoloader Quick Specs for additional information:	
http://h18000.www1.hp.com/products/quickspecs/11609_na/11609_na.HTML (North America)	
http://h18000.www1.hp.com/products/quickspecs/11609_div/11609_div.HTML (Worldwide)	
External DLT/SDLT Tape Drives	
HP StorageWorks Rackmount SDLT 110/220, 3U (Single Drive)	274331-B21
HP StorageWorks Rackmount SDLT 110/220, Dual-Drive, 3U (Two Drives)	274334-B21
HP StorageWorks Rackmount SDLT 110/220, Tape Array III, 5U (Four Drives)	274336-B21
NOTE: Please see the SDLT 110/220-GB Tape Drive QuickSpecs for additional options such as adapters, controllers, and media, and for an up-to-date listing of the latest O/S Support details, please see the following:	
http://h18000.www1.hp.com/products/quickspecs/10772_div/10772_div.HTML (Worldwide)	
http://h18000.www1.hp.com/products/quickspecs/10772_na/10772_na.HTML (North America)	
HP StorageWorks SDLT 160/320, External NA (carbon)	257319-001
HP StorageWorks SDLT 160/320, External WW (carbon)	257319-B31
HP StorageWorks SDLT 160/320, External Japan (carbon)	257319-291
NOTE: Please see the SDLT 160/320-GB Tape Drive QuickSpecs for additional options such as adapters, controllers, and media, and for an up-to-date listing of the latest O/S Support details, please see the following:	
http://h18000.www1.hp.com/products/quickspecs/11406_div/11406_div.HTML (Worldwide)	
http://h18000.www1.hp.com/products/quickspecs/11406_na/11406_na.HTML (North America)	
Rackmount Tape Drive Kits	
3U Rackmount Kit	274338-B21
NOTE: The 3U Rackmount Kit (PN 274338-B21) can support up to (2) full-height or (4) half-height tape drives and compatible with multiple Single-Ended and LVD SCSI Tape Drives including the 12/24-GB DAT, 20/40-GB DAT, 20/40-GB DAT DDS-4 8 Cassette Autoloader, AIT 35-GB LVD, AIT 50 GB, 20/40-GB DLT, 40/80-GB DLT, and the SDLT 110/220-GB Tape Drives.	
5U Rackmount Kit	274339-B21
NOTE: The 5U Rackmount Kit (PN 274339-B21) can support up to (4) full-height tape drives and is compatible with all Compaq DLT/SDLT tape drives including the 20/40-GB DLT, 35/70-GB DLT, 40/80-GB DLT, and the SDLT 110/220-GB tape drives.	
NOTE: Please see the Compaq Rackmount Tape Drive Kits QuickSpecs for additional information regarding these kits, please see the following:	
http://h18000.www1.hp.com/products/quickspecs/10854_div/10854_div.HTML (Worldwide)	
http://h18000.www1.hp.com/products/quickspecs/10854_na/10854_na.HTML (North America)	
Rackmount Tape Drive Cable Kits	
LVD Cable Kit, VHDCI/HD68	168048-B21
NOTE: For use with the 3U RM Storage Enclosure and DLT Tape Array III only.	
LVD Cable Kit, HD68/HD68	242381-B21
NOTE: For use with the 3U RM Storage Enclosure and DLT Tape Array III only.	

Options

Tape Automation

Entry Level Tape Libraries

SSL2020 Automated AIT Library

SSL2020 AIT Mini-Library 1 drive, 20 slot Table Top	175195-B21
SSL2020 AIT Mini-Library 2 drive, 20 slot Table Top	175195-B22
SSL2020 AIT Mini-Library 1 drive, 20 slot Rackmount	175196-B21
SSL2020 AIT Mini-Library 2 drive, 20 slot Rackmount	175196-B22
SSL2020 AIT Library Pass Thru with Transport	175312-B21
SSL2020 AIT Library Pass Thru Extender	175312-B22
AIT 50-GB Drive Add-On LVD Drive for SSL2020 AIT Library	175197-B21

Required Adapters/Controllers for SSL2020 AIT Library

64-Bit/66-Mhz Dual Channel Wide Ultra3 SCSI Adapter	129803-B21
---	------------

NOTE: Please see the SSL2020 Automated AIT Tape Library Solution QuickSpecs for additional information including Upgrade Kits, Accessories, and SCSI Cable Kits and additional options needed for a complete solution at:

http://h18000.www1.hp.com/products/quickspecs/10580_na/10580_na.HTML (North America)

http://h18000.www1.hp.com/products/quickspecs/10580_div/10580_div.HTML (Worldwide)

MSL5000 Libraries

Mainstream Tape Library

MSL5026DLX DLT Library

MSL5026DLX, 1 40/80-GB DLT, LVD Table Top	231821-B21
MSL5026DLX, 2 40/80-GB DLT, LVD Table Top	231821-B22
MSL5026DLX, 1 40/80-GB DLT, LVD Rackmount	231891-B21
MSL5026DLX, 2 40/80-GB DLT, LVD Rackmount	231891-B22

MSL5026SL SDLT Library

NOTE: Please see the StorageWorks MSL5026DLX or MSL5026SL Library QuickSpecs for additional information including Upgrade Kits, Accessories, and SCSI Cable Kits and additional options needed for a complete solution at:

http://h18000.www1.hp.com/products/quickspecs/10860_na/10860_na.HTML (North America)

http://h18000.www1.hp.com/products/quickspecs/10860_div/10860_div.HTML (Worldwide)

MSL5026SL, Tabletop, 1 SDLT Drive (Graphite)	302511-B21
MSL5026SL, Tabletop, 2 SDLT Drives (Graphite)	302511-B22
MSL5026SL, Rackmount, 1 SDLT Drive (Graphite)	302512-B21
MSL5026SL, Rackmount, 2 SDLT Drive (Graphite)	302512-B22

NOTE: Please see the StorageWorks MSL5026SL Library QuickSpecs for additional information including Upgrade Kits, Accessories, and SCSI Cable Kits and additional options needed for a complete solution at:

http://h18000.www1.hp.com/products/quickspecs/11440_na/11440_na.HTML (North America)

http://h18000.www1.hp.com/products/quickspecs/11440_div/11440_div.HTML (Worldwide)

MSL5026S2 SDLT Library

MSL5026S2, Rackmount, 0 Drive Library	293472-B21
MSL5026S2, Rackmount, 1 Drive, SDLT2 Library	293472-B22
MSL5026S2, Rackmount, 2 Drives, SDLT2 Library	293472-B23
MSL5026S2FC, Rackmount, 1 Drive, SDLT2 Library	293472-B24
MSL5026S2FC, Rackmount, 2 Drives, SDLT2 Library	293472-B25
MSL5026S2, Tabletop, 1 Drive, SDLT2 Library	293473-B21
MSL5026S2, Tabletop, 2 Drives, SDLT2 Library	293473-B22

NOTE: Please see the StorageWorks MSL5026S2 Library QuickSpecs for additional information including Upgrade Kits, Accessories, and SCSI Cable Kits and additional options needed for a complete solution at:

http://h18000.www1.hp.com/products/quickspecs/11453_na/11453_na.HTML (North America)

http://h18000.www1.hp.com/products/quickspecs/11453_div/11453_div.HTML (Worldwide)

Options

Departmental Tape Library

MSL5052SL SDLT Library

MSL5052, 0 Drive, LVD, Rackmount	255102-B21
MSL50502SL, SDLT, 110/220, 2 Drives, LVD, Table Top	249490-B21
MSL50502SL, SDLT, 110/220, 2 Drives, LVD, Rackmount	249491-B21

NOTE: Please see the StorageWorks MSL5052SL Library QuickSpecs for additional information including Upgrade Kits, Accessories, and SCSI Cable Kits and additional options needed for a complete solution at:

http://h18000.www1.hp.com/products/quickspecs/11061_na/11061_na.HTML (North America)

http://h18000.www1.hp.com/products/quickspecs/11061_div/11061_div.HTML (Worldwide)

MSL5052S2 SDLT Library

MSL5052S2, Tabletop, 2 Drives, SDLT2 Library	293476-B21
MSL5052S2, Rackmount, 2 Drives, SDLT2 Library	293474-B21
MSL5052S2FC, Rackmount, 2 Drives, SDLT2 Library	293474-B24

NOTE: Please see the StorageWorks MSL5052S2 Library QuickSpecs for additional information including Upgrade Kits, Accessories, and SCSI Cable Kits and additional options needed for a complete solution at:

http://h18000.www1.hp.com/products/quickspecs/11442_na/11442_na.HTML (North America)

http://h18000.www1.hp.com/products/quickspecs/11442_div/11442_div.HTML (Worldwide)

MSL5030 LTO Library

MSL5030L1, Rackmount, 0 Drive Library	301897-B21
MSL5030L1, Rackmount, 1 Drive, LTO1 Library	301897-B22
MSL5030L1, Rackmount, 2 Drives, LTO1 Library	301897-B23
MSL5030L1FC, Rackmount, 1 Drive, LTO1 Library	301897-B24
MSL5030L1FC, Rackmount, 2 Drives, LTO1 Library	301897-B25
MSL5030L1, Tabletop, 1 Drive, LTO1 Library	301898-B21
MSL5030L1, Tabletop, 2 Drives, LTO1 Library	301898-B22

NOTE: Please see the StorageWorks MSL5030 LTO Library QuickSpecs for additional information including Upgrade Kits, Accessories, and SCSI Cable Kits and additional options needed for a complete solution at:

http://h18000.www1.hp.com/products/quickspecs/11439_na/11439_na.HTML (North America)

http://h18000.www1.hp.com/products/quickspecs/11439_div/11439_div.HTML (Worldwide)

Options

MSL5060 LTO Library

MSL5060L1, Rackmount, 0 Drive Library	301899-B21
MSL5060L1, Rackmount, 2 Drives, LTO1 Library	301899-B22
MSL5060L1FC, Rackmount, 2 Drives, LTO1 Library	301899-B23
MSL5060L1, Tabletop, 2 Drives, LTO1 Library	301900-B21

NOTE: Please see the StorageWorks MSL5060 LTO Library QuickSpecs for additional information including Upgrade Kits, Accessories, and SCSI Cable Kits and additional options needed for a complete solution at:

http://h18000.www1.hp.com/products/quickspecs/11438_na/11438_na.HTML (North America)

http://h18000.www1.hp.com/products/quickspecs/11438_div/11438_div.HTML (Worldwide)

MSL5000 series Libraries Options

MSL5K Field Upgrade SDLT 110/220 Drive, LVD	231823-B22
MSL5000 SDLT2 Upgrade Drive	293475-B21
MSL5000 LTO1 Upgrade Drive	301901-B21
MSL5000 Dual Magazine LTO	301902-B21
MSL5000 Dual Magazine DLT	232136-B21

Required Adapters for MSL5000 series Libraries

64-Bit/66Mhz Dual Channel Wide Ultra3 SCSI Adapter	129803-B21
--	------------

MSL6000 Libraries

MSL6030 LTO Library

MSL6030, Rackmount, 0 Drive Library	330731-B21
MSL6030, Rackmount, 1 Drive, LTO2 Library	330731-B22
MSL6030, Rackmount, 2 Drive, LTO2 Library	330731-B23
MSL6030, Rackmount, embedded Fibre, 1 Drive, LTO2 Library	330731-B24
MSL6030, Rackmount, embedded Fibre, 2 Drive, LTO2 Library	330731-B25
MSL6030, Tabletop, 1 Drive, LTO2 Library	330788-B21
MSL6030, Tabletop, 2 Drive, LTO2 Library	330788-B22

NOTE: Please see the StorageWorks MSL6030 LTO Library QuickSpecs for additional information including Upgrade Kits, Accessories, and SCSI Cable Kits and additional options needed for a complete solution at:

http://h18000.www1.hp.com/products/quickspecs/11625_na/11625_na.HTML (North America)

http://h18000.www1.hp.com/products/quickspecs/11625_div/11625_div.HTML (Worldwide)

MSL6060 LTO Library

MSL6060, Rackmount, 0 Drive Library	331196-B23
MSL6060, Rackmount, 2 Drive, LTO2 Library	331196-B21
MSL6060, Rackmount, embedded Fibre, 2 Drive, LTO2 Library	331196-B22
MSL6060, Tabletop, 2 Drive, LTO2 Library	331195-B21

NOTE: Please see the StorageWorks MSL6030 LTO Library QuickSpecs for additional information including Upgrade Kits, Accessories, and SCSI Cable Kits and additional options needed for a complete solution at:

http://h18000.www1.hp.com/products/quickspecs/11608_na/11608_na.HTML (North America)

http://h18000.www1.hp.com/products/quickspecs/11608_div/11608_div.HTML (Worldwide)

MSL6000 series Libraries Options

MSL Ultrium 460 upgrade drive in hot plug canister	330729-B21
MSL Universal passthrough mechanism	304825-B21
MSL 10U passthrough extender	231824-B23

Options

HP StorageWorks Modular Smart Array 500	HP StorageWorks Modular Smart Array 500	201724-B21
	Modular Smart Array 500 Starter Kit (includes Modular Smart Array 500 and 2 SA-532 Adapters)	351504-B21
	Modular Smart Array 500 High Availability Kit (includes Modular Smart Array 500 controller, 4-port IO Module, Smart Array Multipath Software and 2 SA-532 Adapters)	351281-B21
	Modular Smart Array 500 Controller	218252-B21
	128-MB Cache Module for Smart Array Controller	153506-B21
	NOTE: 128-MB Cache Module for Smart Array Controller (PN 153506-B21) is an upgrade cache module (128 MB Standard) for Modular Smart Array 500 Controller	
	256-MB Battery-Backed Cache Module	254786-B21

NOTE: Please see the Modular Smart Array 500 QuickSpecs for additional information including configuration steps and additional options needed for a complete solution at:
http://h18000.www1.hp.com/products/quickspecs/11050_na/11050_na.HTML (North America)
http://h18000.www1.hp.com/products/quickspecs/11050_div/11050_div.HTML (Worldwide)

External Storage – Tower & Rack	NOTE: To run any external SCSI-based devices, the customer needs to purchase an Internal to External Cable Option kit for SCSI models or a SCSI controller for ATA Models.	
	StorageWorks Enclosure Model 4314T (tower)	190210-001
	StorageWorks Enclosure Model 4314T (tower) (Int'l)	190210-B31
	StorageWorks Enclosure Model 4314T (tower) (Japan)	190210-291
	StorageWorks Enclosure Model 4314R (rack-mountable)	190209-001
	StorageWorks Enclosure Model 4314R (rack-mountable) (Int'l)	190209-B31
	StorageWorks Enclosure Model 4314R (rack-mountable) (Japan)	190209-291
	StorageWorks Enclosure Model 4354R (rack-mountable)	190211-001
	StorageWorks Enclosure Model 4354R (rack-mountable) (Int'l)	190211-B31
	StorageWorks Enclosure Model 4354R (rack-mountable) (Japan)	190211-291
	NOTE: The StorageWorks Enclosure 4300 Family support the Wide Ultra2/Ultra3 1" Hot Plug Hard Drives.	
	Redundant Power Supply Option	338296-B21
	Ultra3 Single Bus I/O Module Option	190212-B21
Ultra3 Dual Bus I/O Module Option	190213-B21	

HP StorageWorks Modular Smart Array 1000	HP StorageWorks Modular Smart Array 1000	201723-B22
	Modular Smart Array 1000 Controller	218231-B22
	Modular Smart Array Fibre Channel I/O Module	218960-B21
	Modular Smart Array 1000 Fabric Switch	218232-B21
	Modular Smart Array 1000 Fibre Channel Adapter (FCA) 2101	245299-B21
	Modular Smart Array hub 2/3	286763-B21

NOTE: Please see the Modular Smart Array 1000 QuickSpecs for additional options and configuration information at
http://h18000.www1.hp.com/products/quickspecs/11033_na/11033_na.HTML (North America)
http://h18000.www1.hp.com/products/quickspecs/11033_div/11033_div.HTML (Worldwide)

UPS 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>.

Options

Uninterruptible Power Supply	Compaq Pro UPS 500 (300 Watt) 120V (NA)	136386-001
	Compaq Pro UPS 500 (300 Watt) 120V (Int'l)	136386-B31
	UPS Model T700 (700VA, 500 Watt), Low Voltage (NA)	204015-001
	UPS Model T700 (700VA, 500 Watt), High Voltage (Int'l)	204015-B31
	UPS Model T700 (700VA, 500 Watt), Low Voltage (Japan)	204015-291
	HP UPS Model T1000 XR (1000VA, 700 Watt), Low Voltage (NA)	204155-001
	HP UPS Model T1000 XR (1000VA, 700 Watt), High Voltage (Int'l)	204155-B31
	HP UPS Model T1000 XR (1000VA, 700 Watt), Low Voltage (Japan)	312803-291
	HP UPS Model T1500 XR (1440VA, 1050 Watt), Low Voltage (NA)	204155-002
	HP UPS Model T1500 XR (1440VA, 1050 Watt), Low Voltage (Int'l)	204155-B32
	HP UPS Model T1500 XR (1500VA, 1050 Watt), Low Voltage (JPN)	204155-291
Uninterruptible Power Systems – Rack	Compaq UPS R1500 XR (100 to 127) (NA)	204404-001
	Compaq UPS R1500 XR (208 to 480) (Int'l)	204404-B31
	Compaq UPS R1500 XR (100 to 127) (Japan)	204404-291
	Compaq UPS R3000 XR (120V) (NA)	192186-001
	Compaq UPS R3000 XR (208V) (NA)	192186-002
	Compaq UPS R3000 XR (100V) (Japan)	192186-291
	Compaq UPS R3000 XR (208V) (Japan) Compaq UPS R3000 XR (200V) (Japan)	192186-292
	Compaq UPS R3000 XR (230V) (Int'l - detachable cord)	192186-B31
	Compaq UPS R3000 XR (230V) (1.6A IEC309 Plug)	192186-B32
	Compaq UPS R3000 XR (230V) (1.6A CEE 7/7 SCHUKO Plug)	192186-B33
	Compaq UPS R3000 XR (230V) (1.6A BS-546 Plug)	192186-AR1
	Rack-Mountable UPS R6000 (208V) (NA)	347207-001
	NOTE: UPS R6000 has a hardwired input	
	Rack-Mountable UPS R6000 (230V) (Int'l)	347207-B31
	NOTE: UPS R6000 has a hardwired input	
	Rack-Mountable UPS R6000 (200V) (Japan)	347207-291
	NOTE: UPS R6000 has a hardwired input	
UPS R12000 XR N+ x (200-240V) (WW-hardwired)	207552-B22	
NOTE: UPS R12000 XR has a hardwired input and output connection.		

Options

UPS Options	SNMP Serial Port Card	192189-B21
	NOTE: Supports tower and rack UPS XR models ranging from 1000 – 3000VA	
	Six Port Card	192185-B21
	NOTE: Supports tower and rack UPS XR models ranging from 1000 – 3000VA.	
	High to Low Voltage Transformer (250VA)	388643-B21
	NOTE: Supports R6000 UPS series only. 2.5A @ 125 Volts max output across two NEMA 5-15.	
	Extended Runtime Module, T1000 XR	218967-B21
	Extended Runtime Module, T1500 XR/T2200 XR	218969-B21
	Extended Runtime Module, R1500 XR	218971-B21
	NOTE: 2U each, two ERM maximum.	
	Extended Runtime Module, R3000 XR	192188-B21
	NOTE: 2U each, one ERM maximum.	
	Extended Runtime Module, R6000	347224-B21
	NOTE: 3U each, two ERM maximum.	
	Extended Runtime Module, R12000 XR, 4U	217800-B21
	NOTE: 4U each, two ERM maximum.	
R12000 XR BackPlate Receptacle Kit, (2) L6-30R (NA)	325361-001	
NOTE: The R12000 XR BackPlate Kit has a hardwired input.		
R12000 XR BackPlate Receptacle Kit, (2) IEC-309R (WW)	325361-B21	
NOTE: The R12000 XR BackPlate Kit has a hardwired input.		
SNMP-EN Adapter	347225-B21	
NOTE: Supports R6000 UPS series only.		
Multi-Server UPS Card	123508-B21	
NOTE: Supports R6000 UPS series only.		
Scalable UPS Card	123509-B21	
NOTE: Supports R6000 UPS series only.		
<hr/>		
Modular PDUs 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), Low Volt Model, 24A (100-127 VAC) (NA, Japan)	252663-D71
	NOTE: This mPDU (252663-D71) may also be used to connect the low volt model of the UPS R3000 XR.	
	HP Modular Power Distribution Units (mPDU), High Volt Model, 24A (200-240 VAC) (NA, Japan)	252663-D72
	HP Modular Power Distribution Units (mPDU), High Volt Model, 32A (200-240 VAC) (Int'l)	252663-B31
	HP Modular Power Distribution Units (mPDU), High Volt Model, 40A (200-240 VAC) (WW)	252663-B21
	NOTE: This mPDU (252663-B21), 40A model has a hardwired input.	
	HP Modular Power Distribution Units (mPDU), High Volt Model, 16A (200-240 VAC) (WW)	252663-B24
	NOTE: This PDU has a detachable input power cord and allows for adaptability to country specific power requirements. This model may also be used with the high volt UPSs R3000 XR and R6000 For North America, need to order cable PN 340653-001.	
NOTE: Please see the following Modular Power Distribution Unit (Zero-U/1U Modular PDUs) QuickSpecs for additional options including shorter jumper cables and country specific power cords: http://h18000.www1.hp.com/products/quickspecs/11041_na/11041_na.HTML (North America) http://h18000.www1.hp.com/products/quickspecs/11041_div/11041_div.HTML (Worldwide)		
<hr/>		
PDU Options	Third Party Modular PDU Mounting Kit	310777-B21
	NOTE: This kit allows you to mount the Modular PDUs in racks other than the 9000/10000 Series racks (any racks using the standard 19" rail). For more details please refer the Modular PDU QuickSpecs.	
	4.5' IEC C 13 to IEC C14 PDU Jumper Cable (1 per pack)	142257-006
	4.5' IEC C 13 to IEC C14 PDU Jumper Cable (15 per pack)	142257-007

Options

Rack Enabling Kit	ProLiant ML310/ML330 G2 Rack Enabling Kit NOTE: Support for racks with round or square mounting holes (including all Compaq and HP Rack System /E and HP Systems), with an adjustment range of 24" – 36".	238547-B21
--------------------------	---	------------

Other	ProLiant ML310/ML330 G2 SCSI Cable Kit NOTE: This SCSI Cable Kit (PN 273463-B21) is required when installing an internal tape drive and a SCSI Controller.	273463-B21
	ProLiant ML330/ML350 Internal to External SCSI Cable Option Kit	159547-B22
	DL360 G2 Telco Rack Option Kit NOTE: Support for all 2-post Telco racks requires the use of the standard four post rack kit and an additional option kit from HP.	251243-B21

USB Options	USB Easy Access Keyboard (Carbonite/Silver)	DC168B#																																																																																
	USB Easy Access Keyboard (Carbonite) Country Key Code																																																																																	
	<table border="0" style="width: 100%;"> <thead> <tr> <th style="text-align: left;">Dash #</th> <th style="text-align: left;">Description</th> <th style="text-align: left;">Dash #</th> <th style="text-align: left;">Description</th> </tr> </thead> <tbody> <tr><td>A2M</td><td>ICELAND</td><td>ABT</td><td>HE</td></tr> <tr><td>AB0</td><td>TAWA</td><td>ABU</td><td>UK</td></tr> <tr><td>AB1</td><td>KOR</td><td>ABV</td><td>ARA</td></tr> <tr><td>AB2</td><td>PRC</td><td>ABX</td><td>FIN</td></tr> <tr><td>AB6</td><td>FRA</td><td>ABY</td><td>DEN</td></tr> <tr><td>AB7</td><td>GRK</td><td>ABZ</td><td>ITL</td></tr> <tr><td>AB8</td><td>TURK</td><td>AC0</td><td>BEL</td></tr> <tr><td>AB9</td><td>PORT</td><td>AC4</td><td>BRZ</td></tr> <tr><td>ABA</td><td>US</td><td>ACB</td><td>RUSS</td></tr> <tr><td>ABB</td><td>EURO</td><td>AKB</td><td>CZE</td></tr> <tr><td>ABC</td><td>FCAN</td><td>AKC</td><td>HUNG</td></tr> <tr><td>ABD</td><td>GR</td><td>AKD</td><td>POL</td></tr> <tr><td>ABE</td><td>SP</td><td>AKL</td><td>THAI</td></tr> <tr><td>ABF</td><td>FR</td><td>AKN</td><td>BHCSY</td></tr> <tr><td>ABH</td><td>NL</td><td>AKR</td><td>SLOV</td></tr> <tr><td>ABJ</td><td>Japan</td><td>ARK</td><td>ICELAND</td></tr> <tr><td>ABM</td><td>LA</td><td>B15</td><td>KAZ</td></tr> <tr><td>ABN</td><td>NOR</td><td>UUZ</td><td>SWISS</td></tr> <tr><td>ABS</td><td>SW</td><td></td><td></td></tr> </tbody> </table>	Dash #	Description	Dash #	Description	A2M	ICELAND	ABT	HE	AB0	TAWA	ABU	UK	AB1	KOR	ABV	ARA	AB2	PRC	ABX	FIN	AB6	FRA	ABY	DEN	AB7	GRK	ABZ	ITL	AB8	TURK	AC0	BEL	AB9	PORT	AC4	BRZ	ABA	US	ACB	RUSS	ABB	EURO	AKB	CZE	ABC	FCAN	AKC	HUNG	ABD	GR	AKD	POL	ABE	SP	AKL	THAI	ABF	FR	AKN	BHCSY	ABH	NL	AKR	SLOV	ABJ	Japan	ARK	ICELAND	ABM	LA	B15	KAZ	ABN	NOR	UUZ	SWISS	ABS	SW			
Dash #	Description	Dash #	Description																																																																															
A2M	ICELAND	ABT	HE																																																																															
AB0	TAWA	ABU	UK																																																																															
AB1	KOR	ABV	ARA																																																																															
AB2	PRC	ABX	FIN																																																																															
AB6	FRA	ABY	DEN																																																																															
AB7	GRK	ABZ	ITL																																																																															
AB8	TURK	AC0	BEL																																																																															
AB9	PORT	AC4	BRZ																																																																															
ABA	US	ACB	RUSS																																																																															
ABB	EURO	AKB	CZE																																																																															
ABC	FCAN	AKC	HUNG																																																																															
ABD	GR	AKD	POL																																																																															
ABE	SP	AKL	THAI																																																																															
ABF	FR	AKN	BHCSY																																																																															
ABH	NL	AKR	SLOV																																																																															
ABJ	Japan	ARK	ICELAND																																																																															
ABM	LA	B15	KAZ																																																																															
ABN	NOR	UUZ	SWISS																																																																															
ABS	SW																																																																																	

Rack Builder Please see the Rack Builder for configuration assistance at <http://www.compaq.com/rackbuilder/>.

Options

HP Rack 10000 Series (Graphite Metallic)	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 10642 (42U) – Pallet	245161-B21
	HP Rack 10642 (42U) – Shock Pallet	245161-B22
	HP Rack 10642 (42U) – Crated	245161-B23
	HP Rack 10636 (36U) – Pallet	245162-B21
	HP Rack 10636 (36U) – Shock Pallet	245162-B22
	HP Rack 10636 (36U) – Crated	245162-B23
	HP Rack 10622 (22U) – Pallet	245163-B21
	HP Rack 10622 (22U) – Shock Pallet	245163-B22
	HP Rack 10622 (22U) – Crated	245163-B23

NOTE: -B21 (pallet) used to ship empty racks shipped on a truck

-B22 (shock pallet) used to ship racks with equipment installed (by custom systems, VARs and Channels)

-B23 (crated) used for air shipments of empty racks

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

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

http://h18000.www1.hp.com/products/quickspecs/10995_na/10995_na.HTML (North America)

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

<http://h18000.www1.hp.com/products/servers/proliantstorage/rack-options/index.html>.

Compaq Rack 9000 Series (opal)	Compaq Rack 9122 (22U) – Pallet	120665-B21
	Compaq Rack 9122 (22U) – Shock Pallet	120665-B22
	Compaq Rack 9122 (22U) – Crated	120665-B23

NOTE: -B21 (pallet) used to ship empty racks shipped on a truck

-B22 (shock pallet) used to ship racks with equipment installed (by custom systems, VARs and Channels)

-B23 (crated) used for air shipments of empty racks

NOTE: Please see the Rack 9000 QuickSpecs for Technical Specifications such as height, width, depth, weight, and color:

http://h18000.www1.hp.com/products/quickspecs/10366_div/10366_div.HTML (Worldwide)

http://h18000.www1.hp.com/products/quickspecs/10366_na/10366_na.HTML (North America)

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

<http://h18000.www1.hp.com/products/servers/proliantstorage/rack-options/index.html>.

Options

Rack Options for HP Rack 10000 Series	Rack Blanking Panels – Graphite (Multi)	253214-B26
	NOTE: Contains one each of 1U, 2U, 4U and 8U.	
	Rack Blanking Panels – Graphite (1U)	253214-B21
	NOTE: The Rack Blanking Panels (PN 253214-B21) contains 10 each of (1U).	
	Rack Blanking Panels – Graphite (2U)	253214-B22
	NOTE: The Rack Blanking Panels (PN 253214-B21) contains 10 each of (2U).	
	Rack Blanking Panels – Graphite (3U)	253214-B23
	NOTE: The Rack Blanking Panels (PN 253214-B21) contains 10 each of (3U).	
	Rack Blanking Panels – Graphite (4U)	253214-B24
	NOTE: The Rack Blanking Panels (PN 253214-B21) contains 10 each of (4U).	
	Rack Blanking Panels – Graphite (5U)	253214-B25
	NOTE: The Rack Blanking Panels (PN 253214-B21) contains 10 each of (5U).	
	800mm Wide Stabilizer Kit (Graphite)	255488-B21
	NOTE: Supported by the Rack 10842 cabinet only.	
	600mm Stabilizer Kit – Graphite	246107-B21
	Baying Kit for Rack 10000 series (Carbon)	248929-B21
	42U Side Panel – Graphite Metallic	246099-B21
	110V Fan Kit (Graphite)	257413-B21
	NOTE: Roof Mount Includes power cord with IEC320-C13 to Nema 5-15P.	
	220V Fan Kit (Graphite)	257414-B21
	NOTE: Roof Mount Includes power cord with IEC320-C13 to Nema 6-15P.	
	36U Side Panel – Graphite Metallic	246102-B21
	47U Side Panel – Graphite Metallic	255486-B21
	9000/10000 Series Offset Baying Kit (42U)	248931-B21
	NOTE: This kit can be used to connect 9000 and 10000 series racks of the same U height together. Kit contents include hardware for connecting racks and a panel to cover the 100mm gap at the rear of the two racks.	
	NOTE: For additional information regarding Rack Cabinets, please see the following URL: http://h18000.www1.hp.com/products/servers/proliantstorage/rack-options/index.html .	

Options

Rack Options for Compaq Rack 9000 Series	Baying/Coupling Kit	120669-B21
	42U Side Panel	120670-B21
	NOTE: The 42U Side Panel (PN 120670-B21) supports the Compaq Rack 9142 and Compaq Rack 9842.	
	600mm Stabilizer Option Kit	120673-B21
	9142 Extension Kit	120679-B21
	NOTE: The 9142 Extension Kit (PN 120679-B21) supports the Compaq Rack 9142 only.	
	9142 Split Rear Door (Opal)	254045-B21
	NOTE: The 9142 Split Rear Door (PN 254045-B21) supports the 600 mm wide, 42U 9000 series rack.	
	9142 Short Rear Door	218217-B21
	NOTE: The 9142 Short Rear Door (PN 218217-B21) supports the Compaq Rack 9142 only.	
	Rack Blanking Panel (Multi)	169940-B21
	NOTE: Kit includes four panels in 1U, 2U, 4U, and 8U.	
	9000/10000 Series Offset Baying Kit	248931-B21
NOTE: This kit can be used to connect 9000 and 10000 series racks of the same U height together. Kit contents include hardware for connecting racks and a panel to cover the 100 mm gap at the rear of the two racks.		
NOTE: For additional information regarding Rack Cabinets, please see the following URL: http://h18000.www1.hp.com/products/servers/proliantstorage/rack-options/index.html .		
Rack Options for Compaq Rack 7000 Series	High Air Flow Rack Door Insert for the 7122 Rack	157847-B21
	High Air Flow Rack Door Insert for the 7142 Rack (single)	327281-B21
	High Air Flow Rack Door Insert for the 7142 Rack (6-pack)	327281-B22
	Compaq Networking Cable Management Kit	292407-B21
	Compaq Rack Extension Kit for 7142	154392-B21
	NOTE: For additional information regarding Rack Cabinets, please see the following URL: http://h18000.www1.hp.com/products/servers/proliantstorage/rack-options/index.html .	
Rack Options for Rack 7000, 9000 and 10000 Series	Monitor Utility Shelf	303606-B21
	Ballast Option Kit	120672-B21
	100kg Sliding Shelf	234672-B21
	Rack Rail Adapter Kit (25-inch depth)	120675-B21
	Cable Management D-Rings Kit	168233-B21
	Monitor/Utility Shelf - Graphite	253449-B21
	Depth Adjustable Fixed Rail	332558-B21
	Console Management Controller (CMC) Option Kit	203039-B21
	Console Management Controller (CMC) Sensors Option Kit	203039-B22
	Console Management Controller (CMC) Locking Option Kit	203039-B23
	Console Management Controller (CMC) Smoke Sensors Option Kit	203039-B24
	Server Console Switch 1 x 4 port (100 to 230 VAC)	400336-001
	Server Console Switch 1 x 4 port (100 to 230 VAC) (Int'l)	400336-B31
	Server Console Switch 1 x 4 port (100 to 230 VAC) (Japan)	400336-291
	IP Console Switch Box, 1x1x16	262585-B21
	IP Console Switch Box, 3x1x16	262586-B21
	IP Console Interface Adapter, 8 pack	262587-B21
	IP Console Interface Adapter, 1 pack	262588-B21
	IP Console Expansion Module	262589-B21
	CPU to Server Console Cable, 12'	110936-B21
	CPU to Server Console Cable, 3'	110936-B24

Options

CPU to Server Console Cable, 7'	110936-B25
IP CAT5 Cable 3', 4 pack	263474-B21
IP CAT5 Cable 6', 8 pack	263474-B22
IP CAT5 Cable 12', 8 pack	263474-B23
IP CAT5 Cable 20', 4 pack	263474-B24
IP CAT5 Cable 40', 1 pack	263474-B25
Switch Box Connector Kit (115 V)	144007-001
Switch Box Connector Kit (230 V)	144007-002
Switch Box Connector Kit (High Voltage) (Int'l)	144007-B33
1U Rack Keyboard & Drawer (Carbon)	257054-xx1

NOTE: The 1U Rack Keyboard & Drawer (PN 257054-xx1) is to be used with the Keyboards for Racks with Trackball (PN 158649-xxx).

Country Code Key (for 1U Rack Keyboard & Drawer (PN 257054-xx1))

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

TFT5600 Rack Keyboard Monitor	221546-xx1
-------------------------------	------------

Country Code Key (for TFT5600 RKM Rack Keyboard Monitor (PN 221546-xx1))

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

Input Device Adjustable Rails	287139-B21
-------------------------------	------------

NOTE: Input Device Adjustable Rails (287139-B21) are for use ONLY with the TFT5110R, TFT5600RKM and integrated keyboard/drawer which is used in mounting into third party racks.

Input Device Telco Rail	287138-B21
-------------------------	------------

NOTE: Input Device Telco Rails (287138-B21) are for use ONLY with the TFT5110R, TFT5600RKM and integrated keyboard/drawer which is used in mounting into third party racks.

Keyboard/Monitor/Mouse extension cables	169989-001
---	------------

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

Service and Support Offerings (HP Care Pack Services)

Hardware Services 4-Hour On-site Service

9 x 5 Coverage, 3 Years (2-5-2 Part Number for Canada)	FP-EL4HR-36
9 x 5 Coverage, 3 Years (6-3 Part Number for U.S.)	162676-002
9 x 5 Coverage, 3 Years (6-3 Part Number for EMEA)	324416-022
24 x 7 Coverage, 3 Years (2-5-2 Part Number for Canada)	FP-EL724-36
24 x 7 Coverage, 3 Years (6-3 Part Number for U.S.)	162675-002
24 x 7 Coverage, 3 Years (6-3 Part Number for EMEA)	376910-022

Options

Hardware Services Next Business Day On-Site Service

9 x 5 Next Business Day Coverage, 3 Years (2-5-2 Part Number for Canada)	FP-ELXHW-36
9 x 5 Next Business Day Coverage, 3 Years (6-3 Part Number for U.S.)	102407-002
9 x 5 Next Business Day Coverage, 3 Years (6-3 Part Number for EMEA)	206947-022

Installation & Start-up Services

Hardware Installation (2-5-2 Part Number for Canada)	FP-ELINS-IN
Hardware Installation (6-3 Part Number for US)	401791-002
Server Installation and Set-Up (Installation of the server, installation of the appropriate service tools, check to ensure device SW and firmware is loaded and installation of the operating system software (6-3 Part Number for EMEA)	204563-022
Pre-installation planning; unpack equipment, install most current Compaq HW options internal to server at same time of server installation; assemble & test; basic user information provided; Install & configure basic functionality of Win NT Operating System plus up to 1 day start-up activity, configure print & network access services, and orientation (6-3 Part Number for U.S.)	240013-002
Pre-installation planning; unpack equipment, install most current Compaq HW options internal to server at same time of server installation; assemble & test; basic user information provided; Install & configure basic functionality of Win NT Operating System plus up to 1 day start-up activity, configure print & network access services, and orientation (2-5-2 Part Number for Canada)	FM-MSTEC-01
Pre-installation planning; unpack equipment, install most current Compaq HW options internal to server at same time of server installation; assemble & test; basic user information provided; Install & configure basic functionality of Novell NetWare Operating System plus up to 1 day start-up activity, configure print & network access services, and orientation (6-3 Part Number for U.S.)	240008-002
Pre-installation planning; unpack equipment, install most current Compaq HW options internal to server at same time of server installation; assemble & test; basic user information provided; Install & configure basic functionality of Novell NetWare Operating System plus up to 1 day start-up activity, configure print & network access services, and orientation (2-5-2 Part Number for Canada)	FM-NSTEC-01

HP Care Pack Priority Services for ProLiant Servers – Priority Level

9 x 5 HW, 4-hr response, Next Available HW engineer; 9 x 5 Bronze Software Support 2-hr response for Windows NT, Windows 2000, Professional, Server or Advanced Server Operating System, Next Available Specialist (6-3 Part Number for U.S.)	239928-002
9 x 5 HW, 4-hr response, Next Available HW engineer; 9 x 5 Bronze Software Support 2-hr response for Novell NetWare Operating System, Next Available Specialist (6-3 Part Number for U.S.)	239968-002
9 x 5 HW, 4-hr response, Next Available HW engineer; 9 x 5 Bronze Software Support 2-hr response for Windows NT, Windows 2000, Professional, Server or Advanced Server Operating System, Next Available Specialist (2-5-2 Part Number for Canada)	FM-M01E1-36
9 x 5 HW, 4-hr response, Next Available HW engineer; 9 x 5 Bronze Software Support 2-hr response for Novell NetWare Operating System, Next Available Specialist (2-5-2 Part Number for Canada)	FM-N01E1-36
9 x 5 4-hour H/W, 5 x 9 2-hour O/S (NT & NetWare), Three Years (6-3 Part Number for EMEA)	179834-022

HP Care Pack Priority Services for ProLiant Servers – Priority 24 Level

24 x 7 HW, 4-hr response, Named HW engineer; 24 x 7 Bronze Software Support, 2-hr response for Windows NT, Windows 2000, Professional, Server or Advanced Server Operating System, Next Available Specialist (6-3 Part Number for U.S.)	239930-002
24 x 7 HW, 4-hr response, Named HW engineer; 24 x 7 Bronze Software Support, 2-hr response for Novell NetWare Operating System, Next Available Specialist (6-3 Part Number for U.S.)	239970-002
7 x 24 4-hour H/W, 7 x 24 2-hour O/S (NT & NetWare), Three years (6-3 Part Number for EMEA)	179839-022

Options

CarePaaS Priority Services for ProLiant Servers - Priority Silver

24 x 7 HW, 4-hr response, Named HW engineer; 24 x 7 Silver Software Support, 1-hr response, Monday – Friday, 8AM – 5PM local time, 2-hr response after hours for Windows NT, Windows 2000, Professional, Server or Advanced Server Operating System, Technical Account Manager, Technical Newsletter, SW activity review, proactive patch notification, 1 System Healthcheck per year (6-3 Part Number for U.S.)	239932-002
24 x 7 HW, 4-hr response, Named HW engineer; 24 x 7 Silver Subsequent System Support for Windows NT, Windows 2000, Professional, Server or Advanced Server Operating System (6-3 Part Number for U.S.)	239934-002
24 x 7 HW, 4-hr response, Named HW engineer; 24 x 7 Silver Software Support, 1-hr response, Monday – Friday, 8AM – 5PM local time, 2-hr response after hours for Novell NetWare Operating System, Technical Account Manager, Technical Newsletter, SW activity review (6-3 Part Number for U.S.)	239972-002
24 x 7 HW, 4-hr response, Named HW engineer; 24 x 7 Silver Subsequent System Support for Novell NetWare Operating System (6-3 Part Number for U.S.)	239974-002
24 x 7 HW, 4-hr response, Named HW engineer; 24 x 7 Silver Software Support, 1-hr response, Monday – Friday, 8AM – 5PM local time, 2-hr response after hours for Windows NT, Windows 2000, Professional, Server or Advanced Server Operating System, Technical Account Manager, Technical Newsletter, SW activity review, proactive patch notification, 1 System Healthcheck per year (2-5-2 Part Number for Canada)	FM-M04E1-36
24 x 7 HW, 4-hr response, Named HW engineer; 24 x 7 Silver Subsequent System Support for Windows NT, Windows 2000, Professional, Server or Advanced Server Operating System (2-5-2 Part Number for Canada)	FM-M24E1-36
24 x 7 HW, 4-hr response, Named HW engineer; 24 x 7 Silver Software Support, 1-hr response, Monday – Friday, 8AM – 5PM local time, 2-hr response after hours for Novell NetWare Operating System, Technical Account Manager, Technical Newsletter, SW activity review (2-5-2 Part Number for Canada)	FM-N04E1-36
24 x 7 HW, 4-hr response, Named HW engineer; 24 x 7 Silver Subsequent System Support for Novell NetWare Operating System (2-5-2 Part Number for Canada)	FM-N24E1-36

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

Memory

Compaq ProLiant ML330 G2 Models Standard Memory

128-MB PC133-MHz Registered ECC SDRAM DIMM installed (1 x 128-MB SDRAM DIMM)

Standard Memory Plus Optional Memory

Up to 3200-MB memory is available with the optional installation of PC133-MHz Registered ECC SDRAM DIMM memory kits.

Standard Memory Replaced with Optional Memory

Up to 4096-MB memory is available with the removal of the standard 128-MB of memory and the optional installation of PC133-MHz Registered ECC SDRAM DIMM memory kits.

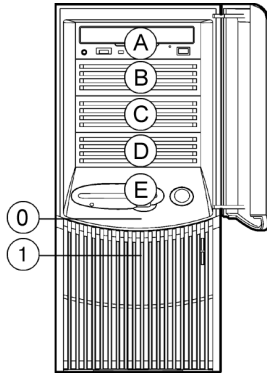
NOTE: Charts do not represent all possible memory configurations.

Memory		Slot			
		1	2	3	4
Standard	128 MB	128 MB	Empty	Empty	Empty
Optional	3200 MB	128 MB	1024 MB	1024 MB	1024 MB
Maximum	4096 MB	1024 MB	1024 MB	1024 MB	1024 MB

Following are memory options available from Compaq:

- 1024-MB PC133-MHz Registered ECC SDRAM DIMM Memory Option Kit 128280-B21
- 512-MB PC133-MHz Registered ECC SDRAM DIMM Memory Option Kit 128279-B21
- 256-MB PC133-MHz Registered ECC SDRAM DIMM Memory Option Kit 128278-B21
- 128-MB PC133-MHz Registered ECC SDRAM DIMM Memory Option Kit 128277-B21

Storage



A	40x IDE (ATAPI) CD-ROM
E	3.5 in. Diskette Drive
B, C, D	Removable Media Bays (1.6" each)
0,1	Two 1" Non-Hot Plug Drive Bays

Drive Support

	Quantity Supported	Position Supported	Controller
Removable Media			
1.44-MB Diskette Drive	Up to 1	E	Integrated
IDE (ATAPI) CD-ROM Drive	Up to 2	A, B, C, or D	Integrated IDE (ATAPI)
DVD-ROM Drive Option Kit	Up to 2	A, B, C, or D	Integrated IDE

Hard Drives (SCSI Models only)

Ultra320 Hot Pluggable Drives

(NOTE: For use with the ML3xx Two Bay Hot Plug SCSI Drive Cage (PN 244059-B21) ONLY.)

	Quantity Supported	Position Supported	Controller
1-inch	Up to 8	0-7	Integrated Dual Channel Wide Ultra3 SCSI Adapter (SCSI Models)
146.8-GB 10,000 rpm	(With optional ML3xx Two Bay Hot Plug SCSI Drive Cage)		Compaq RAID LC2 Controller
72.8-GB 10,000 rpm			Smart Array 532 Controller
36.4-GB 10,000 rpm			Smart Array 5302/128 Controller
72.8-GB 15,000 rpm			Smart Array 641 Controller
36.4-GB 15,000 rpm			Smart Array 642 Controller
18.2-GB 15,000 rpm			64-bit/66-MHz Single Channel Wide Ultra3 SCSI Adapter
			64-bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter
			64-Bit/133-MHz Dual Channel Ultra320 SCSI Adapter

Ultra320 – Non-Hot Plug

	Quantity Supported	Position Supported	Controller
1-inch	Up to 3	A, B, C	Integrated Dual Channel Wide Ultra3 SCSI Adapter (SCSI Models)
36.4-GB 10,000 rpm		(Using the A position requires the removal of CD-ROM)	Compaq RAID LC2 Controller
			Smart Array 532 Controller
			Smart Array 5302/128 Controller
			Smart Array 641 Controller
			Smart Array 642 Controller
			64-bit/66-MHz Single Channel Wide Ultra3 SCSI Adapter
			64-bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter
			64-Bit/133-MHz Dual Channel Ultra320 SCSI Adapter

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.

Storage

Hard Drives (ATA Models only)

ATA/100 IDE – Non-Hot Plug

	Quantity Supported	Position Supported	Controller
1-inch 80.0-GB 40.0-GB	Up to 4	0+ 1, C, D	Integrated Dual Channel Ultra ATA-100 Adapter (ATA Models)

External Storage

	Quantity Supported	Position Supported	Host Controller or Adapter
Modular Smart Array 30 Family	Up to 13	External	Smart Array 5302/128 Controller Smart Array 5304/256 Controller Smart Array 6402/128 Controller Smart Array 6404/256 Controller Smart Array 642 Controller 64-Bit/133-MHz Dual Channel Ultra320 SCSI Adapter 64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
Modular Smart Array 500 System	1	External	Smart Array 532 Controller (used as Host Bus Adapter) Please see the Modular Smart Array 500 QuickSpecs for the latest list of supported HBAs: http://www.hp.com/go/msa500
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 1000: http://h18000.www1.hp.com/products/quickspecs/11033_div/11033_div.HTML (Worldwide) http://h18000.www1.hp.com/products/quickspecs/11033_na/11033_na.HTML (North America)			

Maximum Storage Capacity - ATA Models (SCSI Attached (StorageWorks Enclosure))

Internal	320.0 GB (4 x 80.0 GB) (ATA only)
External	7.134 TB (14 x 72.8 GB) x 7 (Requires additional SCSI controllers in slots)
Total	7.454 TB

Maximum Storage Capacity - SCSI Models (SCSI Attached (StorageWorks Enclosure) + Optional Hot Plug Drive Cage)

Internal	402.8 GB ((3 x 36.4 GB non-hot-plug hard drives) + (2 x 146.8 GB hot plug hard drives))
External	14.386 TB (14 x 146.8 GB) x 7
Total	14.789 TB

Storage

Tape Drives

NOTE: A SCSI controller needs to be purchased to operate internal or external SCSI devices in the ATA Models.

NOTE: For an up-to-date listing of the latest O/S Support details for each of the Tape Drives listed below, please see the following:

http://h18000.www1.hp.com/products/quickspecs/North_America/10233.html (North America)

<http://h18000.www1.hp.com/products/quickspecs/Division/10233.html> (Worldwide)

	Quantity Supported	Position Supported	Controller
Internal AIT 35-GB IDE Tape Drive	Up to 2	C, D	Integrated IDE
Internal 12/24-GB DAT Drive	Up to 2	C, D	64-bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter
Internal DAT 72 Tape Drive			64-bit/66-MHz Single Channel Wide Ultra3 SCSI Adapter 64-Bit/133-MHz Dual Channel Ultra320 SCSI Adapter
AIT 100-GB, Internal	Up to 2	C, D	64-bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter
AIT 50-GB Internal			64-bit/66-MHz Single Channel Wide Ultra3 SCSI Adapter
AIT 35-GB, LVD Internal			64-Bit/133-MHz Dual Channel Ultra320 SCSI Adapter
20/40-GB DAT 8 Cassette Autoloader Internal	Up to 1	C, D	64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter 64-Bit/66-MHz Single Channel Wide Ultra3 SCSI Adapter 64-Bit/133-MHz Dual Channel Ultra320 SCSI Adapter
HP StorageWorks AIT 35 GB Autoloader	Up to 1 (for a single HBA) Up to 2 (for a dual HBA)	External	64-bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter 64-bit/66-MHz Single Channel Wide Ultra3 SCSI Adapter 64-Bit/133-MHz Dual Channel Ultra320 SCSI Adapter
AIT 100-GB, External	Up to 2	External	64-bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter
AIT 50-GB External			64-bit/66-MHz Single Channel Wide Ultra3 SCSI Adapter
AIT 35-GB, LVD External			64-Bit/133-MHz Dual Channel Ultra320 SCSI Adapter
DAT 72 Tape Drive External			
SSL2020 AIT Mini-Library	Up to 5	External	64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter 64-Bit/133-MHz Dual Channel Ultra320 SCSI Adapter
SSL1016 tape autoloader	Up to 2 drives	External	64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter 64-Bit/66-MHz Single Channel Wide Ultra3 SCSI Adapter 64-Bit/133-MHz Dual Channel Ultra320 SCSI Adapter
MSL5026DLX (40/80GB DLT-based)	2 drives per SCSI channel	External	64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter
MSL5026SL (SDLT-based) Library			
MSL5052SL (SDLT-based) Library			
MSL5052S2 (SDLT-based) Library			
MSL5030L1 (LTO-based) Library			
MSL5060L1 (LTO-based) Library			
MSL6030 (LTO-based) Library			
MSL6060 (LTO-based) Library			
20/40-GB DAT 8 Cassette Autoloader External	Up to 1	External	64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter 64-Bit/66-MHz Single Channel Wide Ultra3 SCSI Adapter 64-Bit/133-MHz Dual Channel Ultra320 SCSI Adapter
DLT1 1280 SuperLoader	Up to 2 drives	External	64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter 64-Bit/66-MHz Single Channel Wide Ultra3 SCSI Adapter 64-Bit/133-MHz Dual Channel Ultra320 SCSI Adapter

Power Specifications

Spare Kit	216108-001
Operational Input Voltage Range (V rms)	100-127V and 200-240V
Frequency Range (Nominal) (Hz)	47 to 63 (50/60)

Nominal Input Voltage (Vrms)	100	115	208	220	230	240
Max Rated Output Wattage Rating	300	300	300	300	300	300
Nominal Input Current (A rms)	4.7	4.0	2.2	2.0	1.9	1.8
Max Rated Input Wattage Rating (Watts)	462	455	448	441	435	429
Max. Rated VA (Volt-Amp)	471	464	457	450	444	437
Efficiency (%)	65	66	67	68	69	70
Power Factor	0.98					
Leakage Current (mA)	0.31	0.36	0.65	0.69	0.72	0.75
Maximum Inrush Current (A peak)	63	72	130	138	144	150
Maximum Inrush Current duration (mS)	20					

System Specifications

ML330 G2 Fully Configured

Up to 2 Processors, 4 Memory Slots, 5 Hard Drives, 5 PCI Slots, and 1 Hot Plug Power Supply

Nominal Input Voltage (Vrms)	100	115	208	220	230	240
Fully Loaded System Input Wattage (W)	317	312	307	303	299	294
Fully Loaded System Input Current (A rms)	3.2	2.8	1.5	1.4	1.3	1.3
Fully Loaded System Thermal (BTU-Hr)	1081	1064	1048	1033	1018	1003
Fully Loaded System VA (Volt-Amp)	323	318	314	309	305	300
System Leakage with all power supplies loaded (mA)	0.31	0.36	0.65	0.69	0.72	0.75
System Inrush Current with all power supplies loaded (A)	63	72	130	138	144	150
Power cord requirements	Nema 5-15P to IEC320-C13			Option no./Spare no.: See Power Cord chart		
	IEC320-C13 to IEC320-C14			Option no./Spare no.: 142259-001/142258-B21		

Example of real input watts consumed versus rated watts consumed is available via the online tool located at url:

<http://inline.compaq.com/pg/ecg/issd/power/psupply.asp>. Select system calculator for one of the systems and reference the green fields at the bottom of the calculator.

NOTES:

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

URL: <http://h30099.www3.hp.com/configurator/powercalcs.asp>.

To drill down to calculators:

- Click on: "ProLiant Servers"
- Click on the Server of interest. Example: ML330 G2
- Click on: "Power Calculator" link (You may need to scroll down to see it.)

Power Specifications

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

TechSpecs

System Unit	Dimensions (HxWxD) (with feet)	16.5 x 7.5 x 20.25 in (41.91 x 19.05 x 51.44 cm)		
	Weight	34 lb (15.42 kg)		
	Input Requirements (per power supply)	Range Input Voltage	100 to 120 VAC (200 to 240 VAC)	
		Rated Input Current	115 to 230 VAC	
	Line Frequency	50 to 60 Hz		
	Rated Input Current	< 6A RMS at 90VAC with maximum load		
	BTU Rating	1,560 BTU		
	SCSI Connectors (SCSI Models only)	Two internal HD68 connectors		
		NOTE: Support for either two internal, two external, or a mix of internal/external is available. This is achieved using an internal to external SCSI cable option kit (PN 159547-B22) and SCSI knockout.		
	Power Supply Output Power (per power supply)	Rated Steady-State Power	300W	
		Maximum Peak Power	400W	
	Temperature Range	Operating	50° to 93° F (10° to 35° C)	
		Shipping	-40° to 150° F (-40° to 66° C)	
	Relative Humidity (non-condensing)	Operating	20% to 80%	
		Non-operating	5% to 90%	
Acoustic Noise	Idle (Fixed Disk Drives Spinning)			
		L WAd (BELS)	5.3	
		L pAm (dBA)	45	
	Operating (Random Seeks to Fixed Disks)			
		L WAd (BELS)	5.3	
	L pAm (dBA)	45		

1.44-MB Diskette Drive	Diskette Size	3.5 in (8.89 cm)		
	LED Indicators (front panel)	Green		
	Read/Write Capacity per Diskette (high/low density)	1.44 MB/720 KB		
	Drive Supported	One		
	Drive Height	One-third		
	Drive Rotation	300 rpm		
	Transfer Rate (high/low)	500 K/250 K bits/s		
		Bytes/Sector	512	
	Sectors/Track (high/low)	18/9		
	Tracks/Side (high/low)	80/80		
	Access Times	Track-to-Track (high/low)	3/6 ms	
		Average (high/low)	169/94 ms	
		Settling Time	15 ms	
		Latency Average	100 ms	
	Cylinders (high/low)	80/80		
Read/Write Heads	Two			

TechSpecs

Non-Hot Plug Wide
Ultra3 SCSI Hard Drives 18.2 GB 10K
142674-B21

Capacity	18209.3 MB	
Height	1 in (2.54 cm)	
Width	4 in (10.16 cm)	
Interface	Wide Ultra3 SCSI	
Transfer Rate Synchronous (Maximum)	160 MB/s	
Seek Time (typical reads, including settling)	Single Track	0.7 ms
	Average	5.4 ms
	Full-Stroke	11 ms
	Rotational Speed	10,000 rpm
Physical Configuration	Bytes/Sector	512
	Logical Blocks	35,565,080
Operating Temperature	50° to 95° F (10° to 35° C)	

Non-Hot Plug ATA/100
Hard Drives 40 GB 7.2K
230534-B21

Capacity	40020 MB (phys.) 40800 MB (log)	
Height	1 in (2.54 cm)	
Width	4 in (10.16 cm)	
Interface	Ultra ATA/100	
Transfer Rate Synchronous (Maximum)	100 MB/s	
Seek Time (typical reads, including settling)	Single Track	0.8 ms
	Average	8.5 ms
	Full-Stroke	17.8 ms
	Rotational Speed	7,200 rpm
Physical Configuration	Bytes/Sector	512
	Logical Blocks	78,177,792
Operating Temperature	41° to 131° F (5° to 55° C)	

TechSpecs

40X Max IDE (ATAPI) CD-ROM Drive	Disk	Applicable Disk	CD-ROM, CD-XA, CD-DA (Mode 1, Mode 2, Form 1 and 2) Photo CD (Single and Multi-session) Mixed Mode (Audio and Data combined) CD-R
		Capacity	540 MB (Mode 1, 12 cm) 650 MB (Mode 2, 12 cm)
	Block Size	Mode 1 Mode 2 CD-DA CD-XA	2,048 bytes 2,340 bytes, 2,336 bytes 2,352 bytes 2,328 bytes
	Interface	IDE (ATAPI)	
	Access Times (typical)	Random Full-Stroke	100 ms 150 ms
	Audio Output Level	Line-Out	0.7 VRMS at 47 kOhms
	Data Transfer Rate	Sustained Burst	150 KB/s (1X audio) 16.67 Mbytes/sec
	Cache Buffer	128 KB	
	Start-up Time (typical)	< 7seconds	
	Stop Time	< 4seconds	
	Laser Parameters	Type Wave Length	Semiconductor Laser GaAlAs 780 ± 25 nm
	Operating Conditions	Temperature Humidity	41° to 113° F (5° to 45° C) 10% to 80%
	Dimensions	(HxWxD, maximum) Weight	1.7 x 5.85 x 8.11 in (42.9 x 150 x 208 cm) 2.09 lb (0.95 kg)

Integrated Dual Channel Ultra ATA-100 Adapter (ATA Models only)	Drives Supported	Up to 4 IDE devices (2 devices/channel)
	Channels	2 (primary and secondary)
	Storage Capacity	160 GB
	Data Transfer Method	32-bit/33-MHz PCI bus-master
	Maximum ATA Channel Transfer Rate	100 MB/s per channel
	Maximum Transfer Rate per PCI Bus (peak)	133 MB/s per channel
	ATA Protocols	UDMA Mode[0-5] PIO Mode[0-4]
	ATA 100 Cable	80-Conductor Cable
	Internal ATA Connectors	Two 40-Pin Connectors (primary and secondary)

TechSpecs

Integrated Dual Channel Wide Ultra3 SCSI Adapter (SCSI Models only)	Drives Supported	Up to 14 SCSI devices Wide Ultra3 and Wide Ultra2 SCSI hard drives
	Data Transfer Method	32-bit/33-MHz PCI bus-master
	SCSI Channel Transfer Rate	160 MB/s per channel
	Maximum Transfer Rate per PCI Bus (peak)	267 MB/s per channel
	SCSI Protocols	Wide Ultra 3 SCSI and Wide Ultra2 SCSI Fast SCSI-2
	Electrical Protocol	Low Voltage Differential (LVD)
	SCSI Termination	Active Termination
	External SCSI Connectors	Two 80-Pin VHDCI connectors
	Internal SCSI Connectors	Two 68-Pin Wide Ultra SCSI-3 connectors

Video Controller	Controller Chip	ATI RAGE XL
	Video DRAM	8 MB Video SDRAM
	Data Transfer Method	32-bit PCI
	Support Resolution	Supported Color Depths:
	640 x 480	16.7M, 64K, 256, 16
	800 x 600	16.7M, 64K, 256, 16
	1024 x 768	16.7M, 64K, 256, 16
	1152 x 864	16.7M, 64K, 256, 16
	1280 x 1024	16.7M, 64K, 256, 16
	1600 x 1200	64K, 256, 16
Connector	VGA	

© Copyright 2003 Hewlett-Packard Development Company, L.P.

The information contained herein is subject to change without notice.

Microsoft and Windows NT are US registered trademarks of Microsoft Corporation. Intel is a US registered trademark of Intel Corporation.

The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.