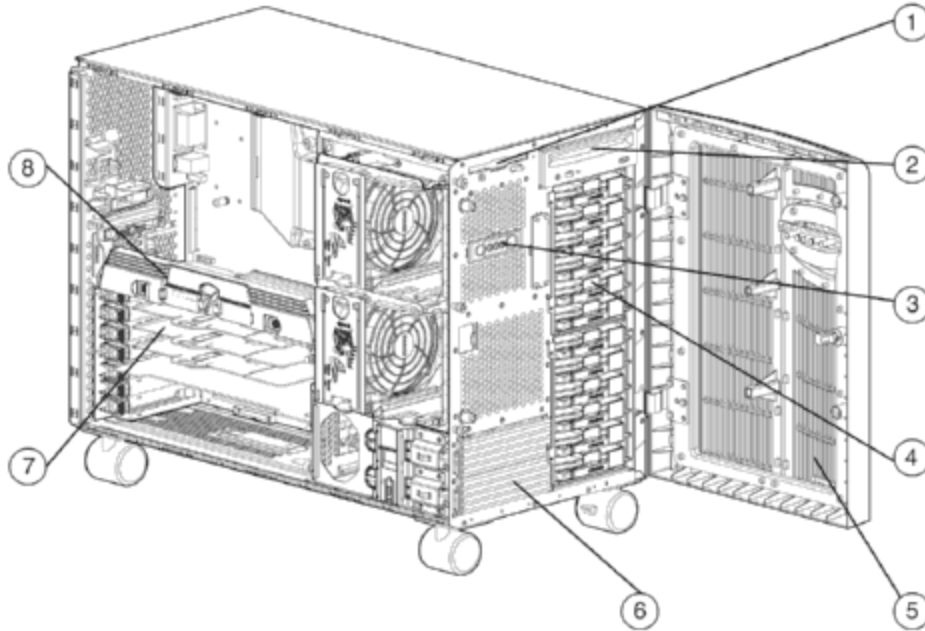
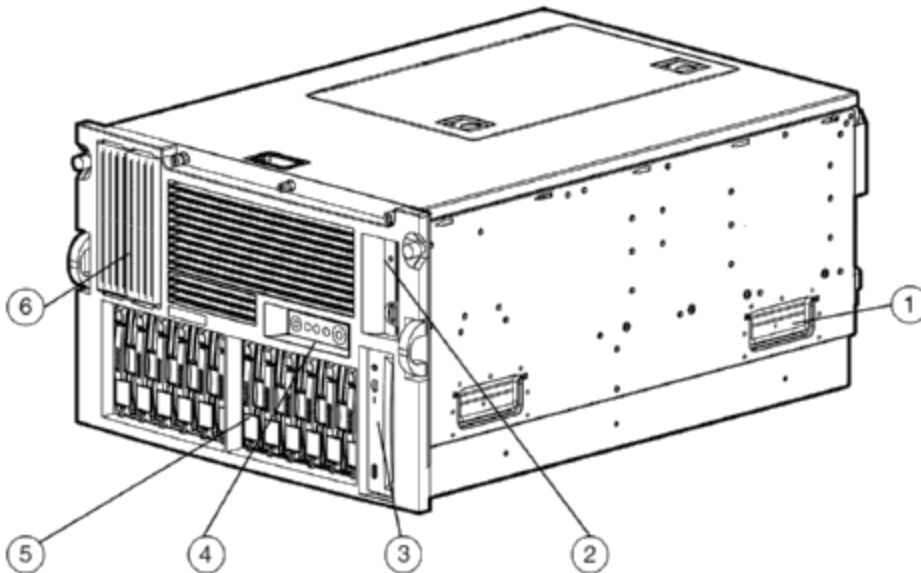


Overview



- 1. 1.44MB Diskette Drive
- 2. High Speed IDE CD-ROM
- 3. Diagnostic Lighting
- 4. Wide Ultra3/Ultra320 Hot Plug Drive Bays (12 x 1" Standard)

- 5. Front Bezel
- 6. 5.25-inch Removable Media Bays
- 7. Seven PCI-X slots
- 8. Memory Board



- 1. Rack Handles
- 2. 1.44MB Diskette Drive
- 3. High Speed IDE CD-ROM

- 4. Diagnostic Lighting
- 5. Wide Ultra3/Ultra320 Hot Plug Drive Bays (12 x 1" Standard)
- 6. 5.25-inch Removable Media Bays

What's New

- Intel® Xeon 3.0GHz Processors with 400MHz system bus

Overview

At A Glance

- Designed for maximum application performance and user workload, the ML530 Generation 2 (G2) offers customers the first 2P expansion server with Mirrored Memory
- Intel Xeon 3.0 GHz, 2.80 GHz or 2.40 GHz Processors with 400MHz system bus
- 512-KB level 2 cache per processor
- Enterprise Class chipset: ServerWorks GC HE
- PC1600 ECC SDRAM memory expandable to 16 GB (Advanced ECC memory standard)
- 2:1 interleaved memory
- Seven 64-Bit/100 MHz PCI-X slots; 4 Hot Plug Slots
- Two Ultra3 SCSI Drive Cages standard support up to 12 1" hot plug hard drives
- Internal mass storage capacity up to 4.20 TB (12 x 300 GB + 2 x 300 GB 1" hot plug drives) with optional ML5xx Internal Two Bay Hot Plug SCSI Drive Cage (with fan)
- Advanced Memory Protection including Mirrored Memory and Online Spare Memory
- 600-Watt Hot Plug Power Supply with optional 1+ 1 redundancy
- Hot Plug System Fans with optional redundancy
- Embedded NC3163 Fast Ethernet NIC PCI 10/100 WOL (Wake On LAN) and PXE support
- Integrated Dual Channel Wide Ultra3 SCSI Adapter
- Protected by HP Services, including a three-year, Next Business Day on-site, limited, Global warranty and extended Pre-Failure Warranty that covers processors, memory and disk drives - Certain restrictions and exclusions apply. Consult the HP Customer Support Center at 1-800-345-1518 for details.

Standard Features

Processor <i>One of the following depending on Model:</i>	Intel Xeon 3.0 GHz/512 KB Processor (with 400 MHz system bus) NOTE: 1P Models ship with one processor standard. 2P Models ship with two processors standard.
	Intel Xeon 2.80 GHz/512 KB Processor (with 400 MHz system bus) NOTE: 1P Models ship with one processor standard. 2P Models ship with two processors standard.
	Intel Xeon 2.40 GHz/512 KB Processor (with 400 MHz system bus) NOTE: 1P Models ship with one processor standard. 2P Models ship with two processors standard.

Cache Memory 512-KB level 2 cache per processor

Upgradability Upgradable to dual processing
NOTE: 1P Models only.

Chipset Enterprise Class chipset: ServerWorks GC HE
NOTE: For more information regarding ServerWorks, please see the following URL:
<http://www.serverworks.com/products/overview.html>.

Memory

Standard	1024 MB (2 x 512 MB) PC1600-MHz Registered ECC SDRAM
Maximum	16 GB

Network Controller Embedded NC3163 Fast Ethernet NIC PCI 10/100 with full WOL (Wake On LAN) and PXE support

Expansion Slots	Bus Speed	Bus Number	Hot Plug	PCI Voltage	Notes
1	64-bit/100MHz PCI-X	1	Yes	3.3V	-
2	64-bit/100MHz PCI-X	1	Yes	3.3V	SA6402/6404 not recommended
3	64-bit/100MHz PCI-X	5	Yes	3.3V	-
4	64-bit/100MHz PCI-X	5	Yes	3.3V	-
5	64-bit/100MHz PCI-X	9	No	3.3V	-
6	64-bit/100MHz PCI-X	9	No	3.3V	-
7	64-bit/100MHz PCI-X	13	No	3.3V	Preferred RILOE slot

NOTE: For more information regarding PCI-X, please see the following URL: <http://www.hp.com/servers/pci-x>.

NOTE: All slots can accept universal keyed PCI cards.

Storage Controllers Integrated Dual Channel Wide Ultra3 SCSI Adapter

Storage

Diskette Drive	1.44 MB Diskette Drive
Optical Drive	40x IDE CD-ROM Drive
Hard Drives	None
Internal Storage	4.20 TB (with optional ML5xx Internal Two Bay Hot Plug Wide SCSI Drive Cage (with fan) (12 x 300 GB 1" + 2 x 300 GB 1"))
Half Height Bays	2 bays for optional tape backup, DVD, or SCSI devices

Standard Features

Interfaces	Parallel	1
	Serial	2
	Pointing Device (Mouse)	1
	Graphics	1
	Keyboard	1
	Network RJ-45	1
	USB	2
	External SCSI	1

NOTE: Please see the following URL for additional information regarding USB support:
<http://h18004.www1.hp.com/products/servers/platforms/usb-support.html>.

Graphics Integrated Rage XL Video Controller with 8 MB SDRAM Video Memory

Form Factor Tower or Rack (7U)

Standard Features

ProLiant Essentials Foundation Pack Software

HP Systems Insight Manager	HP's new HP Systems Insight Manager (HP SIM) helps maximize system uptime and performance and reduce system maintenance costs by providing proactive notification of problems before those problems result in unplanned downtime or reduced productivity. HP SIM are both easy to set up work with the Insight Management Agents, integrated Light-Out and Remote Insight Light-Outs Edition, and Version Control Agents to deliver robust fault, configuration, and asset management as well as remote administration. With HP SIM customers will also be able to take advantage of role-based security; the ability to manage ProLiant, Integrity, and HP 9000 systems; and plug-ins for storage, client, printer, and power management as well as server rapid deployment, performance management, and workload management. For more details on HP SIM visit http://www.hp.com/go/hpsim .
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 6.40.
Subscriber's Choice	Subscriber's Choice Driver and Support Alerts/Notifications is a web-based email subscription service that provides automatic delivery of software and driver change notifications for ProLiant products. Sign up at http://www.hp.com/go/subscriberschoice and customize your profile to receive various new alerts as they become available, on a weekly or monthly basis.
ROMPaq, support software, and configuration utilities	The latest software, drivers, and firmware fully optimized and tested for your ProLiant server and options available in SmartStart or downloadable from Software and Drivers download pages, linked from the SmartStart website at http://www.hp.com/servers/smartstart .
Survey Utility and diagnostics utilities	The most advanced configuration analysis, reporting and troubleshooting utilities used by HP and at your fingertips, available in SmartStart.
Optional ProLiant Essentials Value Packs	Optional software offerings that selectively extend the functionality of an Adaptive Infrastructure to address specific business problems and needs: <ul style="list-style-type: none">● 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.● Performance Management Pack – a performance management solution that identifies and explains hardware performance bottlenecks on ProLiant servers and attached options enabling users to better utilize their valuable resources.● Intelligent Networking Pack - detects and analyzes network bottlenecks or broken network linkages and steers traffic to the optimum route based on network conditions.

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 1.0b Compliant
	PCI 2. 2 Compliant
	PCI-X 1.0 Compliant
	WOL Support
	Microsoft® Logo certifications
	Novell certified

Availability

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

- Advanced ECC Memory

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

Advanced Memory Protection Configurations

- Online Spare Memory

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

- Single-Board Mirrored Memory

Single-board mirrored memory provides a higher level of availability than Advanced ECC and Online Spare Memory because it protects against multi-bit errors. Single-board Mirrored Memory uses a single memory board that is configured with a mirrored/redundant set of memory. The system writes to both sets of memory, but reads from one. If a memory bank has a multi-bit error or full DIMM failure, the system simply reads from the mirrored bank instead. This process occurs without intervention or server interruption, and the failed DIMM can be replaced during a regularly scheduled shutdown.

NOTE: All Advanced Memory Protection modes are configured in the ROM-Based Setup Utility (RBSU) and viewable through Insight Manager 7 (CIM 7) and the Integrated Management Log (IML).

- PCI-X Hot Plug Technology (Four 64bit/100MHz PCI-X hot plug slots available)
- One 600W Hot Plug Power Supply standard
- Two Hot Plug System Fans standard

Intelligent Manageability

Insight Manager 7
HP Systems Insight Manager
Redundant ROM
Remote Flash ROM Utility
Remote Lights-Out Edition (optional)
Automatic Server Recovery-2 (ASR-2)
Integrated Management Log
Server Health Logging
Drive Parameter Tracking (with Smart Array Controller)
Dynamic Sector Repairing (with Smart Array Controller)
Pre-Failure Warranty (covers processors, hard drives and memory)

Standard Features

Security

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

Server Power Cords One Lowline power cord ships standard

Power Supply One 600W Hot Plug Power Supply standard

- Optional 2nd Power Supply for 1+1 redundancy

NOTE: Redundant Hot Plug Power Supplies standard on 2P servers.
NOTE: North American variants ship with IEC320-C13 to Nema 5-15P detachable power cord. (Rack models only).

System Fans Two Hot Plug System Fans standard

- Optional Hot Plug Redundant Fan kit includes two more

NOTE: Hot Plug Redundant Fans standard on 2P servers.

Required Cabling For required cabling information, refer to the HP Web site at
<http://h18000.www1.hp.com/products/servers/proliantML530/>.

OS Support

- Microsoft Windows NT® Server
- Microsoft Windows NT Enterprise Edition
- Microsoft Windows 2000
- Windows Server 2003
- Novell NetWare
- SCO UnixWare
- LINUX (Red Hat, SuSE)
- Sun Solaris Intel Platform Edition
- Caldera OpenUnix
- OS/2 e-Business

NOTE: For a more complete and up-to-date listing of supported OS's and versions, please visit our OS Support Matrix at: <http://www.hp.com/go/supportos>.
NOTE: For an up-to-date listing of the latest drivers available for the HP ProLiant ML530 G2, please see: <http://h18023.www1.hp.com/support/files/server/us/index.html>.
NOTE: For a more complete and up-to-date information on Linux support, please visit HP Linux Web site at <http://h18000.www1.hp.com/products/servers/linux/hpLinuxcert.html>.
NOTE: For more complete and up-to-date information on how to buy server operating systems from HP please visit the OS product site at: <http://h18004.www1.hp.com/products/servers/software/OEM.html>

Standard Features

Rack Airflow Requirements

Rack 10000 series Cabinets

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

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

- **Front and rear doors:** If your 42U server rack includes closing front and rear doors, you must allow 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/ProLiantml530/index.html>.

Installation of HP servers into Third Party Round Hole Racks

If a Third Party rack is used, an additional rack kit will need to be used with the rack kit that comes with the server. The additional rack kit part number is Compaq part number 274739-B21. The rack kit comes with all necessary brackets, hardware and installation instructions.

NOTE: Third party square-holed racks are supported using the standard rack rail kit that ships with the rack server models.

Installation of HP servers into Telco Racks

If a Telco is used, an additional rack kit and brackets will need to be used with the rack kit that comes with the server (optional Third Party Rack Kit (PN: 274739-B21)). Please see the following URL to purchase the brackets (rack kit and brackets come with all necessary brackets, hardware, and installation instructions:

<http://www.racksolutions.com/compaq/products.htm>.

HP Factory Express Capabilities

HP Factory Express gives you the flexibility to choose from a full menu of factory capabilities all in one manufacturing facility, in one process, with one touch giving you full control and access to HP's World class manufacturing facility anytime. This approach provides you the speed to deploy your IT needs, with total quality assurance, reliability, and predictability to lower your total cost of ownership by letting HP install, rack, and customize your software and hardware options for you.

Standard Features

Service and Support

Three-year limited warranty, including hardware diagnostic support, pre-failure warranty (coverage of hard drives, memory and processors). The warranty is fully supported by HP Services and a worldwide network of resellers and service providers. In addition 90-day's getting started software telephone support may be covered under the warranty or available for an additional fee. Enhancements to warranty services are available through HP Care Pack services.

NOTE: Limited warranty includes 3 year parts, 3 year labor, 3-year on-site support

Care Pack services provide a range of life cycle support options that let you choose the service levels that meet your business requirements, from basic to mission-critical.

A full range of HP Care Pack hardware and software services are available including:

- Installation and start up
- Education courses
- Extended onsite hardware coverage hours from same business day 13 hours, 5 day to 24 hours, 7 days call window with options including 4-hour response or 6-hour Call To Repair
- Comprehensive range of software technical support for Microsoft, Linux, ProLiant Essentials and VMWare-based IT solutions helping to deliver high level of application availability. Response times range from 30 mins for critical problems to 2 hours.
- System Management, Performance Services and Mission Critical Support Solution

HP Care Pack Services include HP branded hardware options qualified for the server, purchased at the same time or afterwards, internal to the enclosure, as well as 22" and smaller external monitors and tower UPS options up to 3KVA. 22" and smaller external monitors will be covered at the same service level and coverage period as the server. For servers or storage systems installed within a rack, service also covers all HP qualified rack options installed within the same rack.

NOTE: For more information on HP Care Pack services, contact any of our worldwide sales offices or resellers or visit our worldwide Web site on the internet at: <http://www.hp.com/hps/carepack>

NOTE: For more complete information on HP Services offerings, customers and resellers, please visit us at: <http://www.hp.com/hps>

NOTE: Additional information regarding worldwide limited warranty and technical support is available at: <http://h18004.www1.hp.com/products/servers/platforms/warranty/index.html>

Models

ML530T02 X3.0-512KB, 1024MB, 1P 271243-xx1	Processor	One Intel Xeon 3.0 GHz Processor standard (up to 2 supported)
	Processor System Bus	400 MHz system bus
	Processor Memory	512-KB level 2 cache per processor
	Memory	1024 MB (Standard) 16,384 MB (Maximum) PC1600 Advanced ECC SDRAM; 2:1 interleaved memory NOTE: Maximum memory achieved using 2048 MB DIMMs.
	Network Controller	Embedded NC3163 Fast Ethernet NIC PCI 10/100 with WOL (Wake On LAN)
	Storage Controller	Integrated Dual Channel Wide Ultra3 SCSI Adapter
	Hard Drive	None ship standard
	Internal Storage	12 1" hot plug hard drive bays standard
	Power Supplies	One 600W Hot Plug Power Supply
	System Fan	Hot Plug System Fans
	Drive Cages	Two 6 x 1" Drive Cages standard
	Optical Drive	40x or higher IDE CD-ROM Drive
	Diskette Drive	1.44 MB Diskette Drive
Form Factor	Tower	

ML530T02 X3.0-512KB, 1024MB, 2P 271245-xx1	Processor	Two Intel Xeon 3.0 GHz Processor standard
	Processor System Bus	400 MHz system bus
	Processor Memory	512-KB level 2 cache per processor
	Memory	1024 MB (Standard) 16,384 MB (Maximum) PC1600 Advanced ECC SDRAM; 2:1 interleaved memory NOTE: Maximum memory achieved using 2048 MB DIMMs.
	Network Controller	Embedded NC3163 Fast Ethernet NIC PCI 10/100 with WOL (Wake On LAN)
	Storage Controller	Integrated Dual Channel Wide Ultra3 SCSI Adapter
	Hard Drive	None ship standard
	Internal Storage	12 1" hot plug hard drive bays standard
	Power Supplies	Redundant 600W Hot Plug Power Supplies (1+ 1 redundancy)
	System Fan	Redundant Hot Plug System Fans
	Drive Cages	Two 6 x 1" Drive Cages standard
	Optical Drive	40x or higher IDE CD-ROM Drive
	Diskette Drive	1.44 MB Diskette Drive
Form Factor	Tower	

Models

ML530T02 X2.80-512KB, 1024MB, 1P <small>306487-xx1</small>	Processor	One Intel Xeon 2.80 GHz Processor standard (up to 2 supported)
	Processor System Bus	400 MHz system bus
	Processor Memory	512-KB level 2 cache per processor
	Memory	1024 MB (Standard) 16,384 MB (Maximum) PC1600 Advanced ECC SDRAM; 2:1 interleaved memory NOTE: Maximum memory achieved using 2048 MB DIMMs.
	Network Controller	Embedded NC3163 Fast Ethernet NIC PCI 10/100 with WOL (Wake On LAN)
	Storage Controller	Integrated Dual Channel Wide Ultra3 SCSI Adapter
	Hard Drive	None ship standard
	Internal Storage	12 1" hot plug hard drive bays standard
	Power Supplies	One 600W Hot Plug Power Supply
	System Fan	Hot Plug System Fans
	Drive Cages	Two 6 x 1" Drive Cages standard
	Optical Drive	40x or higher IDE CD-ROM Drive
	Diskette Drive	1.44 MB Diskette Drive
Form Factor	Tower	

ML530T02 X2.80-512KB, 1024MB, 2P <small>306489-xx1</small>	Processor	Two Intel Xeon 2.80 GHz Processor standard
	Processor System Bus	400 MHz system bus
	Processor Memory	512-KB level 2 cache per processor
	Memory	1024 MB (Standard) 16,384 MB (Maximum) PC1600 Advanced ECC SDRAM; 2:1 interleaved memory NOTE: Maximum memory achieved using 2048 MB DIMMs.
	Network Controller	Embedded NC3163 Fast Ethernet NIC PCI 10/100 with WOL (Wake On LAN)
	Storage Controller	Integrated Dual Channel Wide Ultra3 SCSI Adapter
	Hard Drive	None ship standard
	Internal Storage	12 1" hot plug hard drive bays standard
	Power Supplies	Redundant 600W Hot Plug Power Supplies (1+ 1 redundancy)
	System Fan	Redundant Hot Plug System Fans
	Drive Cages	Two 6 x 1" Drive Cages standard
	Optical Drive	40x or higher IDE CD-ROM Drive
	Diskette Drive	1.44 MB Diskette Drive
Form Factor	Tower	

Models

ML530T02 X2.40-512KB, 1024MB, 1P <i>180285-xx1</i>	Processor	One Intel Xeon 2.40 GHz Processor standard (up to 2 supported)
	Processor System Bus	400 MHz system bus
	Processor Memory	512-KB level 2 cache per processor
	Memory	1024 MB (Standard) 16,384 MB (Maximum) PC1600 Advanced ECC SDRAM; 2:1 interleaved memory NOTE: Maximum memory achieved using 2048 MB DIMMs.
	Network Controller	Embedded NC3163 Fast Ethernet NIC PCI 10/100 with WOL (Wake On LAN)
	Storage Controller	Integrated Dual Channel Wide Ultra3 SCSI Adapter
	Hard Drive	None ship standard
	Internal Storage	12 1" hot plug hard drive bays standard
	Power Supplies	One 600W Hot Plug Power Supply
	System Fan	Hot Plug System Fans
	Drive Cages	Two 6 x 1" Drive Cages standard
	Optical Drive	40x or higher IDE CD-ROM Drive
	Diskette Drive	1.44 MB Diskette Drive
	Form Factor	Tower

ML530T02 X2.40-512KB, 1024MB, 2P <i>226608-xx1</i>	Processor	Two Intel Xeon 2.40 GHz Processors standard
	Processor System Bus	400 MHz system bus
	Processor Memory	512-KB level 2 cache per processor
	Memory	1024 MB (Standard) 16,384 MB (Maximum) PC1600 Advanced ECC SDRAM; 2:1 interleaved memory NOTE: Maximum memory achieved using 2048 MB DIMMs.
	Network Controller	Embedded NC3163 Fast Ethernet NIC PCI 10/100 with WOL (Wake On LAN)
	Storage Controller	Integrated Dual Channel Wide Ultra3 SCSI Adapter
	Hard Drive	None ship standard
	Internal Storage	12 1" hot plug hard drive bays standard
	Power Supplies	Redundant 600W Hot Plug Power Supplies (1+ 1 redundancy)
	System Fan	Redundant Hot Plug System Fans
	Drive Cages	Two 6 x 1" Drive Cages standard
	Optical Drive	40x or higher IDE CD-ROM Drive
	Diskette Drive	1.44 MB Diskette Drive
	Form Factor	Tower

Models

**ML530R02 X3.0-512KB,
1024MB, 1P**
271244-xx1

Processor	One Intel Xeon 3.0 GHz Processor standard (up to 2 supported)
Processor System Bus	400 MHz system bus
Processor Memory	512-KB level 2 cache per processor
Memory	1024 MB (Standard) 16,384 MB (Maximum) PC1600 Advanced ECC SDRAM; 2:1 interleaved memory NOTE: Maximum memory achieved using 2048 MB DIMMs.
Network Controller	Embedded NC3163 Fast Ethernet NIC PCI 10/100 with WOL (Wake On LAN)
Storage Controller	Integrated Dual Channel Wide Ultra3 SCSI Adapter
Hard Drive	None ship standard
Internal Storage	12 1" hot plug hard drive bays standard
Power Supplies	One 600W Hot Plug Power Supply
System Fan	Hot Plug System Fans
Drive Cages	Two 6 x 1" Drive Cages standard
Optical Drive	40x or higher IDE CD-ROM Drive
Diskette Drive	1.44 MB Diskette Drive
Form Factor	Rack (7U)

**ML530R02 X3.0-512KB,
1024MB, 2P**
271246-xx1

Processor	Two Intel Xeon 3.0 GHz Processor standard
Processor System Bus	400 MHz system bus
Processor Memory	512-KB level 2 cache per processor
Memory	1024 MB (Standard) 16,384 MB (Maximum) PC1600 Advanced ECC SDRAM; 2:1 interleaved memory NOTE: Maximum memory achieved using 2048 MB DIMMs.
Network Controller	Embedded NC3163 Fast Ethernet NIC PCI 10/100 with WOL (Wake On LAN)
Storage Controller	Integrated Dual Channel Wide Ultra3 SCSI Adapter
Hard Drive	None ship standard
Internal Storage	12 1" hot plug hard drive bays standard
Power Supplies	Redundant 600W Hot Plug Power Supplies (1+ 1 redundancy)
System Fan	Redundant Hot Plug System Fans
Drive Cages	Two 6 x 1" Drive Cages standard
Optical Drive	40x or higher IDE CD-ROM Drive
Diskette Drive	1.44 MB Diskette Drive
Form Factor	Rack (7U)

Models

ML530R02 X2.80-512KB, 1024MB, 1P <i>306488-xx1</i>	Processor	One Intel Xeon 2.80 GHz Processor standard (up to 2 supported)
	Processor System Bus	400 MHz system bus
	Processor Memory	512-KB level 2 cache per processor
	Memory	1024 MB (Standard) 16,384 MB (Maximum) PC1600 Advanced ECC SDRAM; 2:1 interleaved memory NOTE: Maximum memory achieved using 2048 MB DIMMs.
	Network Controller	Embedded NC3163 Fast Ethernet NIC PCI 10/100 with WOL (Wake On LAN)
	Storage Controller	Integrated Dual Channel Wide Ultra3 SCSI Adapter
	Hard Drive	None ship standard
	Internal Storage	12 1" hot plug hard drive bays standard
	Power Supplies	One 600W Hot Plug Power Supply
	System Fan	Hot Plug System Fans
	Drive Cages	Two 6 x 1" Drive Cages standard
	Optical Drive	40x or higher IDE CD-ROM Drive
	Diskette Drive	1.44 MB Diskette Drive
Form Factor	Rack (7U)	

ML530R02 X2.80-512KB, 1024MB, 2P <i>306490-xx1</i>	Processor	Two Intel Xeon 2.80 GHz Processor standard
	Processor System Bus	400 MHz system bus
	Processor Memory	512-KB level 2 cache per processor
	Memory	1024 MB (Standard) 16,384 MB (Maximum) PC1600 Advanced ECC SDRAM; 2:1 interleaved memory NOTE: Maximum memory achieved using 2048 MB DIMMs.
	Network Controller	Embedded NC3163 Fast Ethernet NIC PCI 10/100 with WOL (Wake On LAN)
	Storage Controller	Integrated Dual Channel Wide Ultra3 SCSI Adapter
	Hard Drive	None ship standard
	Internal Storage	12 1" hot plug hard drive bays standard
	Power Supplies	Redundant 600W Hot Plug Power Supplies (1+ 1 redundancy)
	System Fan	Redundant Hot Plug System Fans
	Drive Cages	Two 6 x 1" Drive Cages standard
	Optical Drive	40x or higher IDE CD-ROM Drive
	Diskette Drive	1.44 MB Diskette Drive
Form Factor	Rack (7U)	

Models

ML530R02 X2.40-512KB, 1024MB, 1P <i>180286-xx1</i>	Processor	One Intel Xeon 2.40 GHz Processor standard (up to 2 supported)
	Processor System Bus	400 MHz system bus
	Processor Memory	512-KB level 2 cache per processor
	Memory	1024 MB (Standard) 16,384 MB (Maximum) PC1600 Advanced ECC SDRAM; 2:1 interleaved memory NOTE: Maximum memory achieved using 2048 MB DIMMs.
	Network Controller	Embedded NC3163 Fast Ethernet NIC PCI 10/100 with WOL (Wake On LAN)
	Storage Controller	Integrated Dual Channel Wide Ultra3 SCSI Adapter
	Hard Drive	None ship standard
	Internal Storage	12 1" hot plug hard drive bays standard
	Power Supplies	One 600W Hot Plug Power Supply
	System Fan	Hot Plug System Fans
	Drive Cages	Two 6 x 1" Drive Cages standard
	Optical Drive	40x or higher IDE CD-ROM Drive
	Diskette Drive	1.44 MB Diskette Drive
Form Factor	Rack (7U)	

ML530R02 X2.40-512KB, 1024MB 2P <i>226609-xx1</i>	Processor	Two Intel Xeon 2.40 GHz Processors standard
	Processor System Bus	400 MHz system bus
	Processor Memory	512-KB level 2 cache per processor
	Memory	1024 MB (Standard) 16,384 MB (Maximum) PC1600 Advanced ECC SDRAM; 2:1 interleaved memory NOTE: Maximum memory achieved using 2048 MB DIMMs.
	Network Controller	Embedded NC3163 Fast Ethernet NIC PCI 10/100 with WOL (Wake On LAN)
	Storage Controller	Integrated Dual Channel Wide Ultra3 SCSI Adapter
	Hard Drive	None ship standard
	Internal Storage	12 1" hot plug hard drive bays standard
	Power Supplies	Redundant 600W Hot Plug Power Supplies (1+ 1 redundancy)
	System Fan	Redundant Hot Plug System Fans
	Drive Cages	Two 6 x 1" Drive Cages standard
	Optical Drive	40x or higher IDE CD-ROM Drive
	Diskette Drive	1.44 MB Diskette Drive
Form Factor	Rack (7U)	

Country Code Key

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

Tower Code Key

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

Rack Code Key

U.S. English
N/A
N/A
N/A
N/A
APD
Japan
Europe
PRC

Options

ProLiant ML530 G2 Unique Options	Intel Xeon 3.0 GHz/512 KB Processor Option Kit	316898-B21
	Intel Xeon 2.80 GHz/512 KB Processor Option Kit	306504-B21
	Intel Xeon 2.40 GHz/512 KB Processor Option Kit	191224-B21

ProLiant Essentials Value Pack Software	Rapid Deployment Pack, 1 User, V1.x	267196-B21
	NOTE: This license allows 1 server to be managed and deployed via the Deployment Server.	
	Rapid Deployment Pack, 1 User, V1.x (Japan)	267196-291
	NOTE: This license allows 1 server to be managed and deployed via the Deployment Server.	
	Rapid Deployment Pack, 10 Users, V1.x	269817-B21
	NOTE: This license allows 10 servers to be managed and deployed via the Deployment Server.	
	Rapid Deployment Pack, 10 Users, V1.x (Japan)	269817-291
	NOTE: This license allows 10 servers to be managed and deployed via the Deployment Server.	
	ProLiant Essentials Workload Management Pack 2.0 (Featuring Compaq Resource Partitioning Manager version 2.0)	303284-B21
	Performance Management Pack, single server	306696-B21
	NOTE: This license allows 1 server to be managed by Performance Management Pack.	
	ProLiant Essentials Performance Management Pack, 10 Pack Server License	374055-B21
	Performance Management Pack, flexible license kit	306697-B21
	NOTE: A single pack is shipped with a single license key for the total number of licenses ordered	
	ProLiant Essentials Intelligent Networking Pack, 1 License	372906-B21
	ProLiant Essentials Intelligent Networking Pack Flex License	372950-B21
	ProLiant Essentials Intelligent Networking Pack Track License	372951-B21
	ProLiant Essentials Virtual Machine Management Pack, Single-Server License	372214-B21
	NOTE: For use with a single server. Contains one license with a unique license activation key and documentation.	
	ProLiant Essentials Virtual Machine Management Pack, Flexible-Quantity License	372215-B21
NOTE: For use with multiple servers. This part number can be used to purchase multiple licenses with a single activation key.		
ProLiant Essentials Virtual Machine Management Pack, Tracking License	372216-B21	
NOTE: For use with signed and implemented Activation Key Agreements only. Purchase of this part number entitles the customer to deploy additional licenses of the product under the terms of the existing Activation Key Agreement.		
ProLiant Essentials Vulnerability and Patch Management Pack, Single-Server License	371645-B21	
ProLiant Essentials Vulnerability and Patch Management Pack, 10-Server License	372029-B21	
ProLiant Essentials Vulnerability and Patch Management Pack, Flexible-Quantity License	371646-B21	
ProLiant Essentials Vulnerability and Patch Management Pack, Tracking license for new servers	371647-B21	
ProLiant Essentials Vulnerability and Patch Management Pack, Tracking license for installed servers	378372-B21	
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 .		

Software	HP digital asset protection	302316-001
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Options

Processor	Intel Xeon 3.0 GHz/512 KB Processor Option Kit	316898-B21
	Intel Xeon 2.80 GHz/512 KB Processor Option Kit	306504-B21
	Intel Xeon 2.40 GHz/512 KB Processor Option Kit	191224-B21
Memory (DIMMs; 2:1 interleaved)	512MB PC1600 Registered ECC SDRAM Memory Kit (2 x 256 MB)	187418-B21
	1024MB PC1600 Registered ECC SDRAM Memory Kit (2 x 512 MB)	187419-B21
	2048MB PC1600 Registered ECC SDRAM Memory Kit (2 x 1024 MB)	187420-B21
	4096MB PC1600 Registered ECC SDRAM Memory Kit (2 x 2048 MB)	187421-B21
Optical Drives	16X DVD-ROM Drive Option Kit (Carbon) NOTE: This drive is supported in the CD-ROM bay and in the removable media bay.	217053-B21
	CD-RW/DVD ROM Combo Drive Option Kit NOTE: This drive is supported in the CDROM bay and in the removable media bay.	331346-B21
Internal Storage	ML5xx Two Bay Hot Plug SCSI Drive Cage NOTE: The drive cage option kit (PN 244058-B21) has one 1" drive bay and one 1.6" drive bay.	244058-B21
Hard Drives	Ultra320 SCSI – Universal Hot Plug	
	300-GB 10,000 rpm U320 Universal Hard Drive (1")	350964-B22
	146.8-GB 10,000 rpm U320 Universal Hard Drive (1")	286716-B22
	72.8-GB 10,000 rpm U320 Universal Hard Drive (1")	286714-B22
	72.8-GB 15,000 rpm U320 Universal Hard Drive (1")	286778-B22
	36.4-GB 15,000 rpm U320 Universal Hard Drive (1")	286776-B22
NOTE: All U320 Universal Hard Drives are backward compatible to U2 or U3 speeds. U320 drives require an optional U320 Smart Array Controller or U320 SCSI HBA to support U320 transfer rates.		
NOTE: Please see the Hard Drive QuickSpecs for Technical Specifications such as capacity, height, width, interface, transfer rate, seek time, physical configuration, and operating temperature: 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)		

Options

Storage Controllers	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 6402/128 Controller	273915-B21
	Smart Array 6404/256 Controller	273914-B21
	Smart Array 641 Controller	291966-B21
	Smart Array 642 Controller	291967-B21
	128-MB Cache Module for Smart Array 5302 Controller	153506-B21
	256-MB Battery-Back Cache Module	254786-B21
	NOTE: This 256-MB Battery-Backed Cache Module supports the Smart Array 5300 series controllers, HP StorageWorks Modular Smart Array 1000 and the HP StorageWorks Modular Smart Array 500.	
	128MB Battery-Backed Cache Enabler	351580-B21
	NOTE: This 128MB BBWC supports the Smart Array 641 Controller and Smart Array 642 Controller.	
	64-Bit/133MHz Dual Channel Ultra320 SCSI Adapter	268351-B21
	Ultra320 Expansion Module for SA-6402	273911-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/11587_div/11587_div.HTML (Smart Array 6400 Series) http://h18000.www1.hp.com/products/quickspecs/12067_div/12067_div.HTML (Smart Array 641) http://h18000.www1.hp.com/products/quickspecs/12069_div/12069_div.HTML (Smart Array 642) http://h18000.www1.hp.com/products/quickspecs/10429_div/10429_div.HTML (SCSI Adapter) http://h18000.www1.hp.com/products/quickspecs/11555_div/11555_div.HTML (U320 Adapter)	
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Communications	NC6170 Dual Port PCI-X 1000SX Gigabit Server Adapter	313879-B21
	HP NC6770 PCI-X Gigabit Server Adapter, 1000-SX	244949-B21
	NC7170 Dual Port PCI-X 1000T Gigabit Server Adapter	313881-B21
	NC7771 PCI-X Gigabit Server Adapter	290563-B21
	NOTE: Any NC61XX, NC71XX or NC77XX NIC can be used for redundancy with the embedded NC7781 Network Controller.	
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Redundant Options	Hot-plug Redundant Fan Kit	128284-B21
	NOTE: Included in 2P models.	
	Hot Plug Redundant Power Supply	236845-001
	NOTE: Included in 2P models.	
	Hot Plug Redundant Power Supply (Australia)	236845-011
	NOTE: Included in 2P models.	
	Hot Plug Redundant Power Supply (Int'l)	236845-021
NOTE: Included in 2P models.		
Hot Plug Redundant Power Supply (UK)	236845-031	
NOTE: Included in 2P models.		
Hot Plug Redundant Power Supply (Japan)	236845-291	
NOTE: Included in 2P models.		

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

Security	HP/Atalla AXL600L SSL Accelerator Card for ProLiant Servers	524545-B21
	AXL300 Accelerator PCI Card for ProLiant Servers	227933-B21

Tape Drives

NOTE: In order to install certain tape drives internally, you may need to remove the rails that come standard on the drives and then re-insert the screws in the mounting holes. Mounting screws are shipped standard with server.

NOTE: External tape devices, including both tape drives and tape arrays/enclosures, can be directly connected to the VHDCI SCSI port located on the back of the server. Use of a SCSI adapter to connect these devices is optional, not required.

Internal, External, and Rack-Mount Ultrium Tape Drives

HP StorageWorks Ultrium 215 Tape Drive, External (Carbon)	Q1545A
HP StorageWorks Ultrium 215 rack-mount (Carbon) - Single drive installed in a 3U rack-mount kit	350544-B21
HP StorageWorks Ultrium 215 Array Module (Carbon) - Offline hot-swap drive for Tape Array 5300	C7492B
HP StorageWorks Ultrium 230 Tape Drive, Internal (Carbon)	Q1515A
NOTE: When purchasing this internal drive a cooling fan also needs to be ordered. The fan kit part number is 344257-B21 and comes with installation instructions to install inside the server.	
HP StorageWorks Ultrium 230 Tape Drive, External (Carbon)	Q1517A
HP StorageWorks Ultrium 230, Rack-mount (Carbon) - Single drive installed in a 3U rack-mount kit	350545-B21
HP StorageWorks Ultrium 230 Array Module (Carbon) - Offline hot-swap drive for Tape Array 5300	C7470B
HP StorageWorks Ultrium 460 Tape Drive, Internal (Carbon)	Q1518A
HP StorageWorks Ultrium 460 Tape Drive, External (Carbon)	Q1520A
HP StorageWorks Ultrium 460, Rack-mount (Carbon) - Single drive installed in a 3U rack-mount kit	350546-B21
HP StorageWorks Ultrium 460 Array Module (Carbon) - Offline hot-swap drive for Tape Array 5300	Q1512B
Fan Option - Internal Cooling Fan Kit	344257-B21
HP StorageWorks Ultrium 960 Tape Drive, Internal (Carbonite)	Q1538A
HP StorageWorks Ultrium 960 Tape Drive, External (Carbonite)	Q1539A
HP StorageWorks Ultrium 960 Rack-mount (Carbonite) - Single drive installed in a 3U rack-mount kit	Q1595A

NOTE: Needs to be ordered when purchasing an internal Ultrium 230 drive that will be installed inside of an ML 530 G1/G2 or ML 570 G1/G2. Kit includes fan and instructions to install fan inside of server in drive bay.

NOTE: Please see the HP StorageWorks Ultrium 215, 230, and 460 Tape Drive QuickSpecs for additional options such as controllers, media, and other related items:

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

http://h18006.www1.hp.com/products/quickspecs/11739_na/11739_na.html (North America)

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

Internal, External, Hot-Plug, and Rack-Mount DAT Drives

HP StorageWorks DAT 72 Tape Drive, External (Carbon)	Q1523A
HP StorageWorks DAT 72 Tape Drive, Internal (Carbon)	Q1522A
HP StorageWorks DAT 72 Tape Drive, Internal Hot-Plug (Carbon)	Q1529A
HP StorageWorks DAT 72 Array Module (Carbon) - Offline hot-swap drive for Tape Array 5300	Q1524B
HP StorageWorks DAT 40 Tape Drive, External (Carbon)	C5687C

Options

HP StorageWorks DAT 40 Tape Drive, Internal (Carbon)	C5686B
HP StorageWorks DAT 40 Tape Drive, Internal Hot-Plug (Carbon)	Q1546A
HP StorageWorks DAT 40 Array Module (Carbon) - Offline hot-swap drive for Tape Array 5300	C7497B
HP StorageWorks DAT 24 Tape Drive, External (Flint)	C1556D
HP StorageWorks DAT 24 Tape Drive, Internal (Flint)	C1555D
HP StorageWorks DAT 24 Array Module (Carbon) - Offline hot-swap drive for Tape Array 5300	C7498A

NOTE: Please see the DAT Tape Drive QuickSpecs for controllers, media, and other options:
http://h18000.www1.hp.com/products/quickspecs/11883_div/11883_div.HTML (Worldwide)

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

Internal and External DLT VS Tape Drives

HP StorageWorks DLT VS80 Tape Drive, Internal (Carbon) WW	337699-B21
HP StorageWorks DLT VS80 Tape Drive, External (Carbon) NA	337699-B22
HP StorageWorks DLT VS80 Tape Drive, External (Carbon) Int'l	337699-B31
HP StorageWorks DLT VS80 Tape Drive, External (Carbon) Japan	337699-291

NOTE: Please see the DLT VS80 Tape Drive QuickSpecs for additional options such as host bus adapters, controllers, media, and other options:

http://h18006.www1.hp.com/products/quickspecs/11403_div/11403_div.HTML (Worldwide)

http://h18006.www1.hp.com/products/quickspecs/11403_na/11403_na.HTML (North America)

For an up-to-date listing of the latest O/S and software support details for the DLT VS80, please visit: <http://www.hp.com/go/connect>

Internal, External and Rack-mount SDLT Tape Drives

HP StorageWorks SDLT 320 Tape Drive, Internal (Carbon) WW	257319-B21
NOTE: When purchasing this internal drive a cooling fan also needs to be ordered. The fan kit part number is 344257-B21 and comes with installation instructions to install inside the server.	
HP StorageWorks SDLT 320 Tape Drive, External (Carbon) NA	257319-001
HP StorageWorks SDLT 320 Tape Drive, External (Carbon) Int'l	257319-B31
HP StorageWorks SDLT 320 Tape Drive, External (Carbon) Japan	257319-291
Fan Option - Internal Cooling Fan Kit	344257-B21

NOTE: Needs to be ordered when purchasing an internal SDLT 320 drive that will be installed inside of an ML530 G1/G2 or ML570 G1/G2. Kit includes fan and instructions to install fan inside of server in drive bay.

NOTE: Please see the SDLT 320 Tape Drive QuickSpecs for additional options such as adapters, controllers, and media.

http://h18006.www1.hp.com/products/quickspecs/11840_div/11840_div.HTML (Worldwide)

http://h18006.www1.hp.com/products/quickspecs/11840_na/11840_na.HTML

(North America)

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

Rack-Mount Tape Drive Enclosures

HP StorageWorks 1U Rack-Mount Kit	A7445A
NOTE: The 1U Rack-mount Kit can support up to 2 half-height tape drives and compatible with multiple Single-Ended and LVD SCSI tape drives including DAT 24, DAT40, DAT72, DLT VS 80, and Ultrium 215 tape drives.	
HP StorageWorks 3U Rack-Mount Kit	274338-B21
NOTE: The 3U Rack-Mount Kit 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 DAT, DLT VS80, SDLT 320, Ultrium 215, Ultrium 230, and Ultrium 460 Tape Drives.	
HP StorageWorks 5U Rack-Mount Kit	274339-B21
NOTE: The 5U Rack-Mount Kit can support up to 4 full-height tape drives and is compatible with SDLT 320, Ultrium 230, and Ultrium 460 tape drives.	

NOTE: Please see the Rack-Mount Tape Drive Kits QuickSpecs for additional information regarding these kits:

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

http://h18000.www1.hp.com/products/quickspecs/10854_na/10854_na.HTML (North America)

Options

HP StorageWorks Tape Array 5300	C7508A
NOTE: The Tape Array 5300 is a 3U enclosure that supports up to 2 full-height or 4 half-height hot-swap array modules, including DAT and Ultrium tape drives. Cables and terminators are not included and must be ordered separately.	
NOTE: Please see the Tape Array 5300 QuickSpecs for additional information regarding this product.	
http://h18000.www1.hp.com/products/quickspecs/11878_div/11878_div.HTML (Worldwide)	
http://h18000.www1.hp.com/products/quickspecs/11878_na/11878_na.HTML (North America)	
Accessories for 3U & 5U Rack-mount Tape Drive Kits	
LVD Cable Kit, VHDCI/HD68	168048-B21
NOTE: For use with the 3U Rack-mount Kit and 5U Rack-mount Kit only.	
LVD Cable Kit, HD68/HD68	242381-B21
NOTE: For use with the 3U Rack-mount Kit and 5U Rack-mount Kit only.	
Accessories for 3U & 5U Rack-mount Tape Drive Kits	
PSU/Fan Upgrade Kit - Redundant hot-swap power supply unit and fan for Tape Array 5300.	
68-pin HD multi-mode terminator	C2364A
1.0m 68-pin VHDCI to 68-pin HD cable	C2361B
2.5m 68-pin VHDCI to 68-pin HD cable	C2362B
5.0m 68-pin VHDCI to 68-pin HD cable	C2365A
10.0m 68-pin VHDCI to 68-pin HD cable	C2363B
0.5m 68-pin HDI to 68-pin HD cable LVD/SE	C2978B
1.5m 68-pin HDI to 68-pin HD cable LVD/SE	C2979B
0.9m 68-pin HDI to 68-pin HD cable LVD/SE	C2911C
2.5m 68-pin HDI to 68-pin HD cable LVD/SE	C2924C
NOTE: For use with Tape Array 5300 only	

Tape Autoloaders

DAT Autoloader

HP StorageWorks DAT 72x6 Internal Autoloader	Q1566A
HP StorageWorks DAT 72x6 External Autoloader	Q1567A

NOTE: Please see the DAT Tape Autoloader QuickSpecs for additional options such as host bus adapters, controllers and media:

http://h18000.www1.hp.com/products/quickspecs/11985_div/11985_div.HTML (Worldwide)
http://h18000.www1.hp.com/products/quickspecs/11985_na/11985_na.HTML (North America)

HP StorageWorks 1/8 Tape Autoloader

1/8 Ultrium 460 Tape Autoloader, Tabletop	AA927A
1/8 SDLT 320 Tape Autoloader, Tabletop	AA926A
1/8 Ultrium 230 Tape Autoloader, Tabletop	C9572CB
1/8 DLT VS80 Tape Autoloader, Tabletop	C9264CB
1/8 Tape Autoloader Rackmount Kit	C9268R

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

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

HP StorageWorks SSL1016 Tape Autoloader

SSL1016 Ultrium 460 Tape Autoloader	330821-B21
SSL1016 SDLT 320 Tape Autoloader	330816-B21

NOTE: Please reference the SSL1016 Tape Autoloader QuickSpecs at <http://www.hp.com/go/automation> for additional information needed to create a complete solution; reference current compatibility information at <http://www.hp.com/go/ebs>

Options

Tape Libraries

HP StorageWorks MSL6000 Tape Library

MSL6030, 1 drive, 30 slots, Ultrium 460, RM	330731-B22
MSL6030, 2 drive, 30 slots, Ultrium 460, RM	330731-B23
MSL6030, 1 drive, 30 slots, Ultrium 460, RM with embedded FC router	330731-B24
MSL6030, 2 drive, 30 slots, Ultrium 460, RM with embedded FC router	330731-B25
MSL6030, 1 drive, 30 slots, Ultrium 460, TT	330788-B21
MSL6030, 2 drive, 30 slots, Ultrium 460, TT	330788-B22
MSL6060, 2 drive, 60 slot, Ultrium 460, RM	331196-B21
MSL6060, 2 drive, 60 slot, Ultrium 460, RM with embedded FC router	331196-B22
MSL6060, 2 drive, 60 slot, Ultrium 460, TT	331195-B21

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

HP StorageWorks MSL5026S2 Tape Library

MSL5026S2, 1 drive, 26 slots, SDLT 320, RM	293472-B22
MSL5026S2, 2 drive, 26 slots, SDLT 320, RM	293472-B23
MSL5026S2, 1 drive, 26 slots, SDLT 320, RM with embedded FC router	293472-B24
MSL5026S2, 2 drive, 26 slots, SDLT 320, RM with embedded FC router	293472-B25
MSL5026S2, 1 drive, 26 slots, SDLT 320, TT	293473-B21
MSL5026S2, 2 drive, 26 slots, SDLT 320, TT	293473-B22

NOTE: Please reference the MSL5026S2 Tape Library QuickSpecs at <http://www.hp.com/go/automation> for additional information needed to create a complete solution; reference current compatibility information at <http://www.hp.com/go/ebs>

HP StorageWorks MSL5052S2 Tape Library

MSL5052S2, 2 drive, 52 slots, SDLT 320, RM	293474-B21
MSL5052S2, 2 drive, 52 slots, SDLT 320, RM with embedded FC router	293474-B24
MSL5052S2, 2 drive, 52 slots, SDLT 320, TT	293476-B21

NOTE: Please reference the MSL5052S2 Tape Library QuickSpecs at <http://www.hp.com/go/automation> for additional information needed to create a complete solution; reference current compatibility information at <http://www.hp.com/go/ebs>

HP StorageWorks MSL5030 Tape Library

MSL5030, 1 drive, 30 slots, Ultrium 230, RM	301897-B22
MSL5030, 2 drive, 30 slots, Ultrium 230, RM	301897-B23
MSL5030, 1 drive, 30 slots, Ultrium 230, RM with embedded FC router	301897-B24
MSL5030, 2 drive, 30 slots, Ultrium 230, RM with embedded FC router	301897-B25
MSL5030, 1 drive, 30 slots, Ultrium 230, TT	301898-B21
MSL5030, 2 drive, 30 slots, Ultrium 230, TT	301898-B22

NOTE: Please reference the MSL5030 Tape Library QuickSpecs at <http://www.hp.com/go/automation> for additional information needed to create a complete solution; reference current compatibility information at <http://www.hp.com/go/ebs>

HP StorageWorks MSL5060 Tape Library

Options

MSL5060, 2 drive, 60 slots, Ultrium 230, RM	301899-B22
MSL5060, 2 drive, 60 slots, Ultrium 230, RM with embedded FC router	301899-B23
MSL5060, 2 drive, 60 slots, Ultrium 230, TT	301900-B21

NOTE: Please reference the MSL5060 Tape Library QuickSpecs at <http://www.hp.com/go/automation> for additional information needed to create a complete solution; reference current compatibility information at <http://www.hp.com/go/ebs>

HP StorageWorks ESL E-Series Tape Libraries

ESL Extended 712e Tape Library, 0 drive, 712 LTO slots	AA934B
ESL Extended 630e Tape Library, 0 drive, 630 SDDL slots	AA935B
ESL Extended 322e Tape Library, 0 drive, 322 LTO slots	AA939B
ESL Extended 286e Tape Library, 0 drive, 286 SDDL slots	AA940B
ESL E-Series Ultrium 460 drive kit	AA937A
ESL E-Series Ultrium 460-FC drive kit	AA941A
ESL E-Series SDDL 320 drive kit	AA936A
ESL E-Series e2400-FC 2G Interface Controller	AA928A

HP StorageWorks ESL9000 Series Tape Libraries

ESL9595 Extended Tape Library, 0 drive, 400 slots (card cage, Interface Mgr card, Command View license)	343378-B21
ESL9322 Extended Tape Library, 0 drive, 222 slots (card cage, Interface Mgr card, Command View license)	343377-B21
ESL9000 Ultrium 460 drive kit	330834-B21
ESL9000 Ultrium 230 drive kit	301930-B21
ESL9000 SDDL 320 drive kit	293414-B21

NOTE: Please reference the ESL9000 Series Tape Libraries QuickSpecs at <http://www.hp.com/go/automation> for additional information needed to create a complete solution; reference current compatibility information at <http://www.hp.com/go/ebs>

Options

Magneto-Optical Jukeboxes	HP StorageWorks 9.1 GB Entry-level Optical Storage	
	220mx, 1 drive, 24 slot jukebox	C1118M
	220mx, 2 drive, 24 slot jukebox	C1119M
	NOTE: Please reference the Magneto-Optical Jukebox data sheets at http://www.hp.com/go/optical for additional information needed to create a complete solution	
	HP StorageWorks 9.1 GB Mid-range Optical Jukeboxes	
	300mx, 2 drive, 32 slot jukebox	C1150M
	600mx, 4 drive, 64 slot jukebox	C1160M
	700mx, 2 drive, 76 slot jukebox	C1170M
	NOTE: Please reference the Magneto-Optical Jukebox data sheets at http://www.hp.com/go/optical for additional information needed to create a complete solution	
	Ultra Density Optical Jukeboxes	
700ux, 1 drive, 24 slot jukebox	AA962A	
700ux, 2 drive, 24 slot jukebox	AA963A	
1100ux, 2 drive, 38 slot jukebox	AA964A	
1000ux, 2 drive, 32 slot jukebox	AA965A	
1900ux, 4 drive, 64 slot jukebox	AA966A	
1900ux, 4 mixed drive, 64 slot jukebox	AA968A	
2300ux, 2 drive, 76 slot jukebox	AA967A	
NOTE: Please reference the Ultra Density Optical Jukebox QuickSpecs at http://www.hp.com/go/optical for additional information needed to create a complete solution		
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External Storage – Tower & Rack	HP StorageWorks Modular Smart Array 20	335921-B21
	NOTE: Rack-mountable 12 (SATA) drive enclosure with U320 Host connectivity, redundant power supplies.	
	HP StorageWorks Modular Smart Array 20 Starter Kit	366172-B21
	NOTE: Rack-mountable 12 (SATA) drive enclosure with U320 Host connectivity, redundant power supplies. Includes Smart Array 6402/128 Controller.	
	NOTE: The Modular Smart Array Enclosure 20 Family supports the SATA 1.5Gb/s 1" Hot Plug Hard Drives.	
	HP StorageWorks Modular Smart Array 30 SB	302969-B21
	NOTE: Rack-mountable 14 drive enclosure with single bus , redundant power supplies	
	HP StorageWorks Modular Smart Array 30 DB	302970-B21
	NOTE: Rack-mountable 14 drive enclosure with single bus , redundant power supplies	
NOTE: The Modular Smart Array Enclosure 30 Family support the Wide Ultra3, Ultra320 1" Hot Plug Hard Drives.		
Redundant Power Supply 499W	338296-B21	
StorageWorks Single Bus U320 I/O Module for MSA30	287484-B21	
StorageWorks Dual Bus U320 I/O Module for MSA30	287483-B21	
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HP StorageWorks Modular Smart Array 1500 cs	Modular Smart Array 1500 Controller Shelf	AA986A
	NOTE: Please see the StorageWorks Modular SAN Array 1500 cs QuickSpecs for additional options and configuration information at: http://www.hp.com/go/MSA1500cs	

Options

HP StorageWorks Modular Smart Array 1000	HP StorageWorks Modular Smart Array 1000 NOTE: Please see the Modular Smart Array 1000 QuickSpecs for additional options and configuration information at http://h18000.www1.hp.com/products/quickspecs/11033_na/11033_na.HTML (North America) http://h18000.www1.hp.com/products/quickspecs/11033_div/11033_div.HTML (Worldwide)	201723-B22
StorageWorks Options	StorageWorks SAN Switch 2/16	322118-B21
UPS Power Cord Matrix	Please see the UPS Power Cord Matrix for cable descriptions, requirements, and specifications for UPS units: ftp://ftp.compaq.com/pub/products/servers/proliantstorage/power-protection/powercordmatrix.pdf .	
Uninterruptible Power Systems – Tower Supply	HP UPS T1000 XR (1000 VA, 700 Watts), Low Voltage (NA) HP UPS T1000 XR (1000 VA, 700 Watts), High Voltage (Int'l) HP UPS T1000 XR (1000VA, 700Watts) 100 VAC (JPN) HP UPS T1500 XR (1440 VA, 1050 Watts) (NA) HP UPS T1500 XR (1500 VA, 1050 Watts) (Int'l) HP UPS T1500 XR (1500 VA, 1050 Watts) (Japan) HP UPS T2200 XR (1920 VA, 1600 Watts) Low Voltage (NA) HP UPS T2200 XR (2200 VA, 1600 Watts) High Voltage (NA) HP UPS T2200 XR (2200 VA, 1600 Watts) (Int'l) HP UPS T2200 XR (2200 VA, 1600 Watts) (Japan)	204155-001 204155-B31 312803-291 204155-002 204155-B32 204155-292 204451-001 204451-002 204451-B31 204451-291
Uninterruptible Power Systems – Rack	HP UPS R1500 XR (100 to 127) (NA) HP UPS R1500 XR (208 to 480) (Int'l) HP UPS R1500 XR (100 to 127) (Japan) HP UPS R3000 XR (120V) (NA) HP UPS R3000 XR (208V) (NA) HP UPS R3000 XR (100V) (Japan) HP UPS R3000 XR (208V) (Japan) Compaq UPS R3000 XR (200V) (Japan) HP UPS R3000 XR (230V) (Int'l - detachable cord) HP UPS R3000 XR (230V) (16A IEC309 Plug) HP UPS R3000 XR (230V) (16A CEE 7/7 SCHUKO Plug) HP UPS R3000 XR (230V) (16A BS-546 Plug) HP UPS R5500 XR, (5000VA, 4500 Watt), High Voltage (NA/Japan) HP UPS R5500 XR, (6000VA, 5400 Watt), High Voltage (Int'l) Extended Runtime Module R5500XR, WW NOTE: 3U each, two ERM maximum. UPS R12000 XR N+ x (200-240V) (WW-hardwired) NOTE: The UPS R12000 XR has a hardwired input and output connection.	204404-001 204404-B31 204404-291 192186-001 192186-002 192186-291 192186-292 192186-B31 192186-B32 192186-B33 192186-AR1 326529-D71 326529-B31 326564-B21 207552-B22

Options

HP Power Distribution Unit with Power Monitoring.	HP Power Distribution Unit with Power Monitoring Model S2324 - dual input, 3 phase, 24A (NA/JPN)	370959-D71
	HP Power Distribution Unit with Power Monitoring Model S1324 - single input, 3 phase, 24A (NA/JPN)	370960-D71
	HP Power Distribution Unit with Power Monitoring Model S2140 - dual input, 1 phase, 40A (NA/JPN)	370961-D71
	HP Power Distribution Unit with Power Monitoring Model S1140 - single input, 1 phase, 40A (NA/JPN)	370962-D71
	HP Power Distribution Unit with Power Monitoring Model S2316 - dual input, 3 phase, 16A (INTL)	370963-B31
	HP Power Distribution Unit with Power Monitoring Model S1316 - single input, 3 phase, 16A (INTL)	370964-B31
	HP Power Distribution Unit with Power Monitoring Model S2132 - dual input, 1 phase, 32A (INTL)	370965-B31
	HP Power Distribution Unit with Power Monitoring Model S1132 - single input, 1 phase, 32A (INTL)	370966-B31

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) NOTE: The above mPDU may also be used to connect to the low volt model of the UPS R3000 XR.	252663-D71
	HP Modular Power Distribution Units (mPDU), High Volt Model, 24A (200-240 VAC) (NA, Japan) NOTE: L6-30 input.	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) NOTE: The 40A model has a hardwired input.	252663-B21
	HP Modular Power Distribution Units (mPDU), High Volt Model, 16A (200-240 VAC) (WW) 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.	252663-B24
	HP Modular Power Distribution Unit (mPDU), High Volt Model, 40A, Attached Cord, (NA/JPN)	252663-D73
	HP Modular Power Distribution Unit (mPDU), High Volt Model, 40A, Attached Cord, (Int'l) 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)	252663-B32

USB Options	USB 2-Button Optical Scroll Mouse (Carbonite/Silver)	DC172B
	USB 1.44-MB External Diskette Drive (Carbonite)	DC141B

Custom Builder Please see the Enterprise Configurator for configuration assistance at: <http://www.hp.com/products/configurator>

Rack Conversion Kit	ProLiant ML5xx G2 Tower to Rack Conversion Kit	253699-B21
	ProLiant ML5xx G2 Rack to Tower Conversion Kit	271258-B21

Options

HP Rack 5000 Series (Graphite Metallic)	HP 5642 Rack-Unassembled	358254-B21
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Rack Options for Rack 5000 Series	Stabilizer Kit for 5642 rack (Graphite Carbon) NOTE: The stabilizing kit is used to prevent rack from tipping over.	374493-B21
	Baying Kit for 5642 rack (Graphite Carbon) NOTE: The baying kit is used to join two or more HP 5642 racks.	374499-B21

HP Rack 10000 Series (Graphite Metallic)	10642 (42U) Infrastructure Rack (Low Voltage)	379006-001
	10642 (42U) Infrastructure Rack (High Voltage)	379005-001
	HP Rack S10614 (14U) Rack Cabinet – Shock Pallet	292302-B22
	HP Rack 10842 (42U, 800mm wide) – Pallet	257415-B21
	HP Rack 10842 (42U, 800mm wide) – Shock Pallet	257415-B22
	HP Rack 10647 (47U) – Pallet	245160-B21
	HP Rack 10647 (47U) – Crated	245160-B23
	HP Rack 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
HP Rack 10614 (14U) – Shock Pallet	292303-B22	

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: It is mandatory to use a shock pallet in order to ship racks with equipment installed. Not all HP equipment is qualified to be shipped in the Rack 10000 series

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

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

Rack Options for HP Rack 10000 Series	NOTE: For additional information regarding Rack Options, please see the following URL: http://h18000.www1.hp.com/products/servers/proliantstorage/rack-options/index.html .	
	HP Rack Light Kit (Neon)	361589-B21
	HP Rack Plinth Kit (Carbon)	251960-B21
	42U Side Panel – Graphite Metallic	246099-B21
	36U Side Panel – Graphite Metallic	246102-B21
	47U Side Panel – Graphite Metallic	255486-B21
	TFT5600 Rack Keyboard Monitor	221546-xx1
Country Code Key (for TFT5600 Rack Keyboard Monitor (PN 221546-xx1))		

Options

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

1U Rack Keyboard & Drawer (Carbon)

257054-xx1

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

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

HP KVM Switch Options

Server Console Switch (KVM), 0 x 1 x 8 port	336044-B21
Server Console Switch (KVM), 0 x 2 x 16 port	336045-B21
IP Console Switch Box (KVM/IP), 1 x 1 x 16	262585-B21
IP Console Switch Box (KVM/IP), 3 x 1 x 16	262586-B21
HP 1x4 USB/PS2 KVM Switch, RM (ALL)	371302-B21
HP 1x4 USB/PS2 KVM Switch, TT, (EURO)	371301-A21
HP 1x4 USB/PS2 KVM Switch, TT (UK)	371301-031
HP 1x4 USB/PS2 KVM Switch, TT, (AUST/NZ)	371301-011
HP 1x4 USB/PS2 KVM Switch, TT, (NA/JPN)	371301-D71
PS/2 Interface Adapter, 8 pack	262587-B21
PS/2 Interface Adapter, 1 pack	262588-B21
CAT5 KVM Expansion Module	262589-B21
Serial Interface adapter - 1 Pack with power supply	373035-B21
CAT5e Cable 3', 4 pack	263474-B21
CAT5e Cable 6', 8 pack	263474-B22
CAT5e Cable 12', 8 pack	263474-B23
CAT5e Cable 20', 4 pack	263474-B24
CAT5e Cable 40', 1 pack	263474-B25

NOTE: For additional information regarding HP KVM Switches and options, please see the following URL:
<http://h18004.www1.hp.com/products/servers/proliantstorage/rack-options/list.html#console>

Rack Options for Third Party Cabinet Racks

Rack Adapter Kit	332815-B21
NOTE: This kit allows HP rack servers to fit in racks that are 24" wide.	
Third Party Rack Kit	274739-B21
NOTE: The Third party rack kit is required for round hole racks or for square hole racks that do not conform to the adjustment range of the standard rail that ships with the server.	

Options

HP Factory Express	Factory Installation, Racking, and Customization Services	
	Factory Express Server Configuration Level 1	293355-888
	NOTE: Free Installation of HP Options - Installation of HP Options memory, NICs, hard drives, controllers, processors, I/O cards, pre-install standard OEM OS image, and tape drives. Installation fees will apply to all non-HP certified hardware and asset tags.	
	Factory Express Server Configuration Level 2	266326-888
	NOTE: Includes Level 1 Customer Intent of a ProLiant server and options configuration, OS installation, custom image download, IP addressing, network setting, and custom packaging. Customer unique requirements (quick restore creation, cd duplication, test reports, real-time reporting of server MAC address, password, and RILOE). Customer access, validation and control through VPN (price/server).	
	Factory Express Rack Integration Level 3 with 1 – 3 servers or storage enclosures	325736-888
	Factory Express Rack Integration Level 3 with 4 – 9 servers or storage enclosures	232539-888
	Factory Express Rack Integration Level 3 with 10 or more servers or storage enclosures	325735-888
	NOTE: Includes Level 1 Customer Intent for standard mounted servers and storage units plus standard cable mgmt, RAID configuration, servers & storage, power distribution, networking gear and accessories (price/rack).	
	NOTE: Available on ProLiant rack models only.	
	Factory Express Rack Integration Level 4 with 1 – 3 servers or storage enclosures	325734-888
	Factory Express Rack Integration Level 4 with 4 – 9 servers or storage enclosures	232540-888
	Factory Express Rack Integration Level 4 with 10 or more servers or storage enclosures	325733-888
	NOTE: Includes Level 2 Customer Intent plus customer defined cable management and naming convention, customer furnished image download, IP addressing, cluster configurations (SQL, External storage RAID). Quick restore creation, cd duplication, test reports, real-time reporting of server MAC address, password, RILOE). Customer access and validation through VPN (price/rack).	
	NOTE: Available on ProLiant rack models only.	
	Factory Express Rack Integration Level 5 with 1 – 3 servers or storage enclosures	325732-888
	Factory Express Rack Integration Level 5 with 4 – 9 servers or storage enclosures	232541-888
	Factory Express Rack Integration Level 5 with 10 or more servers or storage enclosures	325731-888
	NOTE: Includes Level 4 Customer Intent plus Custom SW layering and extended test, Customer access, validation and control through VPN, Clustered racks with networking gear and / or external storage array, Start-up installation services custom quote. (price/rack).	
	NOTE: Available on ProLiant rack models only.	
	NOTE: Factory Express Engineered Solution Level 6 is a custom solutions available through Factory Express. Please contact your local reseller or Account Manager.	

Options

Service and Support Offerings (HP Care Pack Services)	Hardware Services On-site Service	
	Next Business Day On-site Service, 5-Day x 9-Hour Coverage, 3 Years	U4462A
	Next Business Day On-site Service, 5-Day x 9-Hour Coverage, 3 Years, Electronic	U4462E
	4-Hour On-site Service, 5-Day x 13-Hour Coverage, 3 Years	U4463A
	4-Hour On-site Service, 5-Day x 13-Hour Coverage, 3 Years, Electronic	U4463E
	4-Hour On-site Service, 7-Day x 24-Hour Coverage, 3 Years	U4464A
	4-Hour On-site Service, 7-Day x 24-Hour Coverage, 3 Years, Electronic	U4464E
	6-Hour Call to Repair, On-site Service, 7-Day x 24-Hour Coverage, 3 Years	U4465A
	6-Hour Call to Repair, On-site Service, 7-Day x 24-Hour Coverage, 3 Years, Electronic	U4465E
	Installation & Start-up Services	
	Hardware Installation	U4473A
	Hardware Installation, Electronic	U4473E
	Installation & Start-Up of a ProLiant server and Microsoft or Linux O/S per the Customer Description and/or Data Sheet. To be delivered on a scheduled basis 8am-5pm, M-F, excl. HP holidays.	U4474A
	Installation & Start-Up of a ProLiant server and Microsoft or Linux O/S per the Customer Description and/or Data Sheet. To be delivered on a scheduled basis 8am-5pm, M-F, excl. HP holidays, Electronic	U4474E
	Support Plus	
	Onsite HW support, 8am-9pm, M-F, 4hr response and Microsoft O/S SW Tech support offsite, onsite at HP's discretion, 8am-9pm, M-F 2hr response time excl. HP holidays.	U4475A
	Onsite HW support, 8am-9pm, M-F, 4hr response and Microsoft O/S SW Tech support offsite, onsite at HP's discretion, 8am-9pm, M-F 2hr response time excl. HP holidays, Electronic	U4475E
	Onsite HW support, 8am-9pm, M-F, 4hr response and Linux O/S SW Tech support offsite, onsite at HP's discretion, 8am-9pm, M-F 2hr response time excl. HP holidays.	U4477A
	Onsite HW support, 8am-9pm, M-F, 4hr response and Linux O/S SW Tech support offsite, onsite at HP's discretion, 8am-9pm, M-F 2hr response time excl. HP holidays, Electronic	U4477E
	Support Plus 24	
	Onsite HW support 24x7, 4hr response and Microsoft O/S SW Tech support offsite, onsite at HP's discretion, 24x7 2hr response time incl. HP holidays.	U4476A
	Onsite HW support 24x7, 4hr response and Microsoft O/S SW Tech support offsite, onsite at HP's discretion, 24x7 2hr response time incl. HP holidays, Electronic	U4476E
	Onsite HW support 24x7, 4hr response and Linux O/S SW Tech support offsite, onsite at HP's discretion, 24x7 2hr response time incl. HP holidays.	U4478A
	Onsite HW support 24x7, 4hr response and Linux O/S SW Tech support offsite, onsite at HP's discretion, 24x7 2hr response time incl. HP holidays, Electronic	U4478E

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

Memory

HP ProLiant ML530 Generation 2 (G2)

Advanced ECC Memory Standard

1024 MB (2 x 512-MB) PC1600- ECC SDRAM installed

Advanced ECC Memory Standard Plus Optional Memory

Up to 13,312-MB memory is available with the optional installation of PC1600- ECC SDRAM memory kits

Advanced ECC Memory Standard Replaced with Optional Memory

Up to 16,384-MB of memory is available with the removal of the standard 1024-MB of memory and the optional installation of PC1600-MHz ECC SDRAM memory kits.

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

		Bank A		Bank B		Bank C		Bank D	
		Slot 1	Slot 2	Slot 3	Slot 4	Slot 5	Slot 6	Slot 7	Slot 8
Standard	1024 MB	512 MB	512 MB	Empty	Empty	Empty	Empty	Empty	Empty
Optional	13,312 MB	512 MB	512 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB
Maximum	16,384 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB

Optional Compaq Advanced Memory Protection Configurations

NOTE:

-Online Spare Memory: Bank D is the Online Spare Bank.

-Mirrored Memory: Bank C mirrors Bank A, Bank D mirrors Bank B.

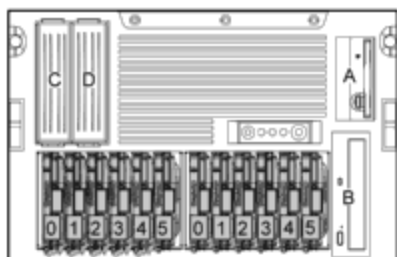
NOTE: This chart does not represent all possible memory configurations.

		Bank A		Bank B		Bank C		Bank D	
		Slot 1	Slot 2	Slot 3	Slot 4	Slot 5	Slot 6	Slot 7	Slot 8
Online	2560 MB	512 MB	512 MB	256 MB	256 MB	Empty	Empty	512 MB	512 MB
Mirrored	3072 MB	512 MB	512 MB	256 MB	256 MB	512 MB	512 MB	256 MB	256 MB

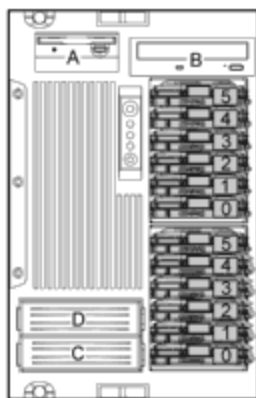
Following are memory options available from HP:

- 512-MB PC1600-MHz Registered ECC SDRAM Memory Option Kit (2 x 256 MB) 187418-B21
- 1024-MB PC1600-MHz Registered ECC SDRAM Memory Option Kit (2 x 512 MB) 187419-B21
- 2048-MB PC1600-MHz Registered ECC SDRAM Memory Option Kit (2 x 1024 MB) 187420-B21
- 4096-MB PC1600-MHz Registered ECC SDRAM Memory Option Kit (2 x 2048 MB) 187421-B21

Storage



- 2X 0 - 5 Two 6 x1 inch Wide Ultra3 SCSI Hard Drive Cages
- A 1.44-MB Diskette Drive
- B 40x IDE CD-ROM
- C, D Two available half height bays for tape backup, DVD, SCSI storage, or optional ML5xx Internal Two Bay Hot Plug Wide SCSI Drive Cage (with fan)



- 2X 0 - 5 Two 6 x1 inch Wide Ultra3 SCSI Hard Drive Cages
- A 1.44-MB Diskette Drive
- B 40x IDE CD-ROM
- C, D Two available half height bays for tape backup, DVD, SCSI storage, or optional ML5xx Internal Two Bay Hot Plug Wide SCSI Drive Cage (with fan)

Drive Support

	Quantity Supported	Position Supported	Controller
Removable Media			
1.44-MB Diskette Drive	Up to 1	A	Integrated
IDE CD-ROM Drive	Up to 1	B	Integrated IDE
DVD-ROM Drive Option Kit	Up to 1	B, C, D	Integrated IDE
ML5xx Internal Two Bay Hot Plug Wide SCSI Drive Cage (with fan)	Up to 1	C, D	Integrated SCSI

Storage

Hard Drives

Ultra320 Hot Pluggable Drives

	Quantity Supported	Position Supported	Controller
1-inch Drives	Up to 12	2X 0-5	Integrated Dual Channel Wide Ultra3 SCSI Adapter
300-GB 10,000 rpm	Up to 14 (With optional Drive Cage and ML5xx Internal Two Bay Hot Plug Wide SCSI Drive Cage)	2X 0-5, C, D	Smart Array 6402/128 Controller
146.8-GB 10,000 rpm			Smart Array 6404/256 Controller
72.8-GB 10,000 rpm			Smart Array 641 Controller
72.8-GB 15,000 rpm			Smart Array 642 Controller
36.4-GB 15,000 rpm			64-bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
			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

External Storage

	Quantity Supported	Position Supported	Host Controller or Adapter
Modular Smart Array 30 Family	Up to 28	External	Smart Array 6402/128 Controller Smart Array 6404/256 Controller Smart Array 642 Controller 64-Bit/133-MHz Dual Channel Ultra320 SCSI Adapter 64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
Modular Smart Array 1000	Please see the Modular Smart Array 1000 QuickSpecs below to determine configuration requirements	External	Please see the Modular Smart Array 1000 QuickSpecs (URL below) for the latest list of supported HBAs
Modular Smart Array 1500 cs	Please see the Modular Smart Array 1500 QuickSpecs below to determine configuration requirements	External	Please see the Modular Smart Array 1500 cs QuickSpecs (URL below) for the latest list of supported HBAs

Modular Smart Array 1000:

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

http://h18000.www1.hp.com/products/quickspecs/11033_na/11033_na.HTML (North America)

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

Maximum Storage Capacity – (Ultra3 Drive Cage, ML5xx Two Bay Hot Plug SCSI Drive Cage, 4 channel controller in all 7 slots & MSA30 enclosures)

Internal	4.20 TB (14 x 300 GB Ultra320 1" Drives)
External	117.60 TB (28 Enclosures each with 14 x 300 GB Ultra320 1" Drives)
Total	121.80 TB

Tape Drives, Tape Autoloaders & Tape Libraries

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

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

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

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



Storage

http://h18000.www1.hp.com/products/quickspecs/North_America/10809.html (North America)

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

NOTE: For complete listing of tape drive offerings see <http://www.hp.com/products1/storage/compatibility/tapebackup/ISS/index.html>

	Quantity Supported	Position Supported	Controller
HP StorageWorks DAT 40 Tape Drive, Internal Hot-Plug	Up to 3 per drive cage.	0-4 per drive cage	Smart Array 6402/128 Controller Smart Array 6404/256 Controller
HP StorageWorks DAT 72 Tape Drive, Internal Hot-Plug	NOTE: drives are 1.5 height devices		Smart Array 642 Controller Smart Array 641 Controller 64-Bit/133-MHz Dual Channel Ultra320 SCSI Adapter 64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
Ultrium 230, Internal	1	C + D	Integrated Dual Channel Wide Ultra3 Adapter
Ultrium 460, Internal			64-Bit/133Mhz Dual Channel Ultra320 SCSI Adapter 64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
HP StorageWorks DAT 72 Tape Drive, Internal	2	C, D	Integrated Dual Channel Wide Ultra3 Adapter
HP StorageWorks DAT 40 Tape Drive, Internal			64-Bit/133Mhz Dual Channel Ultra320 SCSI Adapter
HP StorageWorks DAT 24 Tape Drive, Internal			64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
HP StorageWorks DLT VS80 Tape Drive, Internal	1	C + D	Integrated Dual Channel Wide Ultra3 Adapter
HP StorageWorks SDLT 320 Tape Drive, Internal			64-Bit/133Mhz Dual Channel Ultra320 SCSI Adapter 64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
Ultrium 215, External	Up to 2	External	Integrated Dual Channel Wide Ultra3 Adapter
Ultrium 230, External			64-Bit/133Mhz Dual Channel Ultra320 SCSI Adapter
Ultrium 460, External			64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
HP StorageWorks DAT 72 Tape Drive, External	Up to 2	External	Integrated Dual Channel Wide Ultra3 Adapter
HP StorageWorks DAT 40 Tape Drive, External			64-Bit/133Mhz Dual Channel Ultra320 SCSI Adapter
HP StorageWorks DAT 24 Tape Drive, External			64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
HP StorageWorks DLT VS80 Tape Drive, External	Up to 2	External	Integrated Dual Channel Wide Ultra3 Adapter
			64-Bit/133Mhz Dual Channel Ultra320 SCSI Adapter
			64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
HP StorageWorks SDLT 320 Tape Drive, External	Up to 2	External	Integrated Dual Channel Wide Ultra3 Adapter
			64-Bit/133Mhz Dual Channel Ultra320 SCSI Adapter
			64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
HP StorageWorks DAT 40x6 Tape Autoloader, Internal	1	C+D	64-Bit/133Mhz Dual Channel Ultra320 SCSI Adapter 64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
HP StorageWorks DAT 72x6 Tape Autoloader, External	1 autoloader per SCSI channel	External	64-Bit/133Mhz Dual Channel Ultra320 SCSI Adapter
HP StorageWorks DAT 40x6 Tape Autoloader, External			64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
1/8 Ultrium 460 Tape			

Storage

Autoloader
1/8 SDLT 320 Tape
Autoloader
1/8 Ultrium 230 Tape
Autoloader
1/8 DLT VS80 Tape
Autoloader
SSL1016 Ultrium 460 Tape
Autoloader
SSL1016 SDLT320 Tape
Autoloader
SSL1016 DLT1 Tape
Autoloader

MSL6060 (Ultrium 460 - based) Library	Please reference the MSL Tape Library QuickSpecs to determine configuration requirements	External	64-Bit/133Mhz Dual Channel Ultra320 SCSI Adapter 64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
MSL6030 (Ultrium 460 - based) Library			
MSL5052S (320 SDLT-based) Library			
MSL5030 (Ultrium 230 - based) Library			
MSL5060 (Ultrium 230 - based) Library			

ESL 712e	Please reference the ESL E-Series and ESL9000 Series Tape Libraries QuickSpecs to determine configuration requirements	External	64-Bit/133Mhz Dual Channel Ultra320 SCSI Adapter 64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
ESL 630e			
ESL9322 ETLA			
ESL9595 ETLA			

ESL9000 Series: http://h18000.www1.hp.com/products/quickspecs/11875_div/11875_div.html

Power Specifications

Part Number	230822-001
Spare Kit	231782-001
Operational Input Voltage Range (V rms)	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	600	600	600	600	600	600
Nominal Input Current (A rms)	9.4	8.1	4.4	4.1	3.9	3.6
Max Rated Input Wattage Rating (Watts)	923	909	914	882	870	857
Max. Rated VA (Volt-Amp)	942	928	914	900	887	875
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)	15	17	30	32	34	35
Maximum Inrush Current duration (mS)	20					

System Specifications

	Processor	Memory	HDD	PCI	PS	
ML530 G2 Fully Configured	2	16	12	7	2	
Fully Loaded System Input Wattage (W)	902	888	875	862	850	838
Fully Loaded System Input Current (A rms)	9.2	7.9	4.3	4.0	3.8	3.6
Fully Loaded System Thermal (BTU-Hr)	3076	3029	2984	2940	2898	2856
Fully Loaded System VA (Volt-Amp)	920	906	893	880	867	855
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		

NOTES:

ActiveAnswers Power Calculation

Power calculator is LIVE on ActiveAnswers website. This is an external link.

Follow this link: <http://h30099.www3.hp.com/configurator/powercalcs.asp>.

To drill down to calculators:

- Click on: "ProLiant Servers"
- Click on the Server of interest. Example: ML530 G2
- Click on: "Power Calculator" link (You may need to scroll down to see it.)

Power Specifications

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

Technical Specifications

System Unit – Tower	Dimensions (HxWxD) (with feet/bezel)	20.0 x 12.8 x 27.8 in (50.8 x 32.5 x 70.6 cm)		
	Weight	100 lb (45.36 kg)		
	No hard drives installed, one power supply			
	Input Requirements (per power supply)	Range Input Voltage	100 to 127 VAC/200 to 240 VAC	
		Rated Input Frequency	47 to 63 Hz	
		Input Power	690W @ 110 VAC	
		Rated Input Current	7.6A	
	BTU Rating	2400 BTU/hr		
	SCSI Connectors	Two internal HD68 connectors (supporting Wide Ultra3)		
		One external VHDCI connector (supporting Wide Ultra3)		
		One SCSI knockout		
	Power Supply Output Power (per power supply)	Rated Steady-State Power	600W	
		Maximum Peak Power		
	Acoustic Noise	Idle (Fixed Disk Drives Spinning)		
		L WAd (BELS)	7.0	
Operating (Random Seeks to Fixed Disks)				
L WAd (BELS)		7.1		

System Unit Rack	Dimensions (HxWxD)	12.8 x 17.5 x 25.6 in (32.5 x 44.4 x 65.0 cm)		
	Weight (approximate)	100 lb (45.36 kg)		
	No hard drives installed, one power supply			
	Input Requirements (per power supply)	Range Input Voltage	100 to 127 VAC/200 to 240 VAC	
		Rated Input Frequency	47 to 63 Hz	
		Input Power	690W @ 110 VAC	
		Rated Input Current	7.6A	
	BTU Rating	2400 BTU/hr		
	SCSI Connectors	Two internal HD68 connectors (supporting Wide Ultra3)		
		One external VHDCI connector (supporting Wide Ultra3)		
		One SCSI knockout		
	Power Supply Output Power (per power supply)	Rated Steady-State Power	600W	
		Maximum Peak Power		
	Acoustic Noise	Idle (Fixed Disk Drives Spinning)		
		L WAd (BELS)	6.7	
Operating (Random Seeks to Fixed Disks)				
L WAd (BELS)		6.8		

Technical Specifications

40X Max IDE 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	2,048 bytes
		Mode 2	2,340 bytes, 2,336 bytes
		CD-DA	2,352 bytes
		CD-XA	2,328 bytes
	Interface	IDE (ATAPI)	
	Access Times (typical)	Random	100 ms
		Full-Stroke	150 ms
	Audio Output Level	Line-Out	0.7 VRMS at 47 kOhms
	Data Transfer Rate	Sustained	150 KB/s (1X audio)
		Burst	16.67 Mbytes/sec
	Cache Buffer	128 KB	
	Start-up Time (typical)	< 7 seconds	
	Stop Time	< 4 seconds	
	Laser Parameters	Type	Semiconductor Laser GaAlAs
		Wave Length	780 ± 25 nm
	Operating Conditions	Temperature	41° to 113° F (5° to 45° C)
		Humidity	10% to 80%
Dimensions	(HxWxD, maximum)	1.7 x 5.85 x 8.11 in (4.29 x 14.86 x 20.60 cm)	
	Weight	2.09 lb (0.95 kg)	

Integrated Dual Channel Wide Ultra3 SCSI Adapter	Drives Supported	Up to 15 SCSI devices per channel
	Data Transfer Method	64-bit PCI bus-master
	SCSI Channel Transfer Rate	160 MB/s per channel
	Maximum Transfer Rate per PCI Bus (peak)	267 MB/s
	SCSI Termination	Active Termination
	SCSI Connectors	1 external, 2 internal (68-pin)

Compaq NC3163 Fast Ethernet NIC Embedded 10/100 WOL (Wake On LAN)	Network Interface	10Base-T/100Base-TX
	Compatibility	IEEE 802.3/802.3u compliant
	Data Transfer Method	32-bit bus-master PCI
	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
	Connector	10Base-T Categories 3, 4 or 5 UTP; up to 328 ft (100 m)
	Cable Support	100Base-TX Category 5 UTP; up to 328 ft (100 m)

Technical Specifications

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