

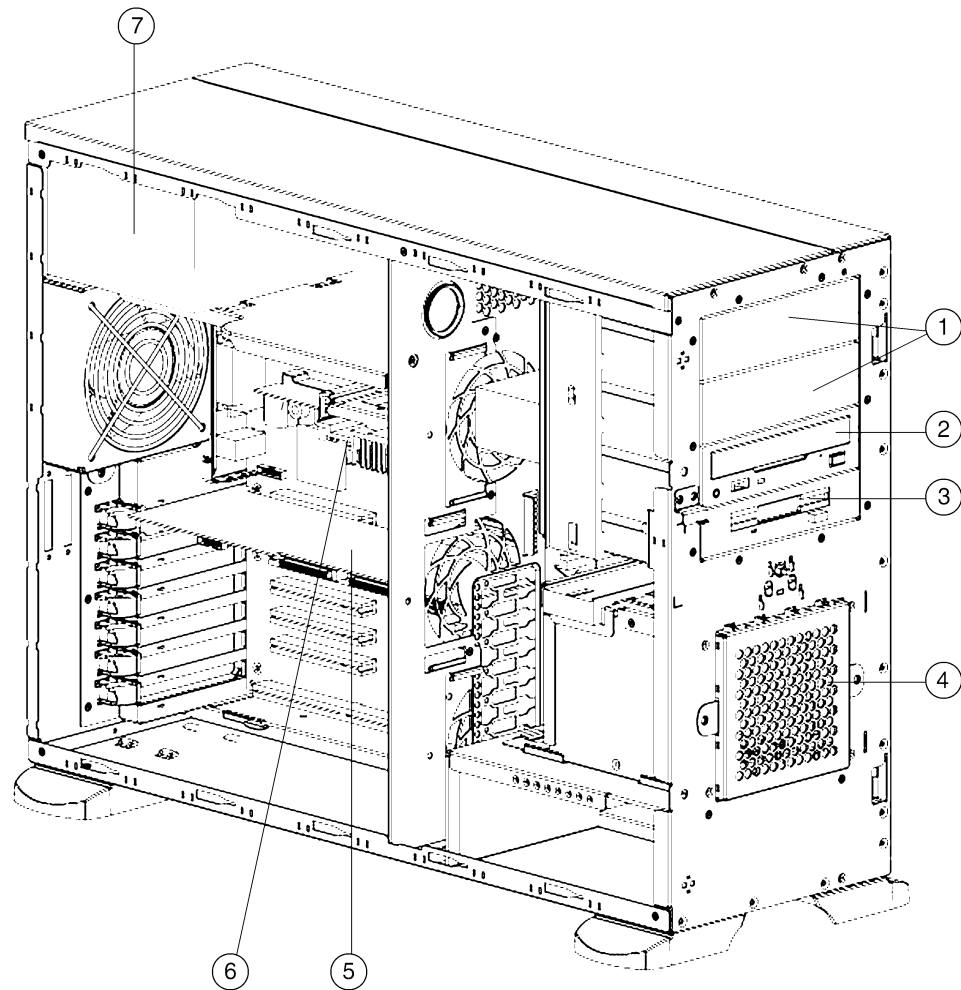
Overview

What's New

- New "Price Break" Bundled 1.0 GHz NHP Models with 12/24-GB DAT Tape Drive and Veritas Backup Exec QuickStart Edition software

At A Glance

- The affordable two-way server that powers your applications today and anticipates your needs for tomorrow
- ServerWorks (RCC) 3.0 Chipset with 133-MHz Front Side Bus
- Hot Plug Models available
- Intel Pentium® III 1.0 GHz FC-PGA (Flip Chip-Pin Grid Array) processor (dual processor capability) with 256-KB second level ECC cache standard (full speed)
- 128-MB PC133-MHz Registered ECC SDRAM DIMM memory standard, expandable to 4 GB
- 133-MHz GTL Bus Design
- Six available PCI slots: four 64-bit PCI, two 32-bit PCI
- USB ports
- Integrated Dual Channel Wide Ultra3 SCSI Adapter
- Compaq NC3163 Fast Ethernet NIC (embedded) PCI 10/100 WOL (Wake On LAN)
- Support for up to four 1" Wide Ultra2/Ultra3 SCSI hard drives
- Internal storage capacity of up to 145.6-GB (4 x 36.4 GB)
- Internal mass storage capacity of up to 218.4 GB (including the two removable media bays)
- Standard 4 x 1" Wide Ultra2/Ultra3 Drive Cage (Hot Plug or Non-Hot Plug depending on Model)
- New Streamlines ID bezel
- Compaq ProLiant RBSU (ROM-based setup utility) support
- Compaq Insight Manager, SmartStart, ROM-based BIOS Setup Utility, and Automatic Server Recovery (ASR)
- Protected by Compaq Services, including a three-year, next business day, on-site, limited global warranty and extended Pre-Failure Warranty which covers processors, memory, and hard drives — Certain restrictions and exclusions apply. Consult the Compaq Customer Support Center at 1-800-345-1518 for details.



1. 5.25-inch Available Removable Media Bays
2. 32x or 40x IDE CD-ROM
3. 1.44-MB Diskette Drive
4. 4 x 1" Hot Plug or Non-Hot Plug Hard Drive Cage
5. Server Feature Board
6. Processor (second of two available sockets) with heatsink
7. 300-Watt Power Factor Correction (PFC) Power Supply

COMPAQ

Standard Features

Processor	Intel Pentium III 1.0 GHz FC-PGA Processor	
Cache Memory	Integrated 256-KB Level 2 ECC cache (full speed)	
Upgradability	Upgradable to dual processing	
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 (Total)	6 (6 available)
	64-bit, PCI	4 (4 available)
	32-bit, PCI	2 (2 available)
Storage Controller	Integrated Dual Channel Wide Ultra3 SCSI Adapter	
Storage <i>One of the following</i>	Diskette Drives	1.44 MB
	CD-ROM	32x or 40x IDE CD-ROM Drive
	Hard Drives	None
		(1) 9.1 GB Wide Ultra3 SCSI 10,000 rpm 1" hard drive
	Maximum Internal Storage	145.6 GB (internal drive cage only) (4 x 36.4 GB) 218.4 GB (internal drive cage in addition to placing 36.4-GB (1") hard drives in the two removable media bays; brackets required to place these drives come in the bezel blanks that come with the server)
	External Storage	Two external SCSI knockouts available, but requires optional ProLiant ML350 Internal to External SCSI Cable Option Kit (159547-B21)
Interfaces	Parallel	1
	Serial	2
	Pointing Device (Mouse)	1
	Graphics	1
	Hot Plug Keyboard	1
	Network RJ-45	1
	USB	2
	External SCSI knockouts	2
Graphics	Integrated ATI RAGE XL Video Controller with 4-MB SDRAM Video Memory	
Form Factor	Tower or optional 5U rack conversion kit (158438-B21)	
Compaq Software	Compaq <i>Insight Manager</i> ™	The comprehensive system management tool that monitors the operation of Compaq servers, and clients
	Compaq <i>Insight Manager XE</i> ™	Compaq Insight Manager XE leverages the power of the Internet to provide web-based systems management, and plays a key role in Compaq's strategy to simplify IT management. Compaq Insight Manager XE reduces systems management cost, improves operational efficiency and effectiveness, and minimizes systems downtime.
	Compaq <i>SmartStart</i> ™	The server configuration and software integration tool from Compaq SmartStart version supported (minimum): SmartStart 4.90
	Array Configuration Utility (ACU) with Smart Array Controllers	Same easy to use yet powerful graphical user interface (GUI) configuration utility and easy to navigate wizards for all Smart Array Controllers

Standard Features

Industry Standard Compliance	ACPI 2.0 Compliant PCI 2.2 Compliant WOL Support Microsoft Logo certifications
Manageability	Compaq Insight Manager Compaq Insight Manager XE Compaq Remote Insight Lights-Out Edition (optional) Compaq ProLiant R-BSU (ROM-Based Setup Utility) Automatic Server Recovery (ASR) 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 Parallel and serial interface control Disk configuration lock Power switch security
Power Supply	300 Watts, Power Factor Correction (PFC), 100 to 240 VAC Rated Input Voltage (Auto-sensing), CE Mark Compliant
Required Cabling	For required cabling information, refer to the Compaq Web site at http://www.compaq.com/products/servers/proliantML350 . Note: This Web site is available in English only.
OS Support	Microsoft Windows NT Server Microsoft BackOffice Small Business Server Microsoft Windows 2000 Novell NetWare Novell NetWare Small Business Suite SCO OpenServer 5.0.5 SCO UnixWare IBM OS/2 Warp Family LINUX (RedHat, S.U.S.E., TurboLinux Server, Caldera eServer) Note: For a more complete and up-to-date listing of supported OSs and versions, please visit our OS Support Matrix at: ftp://ftp.compaq.com/pub/products/servers/os-support-matrix-310.pdf . Note: This Web site is available in English only. Note: For an up-to-date listing of the latest drivers available for the Compaq ProLiant ML350, please see: http://www.compaq.com/support/files/server/us/index.html . Note: This Web site is available in English only.
Bundled Models include	Certain ProLiant ML350 Models ship with a Tape Bundle package at a substantially discounted price (available in North America only). This package includes the Compaq 12/24-GB DAT Tape Drive and VERITAS Backup Exec Quick Start Edition Software. Note: For details on the software, please see: ftp://ftp.compaq.com/pub/products/servers/QuickStart_Edition_Details.pdf Note: This Web site is available in English only.
Service and Support	Compaq Services provides a wide range of service offerings, including a three-year, limited warranty fully supported by a worldwide network of resellers and service providers, lifetime toll-free 7 x 24 hardware technical phone support, and Pre-Failure Warranty coverage of hard drives, memory, and processors. Disaster recovery services are available through partnership with Comdisco. Note: Certain restrictions and exclusions apply. Consult the Compaq Customer Support Center at 1-800-345-1518 for details.

Standard Features

Models

ML350T02 P1000-256KB, 128MB, 9.1GB NHP Tape <i>160247-003</i>	Processor(s)	(1) Intel Pentium III FC-PGA 1.0 GHz Processor standard (up to 2 supported)
	Cache Memory	Integrated 256-KB Level 2 ECC
	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 Wide Ultra3 SCSI Adapter
	Hard drive	(1) 9.1 GB Wide Ultra3 SCSI 10,000 rpm 1" NHP drive ships standard
	Internal Storage	218.4 GB maximum (with optional hard drives)
	Bundled with	12/24-GB DAT Tape Drive, and VERITAS Backup Exec Quick Start Edition Software Note: For details on the software, please see: ftp://ftp.compaq.com/pub/products/servers/QuickStart_Edition_Details.pdf Note: This Web site is available in English only.
	Optical Drive	32x or 40x IDE CD-ROM Drive
	Form Factor	Tower or optional 5U rack conversion kit
ML350T02 P1000-256KB, 128MB, HP <i>195471-001</i>	Processor	(1) Intel Pentium III FC-PGA 1.0 GHz Processor standard (up to 2 supported)
	Cache Memory	Integrated 256-KB Level 2 ECC
	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 Wide Ultra3 SCSI Adapter
	Hard drive	None ship standard
	Internal Storage	218.4 GB maximum (with optional hard drives)
	Optical Drive	32x or 40x IDE CD-ROM Drive
	Form Factor	Tower or optional 5U rack conversion kit
	ML350T01 P1000-256KB, 128MB, NHP <i>160247-001</i>	Processor(s)
Cache Memory		Integrated 256-KB Level 2 ECC
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 Wide Ultra3 SCSI Adapter
Hard drive		None ship standard
Internal Storage		218.4 GB maximum (with optional hard drives)
Optical Drive		32x or 40x IDE CD-ROM Drive
Form Factor		Tower or optional 5U rack conversion kit

Options

Compaq ProLiant ML350 1.0 GHz Unique Options	Pentium III P1000-256K (FC-PGA) Processor Option Kit	207068-B21
	Compaq ProLiant ML350 Hot Plug Drive Cage Upgrade Option Kit (4 x 1 inch)	161275-B21
	Compaq ProLiant ML350 Tower to Rack Conversion Kit	158438-B21
	ProLiant ML350 Internal to External SCSI Cable Option Kit	159547-B21
Processor	Pentium III P1000-256K (FC-PGA) Processor Option Kit <i>Note: This kit is unique to the ProLiant ML350 (1.0 GHz and higher) systems due to the specific heatsink that comes with this Processor Option Kit.</i>	207068-B21
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
	64-MB PC133-MHz Registered ECC SDRAM DIMM Memory Option Kit	128276-B21
Optical Drives	12X DVD-ROM Drive Option Kit (carbon)	217053-B21
Internal Storage	Compaq ProLiant ML350 Hot Plug Drive Cage Upgrade Option Kit (4 x 1 inch) <i>Note: When upgrading a Non-Hot Plug Model to Hot Plug, the purchase of the Hot Plug Drive Cage Upgrade Option Kit (161275-B21) is required to support hot plug (Ultra2/Ultra3) hard drives.</i>	161275-B21
Hard Drives	Wide Ultra3 SCSI – Universal Hot Plug	
	36.4-GB Wide Ultra3 SCSI 10,000 rpm Drive (1 inch)	176496-B22
	18.2-GB Wide Ultra3 SCSI 10,000 rpm Drive (1 inch)	142673-B22
	9.1-GB Wide Ultra3 SCSI 10,000 rpm Drive (1 inch)	142671-B22
	<i>Note: When upgrading a Non-Hot Plug Model to Hot Plug, the purchase of the Hot Plug Drive Cage Upgrade Option Kit (161275-B21) is required to support hot plug (Ultra2/Ultra3) hard drives.</i>	
	Wide Ultra3 SCSI – Non-Hot Plug	
	36.4-GB Wide Ultra3 SCSI 10,000 rpm Drive (1 inch)	176497-B21
	18.2-GB Wide Ultra3 SCSI 10,000 rpm Drive (1 inch)	142674-B21
	9.1-GB Wide Ultra3 SCSI 10,000 rpm Drive (1 inch)	142672-B21
	Wide Ultra2 SCSI – Universal Hot Plug	
	18.2-GB Wide Ultra2 SCSI Drive (1 inch)	388144-B22
	9.1-GB Wide Ultra2 SCSI Drive (1 inch)	123065-B22
	<i>Note: When upgrading a Non-Hot Plug Model to Hot Plug, the purchase of the Hot Plug Drive Cage Upgrade Option Kit (161275-B21) is required to support hot plug (Ultra2/Ultra3) hard drives.</i>	
	Wide Ultra2 SCSI – Non-Hot Plug	
18.2-GB Wide Ultra2 SCSI Drive (1inch)	388143-B21	
9.1-GB Wide Ultra2 SCSI Drive (1 inch)	349526-B21	

Options

Storage Controllers	Compaq RAID LC2 Controller	188044-B21
	Smart Array 431 Controller	127695-B21
	Smart Array 3200 Controller	295643-B21
	Smart Array 5302/32 Controller	166207-B21
	Smart Array 5302/64 Controller	124992-B21
	Smart Array 5304/128 Controller	158939-B21
	Ultra3 Channel Expansion Module for Smart Array 5300 Controller	153507-B21
	128MB Cache Module for Smart Array 5302 Controller	153506-B21
	Advanced Data Guarding Module for Smart Array 5302 Controller	199371-B21
	64-bit/66-MHz Single Channel Wide Ultra3 SCSI Adapter	154457-B21
64-bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter	129803-B21	
Wireless HAP Solution	Compaq WL410 Wireless SMB Access Point	191811-001
	Compaq WL510 Wireless Enterprise Access Point	216709-001
Communications	Compaq NC3122 Dual Port Fast Ethernet NIC	317450-B21
	Compaq NC3123 Fast Ethernet NIC PCI 10/100 WOL	174830-B21
	Compaq NC3134 Fast Ethernet NIC 64 PCI Dual Port 10/100	138603-B21
	Compaq NC3135 Fast Ethernet Module Dual 10/100 Upgrade Module for NC3134 and NC3131	138604-B21
	Compaq NC6132 Gigabit Module 1000 SX Upgrade Module for NC3134 and NC3131	338456-B23
	Compaq NC3133 Fast Ethernet Module 100FX Upgrade Module for NC3134 and NC3131	338456-B25
	Compaq NC6136 Gigabit Server Adapter, 64-bit/66MHz, PCI, 1000 SX	203539-B21
	Compaq NC7131 Gigabit Server Adapter, 64-bit/66MHz, PCI, 10/100/1000-T	158575-B21
	Compaq NC4621 Token Ring NIC PCI WOL	379956-B21
	56K v.90 PCI Modem	171914-001
Internal 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.	
	Internal 20/40-GB DAT DDS-4 Tape Drive	157769-B21
	Internal 12/24-GB DAT Drive (opal)	295513-B22
	Internal AIT 50-GB Tape Drive	157766-B21
	Internal AIT 35-GB, LVD	216884-B21
	20/40-GB DAT DDS-4 8 Cassette Autoloader, Internal	166504-B21
	Internal 40/80-GB DLT Enhanced Drive	146196-B24
	Internal 20/40-GB DLT Drive (opal)	340743-B22
	12-GB DDS-3 DAT Cassette (10 pack)	295515-B21
	DAT Cleaning Cassette	242781-001
	DDS-4 Media (10 pack)	152842-001
	20/40-GB DAT DDS-4 8 Cassette Magazine with Media	171532-B21
	AIT 50-GB Data Cassette (5 pack)	152841-001
	AIT 35-GB Data Cassette (5 pack)	402371-B21
	AIT Cleaning Cassette	402374-B21

Options

Internal Tape Drives <i>(continued)</i>	DLT IV Data Cartridges (single pack)	295194-B21
	DLT IV Data Cartridges (7 pack)	295192-B21
	DLT Cleaning Cartridge	199704-001

Note: Please see the Compaq 20/40-GB DAT Drive, Compaq 12/24-GB DAT Drive, Compaq AIT 50-GB Tape Drive, Compaq AIT 35-GB LVD Tape Drive, Compaq 20/40-GB DAT DDS-4 8 Cassette Autoloader, Compaq 40/80-GB DLT Drive, or the Compaq 20/40-GB DLT Drive QuickSpecs for a listing of the latest O/S Support details, at:

http://www5.compaq.com/products/quickspecs/North_America/10233.html

Note: This Web site is available in English only.

Internal Hot Plug Tape Drives (Supported in Hot Plug drive bays)	Internal AIT 50-GB, Hot Plug	215487-B21
	Internal AIT 35-GB, LVD, Hot Plug	216886-B21
	Internal 20/40-GB DAT, Hot Plug	215488-B21

Note: The AIT 50-GB Hot Plug, AIT 35-GB, LVD Hot Plug, and the 20/40-GB DAT Hot Plug drives are also supported internally by the StorageWorks 4200/4300 families. Please see the Compaq Hot Plug Tape QuickSpecs for additional supported options please see the following:

http://www5.compaq.com/products/quickspecs/North_America/10233.html

Note: This Web site is available in English only.

Management Options	Compaq Remote Insight Lights-Out Edition	157866-001
---------------------------	--	------------

Monitors	TFT8020 18-inch Flat Panel Monitor (opal)	326100-001
	TFT8020 18-inch Flat Panel Monitor (carbon)	159244-001
	TFT8020 18-inch Flat Panel Monitor (opal, bulked-packed, two monitor heads per box)	173610-001
	TFT7010 17-inch Flat Panel Monitor (opal)	222399-001
	TFT7010 17-inch Flat Panel Monitor (carbon)	222401-001
	TFT5010 15-inch Flat Panel Monitor (opal)	104741-001
	TFT5010 15-inch Flat Panel Monitor (carbon)	154486-001
	TFT5005 15-inch Flat Panel Monitor (opal)	201431-001
	TFT5005 15-inch Flat Panel Monitor (carbon)	201430-001
	P1210 Color Monitor	210290-xxx
	P910 Color Monitor	210254-xxx
	P710 Color Monitor	210189-xxx
	V710 Color Monitor	187895-xxx
	V570 Color Monitor	228114-xxx
	S910 Color Monitor	138485-xxx
S710 Color Monitor	152991-xxx	

CRT Code Key	Dash #	Description
	-001	NA Kit with US Power Cord
	-002	Carbon model with US Power Cord
	-003	Touch Screen model with US Power Cord
	-004	NAFTA model with US Power Cord (Made in Mexico)
	-005	NA Kit with Powered Speakers
	-006	GSA model with US Power Cord
	-007	NH MPR model with US power cord (Made in Mexico)
	-B24	TCO model without power cord (Digital Classic)

Note: All models above are NH.

Options

External Tape Drives	External 20/40-GB DAT DDS-4 Tape Drive	157770-001	
	External AIT 50-GB Tape Drive	157767-001	
	External AIT 35-GB, LVD Tape Drive	216885-001	
	20/40-GB DAT 8 Cassette Autoloader External	166505-001	
	External 40/80-GB DLT Enhanced Drive	146197-B22	
	External 20/40-GB DLT Drive (Opal)	340744-B22	
	12-GB DDS-3 DAT Cassette (10 pack)	295515-B21	
	DAT Cleaning Cassette	242781-001	
	DDS-4 Media (10 pack)	152842-001	
	20/40-GB DAT 8 Cassette Magazine with Media	171532-B21	
	AIT 50-GB Data Cassette (5 pack)	152841-001	
	AIT 35-GB Data Cassette (5 pack)	402371-B21	
	AIT Cleaning Cassette	402374-B21	
	DLT IV Data Cartridges (single pack)	295194-B21	
	DLT IV Data Cartridges (7 pack)	295192-B21	
	DLT Cleaning Cartridge	199704-001	
	<p>Note: Please see the Compaq 20/40-GB DAT Drive, Compaq AIT 50-GB Tape Drive, Compaq AIT 35-GB LVD Tape Drive, Compaq 20/40-GB DAT DDS-4 8 Cassette Autoloader, Compaq 40/80-GB DLT Drive, or the Compaq 20/40-GB DLT Drive for an up-to-date listing of the latest O/S Support details, please see the following: http://www5.compaq.com/products/quickspecs/North_America/10233.html Note: This Web site is available in English only.</p>		
	SDLT Tape Drives	SDLT 110/220 External	192103-001
		SDLT 110/220 Internal, All	192106-B21
SDLT Tape Cartridge (5 pack)		188527-B21	
SDLT Tape Cartridge (10 pack)		188527-B22	
SDLT Tape Cartridge (20 pack)		188527-B26	
<p>Note: Please see the Compaq SDLT 110/220 QuickSpecs for an up-to-date listing of the latest O/S Support details, please see the following: http://www5.compaq.com/products/quickspecs/North_America/10809.html Note: This Web site is available in English only.</p>			
External Storage - Tower	Compaq StorageWorks Enclosure Model 4314T (tower)	190210-001	
	<p>Note: The Compaq StorageWorks Enclosure 4300 Family support the Wide Ultra2/Ultra3 1-inch Hot Plug Hard Drives.</p>		
	SCSI Storage Expander II	332609-001	
	StorageWorks Enclosure 4200 Redundant Power Supply Option	119826-B21	
	StorageWorks Enclosure 4200 Ultra3 Single Bus I/O Module Option	190212-B21	
	StorageWorks Enclosure 4200 Ultra3 Dual Bus I/O Module Option	190213-B21	
	StorageWorks Enclosure Tower to Rack Conversion Kit	150213-B21	

Options

Mainstream Library Solution	MSL5026SL Library, SDLT 110/220, 1 Drive, LVD, Table Top	231822-B21
	MSL5026SL Library, SDLT 110/220, 2 Drives, LVD, Table Top	231822-B22
	TL891DLX DLT Library, 1 drive Tower, LVD	157300-B21
	TL891DLX DLT Library, 2 drive Tower, LVD	157300-B22
	Add-On 40/80-GB Drive for TL891DLX, LVD	157303-B21
	Add-On 40/80-GB Drive for TL8x1HVD	157304-B21
	SAN Access Module for Smart Array 5302 Controller	216687-B21
	Note: SAN Access Module for Smart Array 5302 Controller is required to support the LVD based libraries (TL891DLX).	
	Smart Array 5302/FC Controller	216688-B21
	Note: Smart Array 5302/FC Controller is required to support the LVD based libraries (TL891DLX).	
	64-Bit/66Mhz Dual Channel Wide Ultra3 SCSI Adapter	129803-B21
	Note: 64-Bit/66Mhz Dual Channel Wide Ultra3 SCSI Adapter is required to support the LVD based libraries (MSL5026, TL891DLX).	
	MiniLibrary Data Unit (Available for TL891DLX DLT Libraries only.)	128670-B21
	MiniLibrary Expansion Unit, LVD (Available for TL891DLX DLT Library only.)	157301-B21
	MSL5026 pass-through Mechanism Kit (Available for MSL5026 Library only.)	231824-B21
	MiniLibrary pass-through Mechanism Kit (Available for TL891DLX DLT Libraries only.)	120880-B21
	10 Slot Magazine (Available for TL891DLX DLT Libraries only.)	120881-B21
	MSL5K Field Upgrade SDLT 110/220 Drive, LVD	231823-B22
	MSL5000 Dual Magazine Pack	232136-B21
	MSL5026 Table Top to Rack Mount Conversion Kit, Compaq racks (Available for MSL5026 Libraries only.)	231894-B22
Note: Please see the Compaq StorageWorks MSL5026, or the TL891DLX Automated DLT Tape Library Solution QuickSpecs for additional information including Upgrade Kits, Accessories, ProLiant Connectivity Kits, Host Bus Adapters, SCSI Cable Kits, and Localization Kits and additional options needed for a complete solution at: http://www5.compaq.com/products/quickspecs/North_America/10809.html Note: This Web site is available in English only.		
Small System Library Solution	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 Library Pass Thru with Transport	175312-B21
	SSL2020 AIT Library Pass Thru Extender	175312-B22
	AIT 50GB Drive Add-On LVD Drive for SSL2020 AIT Library	175197-B21
	19 Slot Magazine for SSL2020 AIT Library	175198-B21
	AIT 50-GB Data Cassette (5 pack)	152841-001
	AIT Cleaning Cassette	402374-B21
	SAN Access Module for Smart Array 5302 Controller	216687-B21
	Note: SAN Access Module for Smart Array 5302 Controller is required to support the LVD based libraries (SSL2020).	
	Smart Array 5302/FC Controller	216688-B21
	Note: Smart Array 5302/FC Controller is required to support the LVD based libraries (SSL2020).	
	64-Bit/66Mhz Dual Channel Wide Ultra3 SCSI Adapter	129803-B21
	Note: 64-Bit/66Mhz Dual Channel Wide Ultra3 SCSI Adapter is required to support the LVD based libraries (SSL2020).	
	Tabletop to Rackmount Upgrade Kit for SSL2020 AIT Library, Compaq Rack	175199-B21

Options

Small System Library Solution <i>(continued)</i>	Tabletop to Rackmount Upgrade Kit for SSL2020 AIT Library, RETMA racks	175199-B22
<p>Note: Please see the AIT Automated DLT 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://www5.compaq.com/products/quickspecs/North_America/10809.html</p> <p>Note: This Web site is available in English only.</p>		
Uninterruptible Power Systems - Tower	Compaq Pro UPS 500 (300 Watt) 120V	136386-001
	UPS Model T700 (700VA, 500 Watt), Low Voltage	204015-001
	UPS Model T1000 (100 to 127 Volt/1000 Volt Amp)	242688-001
	UPS Model T1500 (100 to 127 Volt/1440 Volt Amp)	242688-003
	UPS Model T2000 (100 to 127 Volt/1920 Volt Amp)	242688-005
	Multi-Server UPS Card <i>(Not available for UPS T700 or UPS 500)</i>	123508-B21
	Scalable UPS Card <i>(Not available for UPS T700 or UPS 500)</i>	123509-B21
	SNMP-EN Adapter <i>(Not available for UPS T700 or UPS 500)</i>	347225-B21
	High to Low Voltage Transformer (250VA)	388643-B21
Rack Conversion Kit	Compaq ProLiant ML350 Tower to Rack Conversion Kit	158438-B21
Other	Internal Wide Ultra3 Cable Option Kit, NHP	166389-B21
	Internal Wide Ultra3 Cable Option Kit, HP	166390-B21
	ProLiant ML350 Internal to External SCSI Cable Option Kit	159547-B21
CarePacs	Hardware Services 4-Hour On-site Service	
	4-Hour On-site Service, 5-Day x 9-Hour Coverage, 3 Years (2-5-2 Part Number for U.S.)	FM-EL4HR-36
	4-Hour On-site Service, 5-Day x 9-Hour Coverage, 3 Years (2-5-2 Part Number for Canada)	FP-EL4HR-36
	4-Hour On-site Service, 5-Day x 9-Hour Coverage, 3 Years (6-3 Part Number for U.S.)	162676-002
	4-Hour On-site Service, 5-Day x 9-Hour Coverage, 3 Years (6-3 Part Number for Canada)	162676-122
	4-Hour On-site Service, 7-Day x 24-Hour Coverage, 3 Years (2-5-2 Part Number for U.S.)	FM-EL724-36
	4-Hour On-site Service, 7-Day x 24-Hour Coverage, 3 Years (2-5-2 Part Number for Canada)	FP-EL724-36
	4-Hour On-site Service, 7-Day x 24-Hour Coverage, 3 Years (6-3 Part Number for U.S.)	162675-002
	4-Hour On-site Service, 7-Day x 24-Hour Coverage, 3 Years (6-3 Part Number for Canada)	162675-122
	Installation & Start-up Services	
	Hardware Installation (2-5-2 Part Number for U.S.)	FM-ELINS-IN
	Hardware Installation (2-5-2 Part Number for Canada)	FP-ELINS-IN
	Hardware Installation (6-3 Part Number for U.S.)	401791-002
	Hardware Installation (6-3 Part Number for Canada)	401791-122
	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 2 days start-up activity, configure print & network access services, and orientation (2-5-2 Part Number for U.S.)	FP-MSTAR-01

Options

CarePacs (continued)

Installation & Start-up Services (continued)

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 2 days 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 Novell NetWare Operating System plus up to 2 days start-up activity, configure print & network access services, and orientation (2-5-2 Part Number for U.S.)	FP-NSTAR-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 2 days start-up activity, configure print & network access services, and orientation (6-3 Part Number for U.S.)	240008-002

CarePac 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 (2-5-2 Part Number for U.S.)	FP-M01C1-36
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 (2-5-2 Part Number for U.S.)	FP-N01C1-36
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 (6-3 Part Number for U.S.)	239968-002
5 x 9 4-hour H/W, 5 x 9 2-hour O/S (NT & NetWare), three years (2-5-2 Part Number for Canada)	FP-CZ101-36
5 x 9 4-hour H/W, 5 x 9 2-hour O/S (NT & NetWare), three years (6-3 Part Number for Canada)	155323-122

CarePac 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 (2-5-2 Part Number for U.S.)	FP-M02C1-36
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 (2-5-2 Part Number for U.S.)	FP-N02C1-36
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

CarePac Priority Services for ProLiant Servers – Priority Plus Level

7 x 24 4-hour H/W, 7 x 24 1-hour O/S (NT & NetWare), SPS account review, three years (2-5-2 Part Number for Canada)	FP-CZ301-36
7 x 24 4-hour H/W, 7 x 24 1-hour O/S (NT & NetWare), SPS account review, three years (6-3 Part Number for Canada)	155331-122

Options

CarePags (continued)

CarePaq 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 (2-5-2 Part Number for U.S.)	FP-M04C1-36
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 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 (2-5-2 Part Number for U.S.)	FP-M24C1-36
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 (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 (2-5-2 Part Number for U.S.)	FP-N04C1-36
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 (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 (2-5-2 Part Number for U.S.)	FP-N24C1-36
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

CarePaq Priority Services for ProLiant Servers – Priority Premier Level

7 x 24 2-hour H/W, 7 x 24 1-hour O/S (NT & NetWare), SPS Account Review, Proactive Management Review, named S/w rep, three years (2-5-2 Part Number for Canada)	FP-CZ501-36
7 x 24 2-hour H/W, 7 x 24 1-hour O/S (NT & NetWare), SPS Account Review, Proactive Management Review, named S/w rep, three years (6-3 Part Number for Canada)	155335-122

CarePaq Priority Services for ProLiant Servers – Priority Executive Premier Level

7 x 24 2-hour H/W, 7 x 24 30-minute O/S (NT & NetWare), SPS Account Review, Proactive Management Review, named S/w rep, three years (2-5-2 Part Number for Canada)	FP-CZ701-36
7 x 24 2-hour H/W, 7 x 24 30-minute O/S (NT & NetWare), SPS Account Review, Proactive Management Review, named S/w rep, three years (6-3 Part Number for Canada)	155339-122

Note: For more information, customer/resellers can contact www.Compaq.com/services.

Note: This Web site is available in English only.

Memory

Compaq ProLiant ML350 1.0 GHz Models with FC-PGA

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 of 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.

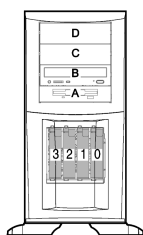
Note: Charts do not represent all possible memory configurations.

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

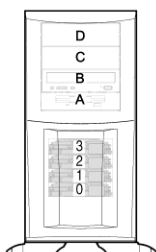
Following are memory options available from Compaq:

- 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
- 64-MB PC133-MHz Registered ECC SDRAM DIMM Memory Option Kit 128276-B21

Storage



Non-Hot Plug Drive Cage



Hot Plug Drive Cage

0, 1, 2, 3	4 x 1 inch (25.4 mm) SCSI Hard Drive Bays
A	3.5 inch (88.9 mm) Diskette Drive
B	32x or 40x CD-ROM
C, D	Available half height bay

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 2	B, C	Integrated IDE
DVD-ROM Drive Option Kit	Up to 2	B, C	Integrated IDE
Hard Drives			
<i>Wide Ultra2 Hot Pluggable Drives</i>			
1-inch 18.2-GB 9.1-GB	Up to 4	0-3	Integrated Dual Channel Wide Ultra3 SCSI Adapter Compaq RAID LC2 Controller Smart Array 431 Controller Smart Array 3200 Controller Smart Array 5300 Controller 64-bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter 64-bit/66-MHz Single Channel Wide Ultra3 SCSI Adapter
<i>Wide Ultra2 SCSI – Non-Hot Plug</i>			
1-inch 18.2-GB 9.1-GB	Up to 6	0-3 & C, D	Integrated Dual Channel Wide Ultra3 SCSI Adapter Compaq RAID LC2 Controller Smart Array 431 Controller Smart Array 3200 Controller Smart Array 5300 Controller 64-bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter 64-bit/66-MHz Single Channel Wide Ultra3 SCSI Adapter
<i>Wide Ultra3 Hot Pluggable Drives</i>			
1-inch 36.4-GB 10,000 rpm 18.2-GB 10,000 rpm 9.1-GB 10,000 rpm	Up to 4	0-3	Integrated Dual Channel Wide Ultra3 SCSI Adapter Compaq RAID LC2 Controller Smart Array 431 Controller Smart Array 3200 Controller Smart Array 5300 Controller 64-bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter 64-bit/66-MHz Single Channel Wide Ultra3 SCSI Adapter
<i>Wide Ultra3 SCSI – Non-Hot Plug</i>			
1-inch 36.4-GB 10,000 rpm 18.2-GB 10,000 rpm 9.1-GB 10,000 rpm	Up to 6	0-3 & C, D	Integrated Dual Channel Wide Ultra3 SCSI Adapter Compaq RAID LC2 Controller Smart Array 431 Controller Smart Array 3200 Controller Smart Array 5300 Controller 64-bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter 64-bit/66-MHz Single Channel Wide Ultra3 SCSI Adapter

Storage

DRIVE SUPPORT *(continued)*

	Quantity Supported	Position Supported	Controller
External Storage			
StorageWorks Enclosure 4300 Family (supports Wide Ultra2/Ultra3 1-inch drives)	Up to 7	External	Integrated Dual Channel Wide Ultra3 SCSI Adapter Smart Array 431 Controller Smart Array 3200 Controller Smart Array 5300 Controller 64-bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter 64-bit/66-MHz Single Channel Wide Ultra3 SCSI Adapter
SCSI Storage Expander II	Up to 3	External	Integrated Dual Channel Wide Ultra3 SCSI Adapter 64-Bit Dual Channel Wide Ultra2 SCSI Adapter Compaq Dual Channel Wide-Ultra SCSI-3 Controller Compaq Wide-Ultra SCSI-3 Controller

Maximum Storage Capacity – (StorageWorks Enclosure)

Internal	218.4 GB (4 x 36.4 GB + 2 x 36.4 GB hard drives)
External	3.567 TB (14 x 36.4 GB) x 7
Total	3.785 TB

Tape Drives

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://www5.compaq.com/products/quickspecs/North_America/10233.html

Note: This Web site is available in English only.

20/40-GB DAT DDS-4 Tape Drive Internal 12/24-GB DAT Drive	Up to 2	C	Integrated Dual Channel Wide Ultra2 SCSI Adapter 64-bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter 64-bit/66-MHz Single Channel Wide Ultra3 SCSI Adapter
20/40-GB DAT DDS-4 8 Cassette Autoloader	Up to 2	C	Integrated Dual Channel Wide Ultra2 SCSI Adapter 64-bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter 64-bit/66-MHz Single Channel Wide Ultra3 SCSI Adapter
Internal 40/80-GB DLT Enhanced Internal 20/40-GB DLT	Up to 1	C	Integrated Dual Channel Wide Ultra2 SCSI Adapter 64-bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter 64-bit/66-MHz Single Channel Wide Ultra3 SCSI Adapter
AIT 50-GB Internal AIT 35-GB, LVD Internal	Up to 2	C, D	Integrated Dual Channel Wide Ultra2 SCSI Adapter 64-bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter 64-bit/66-MHz Single Channel Wide Ultra3 SCSI Adapter
SDLT 110/220-GB, Internal	Up to 1	A, B	64-bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter 64-bit/66-MHz Single Channel Wide Ultra3 SCSI Adapter
AIT 50-GB External AIT 35-GB, LVD External	2	External	Integrated Dual Channel Wide Ultra2 SCSI Adapter 64-bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter 64-bit/66-MHz Single Channel Wide Ultra3 SCSI Adapter
External 40/80-GB DLT Enhanced External 20/40-GB DLT	Up to 3	External	Integrated Dual Channel Wide Ultra2 SCSI Adapter 64-bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter 64-bit/66-MHz Single Channel Wide Ultra3 SCSI Adapter
SDLT 110/220-GB, External	Up to 2	External	64-bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter 64-bit/66-MHz Single Channel Wide Ultra3 SCSI Adapter
SSL2020 AIT Mini-Library	Up to 5	External	64-Bit Dual Channel Wide Ultra2 SCSI Adapter 64-Bit/66MHz Dual Channel Wide Ultra3 SCSI Adapter SAN Access Module for Smart Array 5302 Controller Smart Array 5302/FC Controller
MSL5026 Library	2 drives per SCSI channel	External	64-Bit Dual Channel Wide Ultra2 SCSI Adapter 64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter
TL891DLX DLT Library	2 drives per SCSI channel	External	64-bit Dual Channel Wide Ultra2 SCSI Adapter 64-bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter SAN Access Module for Smart Array 5302 Controller Smart Array 5302/FC Controller

Technical Specifications

System Unit	Dimensions (HxWxD) (with feet/bezel)	18.5 x 10.5 x 26 inches/46.99 x 26.67 x 66.04 cm
	Dimensions (HxWxD) (without feet/bezel)	17.5 x 10.5 x 24 inches/44.45 x 26.67 x 60.96 cm
	Weight (approximate)	60 lbs/27.24 kg (without hard drives)
Input Requirements (per power supply)	Rated Input Voltage	90 to 132 VAC/180 to 264 VAC
	Rated Input Frequency	100 to 120 VAC/200 to 240 VAC
	Input Power	492W @ 110 VAC
	Rated Input Current	6A/3A
Line Frequency	50 to 60 Hz	
BTU Rating	1,560 BTU/hr	
SCSI Connectors	Two internal HD68 connectors (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 (159547-B21) and either of the two SCSI knockouts.)	
Power Supply Output Power (per power supply)	Rated Steady-State Power	300W
	Maximum Peak Power	400W
Temperature Range	Operating	50° to 95° F/10° to 35° C (No direct sustaining sunlight) Altitude range derating: 33.8° F/1° C per 984.25 ft/300 m up to 9,842.5 feet/3,000 m
	Storage (up to one year)	-4° to 140° F/-20° to 60° C
	Altitudes up to 9,842.5 ft/3,000m	
	Shipping (up to 72 hours)	-40° to 140° F/-40° to 60° C
	Altitudes up to 29,855.5 ft/9100m	
Relative Humidity (non-condensing)	Operating	20% to 80%
	Non-operating	5% to 90%
Acoustic Noise	Idle	
	(Fixed Disk Drives Spinning)	
	L _{WA} d (BELS)	5.02
	L _{pAm} (dBA)	35.9
	Operating (Random Seeks to Fixed Disks)	
	L _{WA} d (BELS)	5.87
L _{pAm} (dBA)	40.9	

Technical Specifications

1.44-MB Diskette Drive	Diskette Size	3.5 inch/88.9 mm	
	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)	500/250 Kb/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		

Hot Plug Wide Ultra2 SCSI Hard Drives	18.2 GB 388144-B22	Capacity	18209.3 MB		
		Height	1 inch/25.4 mm		
		Width	4.0 in/101.6 mm		
		Interface	Wide Ultra2 SCSI		
		Transfer Rate Synchronous (Maximum)	80 MB/s		
	Seek Time (typical reads, including settling)	Single Track	0.8 ms		
		Average	7.0 ms		
		Full-Stroke	15 ms		
		Rotational Speed	7200 rpm		
		Physical Configuration	Logical Blocks 17,773,524		
		Operating Temperature	50° to 95° F/10° to 35° C		
	9.1 GB 123065-B22	Capacity	9100.0 MB		
		Height	1 inch/25.4 mm		
			Width	4.0 inches/101.6 mm	
			Interface	Wide Ultra2 SCSI	
			Transfer Rate Synchronous (Maximum)	80 MB/s	
		Seek Time (typical reads, including settling)	Single Track	0.8 ms	
			Average	7.0 ms	
Full-Stroke			15 ms		
Rotational Speed			7200 rpm		
		Physical Configuration	Logical Blocks 17,773,524		
		Operating Temperature	50° to 95° F/10° to 35° C		

Technical Specifications

Non-Hot Plug Wide Ultra2 SCSI Hard Drives	18.2 GB	Capacity	18209.3 MB
	388143-B21	Height	1 inch/25.4 mm
		Width	4.0 in/101.6 mm
		Interface	Wide Ultra2 SCSI
		Transfer Rate Synchronous (Maximum)	80 MB/s
		Seek Time (typical reads, including settling)	Single Track 0.8 ms Average 7.0 ms Full-Stroke 15 ms
		Rotational Speed	7200 rpm
		Physical Configuration	Logical Blocks 35,565,080
		Operating Temperature	50° to 95° F/10° to 35° C
		9.1 GB	Capacity
	349526-B21	Height	1 inch/25.4 mm
		Width	4.0 in/101.6 mm
		Interface	Wide Ultra2 SCSI
		Transfer Rate Synchronous (Maximum)	80 MB/s
		Seek Time (typical reads, including settling)	Single Track 0.8 ms Average 7.1 ms Full-Stroke 16 ms
		Rotational Speed	7200 rpm
		Physical Configuration	Logical Blocks 17,773,524
		Operating Temperature	50° to 95° F/10° to 35° C
Hot Plug Wide Ultra3 SCSI Hard Drives	36.4 GB 10K	Capacity	36419.2 MB
	176496-B22	Height	1 inch/25.4 mm
		Width	4.0 inches/101.6 mm
		Interface	Wide Ultra3 SCSI
		Transfer Rate Synchronous (Maximum)	160 MB/s
		Seek Time (typical reads, including settling)	Single Track 0.9 ms Average 5.7 ms Full-Stroke 13 ms
		Rotational Speed	10,000 rpm
		Physical Configuration	Logical Blocks 71,132,000
		Operating Temperature	50° to 95° F/10° to 35° C
		18.2 GB 10K	Capacity
	142673-B22	Height	1 inch/25.4 mm
		Width	4.0 inches/101.6 mm
		Interface	Wide Ultra3 SCSI
		Transfer Rate Synchronous (Maximum)	160 MB/s
		Seek Time (typical reads, including settling)	Single Track 0.9 ms Average 5.5 ms Full-Stroke 12 ms
		Rotational Speed	10,000 rpm
		Physical Configuration	Logical Blocks 35,566,080
		Operating Temperature	50° to 95° F/10° to 35° C

Technical Specifications

Hot Plug Wide Ultra3 SCSI Hard Drives <i>(continued)</i>	9.1 GB 10K	Capacity	9100.0 MB
	142671-B22	Height	1 inch/25.4 mm
		Width	4.0 inches/101.6 mm
		Interface	Wide Ultra3 SCSI
		Transfer Rate Synchronous (Maximum)	160 MB/s
		Seek Time (typical reads, including settling)	Single Track 0.9 ms Average 5.0 ms Full-Stroke 12 ms
		Rotational Speed	10,000 rpm
		Physical Configuration	Logical Blocks 17,773,524
		Operating Temperature	50° to 95° F/10° to 35° C
	40X Max IDE CD-ROM Drive	Disk	Applicable Disk
		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)		< 7 seconds	
Stop Time		< 4 seconds	
Laser Parameters	Type	Semiconductor Laser GaA1As	
	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 inches/4.29 x 150 x 208 cm	
	Weight	2.09 lbs/0.95 kg	

Technical Specifications

32X Max IDE CD-ROM Drive	Disk	Applicable Disk	CD-ROM (Mode 1 and 2) CD-DA, CD-XA (Mode 2, Form 1 and 2), CD-I ready Photo CD (Single and Multi-session) Mixed Mode (Audio and Data combined) CD-WO
		Capacity	650 MB
		Diameter	4.7 inches, 3.15 inches/12 cm, 8 cm
		Rotational Speed	5200 rpm maximum
		Center Hole	0.6 inch/15 mm diameter
		Thickness	1.2 mm
		Track Pitch	1.6 μ m
		Block Size	Mode 1
		Mode 2	2,340, 2,336, 1,024 bytes
		CD-DA	2,352 bytes
		CD-XA	2,328 bytes
	Interface	IDE (ATAPI)	
	Access Times (typical)	Random	100 ms
		Full-Stroke	150 ms
	Audio Output Level	Line-Out	0.7 VRMS at 47 kOhms
		Headphone	0.6 VRMS at 32 Ohms (maximum volume)
	Data Transfer Rate	Sustained	150 KB/s (single)
		Burst	150 to 4800 KB/s
	Cache Buffer	128 KB	
	Start-up Time (typical)	< 7 seconds	
	Stop Time	< 4 seconds	
	Laser Parameters	Type	Semiconductor Laser GaA1As
		Wave Length	780 \pm 25 nm
		Divergence Angle	53.5 $^{\circ}$ \pm 1.5 $^{\circ}$
		Output Power	0.14mW
	Operating Conditions	Temperature	41 $^{\circ}$ to 113 $^{\circ}$ F/5 $^{\circ}$ to 45 $^{\circ}$ C
		Humidity	10% to 80%
	Dimensions	(HxWxD, maximum)	1.69 x 5.91 x 8.2 inches/4.29 x 15.01 x 20.8 cm
		Weight	2.09 lbs/0.95 kg

Technical Specifications

Integrated Dual Channel Wide Ultra3 SCSI Adapter	Drives Supported	Up to 28 SCSI devices (14 per channel)
	Data Transfer Method	64-bit PCI bus-master
	SCSI Channel Transfer Rate	80 MB/s per channel
	Maximum Transfer Rate per PCI Bus (peak)	133 MB/s per channel
	SCSI Protocols	Wide Ultra2 SCSI Wide-Ultra SCSI-3 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
	Compaq RAID LC2 Controller	Protocol
SCSI Electrical Interface		Low Voltage Differential (LVD)
Drives Supported		Wide Ultra3 and Wide Ultra2 SCSI hard drives (Ultra3 drives will operate at 80 MB/s maximum transfer rate)
SCSI Port Connectors		Single Internal SCSI port
Data Transfer Method		32-bit PCI bus-master
Maximum Transfer Rate on System Bus (peak)		133 MB/s
Simultaneous Drive Transfer Channels		One
Channel Transfer Rate		80 MB/s per channel
Software Upgradable Firmware		Yes
Cache Memory		8-MB Cache Performance Engine
RAID Support		0, 1, 0+1, 5
		<i>Note: A minimum of three drives is required for RAID5.</i>
64-bit/66-MHz Single Channel Wide Ultra3 SCSI Adapter	Drives Supported	Up to 14 SCSI devices
	Storage Capacity	254.8 GB
	Data Transfer Method	64-bit/66-MHz PCI bus-master
	SCSI Channel Transfer Rate	160 MB/s per channel
	Maximum Transfer Rate per PCI Bus (peak)	532 MB/s per channel
	SCSI Protocols	Wide Ultra3 SCSI Wide Ultra2 SCSI Wide-Ultra SCSI-3 Fast-Wide SCSI-2 Fast SCSI-2
	Electrical Protocol	Low Voltage Differential (LVD)
	SCSI Termination	Active Termination
	External SCSI Connectors	One 68-pin Wide-Ultra SCSI-3 connector
	Internal SCSI Connectors	Two 68-pin Wide-Ultra SCSI-3 connectors (one LVD and one SE) One 50-pin Narrow Ultra connector

Technical Specifications

64-bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter	Drives Supported	Up to 28 SCSI devices (14 per channel)
	Storage Capacity	509.6 GB
	Data Transfer Method	64-bit/66-MHz PCI bus-master
	SCSI Channel Transfer Rate	160 MB/s per channel
	Maximum Transfer Rate per PCI Bus (peak)	532 MB/s per channel
	SCSI Protocols	Wide Ultra3 SCSI Wide Ultra2 SCSI Wide-Ultra SCSI-3 Fast SCSI-2
	Electrical Protocol	Low Voltage Differential (LVD)
	SCSI Termination	Active Termination
	External SCSI Connectors	Two 68-pin VHDCI connectors
	Internal SCSI Connectors	Two 68-pin Wide-Ultra SCSI-3 connectors One 50-pin Narrow Ultra connector
	Smart Array 5300 Controller	Data Compatible with all Smart Array Controllers
Instant Upgrades to other Smart Array Controllers		Yes
Consistent Software Manageability Tools		Yes
PCI Bus		64-bit, 66MHz
PCI Peak Data Transfer Rate		533 MB/s
SCSI Protocols Supported		Ultra3, Ultra2, Wide-Ultra
SCSI Peak Data Transfer Rate		640 MB/s total, 160 MB/s per channel
Channels		2, 4
SCSI Ports (external/internal)		2 channel model: 2/2 4 channel model: 4/2
Drives Supported (maximum)		56
<i>Note: Drives Supported (maximum) is based on use of Compaq StorageWorks Enclosure 4200 family. (14 hard disk drive enclosure)</i>		
Cache		128, 64 or 32 MB battery backed read-write
RAID Support		0, 1, 0+1, 5, Advanced Data Guarding
<i>Note: For customers who have purchased the SA-5304/128 a quick firmware upgrades to enable the technology is available from www.compaq.com/smartarray.</i>		
<i>Note: This Web site is available in English only.</i>		
<i>Note: RAID Support: Advanced Data Guarding (RAID ADG) is available with 128-MB versions of the SA-5300 only.</i>		
Logical Drives (maximum)		32
Online Configuration		Yes
Online Capacity Expansion		Yes
Logical Drive Capacity Extension		Yes
Online Stripe Size Migration	Yes	
Online RAID Level Migration	Yes	
Online Spare Support	Yes	
Automatic Data Recovery	Yes	
Drive Roaming	Yes	
Redundant Controllers	No	

Technical Specifications

Smart Array 3200 Controller	Data Compatible with all Smart Array Controllers	Yes
	Instant Upgrades to other Smart Array Controllers	Yes
	Consistent Software Manageability Tools	Yes
	PCI Bus	64-bit, 33 MHz
	PCI Peak Data Transfer Rate	266 MB/s
	SCSI Protocols Supported	Ultra2, Wide-Ultra
	SCSI Peak Data Transfer Rate	320 MB/s total, 80 MB/s per channel
	Channels	4
	SCSI Ports (external/internal)	4/2
	Drives Supported (maximum)	56
	<i>Note: Drives Supported (maximum) is based on use of Compaq StorageWorks Enclosure 4200/4300 family (14 hard disk drive enclosure).</i>	
	Cache	64-MB battery backed read-write
	RAID Support	0, 1, 0+1, 4, 5
	Logical Drives (maximum)	32
	Online Configuration	Yes
	Online Capacity Expansion	Yes
	Logical Drive Capacity Extension	Yes
	Online Stripe Size Migration	Yes
	Online RAID Level Migration	Yes
	Online Spare Support	Yes
Automatic Data Recovery	Yes	
Drive Roaming	Yes	
Redundant Controllers	No	

Smart Array 431 Controller	Data Compatible with all Smart Array Controllers	Yes
	Instant Upgrades to other Smart Array Controllers	Yes
	Consistent Software Manageability Tools	Yes
	PCI Bus	64-bit, 66MHz
	PCI Peak Data Transfer Rate	533 MB/s
	SCSI Protocols Supported	Ultra3, Ultra2, Wide-Ultra
	SCSI Peak Data Transfer Rate	160 MB/s
	Channels	1
	SCSI Ports (external/internal)	1/1
	Drives Supported (maximum)	14
	<i>Note: Drives Supported (maximum) is based on use of Compaq StorageWorks Enclosure 4200/4300 family (14 hard disk drive enclosure).</i>	
	Cache	16-MB cache engine
	RAID Support	0, 1, 0+1, 5
	Logical Drives (maximum)	32
	Online Configuration	Yes
	Online Capacity Expansion	Yes
	Logical Drive Capacity Extension	Yes
	Online Stripe Size Migration	Yes
	Online RAID Level Migration	Yes
	Online Spare Support	Yes
Automatic Data Recovery	Yes	
Drive Roaming	Yes	
Redundant Controllers	No	

Technical Specifications

Video Controller	Controller Chip	ATI RAGE XL
	Video DRAM	4-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	
Connector	VGA	