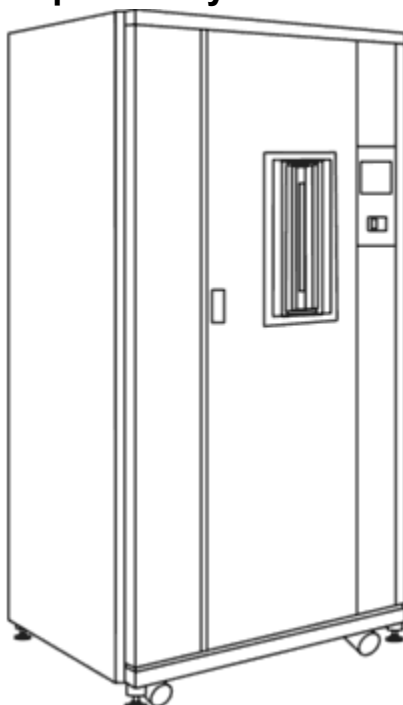


Overview

HP StorageWorks ESL9322L1 Tape Library



HP StorageWorks ESL9322L1 Tape Library

Models

The HP StorageWorks ESL9322L1 Tape Library comes with up to eight HP LTO Ultrium 230 tape drives (number of drives determined by SKU chosen) and has two models with 222 and 322 slots respectively.

ESL9322L1, 222 slot, 2 LTO Ultrium 230 Drive, Enterprise Library	301927-B22
ESL9322L1, 222 slot, 8 LTO Ultrium 230 Drive, Enterprise Library	301927-B28
ESL9322L1, 322 slot, 2 LTO Ultrium 230 Drive, Enterprise Library	301928-B22
ESL9322L1, 322 slot, 8 LTO Ultrium 230 Drive, Enterprise Library	301928-B28

Library Upgrade Kits

ESL9000 LTO Ultrium 230 Upgrade Drive in hot plug canister	301930-B21
ESL9322L1, slot upgrade 222 To 322 slots	293588-B21
LVD Extender kit (Required for HBA to Library SCSI cable lengths exceeding 10 m)	221249-B21
ESL9000 UNIVERSAL LOAD PORT (2X4 slots)	302254-B21
Embedded Data Router, ESL 9000 embedded fibre option E2400 - Base, 2 FC X 4 LVD SCSI ports (Includes ESL9000 cPCI card cage)	262665-B21
ESL9000 Embedded Fibre Option upgrade (no card cage included; SKU 262665-B21 must be installed before this SKU can be installed)	262664-B21

The ESL9322L1 comes with a complete 222 or 322 slot library system configured with the associated number of drives, installation and user's manual, one-piece LTO Ultrium 230 media, a copy of the Hewlett-Packard Storage Management Solutions CD. Customers are required to also purchase the necessary number of add-on drives, host bus adapters, SCSI cables, LTO Ultrium media, country specific power cords (pair) and applications software licenses in order to complete the library solution.

Due to the size and weight of the unit, a pre-sales site survey is required. The pre-sales site survey document is on http://www.compaq.com/support/techpubs/installation_guides/146587-001.html

NOTE: This Web site is available in English only.

Overview

Installation services can be ordered separately from Hewlett-Packard Services as part of each library order (requires scheduling with local Hewlett-Packard Services provider).

NOTE: Does not include special site work, which may be required as a result of not meeting minimum site survey requirements.

Product Highlights

The Ultimate in High-Capacity Unattended Backup and Restore

The StorageWorks tape library ESL9322L1 provides the ultimate in high-capacity unattended backup and restore for customers with large server pools and centralized backup and restore requirements, serviced by network attached storage devices or storage area networks. The consolidation of tape backup into a single shared storage device requires these devices to provide both high capacity and high performance, and the need for redundancy and high availability. With High availability features, component level redundancy and high capacity, the ESL9322L1 can provide years of fully automated operation for backup, save and restore, and hierarchical storage management of critical data, it is qualified with a variety of industry-standard backup application solutions and operating systems. With 222 or 322 slots and up to eight Hot plug LTO Ultrium 230 drives, the ESL9322L1 offers up to 32.2 TB of native data storage and native transfer rates up to 432 GB/hr.

The ESL9000 Series Library Family

StorageWorks ESL9000 family is a series of high performance, highly reliable enterprise tape libraries from Hewlett-Packard. The ESL9322L1 enterprise library is part of this family. With its high availability feature set, the ESL9000 family provides for maximum uptime. Based on PCI backplane architecture, the ESL9000 family also provides a simple upgrade path for future "plug-in" features.

High Availability

As data becomes more and more mission critical, and downtime becomes more costly to the enterprise, customers are requiring high availability consolidated storage solutions which offer hot swappable components and redundancies of key operating sub-systems (tape drives, controllers, power supplies). With redundant power distribution, power supplies, and cooling fans, coupled with hot pluggable drive carriers, power supplies and cooling fan modules, the ESL9322L1 offers the best in high availability for continuous operation.

Hot Pluggable Drives

The ESL9322L1 uses hot pluggable LTO Ultrium 230 drive carriers, allowing drive replacement and additional LTO Ultrium 230 drives to be added for capacity expansion without interrupting backup and restore functions. These hot pluggable drive trays allow for easy scalability of performance, as well as provide an easy upgrade path towards future drive technologies.

NOTE: The ESL9322L1 accepts only library ready drives specifically modified for use in the ESL9322L1 library.

Proven Reliability

Using LTO Ultrium 230 tape drives, and proven library robotics with a rating of 2,000,000 load/unload cycles, the ESL9322L1 provides the necessary high reliability.

LTO Ultrium Technology

LTO Ultrium tape technology uses a "best of breed" technology approach, taking the best features from other tape technologies and combining them into a single new technology. Designed for the demanding environment libraries, and the inclusion of innovative features such as Data Rate matching mean that the LTO Ultrium tape drive has a proven mean time before failure (MTBF) rating of 250,000 hours at a 100 percent duty cycle, making the LTO Ultrium a truly enterprise class tape drive. The Linear Tape Open (LTO) format is an open standard. Data written on HP StorageWorks Ultrium1 tape drives can be interchanged directly with other Ultrium 1 tape drives from other vendors.

Product Highlights

Manageability The ESL9322L1 library configurations are fully supported through Insight Manager v7.0, providing information to administrators for both robotic and tape status changes, and fault status of redundant components. Hewlett-Packard TSMC (tape storage management console) software provides diagnostics and easy firmware upgrade capabilities. Other data and automation manageability features, including multi-host direct connectivity, are provided via specific, third party applications software packages.

Multi-unit Scalability The ESL 9322 has the capability for multi-unit scalability; up to five library modules can be scaled together in a "virtual library" using Passthrough kit. The ESL9322L1 can be scaled with models in the ESL9000 family.
**Multi-unit scalability planned for future availability and is not available at launch.*

O/S Support For the most current compatibility list, please refer to the OS/Application Compatibility matrix.

Server Support	ProLiant Servers	ProLiant DL760	DL380/G2
			ProLiant ML750
		ProLiant DL580/G2	ML350
		ProLiant ML 570	ML330G2
		ML530/G2	
	HP-UX servers	Superdome	rp2450/2470 (A class)
		rp8400	K Class
		rp7400 (N class)	D Class
		rp5400 series (L Class)	
	HP Netserver	HP lxr8500	HP lh3000
		HP lh6000	HP lc2000r
		HP lh6000r	HP lp2000r
		HP lt6000r	HP lp1000r
		HP tc4100	HP e200
		HP tc3100	HP e800

SCSI Controllers Supported	ProLiant Adapters	66MHz Ultra 3 LVD, dual channel controller	129803-B21
			Ultra 3 LVD, single channel controller
	HP-UX servers	U2 LVD single port	A5149A
		U2 LVD dual port	A5150A
		U3 LVD single port	A6828
		U3 LVD dual port	A6829
		LVD single port	A4999A
	HP Netserver	Adaptec	AHA 29160
		Adaptec	AHA 39160

Product Highlights

Fibre Channel Controllers	ProLiant Servers	HBA (lp952)	FCA-2101
		HBA (NT lp8000)	KGPSA-CB
	HP-UX servers	FC	A6684A
		FC	A6685A
		1G FC	A5158A
		2G FC	A6795A
	HP Netserver	Emulex	LP8000-F1
		Emulex	LP9000
		Qlogic	QLA-2200F

Fibre Channel Routers	FC router e2400
	FC Router M2402 (supported on HP EBS SAN solutions only)

Application Support	Hewlett-Packard currently supports the following backup/restoration applications software packages:	(Under direct SCSI attach and FC SANs): HP OpenView Storage Data Protector 5.0 HP Omniback 4.1 VERITAS Backup Exec 8.6 Computer Associates BrightStor ARCserve2000 Legato NetWorker v6.1.2 VERITAS NetBackup v3.4.3, v4.5 For the latest updated compatibility matrix for ISV backup software supported, go to http://www.compaq.com/products/storageworks/ebs/EBScompatmatrix.html
		NOTE: This Web site is available in English only.
Currently supported	Automation and Network Utilities HP Tape Storage Management Console (v2.3 for NT 2000, 2.0 for Netware) MRU (media robot utility) v1.4 (Windows®/NT® 2000 only) HP Library and Tape Tools v2.9	

Device/ISV/OS Matrix LTO Ultrium Models	Windows NT SP6a	Windows 2000 SP2	NetWare 5.1 SP3	Solaris v7	Solaris v8	HPUX 11.0	HPUX 11.i	Linux RedHat 7.2	AIX 4.3.3
Direct SCSI Attach									
VERITAS NetBackup 4.5	x	x		x	x	x	x		x
VERITAS NetBackup 3.4.3	x	x		x	x	x	x		x
Legato NetWorker 6.1.2	x	x				x	x		
VERITAS Backup Exec 8.6	x	x							
CA BrightStor ARCserve 2000	x	x						x	
Omniback 4.1	x	x	x	x	x	x	x	x	x
HP EBS SAN									
VERITAS NetBackup 4.5	x	x				x	x		
VERITAS NetBackup 3.4.3	x	x				x	x		
Legato NetWorker 6.1.2	x	x				x	x		
VERITAS Backup Exec 8.6	x	x							
CA BrightStor ARCserve 2000	x	x							
HP (Surestore) SAN									
VERITAS NetBackup 4.5	x	x		x	x	x	x		x



Product Highlights

VERITAS NetBackup 3.4.3	x	x		x	x	x	x		x
Legato NetWorker 6.1.2	x	x				x	x		
VERITAS Backup Exec 8.6	x	x							
CA BrightStor ARCserve 2000	x	x							
Omniback 4.1	x	x	x	x	x	x	x		
HP Data Protector 5.0	x	x	x	x	x	x	x		

HP Installation and HP Care Pack Information

HP Installation and HP Care Pack Information HP Services provides a three-year, limited warranty, fully supported by a worldwide network of resellers and service providers, and also provides hardware technical phone support. In addition, available service offerings include a full range of hardware and software services:

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

Hewlett-Packard Service and Warranty Support

Additional warranty protection and/or HP installation packages can be purchased for the ESL9322L1 library products:

Software Product Services

- Stand-alone telephone support
- Rights to a new license
- Media and documentation updates

Hardware Product Services

- Installation services
- On-site maintenance (includes warranty support)
- Response time upgrades during the warranty period
- Post-warranty coverage

For additional hardware installation and maintenance information please refer to the URLs listed below:

<http://h18005.www1.hp.com/services/carepaq/us/hardware/>
<http://h18005.www1.hp.com/services/carepaq/us/install/>

For EMEA:

<http://h18005.www1.hp.com/services/carepaq/global/>
 or contact your local Global Services Department.

Warranty Upgrade Options

- Response - Upgrade on-site response from next business day to same day 4-hours
- Coverage - Extend hours of coverage from 5 days x 9 hours to 7 days x 24 hours
- Duration - Select duration of coverage for a period of 1 or 3 years

Additional Warranty protection and/or Hewlett-Packard Installation packages can be purchased for the ESL9322L1 library products:

Additional Warranty protection	Description	2-5-2 Part Number	6-3 Part Number
	1 Year 9x5with4 hour response	FM-E74HR-12	309164-002
	3 Year 9x5with 4 hour response	FM-E74HR-36	309165-002
	5 Year 9x5 with 4 hour response	FM-E74HR-60	309166-002
	1 Year 24x7 with 4 hour response	FM-E7724-12	309167-002
	3 Year24x7 with 4 hour response	FM-E7724-36	309168-002
	5 Year 24x7 with 4 hour response	FM-E7724-60	309169-002
	3 Year 9x5 with next day response	FM-E7XHW-3	309170-002
	5 Year9x5 with next day response	FM-E7XHW-60	309171-002

HP Installation and HP Care Pack Information

Installation Services (NA)	Description	2-5-2 Part Number	6-3 Part Number
	For library SKUs (0 to 8 drive units)	FM-T6INS-IN	163463-002
	For passthrough mechanism kit	FM-T7INP-IN	215330-002

NOTE: Certain restrictions and exclusions apply. Consult the Hewlett-Packard Customer Support Center for details.

EMEA HP Care Pack PS Information	Sample part numbers
	Basic Installation Service FP-INSTA-IN

- HP Care Pack is defined as an upgrade to the product warranty attribute, available for a specific duration and hours of coverage.
- HP Care Pack is not available for less than the product's warranty duration.
- HP Care Pack is available for sale anytime during the warranty period for most products, but the commencement date will be the same as the Warranty Start Date (delivery date to end user customer). Proof of purchase may be required.
- HP Care Pack services are prepaid.

Customized Installation Services (including installation of vendor backup software) and contract based support services are available by contacting your local Global Services department

Related Options

The ESL9322L1L1 solution includes the following related options:

	Description	UPC Code	Part Number
ESL9322L1L1 Library System	ESL9322L1 222 slot 2 LTO Ultrium 230 Drive Enterprise Library	613326561386	301927-B22
	ESL9322L1 222 slot 8 LTO Ultrium 230 Drive Enterprise Library	613326562703	301927-B28
	ESL9322L1 322 slot 2 LTO Ultrium 230 Drive Enterprise Library	613326562741	301928-B22
	ESL9322L1 322 slot 8 LTO Ultrium 230 Drive Enterprise Library	613326562765	301928-B28

Supplied with each Library Unit

Library Unit (pre-configured with drives)
 Documentation Kit
 Documentation CD including translations
 Users Guide
 Unpacking and Installation Guide
 Pre-Installation Site Survey
 Diagnostic CD
 Diagnostic Software Guide
 Warranty Card
 Safety Card
 Driver CD
 (1) Ultrium 230 Media Cartridge
 Bar Code Labels
 Cleaning Labels
 (2) Keys
 SCSI Terminators (1 per drive, installed)
 Diagnostic Cable (for PC attach)

Supplied with each library

2 Line Cords (IEC 320 C19), US/Canada

Power Cord (Pair Required)	ESL9000 POWER CORDS 2X, US/CANADA/MEX* <i>*(shipped with all units)</i>	743172935649	146210-001
	ESL9000 POWER CORDS 2X, SE ASIA/INDIA	743172935625	146210-AR1
	ESL9000 POWER CORDS 2X, CENTRAL EUROPE	743172935632	146210-021
	ESL9000 POWER CORDS 2X, AUS/CHINA/NZL	743172935670	146210-011
	ESL9000 POWER CORDS 2X, SWITZERLAND	743172935656	146210-111
	ESL9000 POWER CORDS 2X, UK/HONG KONG	743172935663	146210-031
	ESL9000 POWER CORDS 2X, ITALY	743172935687	146210-061
	ESL9000 POWER CORDS 2X, DENMARK	743172935694	146210-081
ESL9000 POWER CORDS 2X, JAPAN	743172935700	146210-291	

Related Options

Drive, capacity, and memory upgrade kits	ESL9000 field upgrade LTO Ultrium 230 LVD drive in hot plug canister	613326562826	301930-B21
	ESL9322L1, slot upgrade 222 TO 322 slots*	613326518946	293588-B21
	ESL9000 5 MB Memory Module for ESL9198 & ESL9326 libraries, (required to support firmware versions 3.00 and later)	613326380215	274673-B21

NOTE: *Serial number of your existing library is required when ordering these capacity upgrade SKUs, please enter the serial number in the comments section of the purchase order, and inform your Secondary Storage Product Manager.

Media and Bar Code Labels	HP LTO Ultrium data cartridge		C7971A
	HP LTO Ultrium universal cleaning cartridge		C7978A
	HP Ultrium Barcode labels, 100 pack		C7970B

SCSI Cables	Wide/Wide SCSI cable, 5 m	743172633910	328215-001
	Wide/Wide SCSI cable, 10 m	743172633927	328215-002
	Wide/Wide SCSI cable, 15 m	743172633934	328215-003
	Wide/Wide SCSI cable, 20 m*	743172633941	328215-004
	SCSI Cable, VHDCI/Wide, 6 ft	743172660831	341176-B21
	SCSI Cable, VHDCI/Wide, 12 ft	743172660848	341177-B21

* Requires 221249-B21 LVD extender kit

Check the cable-adapter matrix for tape libraries on:

<ftp://ftp.compaq.com/pub/products/storageworks/tape-and-optical-storage/adapter-cable-matrix.pdf>

NOTE: This Web site is available in English only.

SCSI Host Bus Adapter/Hewlett-Packard Fibre Channel to SCSI Router (optional)	Host Bus adapter for SCSI connectivity from server to tape library in direct SCSI environment		
	Network Storage Router, Embedded FC Router to connect SCSI Library to Fibre Channel Hub/Switch		

SCSI Host Bus Adapters	ProLiant/Netserver		
	64-bit/66 MHz PCI dual channel Wide Ultra3 SCSI adapter	743172876379	129803-B21
	Ultra 3 LVD, single channel controller	743172991447	154457-B21
	HP-UX		
	U2 LVD single port		A5149A
	U2 LVD dual port		A5150A
	U3 LVD single port		A6828
	U3 LVD dual port		A6829
	HP Netserver adapters		
	Adaptec AHA 29160		C7474A
	Adaptec AHA 39160		P3413A

Related Options

Fibre Host Bus Adapters	ProLiant adapters		
	FCA-2101 HBA (lp952)		245299-B21
	KGPSA-CB HBA (NT lp8000)		176479-B21
	HP-UX server adapters		
	FC		A6685A
	1G FC		A5158A
	2G FC		A6795A
	FC		A6684A
Network Storage Router (required for SAN configuration)	Network Storage Router M2402 (2FC X 4 LVD SCSI) (supported only on HP EBS SAN solution)		262653-B21
	Embedded Data Router, ESL 9000 embedded fibre option E2400 - Base 2 FC X 4 LVD SCSI ports (Includes card cage for installation of embedded router which is required for configuration) (Includes two router cards each with 1 FC X 2 LVD SCSI ports, 4 VHDCI-WIDE SCSI cable, user guide CD, and the ESL9000 cPCI card cage) It is recommended that the installation HP Care Pack be ordered with this SKU.	613326254516	262665-B21
	Embedded Data Router, ESL 9000 embedded fibre option E2400 - Upgrade 2 FC X 4 LVD SCSI ports (Includes: two 1FC x 2LVD SCSI router cards, four VHDCI-WIDE SCSI cables, User Guide CD.) This SKU does not include a card cage; it is an upgrade SKU and requires 262665-B21 to be configured first, when configured it increases the number of SCSI ports available to connect drives in an ESL9000 library to the SAN, to a total of eight). It is recommended that the installation HP Care Pack be ordered with this SKU.	613326254752	262664-B21
Passthrough Mechanism	ESL9000 passthrough kit (graphite*) * multi-unit scalability not available at launch	613326402405	161268-B23
LVD Extender Kit	LVD Extender kit (Required for HBA to Library SCSI cable lengths exceeding 10 m)	720591597658	221249-B21
ESL9000 Magazine	ESL9000 UNIVERSAL LOAD PORT magazine (two, 4- slot fixed magazines)	613326572603	302254-B21

Related Options

Openview Omniback Backup Software	Description	Features	Part Number
	OpenView Omniback II v 4.1		
	Starter Packs		
	Cell Manager	Required once as starter pack; includes license-to-use, unlimited number of disk agents and media agents, one drive extension, libraries with up to 60 slots, CD-ROM media, manuals, and more; for Windows NT, 2000, XP/HP-UX	B6961AA/ B6951AA
	Drive Extensions		
	Drive License	License-to-use for one concurrently used backup drive; for Windows NT, 2000, XP/Novell Netware/Linux	B963AA
	Drive License	License-to-use for one concurrently used backup drive; for UNIX®, NAS, SAN	B6953AA
	<p>NOTE: For the most up-to-date information, visit: http://openview.hp.com/products/omniback/specifications/</p> <p>NOTE: This Web site is available in English only.</p>		
Data Protection Suites for Backup and Restores	CommVault Galaxy		
	Phan Kit, CommVault Galaxy	Media Kit that contains live trial software	281593-B21
	DP Suite, single server	Designed for backing up a single server, with no server clients, using a single internal or external tape drive.	281577-B21
	DP Suite, SAN standard	Entry level SAN kit that contains: <ul style="list-style-type: none"> • ISV application software for six servers on the SAN • Two server clients for backing up over the LAN • Each SAN server has a choice of a database agent or open file systems option • Support for up to eight shared automated, tape drives 	281585-B21
	DP Suite, SAN advanced	Data center SAN kit that contains: <ul style="list-style-type: none"> • ISV application software for fourteen servers on the SAN • Two server clients for backing up over the LAN • Each SAN server has a choice of a database agent or open file systems option • Support of up to sixteen shared, automated tape drives 	281588-B21
	DP Suite, Network	Designed for backing up a single server and server clients over the network using a tape drive, an autoloader or business class automation. Includes choice of one database agent or open file systems option.	281582-B21

Related Options

CA BrightStor ARCserve

Phan Kit, CA ARCserve	Media Kit that contains live trial software	283915-B21
DP Suite, single server	Designed for backing up a single server, with no server clients, using a single internal or external tape drive.	281576-B21
DP Suite, SAN standard	Entry level SAN kit that contains: <ul style="list-style-type: none"> ● ISV application software for six servers on the SAN ● Two server clients for backing up over the LAN ● Each SAN server has a choice of a database agent or open file systems option ● Support for up to eight shared automated, tape drives 	281583-B21
DP Suite, SAN advanced	Data center SAN kit that contains: <ul style="list-style-type: none"> ● ISV application software for fourteen servers on the SAN ● Two server clients for backing up over the LAN ● Each SAN server has a choice of a database agent or open file systems option ● Support of up to sixteen shared, automated tape drives 	281586-B21
DP Suite, Network	Designed for backing up a single server and server clients over the network using a tape drive, an autoloader or business class automation. Includes choice of one database agent or open file systems option.	281581-B21

VERITAS Backup Exec

Phan Kit, VERITAS Backup Exec	Media Kit that contains live trial software	283914-B21
DP Suite, single server	Designed for backing up a single server, with no server clients, using a single internal or external tape drive.	281578-B21
DP Suite, SAN standard	Entry level SAN kit that contains: <ul style="list-style-type: none"> ● ISV application software for six servers on the SAN ● Two server clients for backing up over the LAN ● Each SAN server has a choice of a database agent or open file systems option ● Support for up to eight shared automated, tape drives 	281583-B21
DP Suite, SAN advanced	Data center SAN kit that contains: <ul style="list-style-type: none"> ● ISV application software for fourteen servers on the SAN ● Two server clients for backing up over the LAN ● Each SAN server has a choice of a database agent or open file systems option ● Support of up to sixteen shared, automated tape drives 	281587-B21

Related Options

DP Suite, Network	Designed for backing up a single server and server clients over the network using a tape drive, an autoloader or business class automation. Includes choice of one database agent or open file systems option.	281580-B21
<hr/>		
Legato NetWorker		
Phan Kit, Legato NetWorker	Media Kit that contains live trial software	293599-B21
DP Suite, single server	Designed for backing up a single server, with no server clients, using a single internal or external tape drive.	293600-B21
DP Suite, SAN standard	Entry level SAN kit that contains: <ul style="list-style-type: none">● ISV application software for six servers on the SAN● Two server clients for backing up over the LAN● Each SAN server has a choice of a database agent or open file systems option● Support for up to eight shared automated, tape drives	293602-B21
DP Suite, SAN advanced	Data center SAN kit that contains: <ul style="list-style-type: none">● ISV application software for fourteen servers on the SAN● Two server clients for backing up over the LAN● Each SAN server has a choice of a database agent or open file systems option● Support of up to sixteen shared, automated tape drives	293603-B21
DP Suite, Network	Designed for backing up a single server and server clients over the network using a tape drive, an autoloader or business class automation. Includes choice of one database agent or open file systems option.	293601-B21

Technical Specifications

SCSI Identification	Product ID	ESL9000 Series	
	Vendor ID	HP	
Control Panel	Library and Drive Status		
	Move tape cartridges		
	Load/Unload tape drives		
	Maintenance (drive cleaning, diagnostics)		
	Library Configuration		
	Statistics		
SCSI Interface	Ultra2 SCSI LVD, 68HD Interconnect (External cable length between library and HBA, limited to 10 m without LVD extender, extends up to 25 m when using the LVD extender)		
Form Factor	Free Standing		
Dimensions		Unit	Packaged
	Height	75 in (190.5 cm)	80 in (203.2 cm)
	Width	40 in (101.6 cm)	52 in (132.1 cm)
	Depth	29 in (73.7 cm)	48 in (121.9 cm)
Unit Weight	Without data cartridges, 0 drives	1072 lb (487 kg)	
	Without data cartridges, 2 drives	1138 lb (516.2 kg)	1332 lb (604.2 kg)
	Without data cartridges, 8 drives	1180 lb (536 kg)	1362 lb (617.8 kg)
	322 data cartridges, 8 drives	1335 lb (606.6 kg)	
Performance (native)	Minimum configuration	2 Hewlett-Packard LTO ULTRIUM 230 drives, Native transfer rates up to 108 GB/hr (Zero drive configuration also available for custom field configuration)	
	Maximum configuration	8 Hewlett-Packard LTO ULTRIUM 230 drives, Native transfer rates up to 432 GB/hr With Multi-unit Scalability up to 40 drives and 1474 slots* *Multi-unit scalability planned for future release	
Storage Capacity	ESL9322L1 (222 slots)	Supports 222 LTO Ultrium 230 cartridges for native capacity up to 22.2 TB native, 44.4 TB compressed (2:1)	
	ESL9322L1 (322 slots)	Supports 322 LTO Ultrium 230 cartridges for native capacity up to 32.2 TB native, 64.4 TB compressed (2:1)	
Input/Output Port	Two, 4-slot fixed magazines		
Initialization (cartridge inventory) time	< 7 minutes		
Cartridge Swap Time	33 seconds average		
Cartridge Pass-through time - end-to-end	78 seconds average		
Swaps	135 swap/hour		
Electrical Specifications	AC Voltage	Auto-range to domestic and international AC voltages AC Voltage Range: 90 to 132 VAC or 180 to 264 VAC, single phase Nominal: 100 to 120 VAC or 220 to 240 VAC Line Frequency Range: 47 to 63Hz AC Receptacle: IEC-320 C19 Type 100-120V/200-240V, 50/60 Hz, 20A/16A (5-20P plug for U.S. and Canada)	
	Power Consumption	1200 VA Maximum	

Technical Specifications

Acoustic Noise	Noise Power Emission Level	Idle: 7.8 bels Operating: 8.1 bels
Reliability (Library Only)	MTBF	250,000 hours
	MSBF	2,000,000 load/unload cycles
Regulatory Compliance Safety Regulatory ID Number ED1002		UL60950, cUL60950, IEC60950, IEC60825-1 (Laser Class 1) EN60950, Nemko, CE Mark, TUV/VDE
	EMI	EN 60825:1994/A11, FCC Part 15 Class A, CISPR Publication 22 Class A, ICES-003 Class A, VCCI Class 1, SMA AZ/NZS 3548 Class A
	EMC	EN6100-3-2, EN50082-1: 1992, EN50022: 1994
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