

StorageWorks MSL5052SL Tape Library by Compaq

Data protection, storage density and flexibility



The *StorageWorks™* MSL5052SL Tape Library by Compaq delivers an outstanding mix of high-availability features, storage density and simplified management for the departmental segment. It offers high availability with hot-plug drives, which makes it possible to exchange or add drives without disrupting the backup or restore process and has dual redundant power supplies – minimizing downtime and simplifying maintenance. A GUI-based, touch-screen control panel simplifies library operation. Compaq management and diagnostics utilities make library installation and management, running diagnostics and firmware upgrades simple and quick – saving time and lowering the total cost of ownership.

The MSL5052SL is available with SDLT 110/220 drives. With 52 slots in a compact 10U form factor a capacity of 11.44 TB (2:1 compression) provides industry highest density of over 1 TB per U of rack space. Cartridge magazines are removable for convenient off-site storage. Plus, like all Compaq storage libraries, the MSL5052SL is designed with multi-unit modular scalability that makes expanding capacity simple and seamless. Combine up to four units to create one virtual library with a capacity up to 45.76 TB

(2:1 compression) in a single 42U rack. That modularity lets you expand capacity as your needs grow and protects your existing investment. In addition, five compact PCI slots let you enhance functionality in future using add-on cards, such as embedded fiber to SCSI bridge card.

The MSL5052 is qualified with Compaq *AlphaServer™* systems and *ProLiant™* servers running Compaq *Tru64™* UNIX, *OpenVMS™*, NetWare or Microsoft Windows NT or 2000.

Benefits

- > **High availability** – hot-plug drives reduce downtime by permitting online drive exchange and capacity expansion.
- > **Dual redundant power supplies** ensure minimum downtime.
- > **High capacity** – 52 cartridge slots provide native capacity of 5.72 TB with SDLT 110/220 drives (11.44 TB with 2:1 compression).
- > **High backup and restore performance** – throughput of 11 MB/s for a single SDLT drive, provides a native backup performance of up to 158.4 GB/hr for a single unit (316.7 GB/hr with 2:1 compression).
- > **High density** – with a compact 10U form factor, this library offers the highest storage density in its class (more than 1 TB/U at 2:1 compression) and conserves valuable datacenter and rack space.
- > **Simplified operation and management** – a GUI-based touch-screen panel simplifies library operation, two mail slots speed loading and unloading cartridges, and removable magazines simplify off-site storage. Compaq TSMC and Compaq *Insight Manager™* also simplify library management and diagnostics.
- > **Multi-unit modular scalability** – up to four units can be linked together in a virtual library, for easy capacity expansion and investment protection. For maximum flexibility the MSL5052SL can scale with MSL5026 libraries.
- > **Future enhancements** – compact PCI slots enable you to enhance functionality in future with add-on cards.



Operating Systems support

- > Windows NT v4.0 and Windows 2000
- > NetWare v5.1 service pack 3
- > Compaq *Tru64* UNIX v4.0G, v5.1 and v5.1a
- > Compaq *OpenVMS* v7.1-1, v7.2-2, v7.3

Server support

Compaq *ProLiant* servers:

- > *ProLiant* DL760, 8500, ML750, 8000, DL590, DL580, ML570, ML530, DL380, ML370, DL360

Compaq *AlphaServer* systems:

- > GS320, GS160, GS 80, ES 40, ES 45, 4X00, DS20E, 1200

Host Bus Adapter support

Compaq *ProLiant* servers:

- > 64-bit/66MHz Dual Channel Wide Ultra3 LVD SCSI Adapter 129803-B21
- > *StorageWorks* Single Channel Ultra2 LVD SCSI Adapter by Compaq 3X-KZPCA-AA
- > *StorageWorks* Dual Channel Ultra3 LVD SCSI Adapter by Compaq 3X-KZPEA-DB*

* supported only with *Tru64* UNIX v5.1a only @ EV68 (866MHz and higher) and is currently supported only on DS and ES series *AlphaServer*, it is not supported in a *TruCluster/Shared tape* environment)

Application support

Software applications:

(Under Direct SCSI Attach and Compaq EBS for FC SAN):

- > Computer Associates ARCserve2000 for Windows NT and Windows 2000 v7.0
- > Computer Associates ARCserveIT for NetWare v7.0
- > VERITAS Backup Exec v8.6 for Windows NT, Windows 2000
- > VERITAS Backup Exec v8.5 for NetWare
- > VERITAS NetBackup v3.4 for Windows NT, Windows 2000
- > VERITAS NetBackup v3.4 for *Tru64* UNIX
- > Legato NetWorker v6.1 for Windows NT
- > Legato NetWorker v6.1 for *Tru64* UNIX
- > Legato Smart Media v1.5 for *Tru64* UNIX, Windows NT and Windows 2000

(Under direct SCSI attach only):

- > Storage Library System (SLS) v2.9f for *OpenVMS*
- > Archive/Backup System (ABS) v4.0 for *OpenVMS*

Automation and Network Utilities:

- > Media Robot Utility (MRU) v1.4
- > *StorageWorks* Tape Storage Management Console by Compaq
- > Sequential Media File System v1.3

Specifications

Control Panel	Library and drive status Move tape cartridges Load/unload tape drives Maintenance (diagnostics) Library configuration Statistics Inventory check Security level set: operator, user, service Mail slot access Offline/online status Magazine removal/replacement		
SCSI Interface	Ultra2 LVD SCSI, VHDCI interconnect		
Form Factor	Rackmount (<i>ProLiant</i> and <i>AlphaServer</i> racks), 10U Tabletop		
Dimensions (HxWxD)	Height	Rackmount	17.5 in/44.45 cm
		Tabletop	18.5 in/46.99 cm
	Width	Rackmount	Chassis/TT Cover 16.7 in/42.42 cm Front Panel 19 in/48.26 cm
		Tabletop	Chassis/TT Cover 19 in/48.26 cm Front Panel 19 in/48.26 cm
Depth	Overall	31.5 in/80.01 cm	
	Behind panel	30.3 in/76.96 cm	
Unit Weight	MSL5052SL	Dual Drive	101.6 lb/46.2 kg
		Quad Drive	117.2 lb/53.2 kg
Shipping Dimensions (HxWxD)	HxWxD, Weight	Rackmount	17.5 x 17.0 x 31.5 in, 161 lb/ 44.45 x 43.18 x 80.01 mm, 73.03 kg
	HxWxD, Weight	Tabletop	18.5 x 19.00 x 31.5 in, 174 lb/ 46.99 x 48.26 x 80.01 mm, 79.0 kg
Performance (native)	11 MB/s per drive MSL5052SL base unit	Supports up to four SDLT 110/220 GB drives for native transfer rates up to 158.4 GB/hour	
	Maximum configuration (four modules with multi-unit scalability)	Supports up to 16 SDLT 110/220 GB drives for native transfer rates up to 633.6 GB/hour	
Storage capacity (native)	(Base Units) MSL5052SL Base Unit	52 slots (including two mail slots), for capacity of 5.72 TB	
	Maximum configuration (four modules with multi-unit scalability)	208 slots, for capacity up to 45.76 TB	
Power consumption	MSL5052SL base unit	90 to 132V AC @ 47 to 63Hz 180 to 264V AC @ 47 to 63Hz	
	Power requirement	400 Watts continuous 450 Watts (maximum peak @ 20% duty cycle)	
Acoustic noise	Noise Power Emission Level	8 bels, maximum	
	Avg. Sound Pressure Level	52 dBA	
Reliability	MTBF	250,000 hours (100% duty cycle) (excludes drives)	
	MSBF	1,000,000 robot load/unload cycles	
Product Safety Requirements and Approvals	Safety EN60950/IEC950, UL, CSA/cUL, CE, VDE/TUV, Nordic (EMKO), GOST EMI, Class A FCC, C.I.S.P.R., ICES-003, CE, VCCI		
Warranty	Warranty (3-1-1) Three-year warranty, first year, onsite next day response, years two and three parts exchange only. Additional Warranty service protection can be purchased for all MSL5052SL DLT Library products. NOTE: Certain restrictions and exclusions apply. Consult the Compaq Customer Support Center for details.		

Description	Part number
MSL5052 Libraries	
MSL5052, 0 DR, LVD, RM	255102-B21
MSL5052SL, 2 SDLT 110/220GB DR, LVD, TT	249490-B21
MSL5052SL, 2 SDLT 110/220GB DR, LVD, RM	249491-B21
Power Cords	
Power Cord, US/Canada/Mexico (shipped with all units)	227099-001
Power Cord, Australia/China/New Zealand	227098-011
Power Cord, South East Asia/India	157220-AR1
Power Cord, Central Europe	157215-021
Power Cord, United Kingdom/Hong Kong	157216-031
Power Cord, Switzerland	157219-111
Power Cord, Italy	157217-061
Power Cord, Denmark	157218-081
Power Cord, Japan	139867-006
MSL5K Field Upgrade Drive	
MSL5KField Upg SDLT 110/220GB DR, LVD	231823-B22
Pass-Through Kits	
MSL5000, Pass-Through Mechanism (includes elevator mechanism and router)	231824-B21
MSL5052, 10U Pass-Through Extender	231824-B23
<i>Multi-unit configurations require one MSL5000 PTM (Pass-Through Mechanism) and one MSL5052 10U Pass-Through Extender for first two units, addition of subsequent units requires 10U Pass-Through Extender (one for each additional module)</i>	
Options	
MSL5052 dual magazine pack (2 x 13 slot magazines, left and right)	232136-B21
SDLT Media 5-pack	188527-B21
SDLT Media 10-pack	188527-B22
SDLT Media 20-pack	188527-B26
DLT Bar Code Labels 100 pieces	158398-001
Host Bus Adapters	
64-bit / 66MHz Dual Channel Wide Ultra3 LVD SCSI Adapter	129803-B21
StorageWorks Single Channel Ultra2 LVD SCSI Adapter by Compaq	3X-KZPCA-AA
StorageWorks Dual Channel Ultra3 LVD SCSI Adapter by Compaq	3X-KZPEA-DB*
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Modular Data router for Fiber Channel SAN connectivity	
Modular Data Router (1 FC x 2 LVD SCSI)	163083-B21
Modular Data Router (2 FC x 4 LVD SCSI)	218241-B21
SCSI Cables	
SCSI Cable, VHDCI/VHDCI, 6 feet	341174-B21
SCSI Cable, VHDCI/VHDCI, 12 feet	341175-B21
SCSI Cable, VHDCI/Wide, 6 feet	341176-B21
SCSI Cable, VHDCI/Wide, 12 feet	341177-B21
SCSI Cable, VHDCI/Wide, 10 meter	201160-B21
<i>For SCSI connectivity from server to tape library, refer to cable-adapter matrix at ftp://ftp.compaq.com/pub/products/storageworks/tape-and-optical-storage/adapter-cable-matrix.pdf</i>	
MSL5000 Racks	
MSL5000 TT-RK KIT, ProLiant Rack	231894-B22
MSL5000 TT-RK KIT, Alpha Rack	231894-B21

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