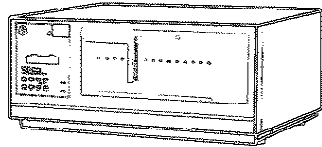# VLS 4MM
VIRTUAL LIBRARY SYSTEM

The ADIC VLS 4mm series offers up to 360GB of storage and the industry's fastest 4mm technology—dual drives with up to 280MB/minute transfer rate per drive.

HIGH CAPACITY, AUTOMATED BACKUP AND TAPE MANAGEMENT SOLUTION

With transfer speeds of up to 288MB/minute and capacity of up to 360GB[1], the ADIC VLS 4mm™ is a high performance dual-drive automated tape storage system suitable for enterprise wide backup and archiving. It offers the latest 4mm drive technology, including the new DDS-3 drives from HP and Sony, with sustained throughput of up to 140MB/minute per drive—60% faster than standard 4mm.
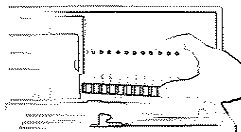
DUAL DRIVES SPEED UP TRANSFER RATES

The VLS 4mm's dual drives offer key performance advantages. Concurrent drive operation can double transfer rates—up to 280MB/minute—dramatically increasing your ability to perform backups in short time windows. Dual drives also provide tape-to-tape copying, allowing you to keep identical backup sessions off-site for security and on-site for immediate access. Dual drives add flexibility, allowing file retrievals from one drive while backups are running on the other. And, of course, the redundancy of dual drives increases system up-time. VLS 4mm units may be ordered with two drives, or with one drive and upgraded to two drives at a later time.

The VLS 4mm magazine holds 15 DAT cartridges, and snaps into place for quick loading and unloading. The magazines stack for convenient, protected data storage.

▌ Dual drive operation for maximum flexibility and up to 280MB/minute sustained transfer

▌ Automated storage with up to 360GB of capacity

▌ 15-tape magazine eliminates manual tape handling and simplifies off-site storage

▌ Field proven reliability for better data protection

▌ Supported by all leading applications software for all major operating systems

STORAGE AUTOMATION FOR GROWING NETWORKS

Automating storage with a VLS 4mm library provides better protection for your network's data, eliminating individual tape handling while reducing overhead and operator error. Its 15-tape magazine allows up to 360GB to remain in near-line storage, simplifying file or system restoration. Access to stored data is immediate: changing cartridges takes only 8 seconds. Fifteen cartridge positions allow storage of multiple sets of data for added security, provide room for cleaning cartridges, and make it easy to rotate media for longer life.

The magazines snap easily into place for fast loading and stack to provide a convenient system for archiving or off-site storage. The ADIC VLS 4mm library can be used as a desk-top unit or mounted in a standard 19-inch rack.

THE RELIABILITY LEADER

Proven in millions of field-use hours, the VLS 4mm library utilizes ADIC's simplified robotic action to prevent misfeeds. The magazine, cartridge picker, and drives are clearly visible through a window in the unit's locking door, and a front control panel with LCD display simplifies configuration and diagnosis. The VLS 4mm is rated for a minimum of 100,000 cartridge changes and has a drive MTBF of 200,000 hours. Mean time to repair is less than 30 minutes.

SUPPORT FOR ALL MAJOR OPERATING SYSTEMS

The ADIC VLS 4mm library is supported by every leading brand of backup and HSM software for all leading operating systems. Support is available for NetWare, Windows NT, OS/2, and Macintosh LANs. UNIX support includes SCO UNIX, IBM AIX, SunOS and Sun Solaris, HP UX, DEC ULTRIX, Silicon Graphics, and AT&T/NCR UNIX. Contact ADIC for a detailed list of current software compatibility.

[1] Capacity and transfer rates are with 2:1 compression

VLS 4MM

VLS 4E

VLS 4G

adic

VLS 4MM
VIRTUAL LIBRARY SYSTEM

DRIVES AND PERFORMANCE

	VLS 4mm[1]	VLS 4E[2]	VLS 4G[3]
Data Capacity Native:	60GB	60GB	180GB
with 2:1 Compression:	120GB	120GB	360GB
Transfer Rate Native:	22MB/min.	47MB/min.	70MB/min.
with Dual-Drives:	44MB/min.	93MB/min.	140MB/min.
Transfer Rate Compressed:	44MB/min.	93MB/min.	140MB/min.
with Dual-Drives:	88MB/min.	186MB/min.	280MB/min.
File Access Time (Avg):	< 30 sec	< 35 sec	< 40 sec
Data Compression:		On-board DCLZ	
Recording Format:		Helical Scan	
Data Buffer:	1MB	1MB	2MB
Removable Magazine:		15-Cartridge Capacity	
Media:	4mm DDS-2[4]	4mm DDS-2[4]	4mm DDS-3[5]
Tape Length:	120 meter	120 meter	125 meter
Recording Density:	91,500 bits/in.	91,500 bits/in.	122,000 bits/in.

OPERATION

Cartridge Change:	8 seconds, maximum
Indicators:	LCD menu display, Power LED and Lock LED to monitor and control system status, diagnostics and configuration.
Controls:	8-button keypad
Drive Indicators:	Tape and Clean with HP drives; Busy, Tape, and Status with Sony drives
Interface:	Fast SCSI-2, Single-Ended VLS 4G: Fast/Narrow SCSI-2, Single-Ended

[1] Specifications for Sony SDT-5000 drive; for HP C1533A drive throughput is 31MB/minute (native), 62MB/minute (w/2:1 compression)

[2] Specifications for Sony SDT-7000 drive

[3] Specifications for Sony SDT-9000 drive; for HP C1532A drive throughput is 60MB/minute (native), 120MB/minute (w/2:1 compression)

[4] DDS-1 DAT media can be used, but drive performance will be at DDS-1 levels

[5] DDS-1 and DDS-2 DAT media can be used, but drive performance will be at DDS-1 or DDS-2 levels.

FOR FURTHER INFORMATION, CONTACT YOUR LOCAL ADIC DEALER

RELIABILITY

Hard Error Rate:	Less than 1 in 10^{15} bits
Tape Shelf Life:	30 years minimum (at 20°C, 40% RH)
Maintenance:	Use cleaning cartridge every 24 hours of tape drive use
MSBF:	Greater than 100,000 cartridge changes (net, drive and media)
MTBF:	Greater than 80,000 power-on hours
MTTR:	Within 30 minutes
Error Correction Code:	Read-After-Write, C3 ECC

PHYSICAL

Dimensions:	17.4" W x 16.25" D x 8" H (43.2cm x 41.3cm x 20.3cm)
Weight:	30 lbs (13.6kg), 32 lbs (14.5kg), with dual drives

ENVIRONMENTAL

Electrical:	100 - 240 VAC, 50-60 Hz; 1-0.5A, Auto voltage range selection
Altitude:	8000 ft (2428 m)
Temperature:	10°C to 40°C Operating
Humidity:	20 to 80% Non-Condensing Operating
Noise Level:	45 dBA
Vibration:	0.25g (5-500 Hz) Operating 0.50g (5-500 Hz) Storage/Shipping
Shock:	2g Operating, 30g Storage/Shipping
BTU/Hour:	250 (dual drive units)

COMPLIANCE AND CERTIFICATION

Safety:	UL-1950, CSA950, EN 60950
Emissions:	FCC #47 CFR, Part 15, Class B, CSA C108.8M, vfg 243/91
Susceptibility:	IEC (801-2, -3, -4)
International:	CE

SOFTWARE AND PLATFORMS

See the most recent ADIC Software Compatibility Guide for a complete list of software and platforms compatible with the VLS 4mm Series.

ADIC CORPORATE HEADQUARTERS
10201 Willows Road, P.O. Box 97057
Redmond, WA 98073-9757
Phone (206) 881-8004
Fax (206) 881-2296
http://www.adic.com

ADIC EUROPE
21-23, Avenue Saint-Fiacre
F78100 Saint-Germain-en-Laye
France
Phone +33-1 30 87 53 00
Fax +33-1 30 87 53 01

adic