

SCALAR

Holding up to 3.36TB of data, the Scalar Series combines the speed, capacity, and reliability of DLT technology with product configurations that scale to your changing storage needs.

The ADIC Scalar® Series tape libraries are scalable, multiple-drive DLT™ storage systems designed to solve the problem of managing critical data in an expanding, enterprise-wide environment. Scalar library models offer up to four Quantum DLT drives and up to 48 cartridges main storage, plus 10 mailbox cartridge slots. Multiple drives provide native sustained data transfer of up to 1.2GB per minute, support simultaneous operations (read/write and concurrent duplicate backup), and provide continuous processing even during cartridge changes. With up to 3.36* terabytes of total capacity, Scalar libraries provide ample storage for in-cabinet backup, archiving, and HSM applications. All Scalar libraries are available as free standing units, or may be installed in standard 19-inch rack-mount cabinets.

SCALED CONFIGURATION FOR A TECHNOLOGY UPGRADE PATH

The Scalar Series is the answer to growing storage requirements and shrinking backup windows. Three models provide a broad range of flexible configurations and a designed-in upgrade path to protect your technology investment. Installation of additional drives, option upgrades — and upgrades to new drive technologies — are easily performed on-site.

MEDIA MAILBOX FOR SECURE DATA EXCHANGE

ADIC's revolutionary media mailbox system for automated, high security cartridge exchange is standard on the Scalar 458 models (optional on others). The ten-slot mailbox accepts media for insertion and presents it for removal while the main door remains locked. The mailbox is secured by a separate lock controlled by the library keypad.

5th generation media handling mechanism with barcode reader delivers 1-minute initialization and 10-second media exchange.

5TH GENERATION MEDIA HANDLING MECHANISM

The Scalar media handling mechanism incorporates five generations of ADIC's robotic design expertise. The result is optimal cartridge handling and one of the industry's fastest media exchange times — averaging only 10 seconds. A barcode reader provides instant verification and rapid media inventory. Configuration, operation and diagnostics are controlled from a menu-driven keypad on the front panel. The keypad's LCD provides instant visual monitoring of drive status, library system activities and messages. Using the keypad, Scalar's media picker mechanism can be positioned to any drive or cartridge allowing manual access to drives and tapes.

BUILT-IN RELIABILITY

Scalar Series' built-in diagnostics perform closed-loop self-calibration routines assuring system reliability and simplifying service and maintenance. A built-in thermal sensor protects the system in the event of unforeseen temperature increases by sounding an audible alarm, displaying a status message, and activating an additional cooling fan.

FLEXIBLE SCSI INTERFACE

The Scalar library's robotic control interface is based on the SCSI-2 command set for medium changer devices, assuring a broad range of software compatibility. It offers separate drive and robotic interfaces which can be configured to allow superior drive utilization and load balancing between the drives and the computer system.

** Transfer rate and capacity specifications are with 2:1 compression.*

SCALAR 224

SCALAR 448

SCALAR 458



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SCALAR

LIBRARY CONFIGURATIONS

	Scalar 224	Scalar 448	Scalar 458
Tape Capacity:	24	48	48
Barcode Reader:	Standard	Standard	Standard
10-position Mailbox:	Optional	Optional	Standard
Drives:	2 ¹	2 or 4	2 or 4
	Choice of DLT2000XT, DLT4000 or DLT7000 drive with single-ended or differential interface		

DRIVE AND PERFORMANCE

Drive Type:	DLT2000XT	DLT4000	DLT7000
Data Cartridge Capacity			
Native:	15GB	20GB	35GB
with 2:1 Compression:	30GB	40GB	70GB
Transfer Rate per drive Native:	75MB/min.	90MB/min.	300MB/min.
with 2:1 Compression:	150MB/min.	180MB/min.	600MB/min.
Library Capacity ²			
448/458 ³ with 48 tapes:	1.44TB	1.92TB	3.36TB
224 with 24 tapes:	720GB	960GB	1.68TB
File Access Time (Avg):	68 seconds	68 seconds	60 seconds
Data Compression:	On-board DC LZ with variable block size		
Recording Format:	Multiple Track, Linear Serpentine		
Data Buffer:	2MB	2MB	4MB
	cache buffer adjusts to host rates		
Media:	DLTtape™ IIIXT	DLTtape IV	DLTtape IV
Tape Length:	1800 feet	1800 feet	1800 feet
Recording Density:	62,500 bits/in	82,000 bits/in	86,000 bits/in
Tracks Per Tape:	128	128	208

OPERATION

Cartridge Change:	10 sec. max.	10 sec. max.	10 sec. max.
Indicators:	Keypad with LCD menu display, power LED, and lock LED		
Drive:	Write Protected, Tape in Use, Use Cleaning Tape, and Tape Density LEDs; Density Select, Tape Unload controls		
Interface:	Fast SCSI-2 Single-Ended, DLT7000: Fast and Wide SCSI-2, Single-Ended or Differential		

¹ Can be upgraded to 4 drives

² With 2:1 compression

³ Scalar 458 models have 48 online cartridges and 10 media mailbox positions

RELIABILITY

Hard Error Rate:	Less than 1 in 10 ¹⁷ bits read
Tape Shelf Life:	30 years minimum (at 20°C, 40% RH)
Maintenance:	Periodic drive head cleaning with DLT Cleaning Cartridge
MSBF:	Greater than 1,000,000 cartridge changes
MTBF:	Greater than 80,000 power on hours
MTTR:	Less than 30 minutes
Field Replaceable:	Drives, Power Supplies, Gripper Assembly, SCSI Cables, Fans, Barcode Reader, Control Electronics Module
Diagnostics:	Built-In-Test (BIT), Store/Recall Last 100 Events, "Fault Isolation" Assistance
Error Correction Code:	Reed Solomon ECC; 64-bit CRC on each 4KB of data; 16-bit CRC on each record; Internal parity checking on cache buffer

PHYSICAL

Dimensions:	19.5"W x 23.5"D x 40.3"H (49.5cm x 59.7cm x 102.4cm)
Rack Height Dimensions:	42" (106.7cm) or 24U
Weight:	271 lbs. (122.9kg) with 4 drives

ENVIRONMENTAL

Electrical:	100-240 VAC, 47-63 Hz (DLT 4/48), 200 watts or 2 amps @ 120VAC
Altitude:	30,000 ft. (9,144m)
Temperature:	10°C to 40°C Operating
Humidity:	20 to 80% Non-Condensing Operating
Noise Level:	45 dBA
Vibration:	Swept Sine: 0.3g peak, 5-500 Hz Random: 5-350 Hz 0.0002g (Sq.)/Hz 350-500Hz -6dB/Octave
Shock:	3g 15ms Half Sine Operating ISTA - Inclined Impact, 4 drops at > 5.0 ft./sec. Storage/Shipping
BTU/Hour:	600

COMPLIANCE AND CERTIFICATION

Safety:	UL-1950, CSA950, EN 60950
Emissions:	FCC #47 CFR, Part 15, Class B, CSA C108.8M, EN 55022, Class B
Susceptibility:	IEC (801-2)
International:	CE

SOFTWARE AND PLATFORMS

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

FOR FURTHER INFORMATION, CONTACT YOUR LOCAL ADIC DEALER

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