![Alliance Storage Technologies Inc. logo]

UDO Archive Appliance
Enterprise NAS Archival Storage

The UDO Archive Appliance employs a fully integrated, network-attached storage (NAS) architecture that leverages the strengths of RAID and UDO (Ultra Density Optical) technology to meet essential archive requirements in a way that traditional, monolithic storage products cannot match.

Access — Network Attached Storage (NAS)

Easy to install and configure, a UDO Archive Appliance is up and running in only a few minutes. An integrated NAS server presents the solution as a standard network resource across both Windows and Unix networks.

Speed — RAID Cache

All data written to the UDO Archive Appliance is cached on high performance RAID and then committed to UDO for long-term archiving, based on user-defined policies. The RAID cache presents all data as part of an active archive and provides fast access to the most recently read or written files. Most UDO Archive Appliance configurations support a cache capacity up to 12TB (raw).

Longevity and Authenticity — UDO

At the heart of the UDO Archive Appliance is UDO technology. This true WORM (Write Once Read Many) media offers superior longevity and data authenticity making it a cornerstone for organizations that are subject to industry regulations that mandate record authenticity. Fifty-year UDO media life also dramatically reduces media maintenance, decreasing the frequency of data migration, providing very low total cost of ownership throughout the life of the archive.

Control — Archive Software

The UDO Archive Appliance is controlled by pre-configured management software that has been optimized for the needs of an archive environment. The advanced feature set includes multiple archive volumes that provides better data administration and archive sharing, and can automatically create duplicate UDO media for cost effective disaster recovery.

Enterprise Models

| AA164/238 | AA638 | AA438 |

The UDO Archive Appliance is a stand-alone archival network-attached storage solution that operates independently or easily integrates with a host of applications, including medical imaging, document management and email archive.

The UDO Archive Appliance combines the performance and simplicity of network attached RAID with the longevity & authenticity of UDO, enabling organizations to deploy an archival storage strategy that meets their compliance and risk requirements at a very low total cost of ownership.

Features	Benefits
>50 Year Media Life	Unmatched longevity reduces frequency of data migrations & media maintenance
True WORM Media	Meets the highest regulatory standards for Compliant Record Retention
High-Performance RAID Cache	Fast read & write access for archive records
Multiple Archive Volumes	Simultaneously archive data from multiple applications to dedicated media pools
Active Directory & ACL Support	Secure integration into Windows domains & simplified administration
CIFS, NFS, & FTP Support	Operates in heterogeneous Windows & UNIX environments
Automatic Second Copy	Additional data protection that provides low cost disaster recovery when stored off site
Off-line Media Management	Manages removed media to enable very low cost capacity scaling

Intrinsic Scalability

Enterprise libraries are designed to maximize archiving by scaling to meet future data capacity requirements. Models can be scaled incrementally at any time right. *Invest in today's requirements and expand for tomorrow's!*

There are many benefits to the intrinsic scalability of the libraries:

- Empowers businesses to increase storage capacity incrementally as archiving demands increase
- Budget for future expansion
- Accommodate data growth without changing the footprint size

Enterprise Models Offer the Ultimate in Investment Protection

Choose from four different models. Add drives and slots to scale the 164 base model to the 238 within the same cabinet; add expansion bays to scale from the 238 to the 438, or the 438 to the 638.

RAID Configurations									
RAID 1		8 Drive RAID 5		8 Drive RAID 6		12 Drive RAID 5		12 Drive RAID 6	
Raw	Usable	Raw	Usable	Raw	Usable	Raw	Usable	Raw	Usable
2TB	921GB	8TB	4TB	8TB	3TB	12TB	8TB	12TB	7TB

Specifications	AA 164	AA 238	AA 438	AA 638
Min/Max # Slots	162/164	236/238	436/438	636/638
Backup Media Slots	2	2	2	2
Max Raw Capacity TBs	9.8	14.3	26.3	38.3
Min/Max Drives	2/6	2/6	2/6	2/6
Drive Increments	2	2	2	2
Power (W) w/Max Configuration Note: power rating is dependent on # of drives & power supplies				
Min Power Requirement (W)	485	485	485	485
Max Power Requirement (W)	624	624	624	624
Library Weight				
Max Config (lbs/kgs)	557/253	557/253	637/289	717/325-
Library Dimensions				
Product (LxWxH) inches	35x28x76	35x28x76	35x34x76	35x41x76
Product (LxWxH) cm	89x71x193	89x71x193	89x87x193	89x104x193
Shipping Weight				
Library (lbs/kgs)	670/304	670/304	642/291	614/279
SMS (lbs/kgs)	187/85	187/85	187/85	187/85
Expansion Bay (lbs/kgs)	-	-	198/90	309/140
Shipping Dimensions				
Library (LxWxH) inches	48x37x77	48x37x77	48x37x77	48x37x77
SMS (LxWxH) inches	48x40x41	48x40x41	48x40x41	48x40x41
Expansion Bay (LxWxH) inches	-	-	35x34x72	35x34x72
Library Reliability (MSBF)	3,800,000	3,800,000	3,800,000	3,800,000
Bulk Load	10 Disk	10 Disk	10 Disk	10 Disk
RAID Drives (up to 12)	1TB	1TB	1TB	1TB
Robotics Access Time (sec*)	6.2	6.2	6.3	6.4
Media Transport Assembly (MTA)	Dual	Dual	Dual	Dual
Import/Export Mail Slot	Single	Single	Single	Single
Mean Time To Repair	< 4 Hours	< 4 Hours	< 4 Hours	< 4 Hours
Operating Temperature	50-90F/10-32C	50-90F/10-32C	50-90F/10-32C	50-90F/10-32C
Operating Voltage (auto ranging)	100 to 240 VAC	100 to 240 VAC	100 to 240 VAC	100 to 240 VAC
Heat Dissipation (Min-Max BTU/hr)	566-1911	566-1911	566-1911	566-1911
Library UDO Drive Connectivity	SCSI	SCSI	SCSI	SCSI
Options	Redundant Power	Redundant Power	Redundant Power	Redundant Power

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