



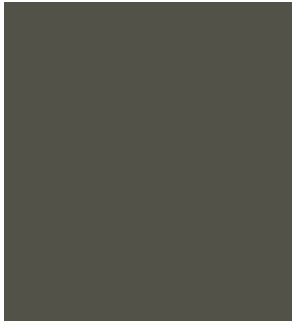
# MOUNTAIN SECURE SYSTEMS

## RUGGED & WIRELESS SOLUTIONS

RUGGEDIZED ELECTRONICS TO OUTLAST HARSH ENVIRONMENTS



ALP  
SERIES



# RUGGED DATA STORAGE



## Rugged Solid State & Magnetic Hard Drives

Drawing upon decades of ruggedizing expertise, **Mountain Secure Systems (MSS)** modifies 2.5" commercial solid state and magnetic drives to meet the rugged demands of military and aerospace applications. The process involves incorporating sealed enclosures, active heaters, forced air cooling, isolation systems, EMI/EMC shielding, extended temperature range control firmware and conformal coating – all to ensure that our rugged products perform flawlessly and outlast the harshest environments.

By listening to our customers and staying on top of industry developments, MSS provides engineering expertise and COTS storage products that operate from the crushing depths of the oceans to the weightlessness of outer space.

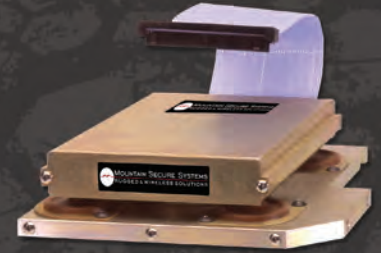
### ALP SERIES **FEATURES**

- Highly customizable to customer specifications
- Available in multiple interfaces (SATA, SAS, USB)
- Environmentally sealed enclosure to protect against high altitude, rapid decompression, EMI, humidity, dust, salt fog and condensation
- Optional heaters for extended low-temperature operation
- Cooling options include wedge locks for conductive paths, as well as liquid or forced air chassis
- Multiple isolation and mounting system configurations available for extended shock and vibration operation of rotating memory
- Removable options available for off-site downloading, storage and quick vehicle turnaround
- Solid state drive options include extended temperature range, secure erase, destructive erase, and/or power protection as required by customer specification

### ALP SERIES **SPECIFICATIONS**

MSS leverages the best data storage technologies available on the commercial market. Our expertise is properly ruggedizing, packaging and integrating the memory to meet your program requirements. While we have close relationships with many of the OEMs, we are always open to utilizing your drive choice or recommending the proper drive for your application. Selected drive performance is dependent on OEM specification. **To learn more, call us at 888.884.9344.**

## RUGGED DATA STORAGE



## ALP SERIES PERFORMANCE

		MAGNETIC HARD DRIVE	SOLID STATE DRIVE
Capacity		Up to 750GB	Up to 256GB (SLC), 1TB (MLC)
Drive Interface		SATA 3.0 or 6 Gb/sec SAS	SATA 3.0 or 6 Gb/sec SAS
Voltage		+5V (+/-5%)	+5V (+/-5%)
Temperature (°C)	Operating	0 to +55	-20 to +55
	Commercial Extended	-40 to +60*	-40 to +85
Non-Operating		-40 to +60	-55 to +95
Shock (Gs)	MIL-STD-810F	25 @ 11ms**	50 @ 11ms
	RTCA/DO-160D	30 @ 11ms**	
Vibration (Gs)	MIL-STD-810F, RTCA/DO-160D	Custom Profiles up to 8 Grms**	16 Grms random 10 to 2,000hz
Humidity		0% to 100%	0% to 100%
Attitude		Any	Any
Altitude (feet)		0 to +85,000	0 to +85,000

\*Requires addition of optional heater

\*\*When mounted in appropriate MSS isolation system tuned to your system

## ALP SERIES PHYSICAL

Dimensions	Sealed Drive	.625"H x 3.125"W x 4.7"D
	Isolation, Docking Bay or Mounting	Multiple Configurations Available
Weight	Sealed Drive	~0.55 lbs.
	Isolation, Docking Bay or Mounting	Multiple Configurations Available
Power Requirements*	Available Heaters	+5 VDC
	(For Extended Temperature Operation)	+12 VDC

\*Power requirements increase with addition of optional heater

## ALP SERIES AVAILABLE CONFIGURATIONS

- Multiple isolated and hard mounted, or removable options available
- Dual drive removable 6u VME
- NAS and liquid cooled data recorders
- Removable cPCI
- 8-bay removable rack
- Configurable to 3.5" standard form factor drive replacement utilizing SATA to SCSI or SATA to fibre channel conversion technology



Nobody understands the critical details of ruggedizing memory better than Mountain Secure Systems (MSS). MSS's rugged drives have a phenomenal track record of withstanding the harshest environments imaginable. Our products perform flawlessly in adverse conditions, where extreme temperature, altitude, humidity and condensation, shock and vibration, explosive decompression, and dust and dirt are elements of concern.

MADE IN THE USA  
SDVOSB  
CAGE CODE: O9FR8  
9001:2008  
AS9100B  
J-STD-001



**MOUNTAIN SECURE SYSTEMS**  
RUGGED & WIRELESS SOLUTIONS

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