



# RUGGED ELECTRONICS FOR TRANSPORTATION APPLICATIONS



## Mountain Secure Systems delivers:

- Proven expertise in rugged packaging of commercial and modified off-the-shelf electronics
- Tailored and wholly designed solutions to meet customer specifications
- Capability to design and test to any standard for shock, vibration, temperature, submersion, and other environmental stresses
- Affordable customization
- Dedicated engineers and project managers
- Support throughout the entire program life-cycle
- On-site manufacturing and prototyping
- Small company speed, flexibility, responsiveness and support
- Benefits of longstanding military and aerospace experience applied to other industries
- Large company resources, process control and reliability

MSS provides rugged solutions to many markets where commercial electronics and computing are too fragile to work without additional protection from shock, vibration, temperature extremes, humidity, altitude, dust, etc. Industries and applications, such as mining, rail, energy development, aerial mapping, emergency services and security, are all able to leverage MSS expertise in rugged electronics to bring low cost solutions to tough problems.



**MOUNTAIN SECURE SYSTEMS**  
RUGGED & WIRELESS SOLUTIONS

RUGGEDIZED ELECTRONICS TO OUTLAST HARSH ENVIRONMENTS



## Mesa External, Flat Mount USB Solid State Drive

The Mesa is an external, rugged USB memory device that bolts onto flat surfaces and contains a 2.5" SATA solid state drive.

To learn more call 888.884.9344.

| PHYSICAL:  |  | SOLID STATE DRIVE        |
|------------|--|--------------------------|
| Dimensions |  | 0.75"H x 7.25"W x 4.62"D |
| Weight*    |  | 1.1 lbs.                 |

\*Depends on SSD selected. For SWAP applications, the unit weight could be reduced.

| SPECIFICATIONS:  |  | SOLID STATE DRIVE  |
|------------------|--|--|
| Capacity         |  | Selectable*  |
| Drive Interface  |  | USB 3.0 2.0 or SATA 2                                      |
| Read Performance |  | 250 MB Sec SATA<br>120 MB Sec USB 3.0<br>33 MB Sec USB 2.0 |

|                   |  |  |
|-------------------|--|--|
| Write Performance |  | 200 MB Sec SATA*<br>100 MB Sec USB 3.0*<br>26 MB Sec USB 2.0 |
|-------------------|--|--|

|                   |                          |                   |                                       |
|-------------------|--------------------------|-------------------|---------------------------------------|
| Input Voltage     |                          | +9 to +36 Volts   |                                       |
| Temperature (°C)  | Operating                | Commercial        | -20 to +75*                           |
|                   |                          | Extended          | -40 to +85*                           |
|                   | Non-Operating            |                   | -55 to +95*                           |
| Shock (Gs)        | MIL-STD-810, RTCA DO-160 | Operating         | 30 @ 11ms                             |
| Vibration (Gs)    | MIL-STD-810, RTCA DO-160 |                   | 16 Grms Random                        |
| Humidity          |                          |                   | 0% to 100%                            |
| 5% Salt Fog       |                          |                   | 336 Hours                             |
| Sand and Dust     | MIL-STD-810, 510.4       |                   | Mated Connectors<br>Withstand Effects |
| Fungus Resistance | MIL-STD-810, 508.5       |                   | Inert                                 |
| Immersion         | MIL-STD-810, 512         |                   | 1 Hour                                |
| EMI   ESD         |                          | EN55022 Class B   | EN61000-4-6 A 10Vrms                  |
|                   |                          | EN61000-4-4 A 2kV | EN61000-4-2 A 8kV Air                 |
|                   |                          | EN61000-4-5 A 2kV |                                       |

## Customizable Features:

1. Easy bolt-on integration and grounding.
2. USB 3.0/2.0 interface. Other interfaces available upon request.
3. Packaged 2.5" SATA Solid State Drive selectable to meet program requirements
4. Sealed Mini Mil-Circular Connectors
5. +9VDC to +36VDC power input.
6. Environmentally sealed enclosure to protect against rapid decompression, EMI, humidity, dust, salt fog, immersion and condensation
7. Available encryption, secure erase, destructive erase, extended temperature and/or power protection options



\*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 OEM manufacturers, we are always open to utilizing your SSD choice or recommending the proper drive for your application. Capacity, MLC/SLC, speed, operating temperature and other performance characteristics may be dependent on drive selection.