



MOUNTAIN
SECURE
SYSTEMS

RELIABLE PERFORMANCE WHEN IT COUNTS

RUGGED ELECTRONICS



RUGGED ELECTRONICS

Operating in the world's harshest and most dangerous environments.

Who We Are



Extreme Temperature



Altitude



Humidity Condensation



Salt Fog



Shock & Vibration



Explosive Decompression



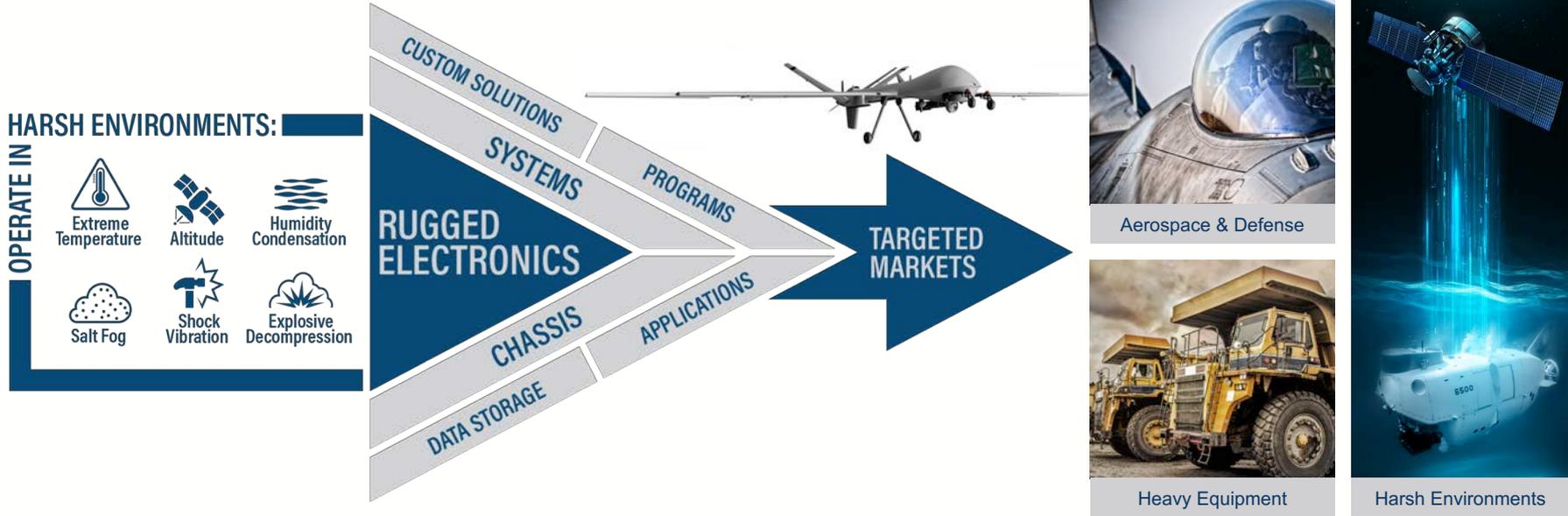
Our Purpose



We do what we do, not because we love ruggedized electronics, but because we are “brothers in arms” with the brave men and women who depend on our solutions to advance and protect our way of life.

We do this through our solutions and products that are the most reliable in the industry! We pride ourselves in the fact that when performance counts, you can count on MSS.

What We Do



Our Markets



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Harsh Environments



Aerospace & Defense



Heavy Equipment



Programs & Applications

- ISAR (Intelligence Surveillance and Reconnaissance)
- Wheeled and tracked vehicles
- Missiles and fire control
- Avionics
- Commercial aviation
- In-Flight Entertainment
- Mining (Vehicle Health Management)
- Space

Our Customers & Awards



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Our Customers





Customer Awards

- 4x Rockwell Collins “Top Performing Supplier”
- 3x Lockheed Martin “MFC Small Business of the Year”
- National Small Business of the Year Award (Region 8)
- Lockheed Martin “Preferred Supplier Program”
- Lockheed Martin “STAR Supplier Award”

Our Capabilities



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Salt Fog



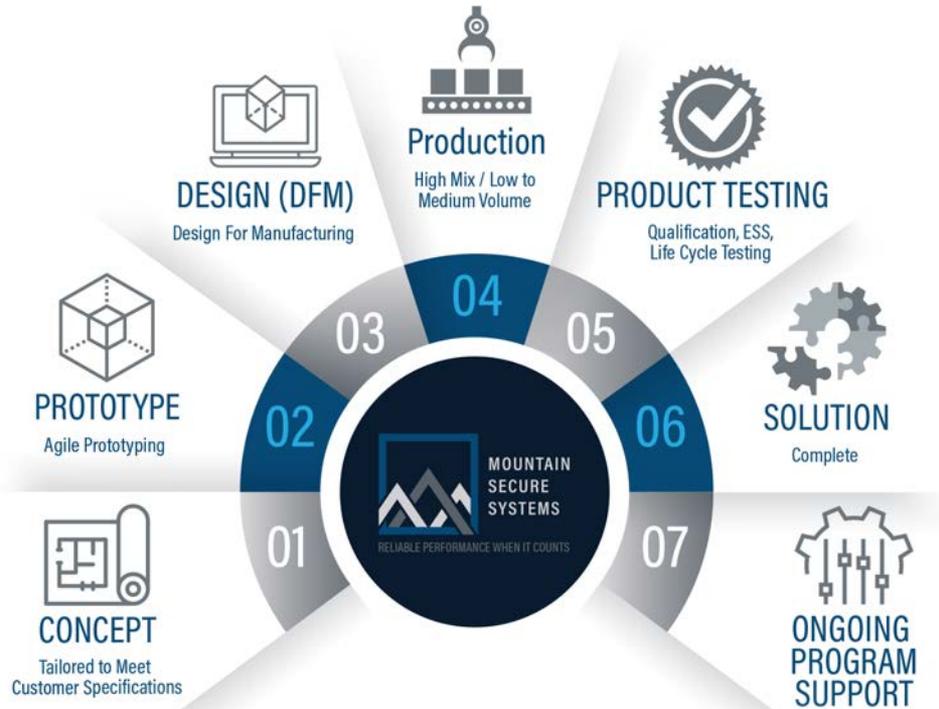
Shock & Vibration

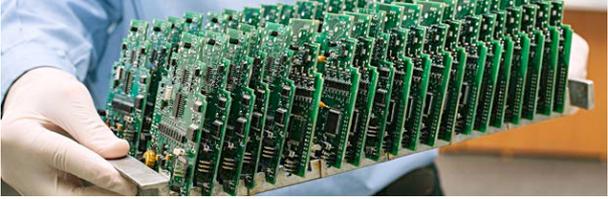


Explosive Decompression



Affordable Customization





Contract Manufacturing

- World-Class Build-to-Print manufacturing facility
- Certified In-house testing for: Altitude, Temperature, ESS Screening, Shock and Vibration
- Manage and maintain all build records
- Component EOL management
- Review all builds for “Design For Manufacturability” DFM
- Extremely cost competitive

Our Solutions



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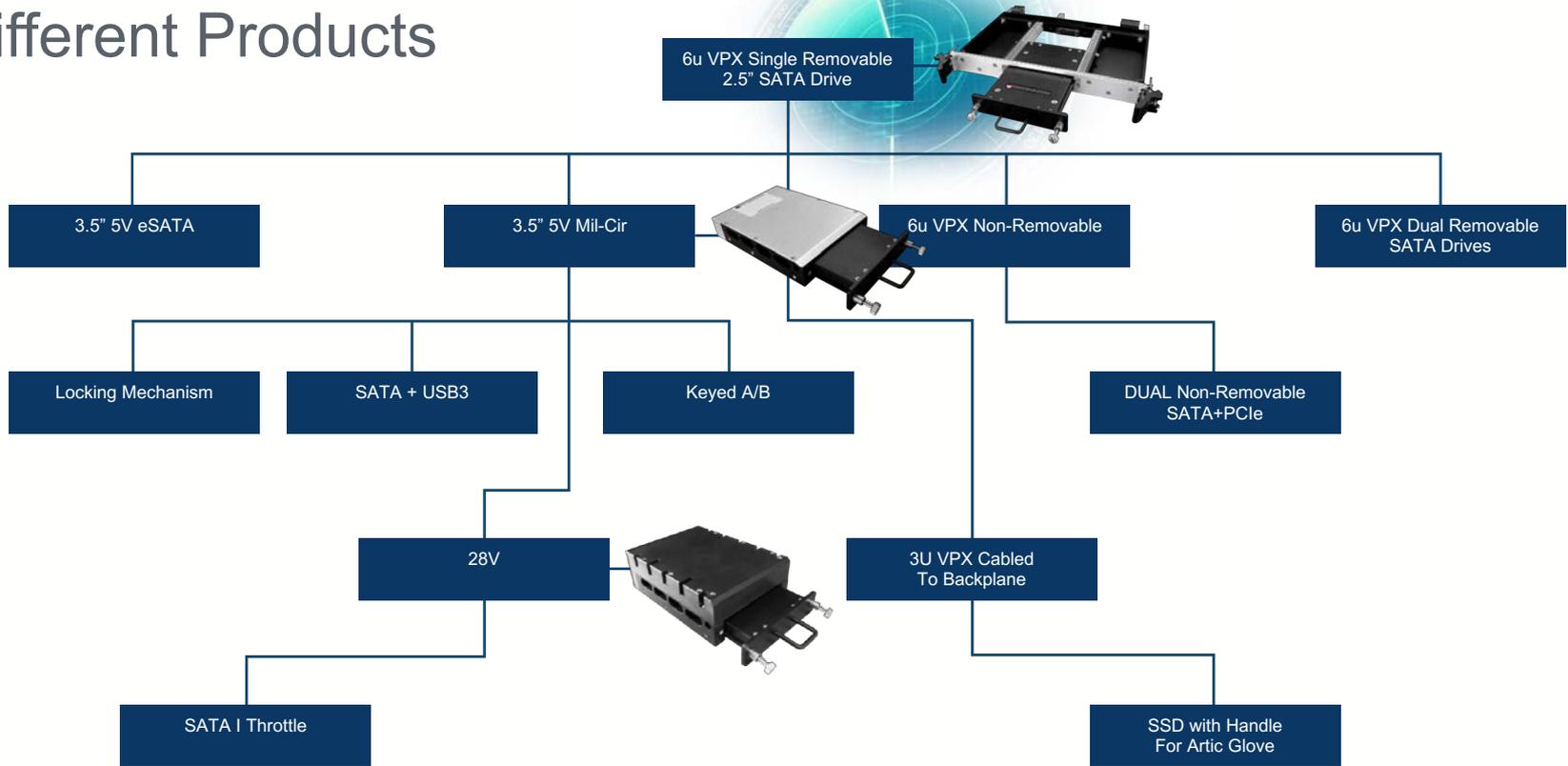
Product Evolution

6u VPX Single Removable
2.5" SATA Drive



Original design for an Airborne Sonar application.

Tailored Into 12 Different Products

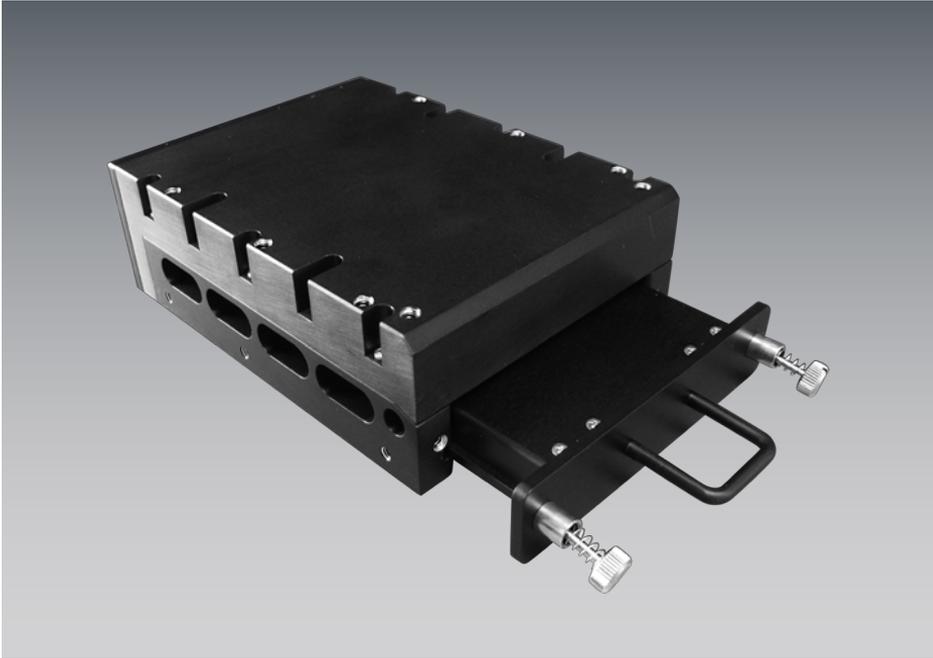


3.5" 5V MIL-CIR



- For a UAV application installs in standard 3.5" HH form factor envelope utilizing rugged military circular connections

28V



- Allowed for direct 28V power from the vehicle
Includes EMI and Power Filters

Our Products



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Removable Drives



3.5" HH



6u VPX

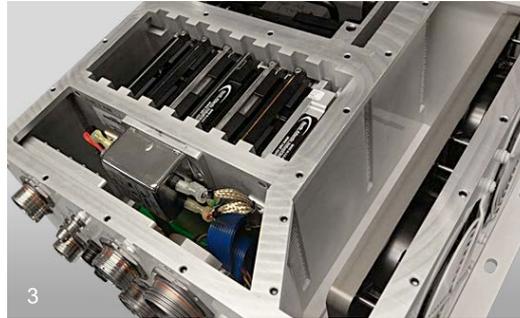


6u VME

Attributes

- Internal 2.5" drive agnostic: To meet all program requirements
- Captive thumb screws or wedge locks for docking
- Connector rated for 100,000 insertion cycles
- Hot swappable
- Sealed enclosure to protect against harsh Environment
- Encryption, secure erase
- Extended temperature
- Power protection options
- Desktop docking bay for off-vehicle data downloading

Chassis



Attributes (1)

- 6 slot liquid cooled 3U VPX chassis
 - SBC, P/S, 4x 128GB SSD
- MSS designed VPX backplane
- MSS designed & integrated Linux S/W
- Qualified by MSS to full MIL-810 requirements (-40C to +85C)

Attributes (2 & 3)

- 8 slot conduction cooled 3U VPX chassis
 - 2x VPU, 2x SBC, P/S, E-Net Switch, I/O card
- 6 SSD removable drive bay
- Minimal Cables / Edge Card

External Flat Mounts



Attributes

- Easy Bolt-on Integration and Grounding
- USB 3.0/2.0 Interface
- Packaged 2.5" SATA Solid State Drive (selectable to meet program requirements)
- Sealed Mini Mil-Circular Connectors
- +9VDC to +36VDC Power Input.
- Sealed enclosure to protect against harsh environments
- Encryption, Secure Erase
- Extended Temperature
- Power Protection Options

Conversion Electronics



Andes Series Fibre Channel



Andes Series SCSI Narrow



Andes Series SCSI Ultra 320

3.5 HH Conversion Electronics

Attributes

- The most cost-effective, ruggedized solution for converting fiber channel or SCSI to SATA in a standard 3.5" form factor
- Easy-to-use, drop-in replacement
- Almost any 2.5" drive can be selected
- Avoid the high cost of redesigning and re-qualifying system architecture to a modern interface
- Removable / non-removable

Facilities & Highlights



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Explosive Decompression





MSS Facility

- Location: Longmont, Colorado
- 15,000 Sq. Ft. Facility
- Lean Manufacturing (Kaizen, 5S)
- Testing facilities: 100% quality and environmental testing on all shipped electronics and hardware
- Best-In-Class warranty (3 year warranty)

Partnerships & Affiliations:

- AUSA | Association of the US Army
- NDIA | National Defense Industrial Association

Certifications & Requirements:



In Summary



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Overview



- Pioneer of ruggedized COTS since 1985
- Manufacturer of ruggedized electronics and system packages
- Core markets: Aerospace & Defense, Mining
- Operate in harsh and dangerous environments
- 15,000 sq. ft facility w/ testing capabilities
- Affordable customization
- Agile partnership and scalable production
- Contract manufacture with Build-to-Print capabilities
- EOL/Obsolete Material Management: Total Parts Plus
- Low-medium volume / high mix manufacturing on-site
- Specializing in engineering and integration of manufactured packaged COTS
- Low-risk solutions

Thank You

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