



### Optimized for Industry and Military Applications

- ◆ Rugged platform designed for the rapid, physical collection and transfer of imagery, LIDAR or sensor data from remote field locations with no network access to fixed data centers or base operations.
- ◆ Analyze data in the field or in your data center using Six (6) swappable 8-bay mobile modules with hot swappable drive bays that can hold up to 32TB each of mission critical data.
- ◆ 96TB maximum capacity NAS system supporting 2.5" 15K, 10K or 7200 RPM SAS or SATA drives or SSDs.
- ◆ Designed to survive shock and vibration with a ruggedized chassis structure.
- ◆ Powered by Cutting Edge's 5th generation field proven 64-bit Linux EdgeWare Unified Storage OS, or optional ZFS based EdgeWare ZSS OS.

### Key Benefits:

- ✓ **High Density** – Up to 192TB within a single 5U MRSS rack mount, ruggedized enclosure to MIL-STDs.
- ✓ **Removable Storage** – Six (6) 8 bay swappable mobile modules with hot swappable drive bays to allow remote data collection and analysis.
- ✓ **High-Performance** – Access MB to TB files in seconds.
- ✓ **Connectivity** – Access shared files via any kind of network client (UNIX, Windows, MAC OS, Linux), 7 PCIe slots, 10G Ethernet, InfiniBand (optional), dedicated block-level storage via iSCSI.
- ✓ **Reliability** – RAID 0, 1, 5, 6, 10, 50, 60 data protection, dual controllers.
- ✓ **Recovery** – Synchronous mirroring and asynchronous replication. Snapshots and Volume Backup. D2D, D2T and D2USB modes available.
- ✓ **Security** – SSH for secure encrypted communications, SSL for secure communications over the internet.
- ✓ **Customizable** – Model shown is naval variant, but can be customized to meet alternate DoD requirements.
- ✓ **SNMP Alerts** – Manage and monitor events.
- ✓ **COTS Components** – Economical and available components including an open source Linux operating system.



# 5U Ruggedized Storage Platform

## Military Standards (Design Goals)\*

|  |   |
|--|---|
| MIL-STD-167-1A – Mechanical Vibration of Shipboard Equipment | 2G, 20–50 Hz, 1 hour minimum in every axis                            |
| MIL-STD-461E – Electromagnetic Interference                  | CE101, CE102, CS101, CS 114, CS115, CS116, RE101, RE102, RS101, RS103 |
| MIL-STD-810G – High-Impact Shock Test of Shipboard Equipment | Class A4 with solid state drives to 10G maximum acceleration          |
| MIL-STD-740-1(SH) – Noise Limits                             | AN in dB(A) = 58dB  |

## International Standards (Design Goals)\*\*

|  |   |
|--|---|
| IEC 60068-2-2 – Dry Heat Environment   | 113°F (45°C), Relative Humidity = 90%,<br>6 cycles of 24 hours at 85% of nominal load |
| IEC 60068-2-11 – Salt Fog Environment  | Part 2: Tests. Test Ka: Salt mist   |
| IEC 60068-2-30 – Damp Heat Environment | 113°F (45°C), 16 hours at 85% of nominal load   |

## Environmental

|                           |                                       |
|---------------------------|---------------------------------------|
| Operating Temperature     | 45°F – 113°F (7.2°C – 45°C)           |
| Non-operating Temperature | -40°F – 158°F (-40°C – 70°C)          |
| Operating Humidity        | 5% - 85% Non-condensing (Design Goal) |
| Operating Altitude        | 12,000 feet                           |
| Non-operating Altitude    | 40,000 feet                           |

## Mechanical (5U)

|        |   |
|--------|---|
| Height | 9.37 inches (238mm)                       |
| Width  | 17.75 inches (450.85mm)                   |
| Depth  | 27.2 inches (691mm)                       |
| Weight | Up to 143.3 pounds (65Kg) fully populated |

## CPU

|                        |   |
|------------------------|---|
| Intel® Xeon Processors | Intel® Xeon® processor E5-2600 and E5-2600 v2 family<br>Low-voltage processor options available |
|------------------------|---|

## Expansion Slots

|   |                                     |
|---|-------------------------------------|
| Seven (7) PCI-Express 3.0 expansion slots | One PCI-E 3.0 x16, six PCI-E 3.0 x8 |
|---|-------------------------------------|

## External Drive Bays

|                            |  |
|----------------------------|--|
| Six (6) 8-Bay Mobile Racks | Forty-eight (48) removable SAS or SATA 2.5 inch HDD or SSD |
|----------------------------|--|

## System Board

|            |  |
|------------|--|
| Supermicro | X9DRH-iF, dual socket R (LGA 2011), up to 1TB ECC DDR3, up to 1866MHz, 16x DIMM sockets, Intel® i350 Dual port GbE LAN, Integrated IPMI 2.0 and KVM with Dedicated LAN, 4x USB 2.0 ports |
|------------|--|

\* Military standards are listed as design goals which have not been tested and are subject to change.

\*\* International environmental standards are listed as design goals which have not been tested and are subject to change.

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