ALL-S/TAR™ NSS (Network Storage System)

Strategic/Tactical Airborne Recorder

Multi-purpose Network Appliance

PRODUCT DESCRIPTION
Specifically developed for Mission System data storage, the NSS (Network Storage System) provides for storage of infrastructure level, application level, mission data and work environment control data. This magnetic disk-based network appliance offers the convenience of media removability with its 4 HiPERDisk™/HiPERFlash™ Removable Media Modules (HRMM). Post mission, the HRMMs are removed from the NSS integrated chassis assembly and processed using their standard SATA (Serial ATA) interface at our companion HRMM Media Management Station (HMMS). The NSS includes the following features:

• Supports Remote Boot for Diskless Workstations
• Storage Area Network (SAN) Functionality
• Industry Standard Interfaces and Protocols
• Superior Reliability, Low Cost of Ownership

FEATURES
• Network Appliance
• Direct Access Storage Device (DASD)
• 960GBytes (RAID 1)
• Removable Storage
• Dual Redundant Architecture
• Gigabit Ethernet Control
• iSCSI Protocol
• SNMP v3 Management
• Multi-Client Data Access
  - Windows Initiators
  - Linux Initiators
• Simultaneous Read/Write
• User Authentication Supported
• NSA 9-12 Secure Erase
• Hot Swappable Media

APPLICATIONS
• Mission Server Backend Storage
• Mission Data Collection
• Upload of Mission Tasks and Map Data
• Airborne Data Center
• Commercial Data Center

PLATFORMS/SYSTEMS
• P-8A MMA
• Network - GIG
• Maritime Patrol Aircraft
• Missile Defense Applications
• Ground Exploitation Systems

NSS with HiPERDISK™ / HiPERFLASH™
• Ruggedized Media
• SATA Interface
• 480 GB of Storage
• 8 lbs, 8.6” x 2.5” x 10.5”
ALL-S/TAR™ NSS (Network Storage System)

PHYSICAL CHARACTERISTICS
Volume: 2.3 CuFt (3990 in³)
Size: 10.5” H x 19” W x 20” D
267 mm H x 483 mm W x 508 mm D
Weight: 98 lbs;
44.5 kgs (with removable media)
Power: 115VAC; 47-400 Hz, 1 Ph 220 watts
Cooling: Forced Air Convection (External)

PERFORMANCE CHARACTERISTICS

1- Magnetic Disk, 2- Solid State Disk
- Raw Storage Capacity: 1920 Gbytes
- Interface: Dual Gigabit Ethernet
- Protocol: iSCSI
- Management: SNMP v3
- Simultaneous Read/Write: Yes
- Sustained Data Rate:
  - Writes 18MB/sec¹, 30MB/sec²
  - Reads 36MB/sec¹, 55MB/sec²
- Multiple Client Support Up to 45 initiators
- Raid 1 Partitions: Up to 256
- File Systems supported: FAT32, NTFS, EXT2, EXT3, XFS, ReiserFS
- MTBF: 4,500 hrs
- MTBOMF: 65,000 hrs

SPECIAL FEATURES
- File Access TFTP Supported
- Jumbo Frames 9000 Bytes
- CHAP Authentication 1-way, 2-way, or none

ACCESSORIES
- HRMM Media Management Station (HMMS)
- Mounting Slides

ENVIRONMENTAL QUALIFICATIONS

<table>
<thead>
<tr>
<th></th>
<th>Operating</th>
<th>Non-operating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature (max)</td>
<td>5°C to +35°C</td>
<td>-40°C to +71°C</td>
</tr>
<tr>
<td>Altitude (max)</td>
<td>11,000 ft</td>
<td>40,000 ft</td>
</tr>
<tr>
<td>Humidity (non-condensing)</td>
<td>6% to 95%</td>
<td>6% to 95%</td>
</tr>
<tr>
<td>Shock (half-sine)</td>
<td>10 G, 11 ms</td>
<td>10 G, 11 ms</td>
</tr>
<tr>
<td>Vibration (random)</td>
<td>1.0 Grms, 10 to 2000 Hz</td>
<td>2.3 Grms, 10 to 2000 Hz</td>
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</tbody>
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DESIGN COMPLIANCE
- EMI/EMC: MIL-STD-461E
- Power: MIL-STD-704E
- Environmental: MIL-STD-810F
  - Altitude Meth 500.4 Proc II
  - Rapid Decompression Meth 500.4 Proc III
  - Random Vibration Meth 514.5 Proc I
  - Acceleration Meth 513.5 Proc II
  - Crash Safety Meth 513.5 Proc III
  - Shock Meth 516.5 Proc I
  - Bench Handling Meth 516.5 Proc VI
  - Temperature Meth 501.4 Proc I & II
  - Temperature Shock Meth 503.4 Proc I
  - Explosive Atmosphere Meth 511.4 Proc I
  - Humidity Meth 507.4 Proc I
  - Fungus Fungus Inert Material
  - Decontamination No Damage

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