Seagate manufactures hard drives that specifically address the needs of the hyperscale storage market. As the highest-performing hard drive in the Seagate® X class, the Exos® 2X18 enterprise dual-actuator hard drive utilizes MACH.2™ technology enabling up to 2× the performance of an enterprise single-actuator 3.5-inch hard drive.

### Highest Performance for Highest Rack Space Efficiency

MACH.2 technology enables up to 2× the performance of an enterprise single-actuator 3.5-inch hard drive

**Highest 18TB hard drive performance**, making it the logical choice for cloud data center and massive scale-out data center applications. Available as two independently addressable, 9TB logical units for SAS or one 18TB logical device for SATA.

**PowerBalance™** feature optimizes IOPS/Watt

**Helium sealed-drive design** delivers lower total cost of ownership through lower power and weight

**Next-generation helium side-sealed weld technology** for added handling robustness and leak protection

**Digital environmental sensors** to monitor internal drive conditions for optimal operation and performance

**Latest hermetic interconnect technology** supporting higher data rate heads and higher pin counts for extreme thermal conditions

Proven enterprise-class reliability backed by **5-year limited warranty and 2.5M-hr MTBF rating**

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1 When operating both actuators simultaneously
## Specifications

<table>
<thead>
<tr>
<th>Feature</th>
<th>SAS 12Gb/s</th>
<th>SATA 6Gb/s</th>
<th>SAS 12Gb/s</th>
<th>SATA 6Gb/s</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Capacity</strong></td>
<td>18TB</td>
<td>18TB</td>
<td>16TB</td>
<td>16TB</td>
</tr>
<tr>
<td><strong>Standard Model FastFormat</strong> (512e/4Kn)</td>
<td>ST18000NM0272</td>
<td>ST18000NM0092</td>
<td>ST16000NM0002</td>
<td>ST16000NM0092</td>
</tr>
<tr>
<td><strong>SED Model FastFormat</strong> (512e/4Kn)</td>
<td>ST18000NM0012</td>
<td>—</td>
<td>ST16000NM0012</td>
<td>—</td>
</tr>
<tr>
<td><strong>Capacity per Logical Unit</strong></td>
<td>9TB</td>
<td>—</td>
<td>8TB</td>
<td>—</td>
</tr>
<tr>
<td><strong>Capacity per Actuator</strong></td>
<td>9TB</td>
<td>9TB</td>
<td>8TB</td>
<td>8TB</td>
</tr>
</tbody>
</table>

### Features

- **Helium Sealed-Drive Design**: Yes
- **Protection Information (T10 DIF)**: No
- **Super Parity**: Yes
- **Low Halogen**: Yes
- **PowerChoice™ Idle Power Technology**: Yes
- **PowerBalance™ Power/Performance Technology**: Yes
- **Cache, Multisegmented (MB)**: 256
- **Organic Solderability Preservative**: Yes

### Reliability/Data Integrity

- **Mean Time Between Failures (MTBF, hours)**: 2,500,000
- **RSA 2048 Firmware Verification (SD&D)**: Yes
- **Nonrecoverable Read Errors per Bits Read**: 1 sector per 10E15
- **Power-On Hours per Year (24×7)**: 8760
- **512e Sector Size (Bytes per Sector)**: 512
- **4Kn Sector Size (Bytes per Sector)**: 4,096
- **Limited Warranty (years)**: 5
- **Power Supply Requirements**: +12 V and +5 V

### Performance

- **Spindle Speed (RPM)**: 7200RPM
- **Interface Access Speed (Gb/s)**: 12.0, 6.0, 3.0
- **Max. Sustained Transfer Rate OD (MB/s,MiB/s)**: 554 MB/s/528 MiB/s
- **Random Read/Write 4K QD16 (IOPS)**: 304/560
- **Average Latency (ms)**: 4.16
- **Rotation Vibration @ 20-1500 Hz (rad/sec²)**: 12.5

### Power Consumption

- **Idle A (W) Average**: 8.0W
- **Random Read/Write 4K/16Q (W)**: 11.5 W
- **Sequential Read/Write 256K/16Q (W)**: 13.5 W
- **Power Supply Requirements**: +12 V and +5 V

### Environmental

- **Temperature, Operating (°C)**: 5°C – 60°C
- **Vibration, Nonoperating**: 2.27
- **Shock, Operating 2ms (Read/Write) (Gs)**: 40
- **Shock, Nonoperating 2ms (Gs)**: 200

### Physical

- **Height (in/mm, max)**: 1.028in/26.1mm
- **Width (in/mm, max)**: 4.010in/101.85mm
- **Depth (in/mm, max)**: 5.787in/147.00mm
- **Weight (lb/gm)**: 1.466lb/665g
- **Carton Unit Quantity**: 20
- **Cartons per Pallet/Cartons per Layer**: 40/8

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1. FastFormat models ship in 512e format state. When switching from 512e to 4Kn by executing the FastFormat routine, all data on the drive will be deleted. Note that data must be aligned to 4K sectors to see improved performance in 4Kn format.
2. Self-Encrypting Drives (SED) available through franchised authorised distributors. May require TCG-compliant host or controller support.
3. Supports Hotplug operation per the SAS-3, SPL-3, and/or Serial ATA Revision 3.3 specifications
4. When operating both actuators simultaneously
5. These base deck dimensions conform to the Small Form Factor Standard (SFF-8301) found at www.sffcommittee.org. For connector-related dimensions, see SFF-8323.