Enterprise Performance
10K HDD

Data Sheet

The Perfect Match of High Capacity and High Performance
- High-capacity and small 2.5-inch footprint enables data centers to keep pace with data growth and optimize data center real estate.
- Delivers 1.8TB of high-performance data access for write-intensive applications.
- Future-proof your storage solutions with advanced format interfaces of 512 Emulation and 4K Native.
- Seagate® TurboBoost™ option accelerates I/O operations and optimizes response times to complete more transactions in less time—even during peak demand.
- Latest 12Gb/s SAS interface for improved scalability.
- Over 2× legacy 3.5-inch 10K-RPM HDD capacity within a lower power envelope.
- Seagate PowerChoice™ technology for T10-compliant power management enables IT organizations to tailor systems for enhanced power consumption.
- Seagate RAID Rebuild™ technology option makes RAID recovery faster and safer.
- Protection Information (PI) protects against inadvertent data change.¹
- Seagate Secure™ drive models (AES-256) help cut IT drive retirement costs while helping securely protect data where it lives—on the drive.²
- Delivers 1200GB of high-performance data access for write-intensive applications.

Best-Fit Applications
- Mission-critical servers and external storage arrays.
- Power- and space-constrained data centers.
- Green IT and drive-retirement cost reduction initiatives.
- Compliance or data security initiatives.
- Migration from 3.5-inch drive systems to next-generation technology.

¹ Protection Information (PI) feature requires PI-compliant host or controller support.
² Not all drives may be available in all countries. Seagate Secure drives may use TCG-compliant host or controller support.
# Enterprise Performance 10K HDD

## Specifications

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<tr>
<th></th>
<th>512 Native&lt;sup&gt;1&lt;/sup&gt;</th>
<th>600GB&lt;sup&gt;1&lt;/sup&gt;</th>
<th>1.8TB&lt;sup&gt;1&lt;/sup&gt;</th>
<th>1.2TB&lt;sup&gt;1&lt;/sup&gt;</th>
<th>900GB&lt;sup&gt;1&lt;/sup&gt;</th>
<th>600GB&lt;sup&gt;1&lt;/sup&gt;</th>
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<tr>
<td><strong>Standard Model</strong></td>
<td>ST1200MM0088</td>
<td>ST660MM0088</td>
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<td><strong>Seagate Secure™ Model</strong></td>
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<td><strong>Seagate Secure FIPS 140-2 Model</strong></td>
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<td><strong>TurboBoost™ Standard Model</strong></td>
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### Performance

- **Spindle Speed (RPM)**: 10K
- **Average Latency (ms)**: 2.9
- **Sustained Transfer Rate (Outer to Inner Diameter, MB/s)**: 215 to 108
- **Cache, Multisegmented (MB)**: 128

### Configuration/Reliability

- **Disks**: 3
- **Heads**: 6
- **Interface**: 12Gb/s SAS
- **External Transfer Rate (MB/s)**: 1200
- **Annualized Failure Rate (AFR)**: 0.44%
- **Nonrecoverable Read Errors per Bits Read**: 1 per 10E16
- **TurboBoost Enhanced Cache Feature**: Enabled

### Power Management

- **Typical Op (A) +5V/+12V**: 0.44/0.42
- **Typical Operating (W)**: 7.25
- **Power Idle (W)**: 4.26
- **Performance Efficiency Index (Idle W/GB)**: 0.0036

### Environmental

- **Temperature, Operating (°C)**: 5 to 55
- **Temperature, Nonoperating (°C)**: −40 to 70
- **Vibration, Operating: <500Hz (Gs)**: 0.5
- **Vibration, Nonoperating: <500Hz (Gs)**: 3

### Physical

- **Height (in/mm, max)**: 0.591/15.00
- **Width (in/mm, max)**: 2.760/70.10
- **Depth (in/mm, max)**: 3.955/100.45
- **Weight (lb/kg)**: 0.426/0.193

### Warranty

- **Limited Warranty (years)**: 5

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1. One gigabyte, or GB, equals one billion bytes and one terabyte, or TB, equals one trillion bytes when referring to drive capacity.
2. Seagate Secure drives and FIPS 140-2 Validated drives are not available in all models or countries. May require TCG-Compliant host or controller support.
3. FIPS 140-2 in review.
4. 512 Emulation and 4K Native models will provide a higher level of performance in 4K-aligned systems.
5. For connector-related dimensions, see SFF-8087 (SAS models).

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4K Native Specifications on Next Page
### Specifications

<table>
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<tr>
<th></th>
<th>1.8TB 1</th>
<th>1.2TB 2</th>
<th>900GB 3</th>
<th>600GB 4</th>
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<tbody>
<tr>
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</tr>
</tbody>
</table>

### Performance

- **Spindle Speed (RPM)**: 10K
- **Average Latency (ms)**: 2.9
- **Sustained Transfer Rate (Outer to Inner Diameter, MB/s)**: 241 to 117
- **Cache, Multisegmented (MB)**: 128
- **External Transfer Rate (MB/s)**: 1200
- **Nonrecoverable Read Errors per Bits Read**: 1 per 10E16
- **Annualized Failure Rate (AFR)**: 0.44%
- **TurboBoost Enhanced Cache Feature**: Enabled
- **I/O Acceleration and Response Time Optimization**: Enabled
- **NAND Flash Type**: eMLC
- **NAND Flash Size**: 32GB
- **Intelligent NAND Endurance Management**: Yes
- **Power Management**
  - **Typical Op (A) +5V/+12V**: 0.44/0.47
  - **Typical Operating (W)**: 7.8
  - **Power Idle (W)**: 4.55
  - **Performance Efficiency Index (Idle W/GB)**: 0.0025
- **Environmental**
  - **Temperature, Operating (°C)**: 5 to 55
  - **Temperature, Nonoperating (°C)**: -40 to 70
  - **Shock, Operating: 11ms (Gs)**: 40
  - **Vibration, Operating: <500Hz (Gs)**: 0.5
  - **Vibration, Nonoperating: <500Hz (Gs)**: 3
- **Physical**
  - **Height (in/mm, max)**: 0.591/15.00
  - **Width (in/mm, max)**: 2.760/70.10
  - **Depth (in/mm, max)**: 3.955/100.45
  - **Weight (lb/kg)**: 0.417/0.189
  - **Carton Unit Quantity**: 50
  - **Cartons per Pallet**: 10
  - **Cartons per Layer**: 10

### Warranty

- **Limited Warranty (years)**: 5

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1 One gigabyte, or GB, equals one billion bytes and one terabyte, or TB, equals one trillion bytes when referring to drive capacity.
2 Seagate Secure drives and FIPS 140-2 Validated drives are not available in all models or countries. May require TCG-Compliant host or controller support.
3 FIPS 140-2 in review.
4 512 Emulation and 4K Native models will provide a higher level of performance in 4K-aligned systems.
5 These base deck dimensions conform to the Small Form Factor Standard (SFF-8201) found at www.sffcommittee.org.
6 For connector-related dimensions, see SFF-8223 (SAS models).