



DATA SHEET

Trusted. Efficient. Versatile.

Exos 7E2

The Seagate® Exos™ 7E2 enterprise hard drives with 1 TB and 2 TB capacities are specifically designed to address the needs of storing unstructured data cost-effectively. The traditional 512-native format with a 6 Gb/s SATA interface ensures easy integration into legacy storage servers and systems.



Best-Fit Applications

- Legacy mainstream applications requiring 512n block size
- Hyperscale applications/cloud data centres with replicated storage
- Scale-out data centres and Big Data analytics
- High-capacity density RAID storage
- Mainstream enterprise external storage arrays (SAN, NAS, DAS)
- Distributed file systems, including Hadoop and Ceph
- Enterprise backup and restore — D2D, virtual tape
- Centralised surveillance

Reliable Data Center-Grade Hard Drive Within Reach

The Exos 7E2 hard drives support up to 2 TB per drive,¹ offering economical storage for traditional 512-native infrastructures requiring a highly reliable enterprise hard drive. Exos 7E2 provides the most cost-effective, reliable access to unstructured data in bulk storage applications. Built on field-proven 9th generation conventional magnetic recording (CMR) technology, the Exos 7E2 drive helps to catalyse the datasphere, enabling data centre architects and IT professionals to deliver trusted performance, rock-solid reliability, ironclad security and low TCO for demanding 24x7 operations.

Robust Bulk Data Storage for a 24x7 World

The Exos 7E2 hard drives are proven, enterprise-class hard drives with enterprise-grade reliability backed by a 2 million hour MTBF rating. With state-of-the-art cache, on the fly error-correction algorithms and rotational vibration design, the Exos 7E2 helps ensure consistent performance in replicated and RAID multi-drive systems.

Consistent, High Performance and Compatibility for Legacy Data Centre Applications

Meet your storage workload requirements with the most efficient and cost-effective SATA 6 Gb/s drive in a 3.5-inch data centre footprint. With user-definable innovative technology advancements like PowerChoice™ and Seagate RAID Rebuild®, you can tailor your bulk storage requirements for even greater improvements in your TCO.

Enhanced Enterprise Reliability, Data Protection and Security

The Exos 7E2 series delivers firmware security features to help protect data where it lives — on the drive. Exos 7E2 hard drives safeguard firmware with authentic Secure Downloads & Diagnostics.

¹ Seagate recommends validating your configuration with your HBA/RAID controller manufacturer to ensure full capacity capabilities.



| Specifications | 512n SATA | |
|--|--------------------|--------------------|
| Capacity | 2 TB | 1 TB |
| Base Model | ST2000NM0008 | ST1000NM0008 |
| Features | | |
| Super Parity | Yes | Yes |
| Low Halogen | Yes | Yes |
| PowerChoice™ Technology | Yes | Yes |
| Seagate RAID Rebuild® Technology | Yes | Yes |
| SD&D Firmware Security | Yes | Yes |
| Cache | 128 MB | 128 MB |
| Reliability/Data Integrity | | |
| Vibration, Non-operating: 10 Hz to 500 Hz (Grms) | 5 | 5 |
| Mean Time Between Failures (MTBF, hours) | 2,000,000 | 2,000,000 |
| Reliability Rating @ Full 24x7 Operation (AFR) | 0.44% | 0.44% |
| Non-recoverable Read Errors per Bits Read, Max | 1 sector per 10E15 | 1 sector per 10E15 |
| Power-On Hours per Year (24x7) | 8,760 | 8,760 |
| Bytes per Sector | 512 | 512 |
| Limited Warranty (years) | 5 | 5 |
| Performance | | |
| Spindle Speed (RPM) | 7,200 | 7,200 |
| Interface Access Speed (Gb/s) | 6.0, 3.0, 1.5 | 6.0, 3.0, 1.5 |
| Max. Sustained Transfer Rate OD (MB/s, MiB/s) | 194 | 194 |
| Average Latency (ms) | 4.16 | 4.16 |
| Interface Ports | Single | Single |
| Rotational Vibration @ 1,500 Hz (rad/s²) | 12.5 | 12.5 |
| Power Consumption | | |
| Idle Power, Average (W) | 4.7 | 4.7 |
| Typical Operating (W) | 7 | 7 |
| Power Supply Requirements | +12 V and +5 V | +12 V and +5 V |
| Environmental | | |
| Temperature, Operating (°C) | 5°C – 60°C | 5°C – 60°C |
| Shock, Operating 2 ms (Read/Write) (Gs) | 70/40 Gs | 70/40 Gs |
| Shock, Non-operating, 1 ms/2 ms (Gs) | 200/300 | 200/300 |
| Physical | | |
| Height (in/mm, max) ¹ | 26.1 mm/1.028 in | 26.1 mm/1.028 in |
| Width (mm/in, max) ¹ | 101.85 mm/4.01 in | 101.85 mm/4.01 in |
| Depth (mm/in, max) ¹ | 147 mm/5.787 in | 147 mm/5.787 in |
| Weight (lb/g) | 550 g/1.212 lb | 550 g/1.212 lb |
| Carton Unit Quantity | 20 | 20 |
| Cartons per Pallet | 40 | 40 |
| Cartons per Layer | 8 | 8 |

¹ These base deck dimensions conform to the Small Form Factor Standard (SFF-8201) found at www.sffcommittee.org. For connector-related dimensions, see SFF-8223.

seagate.com



AMERICAS Seagate Technology LLC 10200 South De Anza Boulevard, Cupertino, California 95014, United States, 408-658-1000
 ASIA/PACIFIC Seagate Singapore International Headquarters Pte. Ltd. 7000 Ang Mo Kio Avenue 5, Singapore 569877, 65-6485-3888
 EUROPE, MIDDLE EAST AND AFRICA Seagate Technology SAS 16-18, rue du Dôme, 92100 Boulogne-Billancourt, France, 33 1-4186 10 00

© 2017 Seagate Technology LLC. All rights reserved. Seagate, Seagate Technology and the Spiral logo are registered trademarks of Seagate Technology LLC in the United States and/or other countries. Exos, the Exos logo, PowerChoice and Seagate RAID Rebuild are either trademarks or registered trademarks of Seagate Technology LLC or one of its affiliated companies in the United States and/or other countries. All other trademarks or registered trademarks are the property of their respective owners. When referring to drive capacity, one gigabyte, or GB, equals one billion bytes; and one terabyte, or TB, equals one trillion bytes. Your computer's operating system may use a different standard of measurement and report a lower capacity. In addition, some of the listed capacity is used for formatting and other functions, and thus will not be available for data storage. Actual data rates may vary depending on operating environment and other factors, such as chosen interface and disk capacity. Seagate reserves the right to change, without notice, product offerings or specifications. DS1956.1-1709 GB September 2017