



**DATA SHEET** 

Trusted. Efficient. Versatile. **Exos 10E2400** 

Seagate<sup>®</sup> Exos<sup>®</sup> 10E2400 enterprise hard drives are the industry's fastest 10K-RPM drives, with capacities up to 2.4TB in a 2.5-inch form factor, and intended for traditional data centers where density, power consumption and data integrity are paramount.





#### **Best-Fit Applications**

- Mission critical servers and external storage arrays
- Database and online transaction process (OLTP) applications
- Power- and space-constrained data centers
- Green IT and drive-retirement cost reduction initiatives
- Compliance and data security initiatives
- Migration from 3.5-inch drive systems to next-generation technology
- Cost-effective alternative to higherpriced performance solutions



## The Perfect Match of High Capacity and High Performance

The high capacity and small 2.5-inch footprint of the Exos 10E2400 drive enables data centers to keep pace with data growth and optimize data center real estate. Exos 10E2400 delivers up to 2.4TB of high-performance data access for write-intensive applications. A single advanced format interface model lets you future-proof your storage infrastructure. The Seagate Enhanced Caching feature accelerates read and write I/O operations, preventing applications from slowing down under peak usage conditions. The latest 12Gb/s SAS interface provides improved scalability.

## Maximize Storage Investments for the Long Haul

Exos 10E2400 offers Protection Information (PI) to help protect against data corruption,¹ and Seagate PowerChoice™ technology for T10-compliant power management enables IT organizations to tailor systems for enhanced power consumption. RAID recovery is faster and safer with the help of the Seagate RAID Rebuild® technology option.

### **Industry-Leading Data Security Features**

Seagate Secure<sup>™</sup> SED and FIPS 140-2 government-grade models offer hardware-based security to help protect data-at-rest.<sup>2</sup> With Instant Secure Erase, drive retirement is safe, fast and cost-effective. Seagate Secure models meet the NIST 800-88 media sanitization specification and support the Trusted Computer Group (TCG) standard.<sup>2</sup>

# **Exos 10E300 Enterprise Hard Drives**

The industry's fastest 10K-RPM drives are also available in 300GB capacity and are a perfect choice for entry-level boot server applications.

- 1 Protection Information (PI) feature requires PI-compliant host or controller support.
- 2 Seagate Secure models not available in all countries. May require TCG-compliant host or controller support.





Specifications	FastFormat <sup>™</sup> 512 Emulation/4K Native					
Capacity	2.4TB	1.8TB	1.2TB	600GB		
Standard Model	ST2400MM0129	ST1800MM0129	ST1200MM0129	ST600MM0099		
Seagate Secure <sup>™</sup> SED Model	_	_	ST1200MM0139	ST600MM0109		
Seagate Secure FIPS 140-2/Common Criteria Model	ST2400MM0149	ST1800MM0149	_	_		
Performance						
Spindle Speed (RPM)	10000RPM	10000RPM	10000RPM	10000RPM		
Average Latency (ms)	2.9	2.9	2.9	2.9		
Sustained Transfer Rate (Outer to Inner Diameter, MB/s)	266 to 130	266 to 130	266 to 130	266 to 130		
Cache, Multisegmented (MB)	256	256	256	256		
Enhanced Caching Features						
I/O Acceleration and Response Time Optimization	Enabled	Enabled	Enabled	Enabled		
Intelligent NAND Endurance Management	Yes	Yes	Yes	Yes		
Enterprise Features						
Secure Download & Diagnostics (SD&D) and Instant Secure Erase Option	Yes	Yes	Yes	Yes		
FastFormat (512e/4Kn AF Switching)	Yes	Yes	Yes	Yes		
12Gb/s SAS	Yes	Yes	Yes	Yes		
Configuration/Reliability						
Disks/Heads	4/8	3/6	2/4	1/2		
External Transfer Rate (MB/s)	1200	1200	1200	1200		
Nonrecoverable Read Errors per Bits Read, Max	1 per 10E16	1 per 10E16	1 per 10E16	1 per 10E16		
Annualized Failure Rate (AFR)	0.44%	0.44%	0.44%	0.44%		
Limited Warranty (years)	5	5	5	5		
Power Management						
Typical Op (A) +5V/+12V	0.47/0.52	0.44/0.42	0.45/0.39	0.46/0.40		
Typical Operating (W)	8.6	7.2	6.9	7.1		
Average Idle Power (W)	4.9	4.3	3.7	3.4		
Performance Efficiency Index (Idle W/GB)	0.0020	0.0024	0.0031	0.0057		
Environmental						
Ambient Temperature, Operating (C°)	5°C – 55°C	5°C – 55°C	5°C – 55°C	5°C – 55°C		
Ambient Temperature, Nonoperating (C°)	-40°C – 70°C	-40°C – 70°C	-40°C – 70°C	-40°C – 70°C		
Shock, Max. Operating: 11ms (Gs)	40	40	40	40		
Shock, Max. Nonoperating: 2ms (Gs)	400	400	400	400		
Vibration, Operating: <500Hz (Gs)	0.5	0.5	0.5	0.5		
Vibration, Nonoperating: <500Hz (Gs)	3	3	3	3		
Physical						
Height (in/mm, max) <sup>2</sup>	0.591in/15.00mm	0.591in/15.00mm	0.591in/15.00mm	0.591in/15.00mm		
Width (in/mm, max) <sup>2</sup>	2.750in/69.85mm	2.750in/69.85mm	2.750in/69.85mm	2.750in/69.85mm		
Depth (in/mm, max) <sup>2</sup>	3.955in/100.45mm	3.955in/100.45mm	3.955in/100.45mm	3.955in/100.45mm		
Weight (g/lb)	202g/0.445lb	206g/0.455lb	191g/0.422lb	179g/0.394lb		
Carton Unit Quantity	40	40	40	40		
Cartons per Pallet/Cartons per Layer	60/10	60/10	60/10	60/10		

<sup>1</sup> Not all drives may be available in all countries. Seagate Secure drives meet ISO/IEC 27040 and NIST 800-88 standards and may require use of TCG-compliant host or controller support.

 $<sup>{\</sup>tt 2\ These\ base\ deck\ dimensions\ conform\ to\ the\ Small\ Form\ Factor\ Standard\ (SFF-8201)\ found\ at\ www.sffcommittee.org.}$ 





Specifications		Native	512 Native (v8 models)			
Capacity	1.2TB	600GB	300GB			
Standard Model	ST1200MM0009	ST600MM0009	ST300MM0048			
Seagate Secure <sup>™</sup> SED Model	ST1200MM0039	ST600MM0039	ST300MM0058			
Seagate Secure FIPS 140-2/Common Criteria Model <sup>1</sup>	<u> </u>	_	_			
Performance						
Spindle Speed (RPM)	10000RPM	10000RPM	10000RPM			
Average Latency (ms)	2.9	2.9	2.9			
Sustained Transfer Rate (Outer to Inner Diameter, MB/s)	250 to 130	250 to 130	215 to 125			
Cache, Multisegmented (MB)	128	128	128			
Enhanced Caching Features						
I/O Acceleration and Response Time Optimization	<u> </u>	_	_			
Intelligent NAND Endurance Management	<u> </u>	_	_			
Enterprise Features						
Secure Download & Diagnostics (SD&D) and Instant Secure Erase Option	Yes	Yes	Yes			
FastFormat (512e/4Kn AF Switching)	<u> </u>	_	_			
12Gb/s SAS	Yes	Yes	Yes			
Configuration/Reliability						
Disks/Heads	2/4	1/2	1/2			
External Transfer Rate (MB/s)	1200	1200	1200			
Nonrecoverable Read Errors per Bits Read, Max	1 per 10E16	1 per 10E16	1 per 10E16			
Annualized Failure Rate (AFR)	0.44%	0.44%	0.44%			
Limited Warranty (years)	5	5	5			
Power Management						
Typical Op (A) +5V/+12V	0.45/0.39	0.46/0.40	0.34/0.38			
Typical Operating (W)	6.9	7.1	6.3			
Average Idle Power (W)	3.7	3.4	3.1			
Performance Efficiency Index (Idle W/GB)	0.0031	0.0057	0.010			
Environmental						
Ambient Temperature, Operating (C°)	5°C-55°C	5°C – 55°C	5°C – 55°C			
Ambient Temperature, Nonoperating (C°)	-40°C –70°C	-40°C – 70°C	-40°C – 70°C			
Shock, Max. Operating: 11ms (Gs)	40	40	40			
Shock, Max. Nonoperating: 2ms (Gs)	400	400	400			
Vibration, Operating: <500Hz (Gs)	0.5	0.5	0.5			
Vibration, Nonoperating: <500Hz (Gs)	3	3	3			
Physical						
Height (in/mm, max) <sup>2</sup>	0.591in/15.00mm	0.591in/15.00mm	0.591in/15.00mm			
Width (in/mm, max) <sup>2</sup>	2.760in/70.10mm	2.760in/70.10mm	2.760in/70.10mm			
Depth (in/mm, max) <sup>2</sup>	3.955in/100.45mm	3.955in/100.45mm	3.955in/100.45mm			
Weight (g/lb)	191g/0.422lb	179g/0.394lb	218g/0.481lb			
Carton Unit Quantity	40	40	40			
Cartons per Pallet/Cartons per Layer	60/10	60/10	60/10			

<sup>1</sup> Not all drives may be available in all countries. Seagate Secure drives meet ISO/IEC 27040 and NIST 800-88 standards and may require use of TCG-compliant host or controller support.

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<sup>2</sup> These base deck dimensions conform to the Small Form Factor Standard (SFF-8201) found at www.sffcommittee.org.