



DATA SHEET

# Trusted. Efficient. Versatile. Exos 10E2400



Seagate® Exos™ 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 higher-priced 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,<sup>1</sup> 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™ 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.

<sup>1</sup> Protection Information (PI) feature requires PI-compliant host or controller support.

<sup>2</sup> Seagate Secure models not available in all countries. May require TCG-compliant host or controller support.



Specifications	FastFormat™ 512 Emulation/4K Native			
Capacity	2.4TB	1.8TB	1.2TB	600GB
Standard Model	ST2400MM0129	ST1800MM0129	ST1200MM0129	ST600MM0099
Seagate Secure™ SED Model <sup>1</sup>	—	—	ST1200MM0139	ST600MM0109
Seagate Secure FIPS 140-2/Common Criteria Model <sup>1,2</sup>	ST2400MM0149	ST1800MM0149	—	—
<b>Performance</b>				
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
<b>Enhanced Caching Features</b>				
I/O Acceleration and Response Time Optimization	Enabled	Enabled	Enabled	Enabled
NAND Flash Type	eMLC	eMLC	eMLC	eMLC
NAND Flash Size	16GB	16GB	16GB	16GB
Intelligent NAND Endurance Management	Yes	Yes	Yes	Yes
<b>Enterprise Features</b>				
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
<b>Configuration/Reliability</b>				
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
<b>Power Management</b>				
Typical Op (A) +5V/+12V	0.47/0.52	0.44/0.42	0.46/0.41	0.46/0.40
Typical Operating (W)	8.6	7.2	7.2	7.1
Average Idle Power (W)	4.9	4.3	3.8	3.4
Performance Efficiency Index (Idle W/GB)	0.0020	0.0024	0.0032	0.0057
<b>Environmental</b>				
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
<b>Physical</b>				
Height (in/mm, max) <sup>3</sup>	0.591in/15.00mm	0.591in/15.00mm	0.591in/15.00mm	0.591in/15.00mm
Width (in/mm, max) <sup>3</sup>	2.750in/69.85mm	2.750in/69.85mm	2.750in/69.85mm	2.750in/69.85mm
Depth (in/mm, max) <sup>3</sup>	3.955in/100.45mm	3.955in/100.45mm	3.955in/100.45mm	3.955in/100.45mm
Weight (g/lb)	202g/0.445lb	218g/0.480lb	220g/0.486lb	215g/0.474lb
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>2</sup> FIPS 140-2 in review. See FIPS 140-2 Level 2 Certificate at <http://csrc.nist.gov/groups/STM/cmvp/validation.html>

<sup>3</sup> These base deck dimensions conform to the Small Form Factor Standard (SFF-8201) found at [www.sffcommittee.org](http://www.sffcommittee.org).



Specifications	512 Native		512 Native (v8 models)
Capacity	1.2TB	600GB	300GB
Standard Model	ST1200MM0009	ST600MM0009	ST300MM0048
Seagate Secure™ SED Model <sup>1</sup>	ST1200MM0039	ST600MM0039	ST300MM0058
Seagate Secure FIPS 140-2/Common Criteria Model <sup>1,2</sup>	—	—	—
<b>Performance</b>			
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
<b>Enhanced Caching Features</b>			
I/O Acceleration and Response Time Optimization	—	—	—
NAND Flash Type	—	—	—
NAND Flash Size	—	—	—
Intelligent NAND Endurance Management	—	—	—
<b>Enterprise Features</b>			
Secure Download & Diagnostics (SD&D) and Instant Secure Erase Option	Yes	Yes	Yes
FastFormat (512e/4Kn AF Switching)	—	—	—
12Gb/s SAS	Yes	Yes	Yes
<b>Configuration/Reliability</b>			
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
<b>Power Management</b>			
Typical Op (A) +5V/+12V	0.46/0.41	0.46/0.40	0.46/0.40
Typical Operating (W)	7.2	7.1	6.3
Average Idle Power (W)	3.8	3.4	3.4
Performance Efficiency Index (Idle W/GB)	0.0032	0.0057	0.0057
<b>Environmental</b>			
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
<b>Physical</b>			
Height (in/mm, max) <sup>3</sup>	0.591in/15.00mm	0.591in/15.00mm	0.591in/15.00mm
Width (in/mm, max) <sup>3</sup>	2.760in/70.10mm	2.760in/70.10mm	2.760in/70.10mm
Depth (in/mm, max) <sup>3</sup>	3.955in/100.45mm	3.955in/100.45mm	3.955in/100.45mm
Weight (g/lb)	220g/0.486lb	215g/0.474lb	215g/0.474lb
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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