

# Enterprise Performance 15K HDD

Data Sheet

## High-Performing, up to 600GB, Small Form Factor 15K Hard Drive

- Stores twice the amount of Tier 1 data over previous generation, without increasing drive count, in 2.5-inch form factor
- Enables faster transaction processing, which can result in increased revenue generation and improved customer satisfaction
- Latest 12Gb/s SAS interface for improved scalability
- Industry's highest MTBF at 2.0M hours
- Support for all drive formats, including 512 Native, 512 Emulation and 4K Native
- Provides up to 18% improvement in SDR performance over prior generation<sup>1</sup>
- SAS-based Protection Information (PI) helps protect against inadvertent data change.<sup>2</sup>
- Seagate Secure™ drive options (AES-256) help cut IT drive retirement costs while helping securely protect data where it lives - on the drive.<sup>3</sup>
- Seagate Secure models can be used as standard drives, as ISE feature for easy drive disposal or as part of a more secure solution.<sup>3</sup>
- Seagate Secure FIPS drive option helps protect *Sensitive but Unclassified* and *Protected* class data.<sup>3,4</sup>

## Best-Fit Applications

- High-performance Tier 1 enterprise servers
- Blade, rack and tower servers hosting transaction-based applications
- Power- and space-constrained data centres
- Compliance and data security initiatives

<sup>1</sup> Actual improvement varies depending on queue depth and transfer size.

<sup>2</sup> Protection Information (PI) feature requires PI-compliant host or controller support.

<sup>3</sup> Seagate Secure drives and FIPS drives are not available in all models or countries. May require TCG-compliant host or controller support.

<sup>4</sup> FIPS in review. See FIPS 140-2 Level 2 Certificate at <http://csrc.nist.gov/groups/STM/cmvp/documents/140-1/1401vend.htm>



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Specifications	512 Native <sup>4</sup>		512 Emulation		4K Native	
	600GB <sup>1</sup>	300GB <sup>1</sup>	600GB <sup>1</sup>	300GB <sup>1</sup>	600GB <sup>1</sup>	300GB <sup>1</sup>
Standard Model	ST600MP0005	ST300MP0005	ST600MP0035	ST300MP0035	ST600MP0065	ST300MP0065
Seagate Secure™ Model	ST600MP0015 <sup>2</sup>	ST300MP0015 <sup>2</sup>	ST600MP0045 <sup>2</sup>	ST300MP0045 <sup>2</sup>	ST600MP0075 <sup>2</sup>	ST300MP0075 <sup>2</sup>
Seagate Secure FIPS 140-2 Model	ST600MP0025 <sup>2,3</sup>	—	ST600MP0055 <sup>2,3</sup>	—	ST600MP0085 <sup>2,3</sup>	—
Interface	12Gb/s SAS	12Gb/s SAS	12Gb/s SAS	12Gb/s SAS	12Gb/s SAS	12Gb/s SAS
<b>Performance</b>						
Average Latency (ms)	2.0	2.0	2.0	2.0	2.0	2.0
Sustained Transfer Rate (Outer to Inner Diameter) MiB/s	233 to 160	233 to 160	246 to 180	246 to 180	246 to 180	246 to 180
Max. Instantaneous Transfer Rate (SAS dual port) MB/s	2,400	2,400	2,400	2,400	2,400	2,400
Cache, Multi-segmented (MB)	128	128	128	128	128	128
<b>Configuration/Reliability</b>						
Discs/Heads	3/6	2/4	3/6	2/4	3/6	2/4
Non-recoverable Read Errors per Bits Read, Max	1 per 10 <sup>16</sup>	1 per 10 <sup>16</sup>	1 per 10 <sup>16</sup>	1 per 10 <sup>16</sup>	1 per 10 <sup>16</sup>	1 per 10 <sup>16</sup>
Annualised Failure Rate (AFR)	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%
Limited Usage-Based Warranty (yrs) <sup>5</sup>	5	5	5	5	5	5
<b>Power Management</b>						
Typical Op (A) +5V/+12V	0.44/0.54	0.46/0.51	0.44/0.54	0.46/0.51	0.44/0.54	0.46/0.51
Average Idling Power (W)	5.3	4.8	5.3	4.8	5.3	4.8
Average Operating Power (W)	8.7	8.4	8.7	8.4	8.7	8.4
<b>Environmental</b>						
Ambient Temperature, Operating (C°)	5 to 55	5 to 55	5 to 55	5 to 55	5 to 55	5 to 55
Ambient Temperature, Nonop (C°)	-40 to 70	-40 to 70	-40 to 70	-40 to 70	-40 to 70	-40 to 70
Temperature Change Rate/Hr, Max (°C)	20	20	20	20	20	20
Relative Humidity, Non-condensing (max gradient 20%/hour)	5 to 95%	5 to 95%	5 to 95%	5 to 95%	5 to 95%	5 to 95%
Shock, Max Operating: 11ms (Gs)	40	40	40	40	40	40
Shock, Max Non-operating: 2ms (Gs)	400	400	400	400	400	400
Vibration, Operating: <400 Hz (Gs)	0.5	0.5	0.5	0.5	0.5	0.5
Vibration, Non-operating: <500Hz (Gs)	2.4	2.4	2.4	2.4	2.4	2.4
<b>Physical</b>						
Height (in/mm, max) <sup>6</sup>	0.591/15.00	0.591/15.00	0.591/15.00	0.591/15.00	0.591/15.00	0.591/15.00
Width (in/mm, max) <sup>6</sup>	2.750/69.85	2.750/69.85	2.750/69.85	2.750/69.85	2.750/69.85	2.750/69.85
Depth (in/mm, max) <sup>6</sup>	3.955/100.45	3.955/100.45	3.955/100.45	3.955/100.45	3.955/100.45	3.955/100.45
Weight (lb/kg)	0.507/0.230	0.496/0.225	0.507/0.230	0.496/0.225	0.507/0.230	0.496/0.225
Carton Unit Quantity	30	30	30	30	30	30
Cartons per Pallet	50	50	50	50	50	50
Cartons per Layer	10	10	10	10	10	10

<sup>1</sup> One gigabyte, or GB, equals one billion bytes when referring to drive capacity.

<sup>2</sup> 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.

<sup>3</sup> FIPS 140-2 in review. See FIPS 140-2 Level 2 Certificate at <http://csrc.nist.gov/groups/STM/cmp/validated.html>

<sup>4</sup> 512 Emulation and 4K Native models will provide a higher level of performance in 4K-aligned systems.

<sup>5</sup> Warranty period is either 5 years or when the device reaches the Total TBW Over warranty period, whichever comes first.

<sup>6</sup> The drive physical dimensions conform to the Small Form Factor Standard (SFF-8201) found at [www.sffcommittee.org](http://www.sffcommittee.org). For connector-related dimensions, see SFF-8223.



[www.seagate.com](http://www.seagate.com)

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