

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 generation¹
- SAS-based Protection Information (PI) helps protect against inadvertent data change.²
- Seagate Secure™ drive options (AES-256) help cut IT drive retirement costs while helping securely protect data where it lives—on the drive.³
- Seagate Secure models can be used as standard drives, as ISE feature for easy drive disposal or as part of a more secure solution.³
- Seagate Secure FIPS drive option helps protect *Sensitive but Unclassified* and *Protected* class data.^{3,4}

Best-Fit Applications

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

¹ Actual improvement varies depending on queue depth and transfer size.

² Protection Information (PI) feature requires PI-compliant host or controller support.

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

⁴ 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 ⁴		512 Emulation		4K Native	
	600GB ¹	300GB ¹	600GB ¹	300GB ¹	600GB ¹	300GB ¹
Standard Model	ST600MP0005	ST300MP0005	ST600MP0035	ST300MP0035	ST600MP0065	ST300MP0065
Seagate Secure™ Model	ST600MP0015 ²	ST300MP0015 ²	ST600MP0045 ²	ST300MP0045 ²	ST600MP0075 ²	ST300MP0075 ²
Seagate Secure FIPS 140-2 Model	ST600MP0025 ^{2,3}	—	ST600MP0055 ^{2,3}	—	ST600MP0085 ^{2,3}	—
Interface	12Gb/s SAS	12Gb/s SAS	12Gb/s SAS	12Gb/s SAS	12Gb/s SAS	12Gb/s SAS
Performance						
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	2400	2400	2400	2400	2400	2400
Cache, Multisegmented (MB)	128	128	128	128	128	128
Configuration/Reliability						
Disks/Heads	3/6	2/4	3/6	2/4	3/6	2/4
Nonrecoverable Read Errors per Bits Read, Max	1 per 10E16	1 per 10E16	1 per 10E16	1 per 10E16	1 per 10E16	1 per 10E16
Annualized Failure Rate (AFR)	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%
Limited Usage-Based Warranty (yrs) ⁵	5	5	5	5	5	5
Power Management						
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 Idle 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
Environmental						
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, Noncondensing (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 Nonoperating: 2ms (Gs)	400	400	400	400	400	400
Vibration, Operating: <400Hz (Gs)	0.5	0.5	0.5	0.5	0.5	0.5
Vibration, Nonoperating: <500Hz (Gs)	2.4	2.4	2.4	2.4	2.4	2.4
Physical						
Height (in/mm, max) ⁶	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) ⁶	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) ⁶	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

1 One gigabyte, or GB, equals one billion 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. See FIPS 140-2 Level 2 Certificate at <http://csrc.nist.gov/groups/STM/cmvp/validation.html>

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

5 Warranty period is either 5 years or when the device reaches the Total TBW Over Warranty Period, whichever comes first.

6 The drive physical dimensions conform to the Small Form Factor Standard (SFF-8201) found at www.sffcommittee.org. For connector-related dimensions, see SFF-8223.



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