

# 1200 SSD

## Data Sheet

### Ultra-Fast, Consistent Performance Plus 12Gb/s SAS

- Helps remove storage bottlenecks and close the gap between processor and data access performance
- Delivers the speed and performance consistency needed for demanding enterprise applications
- Designed to reduce data access wait times under the most complex, write-intensive workloads
- First SSD to ship in volume with 12Gb/s SAS while ensuring the highest level of reliability and scalability
- Ensures data availability for critical production systems by using redundant, failover I/O communication paths
- Helps improve ROI by leveraging existing SAS infrastructures
- Custom-designed controller leverages Seagate enterprise expertise and manufacturing excellence
- Helps safeguard data against unexpected power loss and protects data from undetected, unintentional corruption
- Helps ensure data integrity with multiple layers of I/O error detection and correction
- Strong data security with Self-Encrypting Drive (SED) and FIPS SED models<sup>1,2</sup>



### Best-Fit Applications

- Demanding, enterprise applications with complex, write-intensive and mixed workloads
- IOPS-hungry enterprise applications, such as high-performance computing, online transaction processing and heavy data analytics
- Enterprise applications that demand high data availability and integrity as well as interface failover redundancy
- External enterprise storage solutions (SAN, NAS, DAS) and servers

<sup>1</sup> Self-Encrypting Drives (SED) and FIPS 140-2 Validated drives are not available in all models or countries. May require 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>

# 1200 SSD



Specifications	800GB <sup>1</sup>	400GB <sup>1</sup>	200GB <sup>1</sup>
SED Models	ST800FM0053 <sup>2</sup>	ST400FM0073 <sup>2</sup>	ST200FM0073 <sup>2</sup>
FIPS 140-2 Models	ST800FM0063 <sup>2,3</sup>		
Non-SED Models	ST800FM0043	ST400FM0053	ST200FM0053
Interface Options	12Gb/s SAS	12Gb/s SAS	12Gb/s SAS
NAND Flash Type	MLC	MLC	MLC
<b>Performance</b>			
Sustained Data Transfer Rate, Max (MB/s)	750	750	750
I/O Data Transfer Rate, Max (MB/s)	1200	1200	1200
I/Os per Second per Watt (IOPS/W)	27,160	29,650	27,990
Sequential Read/Write Command Rate (MB/s) Peak, 128KB	750/500	750/500	750/400
Random Read/Write Command Rate (IOPS) Peak, 4KB	110,000/40,000	110,000/40,000	110,000/25,000
<b>Configuration/Reliability</b>			
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%
Total Terabytes Written (TBW) Over Warranty Period <sup>4</sup>	14,600	7300	3650
Limited Warranty With Media Usage (years) <sup>5</sup>	5	5	5
<b>Power Management</b>			
+5/+12V Max Start Current (A)	0.7/0.4	0.7/0.4	0.7/0.4
Average Sleep Power (W)	2.5	2.5	2.5
Average Idle Power (W)	3.0	2.72	2.89
Average Operating Power (W)	4.05	3.71	3.93
<b>Environmental</b>			
Internal Operating Temperature (°C)	0 to 60	0 to 60	0 to 60
Nonoperating Temperature (°C)	-40 to 75	-40 to 75	-40 to 75
Temperature Change Rate/Hr, Max (°C)	20	20	20
Relative Humidity, Noncondensing (%)	5 to 95	5 to 95	5 to 95
Shock, 0.5ms (Gs)	1000	1000	1000
Vibration, 20Hz to 2000Hz (Grms)	11.08	11.08	11.08
<b>Physical</b>			
Height (mm/in) <sup>6</sup>	7.0/0.276	7.0/0.276	7.0/0.276
Width (mm/in) <sup>6</sup>	70.10/2.76	70.10/2.76	70.10/2.76
Depth (mm/in) <sup>6</sup>	100.45/3.955	100.45/3.955	100.45/3.955
Weight (g/lb)	100/0.220	100/0.220	100/0.220
Carton Unit Quantity	20	20	20
Cartons per Pallet	45	45	45
Cartons per Layer	9	9	9

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

<sup>2</sup> Self-Encrypting Drives (SED) 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/cmvp/validation.html>

<sup>4</sup> Per the JEDEC JESD218A standard using enterprise workload JESD219A with all LBAs allocated

<sup>5</sup> Warranty period is either 5 years or when the device life indicator has shown that the device has exhausted its useful life, as defined in the product manual, 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.

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