



DATA SHEET

Lightspeed. Solid. Impressive.

NyTRO 1000 SATA SSD Series



The Seagate® NyTRO® 1000 SATA SSD Series is a cost-effective, enterprise-grade solution for data center and cloud server applications. It is designed to deliver high, sustained, and consistent performance for improved QoS and enhanced user experience.



SSDs with the SATA storage interface meet the high performance and reliability requirements without disrupting legacy storage infrastructures or involving additional investments in software and hardware.

Optimized for Performance, Integration, and Cost

Boost the performance of applications that require faster random access performance

Maintain fast, consistent performance for read-intensive and mixed workloads

Take advantage of easy deployment and more processing power without investment in new hardware

Require less energy to run 24x7, and save on cooling and overall energy cost

Key Features and Benefits

- SATA 6Gb/s interface for easy deployment
- Seagate DuraWrite™ lossless data reduction technology
- Tunable capacity for performance- or capacity-optimized SSD solutions
- Seagate Secure options
- Power loss data protection circuit
- Enterprise-class reliability with 2M-hr. MTBF and a 5-year limited warranty

Best-Fit Applications

- Public and private cloud
- Web servers
- Tiered storage analytics
- Databases (OLTP)

Wide Range of Storage and Security Options

Receive endurance, security, and capacity options for enterprise applications

Choose the capacity and endurance to fit a range of application and workload needs

Achieve peace of mind through Seagate Secure™ data protection

Enterprise-Grade Feature Set

Maintain high data integrity in the event of unexpected power loss

Leverage Seagate's reliability and system compatibility test infrastructure

Attain end-to-end data protection with Seagate SHIELD™ and Seagate RAISE technologies





Specifications	Nytro 1351 SATA SSD—Light Endurance				
Capacity	3.84TB	1.92TB	960GB	480GB	240GB
Standard Model Numbers	XA3840LE10063	XA1920LE10063	XA960LE10063	XA480LE10063	XA240LE10003
Seagate Secure™ SED Model (TCG Enterprise)	—	XA1920LE10083	XA960LE10083	XA480LE10083	—
Seagate Secure™ SED Model (TCG OPAL)	—	XA1920LE10103	XA960LE10103	XA480LE10103	—
Features					
Interface	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s
NAND Flash Type	3D TLC	3D TLC	3D TLC	3D TLC	3D TLC
Form Factor	2.5 in × 7mm	2.5 in × 7mm	2.5 in × 7mm	2.5 in × 7mm	2.5 in × 7mm
Performance					
Sequential Read (MB/s) Sustained, 128KB ¹	560	560	560	560	560
Sequential Write (MB/s) Sustained, 128KB ¹	535	535	535	535	320
Random Read (IOPS) Sustained, 4KB QD32 ¹	85,000	94,000	90,000	75,000	55,000
Random R70R (IOPS) Sustained, 4KB QD32 ¹	60,000	65,000	50,000	40,000	32,000
Random Write (IOPS) Sustained, 4KB QD32 ¹	45,000	50,000	55,000	50,000	28,000
Average Read Latency (μs), 4KB QD1 ¹	175	160	155	155	155
Average Write Latency (μs), 4KB QD1 ¹	40	35	40	40	40
Endurance/Reliability					
Lifetime Endurance (Drive Writes per Day)	1	1	1	1	1
Total Bytes Written (TB)	7,000	3,500	1,750	875	435
Nonrecoverable Read Errors per Bits Read	1 per 10E17	1 per 10E17	1 per 10E17	1 per 10E17	1 per 10E17
Mean Time Between Failures (MTBF, hours)	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
Limited Warranty (years)	5	5	5	5	5
Power Management					
+5/+12V Overall Average Active Power (W) ²	3.5	3.4	3.2	2.7	2.3
Average Idle Power (W)	1.2	1.2	1.2	1.1	1.1
Environmental					
Temperature, Operating Internal (°C)	0°C – 70°C	0°C – 70°C	0°C – 70°C	0°C – 70°C	0°C – 70°C
Temperature, Nonoperating (°C)	-40°C – 85°C	-40°C – 85°C	-40°C – 85°C	-40°C – 85°C	-40°C – 85°C
Temperature Change Rate/Hr, Max (°C)	20	20	20	20	20
Shock, 0.5ms (Gs)	1,000	1,000	1,000	1,000	1,000
Physical					
Height (mm/in, max)	7mm/0.276in	7mm/0.276in	7mm/0.276in	7mm/0.276in	7mm/0.276in
Width (mm/in, max)	70.1mm/2.76in	70.1mm/2.76in	70.1mm/2.76in	70.1mm/2.76in	70.1mm/2.76in
Depth (mm/in, max)	100.25mm/3.947in	100.25mm/3.947in	100.25mm/3.947in	100.25mm/3.947in	100.25mm/3.947in
Weight (g/lb)	77g/0.169lb	77g/0.169lb	77g/0.169lb	77g/0.169lb	77g/0.169lb
Carton Unit Quantity	10	10	10	10	10

¹ Performance data is based on testing under certain workload conditions and is subject to change. Performance assumes that a typical enterprise data workload has 80% entropy.

² 3.84TB, 1.92TB, 960GB capacity points require 12V in addition to 5V power.



Specifications	Nytro 1551 SATA SSD—Mainstream Endurance				
Capacity	3.84TB	1.92TB	960GB	480GB	240GB
Standard Model Numbers	XA3840ME10063	XA1920ME10063	XA960ME10063	XA480ME10063	XA240ME10003
Seagate Secure™ SED Model (TCG Enterprise)	—	XA1920ME10083	XA960ME10083	XA480ME10083	—
Seagate Secure™ SED Model (TCG OPAL)	—	XA1920ME10103	XA960ME10103	XA480ME10103	—
Features					
Interface	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s
NAND Flash Type	3D TLC	3D TLC	3D TLC	3D TLC	3D TLC
Form Factor	2.5 in × 7mm	2.5 in × 7mm	2.5 in × 7mm	2.5 in × 7mm	2.5 in × 7mm
Performance					
Sequential Read (MB/s) Sustained, 128KB ¹	560	560	560	560	560
Sequential Write (MB/s) Sustained, 128KB ¹	535	535	535	535	320
Random Read (IOPS) Sustained, 4KB QD32 ¹	85,000	94,000	90,000	75,000	55,000
Random R70R (IOPS) Sustained, 4KB QD32 ¹	60,000	65,000	50,000	40,000	32,000
Random Write (IOPS) Sustained, 4KB QD32 ¹	45,000	50,000	55,000	50,000	28,000
Average Read Latency (μs), 4KB QD1 ¹	175	160	155	155	155
Average Write Latency (μs), 4KB QD1 ¹	40	35	40	40	40
Endurance/Reliability					
Lifetime Endurance (Drive Writes per Day)	3	3	3	3	3
Total Bytes Written (TB)	21,000	10,500	5,250	2,600	1,300
Nonrecoverable Read Errors per Bits Read	1 per 10E17	1 per 10E17	1 per 10E17	1 per 10E17	1 per 10E17
Mean Time Between Failures (MTBF, hours)	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
Limited Warranty (years)	5	5	5	5	5
Power Management					
+5/+12V Overall Average Active Power (W) ²	3.5	3.4	3.2	2.7	2.3
Average Idle Power (W)	1.2	1.2	1.2	1.1	1.1
Environmental					
Temperature, Operating Internal (°C)	0°C – 70°C	0°C – 70°C	0°C – 70°C	0°C – 70°C	0°C – 70°C
Temperature, Nonoperating (°C)	-40°C – 85°C	-40°C – 85°C	-40°C – 85°C	-40°C – 85°C	-40°C – 85°C
Temperature Change Rate/Hr, Max (°C)	20	20	20	20	20
Shock, 0.5ms (Gs)	1,000	1,000	1,000	1,000	1,000
Physical					
Height (mm/in, max)	7mm/0.276in	7mm/0.276in	7mm/0.276in	7mm/0.276in	7mm/0.276in
Width (mm/in, max)	70.1mm/2.76in	70.1mm/2.76in	70.1mm/2.76in	70.1mm/2.76in	70.1mm/2.76in
Depth (mm/in, max)	100.25mm/3.947in	100.25mm/3.947in	100.25mm/3.947in	100.25mm/3.947in	100.25mm/3.947in
Weight (g/lb)	77g/0.169lb	77g/0.169lb	77g/0.169lb	77g/0.169lb	77g/0.169lb
Carton Unit Quantity	10	10	10	10	10

¹ Performance data is based on testing under certain workload conditions and is subject to change. Performance assumes that a typical enterprise data workload has 80% entropy.

² 3.84TB, 1.92TB, 960GB capacity points require 12V in addition to 5V power.

AMERICAS	Seagate Technology LLC 10200 South De Anza Boulevard, Cupertino, California 95014, United States, 408-658-1000
ASIA/PACIFIC	Seagate Singapore International Headquarters Pte. Ltd. 7000 Ang Mo Kio Avenue 5, Singapore 569877, 65-6485-3888
EUROPE, MIDDLE EAST, AND AFRICA	Seagate Technology SAS 16-18, rue du Dôme, 92100 Boulogne-Billancourt, France, 33 1-4186 10 00

© 2018 Seagate Technology LLC. All rights reserved. Seagate, Seagate Technology, and the Spiral logo are registered trademarks of Seagate Technology LLC in the United States and/or other countries. DuraWrite, the DuraWrite logo, Nytro, Seagate Secure, the Seagate Secure logo, and Seagate SHIELD are either trademarks or registered trademarks of Seagate Technology LLC or one of its affiliated companies in the United States and/or other countries. All other trademarks or registered trademarks are the property of their respective owners. When referring to drive capacity, one gigabyte, or GB, equals one billion bytes and one terabyte, or TB, equals one trillion bytes. Your computer's operating system may use a different standard of measurement and report a lower capacity. In addition, some of the listed capacity is used for formatting and other functions, and thus will not be available for data storage. Actual data rates may vary depending on operating environment and other factors, such as chosen interface and disk capacity. The export or re-export of Seagate hardware or software is regulated by the U.S. Department of Commerce, Bureau of Industry and Security (for more information, visit www.bis.doc.gov), and may be controlled for export, import, and use in other countries. Seagate reserves the right to change, without notice, product offerings or specifications. DS1992.1-1807US July 2018