DATA SHEET

Lightspeed. Solid. Impressive.

Nytro 1000 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.

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)

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 24×7, and save on cooling and overall energy cost

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

SEAGATE SECURE™ DURAWRITE™

NYTRO™ ENTERPRISE

Specifications	Nytro 1351 SATA SSD—Light Endurance				
Capacity	3.84TB	1.92TB	960GB	480GB	240GB
Standard Model	XA3840LE10063	XA1920LE10063	XA960LE10063	XA480LE10063	XA240LE10003
Seagate Secure™ SED Model (TCG Enterprise)	XA3840LE10083	XA1920LE10083	XA960LE10083	XA480LE10083	XA240LE10023
Seagate Secure SED Model (TCG OPAL)[1]	XA3840LE10103	XA1920LE10103	XA960LE10103	XA480LE10103	XA240LE10043
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 QD32[2,3,4]	564	564	564	564	564
Sequential Write (MB/s) Sustained, 128KB QD32[2,3,4]	536	536	536	488	232
Random Read (IOPS) Sustained, 4KB QD32[2,3,4]	90,000	94,000	93,000	80,000	55,000
Random R70R (IOPS) Sustained. 4KB QD32[2,3,4]	46,000	47,000	40,000	29,000	18,000
Random Write (IOPS) Sustained, 4KB QD32[2,3,4]	22,000	23,000	22,000	16,000	8000
Average Read Latency (µs), 4KB QD1[2,3,4]	172	154	153	154	154
Average Write Latency (µs), 4KB QD1[2,3,4]	58	58	58	65	124
Endurance/Reliability					
Lifetime Endurance (Drive Writes per Day)	1	1	1	1	1
Total Bytes Written to Flash (TB)	12,300	6140	3070	1540	768
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
Warranty, Limited (years)[5]	5	5	5	5	5
Power Management					
+5/+12V Overall Average Active Power (W)[6]	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)	1000	1000	1000	1000	1000
Physical					
Height (mm/in, max)	7.0mm/0.276in	7.0mm/0.276in	7.0mm/0.276in	7.0mm/0.276in	7.0mm/0.276in
Width (mm/in, max)	70.10mm/2.760in	70.10mm/2.760in	70.10mm/2.760in	70.10mm/2.760in	70.10mm/2.760in
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)	82.0g/0.1808lb	77.0g/0.1698lb	77.0g/0.1698lb	75.0g/0.1653lb	75.0g/0.1653lb
Carton Unit Quantity	10	10	10	10	10

1 Windows Hardware Quality Labs (WHQL) certification for Opal configurations is not available at this time.

2 Performance data is based on testing under certain workload conditions and is subject to change. Performance assumes 20% data compressibility as set with VDBench.

3 System variations and HBA used will affect measured results.

4 Performance varies by capacities and endurance.

5 Refer to Product Manual for more detailed warranty information.

6 3.84TB, 1.92TB, 960GB capacity points require 12V in addition to 5V power.

NYTRO™ ENTERPRISE

Specifications	Nytro 1551 SATA SSD—Mainstream Endurance				
Capacity	3.84TB	1.92TB	960GB	480GB	240GB
Standard Model	XA3840ME10063	XA1920ME10063	XA960ME10063	XA480ME10063	XA240ME10003
Seagate Secure™ SED Model (TCG Enterprise)	XA3840ME10083	XA1920ME10083	XA960ME10083	XA480ME10083	XA240ME10023
Seagate Secure SED Model (TCG OPAL)[1]	XA3840ME10103	XA1920ME10103	XA960ME10103	XA480ME10103	XA240ME10043
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 QD32[2,3,4]	564	564	564	564	564
Sequential Write (MB/s) Sustained, 128KB QD32[2,3,4]	536	537	537	536	333
Random Read (IOPS) Sustained, 4KB QD32[2,3,4]	92,000	94,000	93,000	82,000	57,000
Random R70R (IOPS) Sustained. 4KB QD32[2,3,4]	61,000	66,000	57,000	45,000	32,000
Random Write (IOPS) Sustained, 4KB QD32[2,3,4]	41,000	48,000	59,000	48,000	30,000
Average Read Latency (µs), 4KB QD1[2,3,4]	162	150	148	148	150
Average Write Latency (µs), 4KB QD1[2,3,4]	38	38	38	38	37
Endurance/Reliability					
Lifetime Endurance (Drive Writes per Day)	3	3	3	3	3
Total Bytes Written to Flash (TB)	28,700	14,300	7170	3580	1790
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
Warranty, Limited (years)[5]	5	5	5	5	5
Power Management					
+5/+12V Overall Average Active Power (W)[6]	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)	1000	1000	1000	1000	1000
Physical					
Height (mm/in, max)	7.0mm/0.276in	7.0mm/0.276in	7.0mm/0.276in	7.0mm/0.276in	7.0mm/0.276in
Width (mm/in, max)	70.10mm/2.760in	70.10mm/2.760in	70.10mm/2.760in	70.10mm/2.760in	70.10mm/2.760in
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)	82.0g/0.1808lb	77.0g/0.1698lb	77.0g/0.1698lb	75.0g/0.1653lb	75.0g/0.1653lb
Carton Unit Quantity	10	10	10	10	10

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