



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-optimised 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.

Optimised 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

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 | 3.84 TB | 1.92 TB | 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 x 7mm | 2.5 in x 7mm | 2.5 in x 7mm | 2.5 in x 7mm | 2.5 in x 7mm, 2.5 in x 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 | 8,000 |
| 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 | 6,140 | 3,070 | 1,540 | 768 |
| Non-recoverable 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 Idling 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, Non-operating (°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, 0.5 ms (Gs) | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 |
| Physical | | | | | |
| Height (mm/in, max) | 7 mm/0.276 in | 7 mm/0.276 in | 7 mm/0.276 in | 7 mm/0.276 in | 7 mm/0.276 in |
| Width (mm/in, max) | 70.1 mm/2.76 in | 70.1 mm/2.76 in | 70.1 mm/2.76 in | 70.1 mm/2.76 in | 70.1 mm/2.76 in |
| Depth (mm/in, max) | 100.25 mm/3.947 in | 100.25 mm/3.947 in | 100.25 mm/3.947 in | 100.25 mm/3.947 in | 100.25 mm/3.947 in |
| Weight (lb/g) | 82 g/0.1808 lb | 77 g/0.1698 lb | 77 g/0.1698 lb | 75 g/0.1653 lb | 75 g/0.1653 lb |
| 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.



| Specifications | Nytro 1551 SATA SSD — Mainstream Endurance | | | | |
|--|--|--------------------|-----------------------------|--------------------|--------------------|
| Capacity | 3.84 TB | 1.92 TB | 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 × 7 mm | 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 | 7,170 | 3,580 | 1,790 |
| Non-recoverable 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 Idling 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, Non-operating (°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, 0.5 ms (Gs) | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 |
| Physical | | | | | |
| Height (mm/in, max) | 7 mm/0.276 in | 7 mm/0.276 in | 7 mm/0.276 in | 7 mm/0.276 in | 7 mm/0.276 in |
| Width (mm/in, max) | 70.1 mm/2.76 in | 70.1 mm/2.76 in | 70.1 mm/2.76 in | 70.1 mm/2.76 in | 70.1 mm/2.76 in |
| Depth (mm/in, max) | 100.25 mm/3.947 in | 100.25 mm/3.947 in | 100.25 mm/3.947 in | 100.25 mm/3.947 in | 100.25 mm/3.947 in |
| Weight (lb/g) | 82 g/0.1808 lb | 77 g/0.1698 lb | 77 g/0.1698 lb | 75 g/0.1653 lb | 75 g/0.1653 lb |
| Carton Unit Quantity | 10 | 10 | 10 | 10 | 10 |

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