



2.5-in SSD DATA SHEET

Lightspeed. Solid. Impressive.

Consistent high performance for the modern data center.



The Seagate® Nytro® 5050 series NVMe solid state drive represents the next generation of enterprise SSDs. Engineered for efficiency, high performance, and increased storage density in data centers, Nytro 5050 SSD eliminates performance bottlenecks and significantly improves quality of service (QoS).



Best-Fit Applications

- Server virtualization
- OLTP databases
- Software-defined storage
- All-flash arrays
- Caching and tiering

Best-in-class performance —PCIe Gen4 NVMe SSD doubles the random throughput of the latest SAS SSDs, achieving over ten times the bandwidth of SATA.

Blistering 7.4GB/s bandwidth and up to 1.7M IOPS removes data bottlenecks and provides consistent response times.

Boosted capacity in ultra-dense environments —up to 15TB¹ supporting U.2 and U.3 interface, and dual ports support active active high availability.

Highly optimized, the Nytro 5350 withstands read-intensive workloads while the Nytro 5550 is built to endure mixed workloads.

Quintupled performance over SATA SSDs with 10x more bandwidth and IOPS over previous generations to get more computing using minimal space, energy, and cost.

Low latency and high quality of service deliver improved responsiveness and enhanced user experience.

Effortless serviceability and maintenance with no downtime requirements, and hot-swap capability for easy SSD addition, removal, or replacement.

Hardware-based encryption Self-Encrypting Drive (SED) models² support the TCG standard to help keep valuable data secure.

Operating system friendly to easily integrate with Linux and Microsoft.

Enhanced durability and reliability with 1 and 3 DWPD at 2.5M MTBF—move massive enterprise data for the long haul.

¹ Available soon. For more information, contact your Seagate sales representative.

² Self-Encrypting Drives (SED) are not available in all models or countries. May require TCG-compliant host or controller support.



Specifications	Nytro 5550H 15mm—Mixed Use		
Capacity	6.4TB	3.2TB	1.6TB
Standard Model ¹	XP6400LE70005	XP3200LE70005	XP1600LE70005
SED Model ¹	XP6400LE70015	XP3200LE70015	XP1600LE70015
FIPS 140-3/Common Criteria Model ¹	XP6400LE70025	XP3200LE70025	XP1600LE70025
Features			
Interface	PCIe [®] Gen4 x4 NVMe	PCIe [®] Gen4 x4 NVMe	PCIe [®] Gen4 x4 NVMe
NAND Flash Type	3D eTLC	3D eTLC	3D eTLC
Form Factor	2.5 in × 15mm	2.5 in × 15mm	2.5 in × 15mm
Performance			
Sequential Read (MB/s) Sustained, 128KB ²	7400	7400	7400
Sequential Write (MB/s) Sustained, 128KB ²	7200	6900	4300
Random Read (IOPS) Sustained, 4KB QD64 ³	1,700,000	1,700,000	1,700,000
Random Write (IOPS) Sustained, 4KB QD64 ³	470,000	470,000	315,000
Average Read Latency (μs), 4KB QD1	75	75	75
Average Write Latency (μs), 4KB QD1	12	12	12
Endurance/Reliability			
Lifetime Endurance (Drive Writes per Day)	3	3	3
Total Bytes Written (TB)	35,000	17,500	8,700
Nonrecoverable Read Errors per Bits Read	1 per 10E17	1 per 10E17	1 per 10E17
Mean Time Between Failures (MTBF, hours)	2,500,000	2,500,000	2,500,000
Limited Warranty (years)	5	5	5
Power Management			
12V Overall Average Active Power (W)	24	23	18
Average Idle Power (W)	6	6	6
Environmental			
Temperature, Operating Internal (°C)	0 to 70	0 to 70	0 to 70
Temperature, Nonoperating (°C)	-40°C – 85°C	-40°C – 85°C	-40°C – 85°C
Temperature Change Rate/Hr, Max (°C)	30	30	30
Shock, 0.5ms (Gs)	1500	1500	1500
Physical			
Height (mm/in, max)	14.9mm/0.587in	14.9mm/0.587in	14.9mm/0.587in
Width (mm/in)	70.1mm/2.760in	70.1mm/2.760in	70.1mm/2.760in
Depth (mm/in)	100.4mm/3.953in	100.4mm/3.953in	100.4mm/3.953in
Weight (g/lb)	205g/0.45lb	205g/0.45lb	205g/0.45lb
Carton Unit Quantity	20	20	20

¹ Not all drives may be available in all countries. Seagate Secure drives meet ISO/IEC 27040 and NIST 800-88 standards and may require use of TCG-compliant host or controller support.

² Sequential performance measured at queue depth of 32 at beginning of life. System application performance may vary based on host and prior system workload.

³ Random performance measured at queue depth of 256 at beginning of life. System application performance may vary based on host and prior system workload.



Specifications	Nytro 5350H 15mm—Read Intensive		
Capacity	7.68TB	3.84TB	1.92TB
Standard Model ¹	XP7680SE70005	XP3840SE70005	XP1920SE70005
SED Model ¹	XP7680SE70015	XP3840SE70015	XP1920SE70015
FIPS 140-3/Common Criteria Model ¹	XP7680SE70025	XP3840SE70025	XP1920SE70025
Features			
Interface	PCIe [®] Gen4 x4 NVMe	PCIe [®] Gen4 x4 NVMe	PCIe [®] Gen4 x4 NVMe
NAND Flash Type	3D eTLC	3D eTLC	3D eTLC
Form Factor	2.5 in × 15mm	2.5 in × 15mm	2.5 in × 15mm
Performance			
Sequential Read (MB/s) Sustained, 128KB ²	7400	7100	7100
Sequential Write (MB/s) Sustained, 128KB ²	7200	6900	4300
Random Read (IOPS) Sustained, 4KB QD64 ³	1,700,000	1,700,000	1,700,000
Random Write (IOPS) Sustained, 4KB QD64 ³	195,000	195,000	118,000
Average Read Latency (µs), 4KB QD1	75	75	75
Average Write Latency (µs), 4KB QD1	12	12	12
Endurance/Reliability			
Lifetime Endurance (Drive Writes per Day)	1	1	1
Total Bytes Written (TB)	14,000	7,000	3,500
Nonrecoverable Read Errors per Bits Read	1 per 10E17	1 per 10E17	1 per 10E17
Mean Time Between Failures (MTBF, hours)	2,500,000	2,500,000	2,500,000
Limited Warranty (years)	5	5	5
Power Management			
12V Overall Average Active Power (W)	24	23	18
Average Idle Power (W)	6	6	6
Environmental			
Temperature, Operating Internal (°C)	0 to 70	0 to 70	0 to 70
Temperature, Nonoperating (°C)	-40°C – 85°C	-40°C – 85°C	-40°C – 85°C
Temperature Change Rate/Hr, Max (°C)	30	30	30
Shock, 0.5ms (Gs)	1500	1500	1500
Physical			
Height (mm/in, max)	14.9mm/0.587in	14.9mm/0.587in	14.9mm/0.587in
Width (mm/in)	70.1mm/2.760in	70.1mm/2.760in	70.1mm/2.760in
Depth (mm/in)	100.4mm/3.953in	100.4mm/3.953in	100.4mm/3.953in
Weight (g/lb)	205g/0.45lb	205g/0.45lb	205g/0.45lb
Carton Unit Quantity	20	20	20

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³ Random performance measured at queue depth of 256 at beginning of life. System application performance may vary based on host and prior system workload.



Specifications	Nytro 5550M 15mm—Mixed Use		
Capacity	6.4TB	3.2TB	1.6TB
Standard Model ¹	XP6400LE70035	XP3200LE70035	XP1600LE70035
SED Model ¹	XP6400LE70045	XP3200LE70045	XP1600LE70045
FIPS 140-3/Common Criteria Model ¹	XP6400LE70055	XP3200LE70055	XP1600LE70055
Features			
Interface	PCIe [®] Gen4 x4 NVMe	PCIe [®] Gen4 x4 NVMe	PCIe [®] Gen4 x4 NVMe
NAND Flash Type	3D eTLC	3D eTLC	3D eTLC
Form Factor	2.5 in × 15mm	2.5 in × 15mm	2.5 in × 15mm
Performance			
Sequential Read (MB/s) Sustained, 128KB ²	7400	7400	7400
Sequential Write (MB/s) Sustained, 128KB ²	3300	3300	3300
Random Read (IOPS) Sustained, 4KB QD64 ³	1,150,000	1,150,000	1,150,000
Random Write (IOPS) Sustained, 4KB QD64 ³	190,000	190,000	170,000
Average Read Latency (μs), 4KB QD1	75	75	75
Average Write Latency (μs), 4KB QD1	12	12	12
Endurance/Reliability			
Lifetime Endurance (Drive Writes per Day)	3	3	3
Total Bytes Written (TB)	35,000	17,500	8,700
Nonrecoverable Read Errors per Bits Read	1 per 10E17	1 per 10E17	1 per 10E17
Mean Time Between Failures (MTBF, hours)	2,500,000	2,500,000	2,500,000
Limited Warranty (years)	5	5	5
Power Management			
12V Overall Average Active Power (W)	14	14	14
Average Idle Power (W)	6	6	6
Environmental			
Temperature, Operating Internal (°C)	0 to 70	0 to 70	0 to 70
Temperature, Nonoperating (°C)	-40°C – 85°C	-40°C – 85°C	-40°C – 85°C
Temperature Change Rate/Hr, Max (°C)	30	30	30
Shock, 0.5ms (Gs)	1500	1500	1500
Physical			
Height (mm/in, max)	14.9mm/0.587in	14.9mm/0.587in	14.9mm/0.587in
Width (mm/in)	70.1mm/2.760in	70.1mm/2.760in	70.1mm/2.760in
Depth (mm/in)	100.4mm/3.953in	100.4mm/3.953in	100.4mm/3.953in
Weight (g/lb)	205g/0.45lb	205g/0.45lb	205g/0.45lb
Carton Unit Quantity	20	20	20

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³ Random performance measured at queue depth of 256 at beginning of life. System application performance may vary based on host and prior system workload.



Specifications	Nytro 5350M 15mm—Read Intensive		
Capacity	7.68TB	3.84TB	1.92TB
Standard Model ¹	XP7680SE70035	XP3840SE70035	XP1920SE70035
SED Model ¹	XP7680SE70045	XP3840SE70045	XP1920SE70045
FIPS 140-3/Common Criteria Model ¹	XP7680SE70055	XP3840SE70055	XP1920SE70055
Features			
Interface	PCIe [®] Gen4 x4 NVMe	PCIe [®] Gen4 x4 NVMe	PCIe [®] Gen4 x4 NVMe
NAND Flash Type	3D eTLC	3D eTLC	3D eTLC
Form Factor	2.5 in × 15mm	2.5 in × 15mm	2.5 in × 15mm
Performance			
Sequential Read (MB/s) Sustained, 128KB ²	7400	7400	7400
Sequential Write (MB/s) Sustained, 128KB ²	3300	3300	3300
Random Read (IOPS) Sustained, 4KB QD64 ³	1,150,000	1,150,000	1,150,000
Random Write (IOPS) Sustained, 4KB QD64 ³	110,000	110,000	95,000
Average Read Latency (μs), 4KB QD1	75	75	75
Average Write Latency (μs), 4KB QD1	12	12	12
Endurance/Reliability			
Lifetime Endurance (Drive Writes per Day)	1	1	1
Total Bytes Written (TB)	14,000	7,000	3,500
Nonrecoverable Read Errors per Bits Read	1 per 10E17	1 per 10E17	1 per 10E17
Mean Time Between Failures (MTBF, hours)	2,500,000	2,500,000	2,500,000
Limited Warranty (years)	5	5	5
Power Management			
12V Overall Average Active Power (W)	14	14	14
Average Idle Power (W)	6	6	6
Environmental			
Temperature, Operating Internal (°C)	0 to 70	0 to 70	0 to 70
Temperature, Nonoperating (°C)	-40°C – 85°C	-40°C – 85°C	-40°C – 85°C
Temperature Change Rate/Hr, Max (°C)	30	30	30
Shock, 0.5ms (Gs)	1500	1500	1500
Physical			
Height (mm/in, max)	14.9mm/0.587in	14.9mm/0.587in	14.9mm/0.587in
Width (mm/in)	70.1mm/2.760in	70.1mm/2.760in	70.1mm/2.760in
Depth (mm/in)	100.4mm/3.953in	100.4mm/3.953in	100.4mm/3.953in
Weight (g/lb)	205g/0.45lb	205g/0.45lb	205g/0.45lb
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Specifications	Nytro 5550M 7mm—Mixed Use		
Capacity	6.4TB	3.2TB	1.6TB
Standard Model ¹	XP6400LE10005	XP3200LE10005	XP1600LE10005
SED Model ¹	XP6400LE10015	XP3200LE10015	XP1600LE10015
FIPS 140-3/Common Criteria Model ¹	XP6400LE10025	XP3200LE10025	XP1600LE10025
Features			
Interface	PCIe [®] Gen4 x4 NVMe	PCIe [®] Gen4 x4 NVMe	PCIe [®] Gen4 x4 NVMe
NAND Flash Type	3D eTLC	3D eTLC	3D eTLC
Form Factor	2.5 in x 7mm	2.5 in x 7mm	2.5 in x 7mm
Performance			
Sequential Read (MB/s) Sustained, 128KB ²	5700	5700	5700
Sequential Write (MB/s) Sustained, 128KB ²	2450	2450	2450
Random Read (IOPS) Sustained, 4KB QD64 ³	900,000	900,000	850,000
Random Write (IOPS) Sustained, 4KB QD64 ³	175,000	175,000	175,000
Average Read Latency (µs), 4KB QD1	75	75	75
Average Write Latency (µs), 4KB QD1	12	12	12
Endurance/Reliability			
Lifetime Endurance (Drive Writes per Day)	3	3	3
Total Bytes Written (TB)	35,000	17,500	8,700
Nonrecoverable Read Errors per Bits Read	1 per 10E17	1 per 10E17	1 per 10E17
Mean Time Between Failures (MTBF, hours)	2,500,000	2,500,000	2,500,000
Limited Warranty (years)	5	5	5
Power Management			
12V Overall Average Active Power (W)	12.5	12.5	12.5
Average Idle Power (W)	6	6	6
Environmental			
Temperature, Operating Internal (°C)	0 to 70	0 to 70	0 to 70
Temperature, Nonoperating (°C)	-40°C – 85°C	-40°C – 85°C	-40°C – 85°C
Temperature Change Rate/Hr, Max (°C)	30	30	30
Shock, 0.5ms (Gs)	1500	1500	1500
Physical			
Height (mm/in, max)	7.1mm/0.280in	7.1mm/0.280in	7.1mm/0.280in
Width (mm/in)	70.1mm/2.760in	70.1mm/2.760in	70.1mm/2.760in
Depth (mm/in)	100.4mm/3.953in	100.4mm/3.953in	100.4mm/3.953in
Weight (g/lb)	105g/0.23lb	105g/0.23lb	105g/0.23lb
Carton Unit Quantity	20	20	20

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Specifications	Nytro 5350M 7mm—Read Intensive		
Capacity	7.68TB	3.84TB	1.92TB
Standard Model ¹	XP7680SE10005	XP3840SE10005	XP1920SE10005
SED Model ¹	XP7680SE10015	XP3840SE10015	XP1920SE10015
FIPS 140-3/Common Criteria Model ¹	XP7680SE10025	XP3840SE10025	XP1920SE10025
Features			
Interface	PCIe [®] Gen4 x4 NVMe	PCIe [®] Gen4 x4 NVMe	PCIe [®] Gen4 x4 NVMe
NAND Flash Type	3D eTLC	3D eTLC	3D eTLC
Form Factor	2.5 in x 7mm	2.5 in x 7mm	2.5 in x 7mm
Performance			
Sequential Read (MB/s) Sustained, 128KB ²	5700	5700	5700
Sequential Write (MB/s) Sustained, 128KB ²	2450	2450	2450
Random Read (IOPS) Sustained, 4KB QD64 ³	900,000	900,000	850,000
Random Write (IOPS) Sustained, 4KB QD64 ³	80,000	80,000	75,000
Average Read Latency (µs), 4KB QD1	75	75	75
Average Write Latency (µs), 4KB QD1	12	12	12
Endurance/Reliability			
Lifetime Endurance (Drive Writes per Day)	1	1	1
Total Bytes Written (TB)	14,000	7,000	3,500
Nonrecoverable Read Errors per Bits Read	1 per 10E17	1 per 10E17	1 per 10E17
Mean Time Between Failures (MTBF, hours)	2,500,000	2,500,000	2,500,000
Limited Warranty (years)	5	5	5
Power Management			
12V Overall Average Active Power (W)	12.5	12.5	12.5
Average Idle Power (W)	6	6	6
Environmental			
Temperature, Operating Internal (°C)	0 to 70	0 to 70	0 to 70
Temperature, Nonoperating (°C)	-40°C – 85°C	-40°C – 85°C	-40°C – 85°C
Temperature Change Rate/Hr, Max (°C)	30	30	30
Shock, 0.5ms (Gs)	1500	1500	1500
Physical			
Height (mm/in, max)	7.1mm/0.280in	7.1mm/0.280in	7.1mm/0.280in
Width (mm/in)	70.1mm/2.760in	70.1mm/2.760in	70.1mm/2.760in
Depth (mm/in)	100.4mm/3.953in	100.4mm/3.953in	100.4mm/3.953in
Weight (g/lb)	105g/0.23lb	105g/0.23lb	105g/0.23lb
Carton Unit Quantity	20	20	20

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