

2.5-in SSD DATA SHEET

Built for Fast Data Center Applications Nytro 3032 SAS SSD Series



SEAGATE

The Seagate[®] Nytro[®] 3032 SAS SSD delivers up to 15TB in a 2.5-in × 15mm form factor, a 12Gb/s interface with dual ports for speeds up to 2200MB/s, drive monitoring, government-grade encryption, and up to 10 DWPD for fast, scalable, secure performance for demanding enterprise workloads.



Best-Fit Applications

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

Key Advantages

12Gb/s SAS interface and dual ports for 24×7 performance

High-density capacities of up to 15TB in a 2.5-in × 15mm form factor

Low latency and high QoS for better responsiveness and user experience

Easily manage and monitor SSD health with SeaChest

Three endurance options to meet workload, deployment, and TCO demands

Ensures reliable data protection for mission-critical applications

Seagate Secure[™] with Secure Download and Diagnostics (SD&D), SED, and SED FIPS 140-2 options for advanced data security¹

Built for easy integration with Linux and Microsoft OS

1 Self-encrypting drives (SED) are not available in all models or countries. May require TCG-compliant host or controller support.





Specifications		Nytro 3332—Scaled Endurance			
Capacity	15.36TB	7.68TB	3.84TB	1.92TB	960GB
Standard Model	XS15360SE70084	XS7680SE70084	XS3840SE70084	XS1920SE70084	XS960SE70084
Seagate Secure [™] SED Model ¹	XS15360SE70094	XS7680SE70094	XS3840SE70094	XS1920SE70094	XS960SE70094
Seagate Secure FIPS 140-2/Common Criteria Model ¹	XS15360SE70104	XS7680SE70104	XS3840SE70104	XS1920SE70104	XS960SE70104
Seagate Instant Secure Erase (ISE) Model	XS15360SE70114	XS7680SE70114	XS3840SE70114	XS1920SE70114	XS960SE70114
Features					
Interface (Dual Port)	SAS 12 Gb/s	SAS 12 Gb/s	SAS 12 Gb/s	SAS 12 Gb/s	SAS 12 Gb/s
NAND Flash Type	3D eTLC	3D eTLC	3D eTLC	3D eTLC	3D eTLC
Form Factor	2.5 in × 15mm	2.5 in × 15mm	2.5 in × 15mm	2.5 in × 15mm	2.5 in × 15mm
Performance—Single Port 12Gb\s					
Sequential Read (MB/s) Sustained, 128KB ²	1,050	1,100	1,100	1,100	1,100
Sequential Write (MB/s) Sustained, 128KB ²	950	1,000	1,000	1,000	950
Random Read (IOPS) Sustained, 4KB ²	120,000	170,000	180,000	180,000	170,000
Random Write (IOPS) Sustained, 4KB ²	16,000	80,000	85,000	85,000	70,000
Random 30% Write (IOPS) Sustained, 4KB ²	46,000	160,000	160,000	150,000	130,000
Performance—Dual Port 12Gb\s					
Sequential Read (MB/s) Sustained, 128KB ²	2,100	2,000	2,200	2,200	2,150
Sequential Write (MB/s) Sustained, 128KB ²	1,000	1,650	1,650	1,650	1,300
Random Read (IOPS) Sustained, 4KB ²	150,000	240,000	240,000	230,000	210,000
Random Write (IOPS) Sustained, 4KB ²	20,000	80,000	85,000	85,000	70,000
Random 30% Write (IOPS) Sustained, 4KB	20,000	00,000	00,000	00,000	70,000
4KB ²	46,000	160,000	160,000	160,000	140,000
Endurance/Reliability			1		
Lifetime Endurance (Drive Writes per Day)	1	1	1	1	1
Total Bytes Written (TB)	28,000	14,000	7000	3500	1700
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, hrs)	2.5 Million	2.5 Million	2.5 Million	2.5 Million	2.5 Million
Annualized Failure Rate (AFR)	0.35%	0.35%	0.35%	0.35%	0.35%
Warranty, Limited (years)	5	5	5	5	5
Power Management					
+5/+12V Max Start Current (A)	0.80/0.21	0.80/0.21	0.80/0.21	0.80/0.21	0.80/0.21
Average Idle Power (W)	4.6	4.6	4.6	4.6	4.6
Physical					
Height (in/mm, max) ³	0.591in/15mm	0.591in/15mm	0.591in/15mm	0.591in/15mm	0.591in/15mm
Width (in/mm, max) ³	2.76in/70.1mm	2.76in/70.1mm	2.76in/70.1mm	2.76in/70.1mm	2.76in/70.1mm
Depth (in/mm, max) ³	3.955in/100.45mm	3.955in/100.45mm	3.955in/100.45mm	3.955in/100.45mm	3.955in/100.45mm
Weight (lb/g)	0.364lb/165g	0.364lb/165g	0.364lb/165g	0.364lb/165g	0.364lb/165g
Carton Unit Quantity	10	10	10	10	10
Cartons per Pallet	90	90	90	90	90
Cartons per Layer	9	9	9	9	9

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 All performance measured at queue depth of 32 per PHY at beginning of life. System application performance may vary based on SAS host and prior system workload.

3 These base deck dimensions conform to the Small Form Factor Standard (SFF-8201) found at www.sffcommittee.org. For connector-related dimensions, see SFF-8223 (SAS models).





Specifications		Nytro 3532—Mixed Workloads			
Capacity	6.4TB	3.2TB	1.6TB	800GB	
Standard Model	XS6400LE70084	XS3200LE70084	XS1600LE70084	XS800LE70084	
Seagate Secure [™] SED Model ¹	XS6400LE70094	XS3200LE70094	XS1600LE70094	XS800LE70094	
Seagate Secure FIPS 140-2/Common					
Criteria Model ¹	—	XS3200LE70104	XS1600LE70104	XS800LE70104	
Seagate Instant Secure Erase (ISE)	XS6400LE70114	XS3200LE70114	XS1600LE70114	XS800LE70114	
Model					
Features					
Interface (Dual Port)	SAS 12 Gb/s	SAS 12 Gb/s	SAS 12 Gb/s	SAS 12 Gb/s	
NAND Flash Type	3D eTLC	3D eTLC	3D eTLC	3D eTLC	
Form Factor	2.5 in × 15mm	2.5 in × 15mm	2.5 in × 15mm	2.5 in × 15mm	
Performance—Single Port 12Gb\s		1	1		
Sequential Read (MB/s) Sustained, 128KB ²	1,100	1,100	1,100	1,100	
Sequential Write (MB/s) Sustained, 128KB ²	1,000	1,000	1,000	950	
Random Read (IOPS) Sustained, 4KB ²	170,000	180,000	180,000	170,000	
Random Write (IOPS) Sustained, 4KB ²	120,000	130,000	130,000	120,000	
Random 30% Write (IOPS) Sustained, 4KB ²	170,000	170,000	170,000	150,000	
Performance—Dual Port 12Gb\s					
Sequential Read (MB/s) Sustained,		[[1	
128KB ²	2,200	2,200	2,200	2,150	
Sequential Write (MB/s) Sustained, 128KB ²	1,650	1,650	1,650	1,300	
Random Read (IOPS) Sustained, 4KB ²	240,000	240,000	230,000	210,000	
Random Write (IOPS) Sustained, 4KB ²	120,000	130,000	130,000	120,000	
Random 30% Write (IOPS) Sustained, 4KB ²	220,000	220,000	220,000	170,000	
Endurance/Reliability				<u>.</u>	
Lifetime Endurance (Drive Writes per Day)	3	3	3	3	
Total Bytes Written (TB)	35,000	17,500	8700	4400	
Nonrecoverable Read Errors per Bits	1 per 10E17	1 per 10E17	1 per 10E17	1 per 10E17	
Read					
Mean Time Between Failures (MTBF, hrs)	2.5 Million	2.5 Million	2.5 Million	2.5 Million	
Annualized Failure Rate (AFR)	0.35%	0.35%	0.35%	0.35%	
Warranty, Limited (years)	5	5	5	5	
Power Management			· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	
+5/+12V Max Start Current (A)	0.80/0.21	0.80/0.21	0.80/0.21	0.80/0.21	
Average Idle Power (W)	4.6	4.6	4.6	4.6	
Physical				,	
Height (in/mm, max) ³	0.591in/15mm	0.591in/15mm	0.591in/15mm	0.591in/15mm	
Width (in/mm, max) ³	2.76in/70.1mm	2.76in/70.1mm	2.76in/70.1mm	2.76in/70.1mm	
Depth (in/mm, max) ³	3.955in/100.45mm	3.955in/100.45mm	3.955in/100.45mm	3.955in/100.45mm	
Weight (lb/g)	0.364lb/165g	0.364lb/165g	0.364lb/165g	0.364lb/165g	
Carton Unit Quantity	10	10	10	10	
Cartons per Pallet	90	90	90	90	
Cartons per Layer	9	9	9	9	

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 All performance measured at queue depth of 32 per PHY at beginning of life. System application performance may vary based on SAS host and prior system workload.

3 These base deck dimensions conform to the Small Form Factor Standard (SFF-8201) found at www.sffcommittee.org. For connector-related dimensions, see SFF-8223 (SAS models).





Specifications		Nytro 3732–V	• •	
Capacity	3.2TB	1.6TB	800GB	400GB
Standard Model	XS3200ME70084	XS1600ME70084	XS800ME70084	XS400ME70084
Seagate Secure [™] SED Model ¹	XS3200ME70094	XS1600ME70094	XS800ME70094	XS400ME70094
Seagate Secure FIPS 140-2/Common Criteria Model ¹	XS3200ME70104	XS1600ME70104	_	_
Seagate Instant Secure Erase (ISE) Model	XS3200ME70114	XS1600ME70114	XS800ME70114	XS400ME70114
Features				
Interface (Dual Port)	SAS 12 Gb/s	SAS 12 Gb/s	SAS 12 Gb/s	SAS 12 Gb/s
NAND Flash Type	3D eTLC	3D eTLC	3D eTLC	3D eTLC
Form Factor	2.5 in × 15mm			
Performance—Single Port 12Gb\s				
Sequential Read (MB/s) Sustained, 128KB ²	1,100	1,100	1,100	1,100
Sequential Write (MB/s) Sustained, 128KB ²	1,000	1,000	1,000	950
Random Read (IOPS) Sustained, 4KB ²	170,000	180,000	180,000	170,000
Random Write (IOPS) Sustained, 4KB ²	200,000	200,000	200,000	200,000
Random 30% Write (IOPS) Sustained, 4KB ²	190,000	190,000	190,000	180,000
Performance—Dual Port 12Gb\s				
Sequential Read (MB/s) Sustained, 128KB ²	2,200	2,200	2,200	2,150
Sequential Write (MB/s) Sustained, 128KB ²	1,650	1,650	1,650	1,300
Random Read (IOPS) Sustained, 4KB ²	240,000	240,000	220,000	200,000
Random Write (IOPS) Sustained, 4KB ²	200,000	200,000	200,000	200,000
Random 30% Write (IOPS) Sustained, 4KB ²	260,000	260,000	250,000	200,000
Endurance/Reliability				
Lifetime Endurance (Drive Writes per Day)	10	10	10	10
Total Bytes Written (TB)	58,400	29,200	14,600	7300
Nonrecoverable Read Errors per Bits Read	1 per 10E17	1 per 10E17	1 per 10E17	1 per 10E17
Mean Time Between Failures (MTBF, hrs)	2.5 Million	2.5 Million	2.5 Million	2.5 Million
Annualized Failure Rate (AFR)	0.35%	0.35%	0.35%	0.35%
Warranty, Limited (years) Power Management	5	5	5	5
+5/+12V Max Start Current (A)	0.80/0.21	0.80/0.21	0.80/0.21	0.80/0.21
Average Idle Power (W)	4.6	4.6	4.6	4.6
Physical				
Height (in/mm, max) ³	0.591in/15mm	0.591in/15mm	0.591in/15mm	0.591in/15mm
Width (in/mm, max) ³	2.76in/70.1mm	2.76in/70.1mm	2.76in/70.1mm	2.76in/70.1mm
Depth (in/mm, max) ³	3.955in/100.45mm	3.955in/100.45mm	3.955in/100.45mm	3.955in/100.45mm
Weight (lb/g)	0.364lb/165g	0.364lb/165g	0.364lb/165g	0.364lb/165g
Carton Unit Quantity	10	10	10	10
Cartons per Pallet	90	90	90	90
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