Lightspeed. Solid. Impressive.

Nytro XF1440 NVMe SSD

The Seagate® Nytro® XF1440 NVMe SSD is designed with optimized power and performance to deliver 5× the bandwidth of SATA SSDs to eliminate performance bottlenecks and significantly improve quality of service in data centers.

Key Features and Benefits

- PCIe Gen3 ×4 interface with NVMe protocol
- Best-in-class performance per Watt of up to 30,000 IOPS/W
- Host-selectable power optimization
- Industry-leading storage density of up to 1.92TB in a 2.5-inch × 7mm form factor

Best-Fit Applications

- Public and private cloud
- Hyperscale data centers
- Caching and tiering

Increase Storage Density in Data Centers

The Nytro XF1440 is low-power, high-performance enterprise NVMe SSD in compact form factors engineered to increase storage density, as well as reduce storage footprints and power use in data centers. The Nytro XF1440 SSD enables more computing with less space, energy and cost by delivering the highest performance in the smallest power envelope.

Improve Data Center Efficiency and Lower TCO

The Nytro XF1440 is a cost-effective, energy-efficient storage solution that combines a high level of serviceability, improved power and cooling efficiency, scalability and space optimization to help reduce total cost of ownership (TCO) in data centers. The Nytro XF1440 with the SFF-8639 connector enables effortless serviceability and maintenance without any downtime requirements, and features hot-swap capability for easy addition, removal or replacement of SSDs.

Enhanced Enterprise Reliability, Data Protection and Security

By leveraging Seagate's existing enterprise expertise and manufacturing excellence, the Nytro XF1440 SSD delivers the highest levels of data integrity, data security and endurance for critical business applications. The Nytro XF1440 includes features for end-to-end data protection support, LDPC error correction and Seagate RAISE technology for solid reliability and endurance.

With power-loss data protection, the XF1440 helps maintain data integrity to prevent loss of data in the event of unexpected power interruptions. Seagate Secure™ Self-Encrypting Drive (SED) models[1] support TCG protocol and help companies keep valuable data secure.

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

Specifications	Endurance Optimized for Mixed Workloads		
Capacity	1.6TB	800GB	400GB
Standard Model[1]	ST1600KN0001	ST800KN0001	ST400KN0001
Seagate Secure™ SED Model[1,2]	ST1600KN0011	ST800KN0011	ST400KN0011
Features			
Interface	PCIe Gen3 ×4, NVMe 1.2a	PCIe Gen3 ×4, NVMe 1.2a	PCIe Gen3 ×4, NVMe 1.2a
NAND Flash Type	eMLC	eMLC	eMLC
Form Factor	2.5 in × 7mm	2.5 in × 7mm	2.5 in × 7mm
Performance			
Sequential Read (MB/s) Sustained, 128KB[3]	2500	2500	2400
Sequential Write (MB/s) Sustained, 128KB[3]	900	900	500
Random Read (IOPS) Sustained, 4KB QD64[3]	240,000	240,000	220,000
Random Write (IOPS) Sustained, 4KB QD64[3]	40,000	33,000	25,000
Random 70R/30W (IOPS) Sustained, 4KB QD64[3]	100,000	80,000	55,000
Endurance/Reliability			
Lifetime Endurance (Drive Writes per Day)	3	3	3
Nonrecoverable Read Errors per Bits Read	1 per 10E16	1 per 10E16	1 per 10E16
Mean Time Between Failures (MTBF, hours)	2,000,000	2,000,000	2,000,000
Warranty, Limited (years)	5	5	5
Power Management			
+12V Max Power (W)	12.5	12.5	12.5
Average Read/Write Power (W)	9.0	9.0	9.0
Average Idle Power (W)	2.5	2.5	2.5
Physical			
Depth (in/mm, max)[4]	3.951in/100.35mm	3.951in/100.35mm	3.951in/100.35mm
Width (in/mm, max)[4]	2.750in/69.85mm	2.750in/69.85mm	2.750in/69.85mm
Height (in/mm, max)[4]	0.276in/7.00mm	0.276in/7.00mm	0.276in/7.00mm
Weight (g/lb)	90g/0.198lb	90g/0.198lb	90g/0.198lb
Carton Unit Quantity	10	10	10
Cartons per Pallet/Cartons per Layer	40/5	40/5	40/5

1 Not all capacities and features may be available in all regions and countries.

2 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.

3 Performance data is based on testing under certain workload conditions and is subject to change. 400GB and 480GB capacities are limited to 32× 128Gb die active.

4 These base deck dimensions conform to the Small Form Factor Standard (SFF-8201) found at www.sffcommittee.org. For connector-related dimensions, see SFF-8639.

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Specifications	Capacity Optimized for Read-Intensive Workloads		
Capacity	1.92TB	960GB	480GB
Standard Model[1]	ST1920KN0001	ST960KN0001	ST480KN0001
Seagate Secure™ SED Model[1,2]	ST1920KN0011	ST960KN0011	ST480KN0011
Features			
Interface	PCIe Gen3 ×4, NVMe 1.2a	PCIe Gen3 ×4, NVMe 1.2a	PCIe Gen3 ×4, NVMe 1.2a
NAND Flash Type	eMLC	eMLC	eMLC
Form Factor	2.5 in × 7mm	2.5 in × 7mm	2.5 in × 7mm
Performance			
Sequential Read (MB/s) Sustained, 128KB[3]	2500	2500	2400
Sequential Write (MB/s) Sustained, 128KB[3]	900	900	500
Random Read (IOPS) Sustained, 4KB QD64[3]	240,000	240,000	220,000
Random Write (IOPS) Sustained, 4KB QD64[3]	15,000	12,000	10,000
Random 70R/30W (IOPS) Sustained, 4KB QD64[3]	45,000	35,000	25,000
Endurance/Reliability			
Lifetime Endurance (Drive Writes per Day)	0.3	0.3	0.3
Nonrecoverable Read Errors per Bits Read	1 per 10E16	1 per 10E16	1 per 10E16
Mean Time Between Failures (MTBF, hours)	2,000,000	2,000,000	2,000,000
Warranty, Limited (years)	5	5	5
Power Management			
+12V Max Power (W)	12.5	12.5	12.5
Average Read/Write Power (W)	9.0	9.0	9.0
Average Idle Power (W)	2.5	2.5	2.5
Physical			
Depth (in/mm, max)[4]	3.951in/100.35mm	3.951in/100.35mm	3.951in/100.35mm
Width (in/mm, max)[4]	2.750in/69.85mm	2.750in/69.85mm	2.760in/69.85mm, 2.750in/69.85mm
Height (in/mm, max)[4]	0.276in/7.00mm	0.276in/7.00mm	0.276in/7.00mm
Weight (g/lb)	90g/0.198lb	90g/0.198lb	90g/0.198lb
Carton Unit Quantity	10	10	10
Cartons per Pallet/Cartons per Layer	40/5	40/5	40/5

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