



DATA SHEET

Lightspeed. Solid. Impressive.

Nytro XF1230 SATA SSD



The Seagate® Nytro® XF1230 SATA SSD is a cost-effective, enterprise-grade solution for cloud server applications, designed to deliver high, sustained and consistent performance for significantly improved quality of service and enhanced user experience.



With the growth of public and private cloud computing data centres that require faster random accesses, cost-effective, higher-performance solid state drives (SSDs) have become essential. SSDs with the SATA storage interface meet the high performance and reliability requirements without disrupting legacy storage infrastructures and additional investments in software and hardware.

Optimised for Read-Intensive Applications

Applications with read-intensive workloads benefit greatly from SSDs that have faster random access performance. The current trend suggests that the majority of cloud server applications will be using SSDs for read-centric workloads.

By delivering 98,000 sustained random read IOPS, the Nytro XF1230 SATA SSD significantly boosts the performance of read-intensive applications, such as boot, operational databases, customer-facing web server applications, data analytics and reporting.

Enterprise-Class Reliability and Data Protection

Your business data is critical, especially for customer-facing cloud and high-demand applications. The Nytro XF1230 SATA SSD offers a robust enterprise feature set, including end-to-end data protection and robust error-correction algorithms for solid reliability, and power-loss data protection (PFAIL) to maintain data integrity and to help prevent loss of data in the event of unexpected power interruptions.

Power-Optimised for Active Workloads

Cloud computing data centres require energy-efficient storage solutions to improve performance while lowering the total cost of ownership. When deploying high-load services and web applications that often access storage at high frequencies and trigger continuous active workloads, it is critical to deploy a storage system tuned and optimised with higher power efficiency in mind. The Nytro XF1230 SATA SSD is ideally tuned across all capacity points to consume less than 4.3 W active power.

Key Features and Benefits

- SATA 6 Gb/s interface for easy deployment in legacy storage infrastructures
- Best-in-class read and write latency for faster random access
- Highly tuned for read-intensive workloads
- Power-optimised for active workloads with less than 4.3 W power consumption
- Power loss data protection circuit to prevent loss of data in the event of unexpected power interruptions
- Enterprise-class reliability with 2M-hr. MTBF and a 5-year limited warranty

Best-Fit Applications

- Public and private cloud
- Web servers
- Read-intensive applications
- Boot application
- Tiered storage analytics



| Specifications | 1920GB | 960GB | 480GB | 240GB |
|--|--------------------|--------------------|--------------------|--------------------|
| Standard Model | XF1230-1A1920 | XF1230-1A0960 | XF1230-1A0480 | XF1230-1A0240 |
| Features | | | | |
| Interface | SATA 6Gb/s | SATA 6Gb/s | SATA 6Gb/s | SATA 6Gb/s |
| NAND Flash Type | eMLC | eMLC | eMLC | eMLC |
| Form Factor | 2.5 in × 7mm | 2.5 in × 7mm | 2.5 in × 7mm | 2.5 in × 7mm |
| Performance | | | | |
| Sequential Read (MB/s) Sustained, 128 KB ¹ | 560 | 560 | 560 | 560 |
| Sequential Write (MB/s) Sustained, 128 KB ¹ | 445 | 490 | 500 | 300 |
| Random Read (IOPS) Sustained, 4 KB QD32 ¹ | 98,000 | 98,000 | 98,000 | 96,700 |
| Random Write (IOPS) Sustained, 4 KB QD32 ¹ | 16,000 | 16,800 | 15,800 | 8,700 |
| Average Read Latency (µs), 4 KB QD1 ¹ | 140 | 140 | 140 | 140 |
| Average Write Latency (µs), 4 KB QD1 ¹ | 60 | 60 | 60 | 60 |
| Endurance/Reliability | | | | |
| Lifetime Endurance (Drive Writes per Day) ² | 1 | 1 | 1 | 1 |
| Total Bytes Written (TB) | 3009 | 1504 | 752 | 376 |
| Non-recoverable Read Errors per Bits Read | 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 |
| Limited Warranty (years) | 5 | 5 | 5 | 5 |
| Power Management | | | | |
| +5V Active Max Average Power (W) | 4.3 | 4.2 | 4.2 | 2.8 |
| Average Idling Power (W) | 0.9 | 0.8 | 0.8 | 0.8 |
| Environmental | | | | |
| Temperature, Operating Internal (°C) | 0°C – 70°C | 0°C – 70°C | 0°C – 70°C | 0°C – 70°C |
| Temperature, Non-operating (°C) | -40°C – 95°C | -40°C – 95°C | -40°C – 95°C | -40°C – 95°C |
| Temperature Change Rate/Hr, Max (°C) | 30 | 30 | 30 | 30 |
| Shock, 0.5 ms (Gs) | 1,500 | 1,500 | 1,500 | 1,500 |
| 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 |
| 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 |
| 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 |
| Weight (lb/g) | 85 g/0.1874 lb | 85 g/0.1874 lb | 85 g/0.1874 lb | 85 g/0.1874 lb |
| Carton Unit Quantity | 10 | 10 | 10 | 10 |

¹ Performance data is based on testing under certain workload conditions and is subject to change.

² DWPD is tested to the JEDEC Enterprise workload with the assumption that drive usage does not exceed 90%.

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AMERICAS Seagate Technology LLC 10200 South De Anza Boulevard, Cupertino, California 95014, United States, 408-658-1000
 ASIA/PACIFIC Seagate Singapore International Headquarters Pte. Ltd. 7000 Ang Mo Kio Avenue 5, Singapore 569877, 65-6485-3888
 EUROPE, MIDDLE EAST AND AFRICA Seagate Technology SAS 16-18, rue du Dôme, 92100 Boulogne-Billancourt, France, 33 1-4186 10 00

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