

DATA SHEET

Lightspeed. Solid. Impressive.

Nytro 5910 NVMe SSD

The Seagate® Nytro® 5910 NVMe add-in card is designed to optimise TCO for high-performance computing and deliver industry-leading performance/\$ for enterprise and hyperscale applications.



Key Features and Benefits

- PCIe Gen3 ×16 interface offers four individual PCIe Gen3 ×4 volumes using host-supported bifurcation
- NVMe 1.2a protocol for improved latency, consistent response time and high throughput
- 8 TB of total raw capacity in a single PCIe add-in card
- Supports standard NVMe drivers for easy deployment
- UEFI bootable solution

Best-Fit Applications

- High-performance computing
- Big Data analytics
- Databases



Optimising TCO for High-Performance Workloads

The continual growth of big data is increasing the demands on modern data centres for robust storage solutions, better application performance and optimised TCO. The Nytro 5910 NVMe add-in card delivers industry-leading performance per pound. The Nytro 5910 combines multiple M.2 SSD controllers into a single PCIe card without any additional cost, power or latency required from a PCIe bridge chip or switch. It enables servers to communicate directly with the four individual controllers through one motherboard PCIe socket for flexible utilisation and scalability.

The Nytro 5910 OCP-compliant add-in card leverages the existing and widely used ×16 PCIe slots in servers while delivering maximum capacity and performance per PCIe slot for high-performance enterprise and hyperscale applications.

Ultra-Fast With 8 GB/s Throughput

The Nytro 5910 meets the most demanding application requirements with ultra-high performance of 8 GB/s through a single PCIe slot. By delivering high bandwidth and low latency, it improves QoS and significantly boosts application responsiveness.

The Nytro 5910 features a PCIe Gen3 ×16 interface with the NVMe protocol, delivering improved latency, consistent response time, high throughput and IOPS performance, all while requiring less CPU utilisation.

Enterprise-Ready Configuration

By leveraging Seagate's existing enterprise expertise and manufacturing excellence, the Nytro 5910 delivers the highest levels of data integrity and endurance for critical business applications.

The Nytro 5910 supports end-to-end data protection, LDPC error correction and Seagate RAISE technology for solid reliability and endurance. With power-loss data protection, the Nytro 5910 maintains data integrity to help prevent loss of data in the event of unexpected power interruptions.



Specifications	7.6 TB
Standard Model	XP7680LE80002
Features	
Interface	PCIe Gen3 x16, NVMe 1.2a
NAND Flash Type	3D cMLC
Form Factor	Full-Height, Half-Length
Performance	
Sequential Read (MB/s) Sustained, 128 KB ¹	8,150
Sequential Write (MB/s) Sustained, 128 KB ¹	4800
Random Read (IOPS) Sustained, 4 KB QD64 ¹	975,000
Random Write (IOPS) Sustained, 4 KB QD64 ¹	132,000
Random 70/30 R/W (IOPS) Sustained, 4KB QD64 ¹	369,000
Endurance/Reliability	
Lifetime Endurance (Drive Writes per Day)	0.3
Non-recoverable Read Errors per Bits Read	1 per 10E16
Mean Time Between Failures (MTBF, hours)	2,000,000
Limited Warranty (years)	5
Power Management	
+12V Max Power (W) ²	37.5
Average Read/Write Power (W) ²	36
Environmental	
Temperature, Operating (°C) / Airflow	0 to 35 @ 300 LFM
Physical	
Height (in/mm, max) ³	4.3 in/111 mm
Length (in/mm, max) ³	6.6 in/168 mm
Weight (g)	280
Carton Unit Quantity	20

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

² Power consumption is based on 7% over-provisioning.

³ These dimensions conform to the PCI Express Card Electromechanical Specification found at pcisig.com.

seagate.com



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

© 2018 Seagate Technology LLC. All rights reserved. Seagate, Seagate Technology and the Spiral Logo are registered trademarks of Seagate Technology LLC in the United States and/or other countries. Nytro, the Nytro logo, Seagate Secure and the Seagate Secure logo are either trademarks or registered trademarks of Seagate Technology LLC or one of its affiliated companies in the United States and/or other countries. All other trademarks or registered trademarks are the property of their respective owners. When referring to drive capacity, one gigabyte, or GB, equals one billion bytes; and one terabyte, or TB, equals one trillion bytes. Your computer's operating system may use a different standard of measurement and report a lower capacity. In addition, some of the listed capacity is used for formatting and other functions, and thus will not be available for data storage. Actual data rates may vary depending on operating environment and other factors, such as chosen interface and disk capacity. Seagate reserves the right to change, without notice, product offerings or specifications. DS1953.4-1804GB April 2018