Nytro® XP7102 Add-In Card

Data Sheet

Transforming Data Center With Power-Optimized NVMe Solution

The Seagate® Nytro XP7102 add-in card is a power-optimized PCIe solid state drive (SSD) with NVMe support designed to deliver accelerated performance for power-sensitive applications in hyperscale and mega data centers.

The Nytro XP7102 featuring PCIe Gen3 ×4 interface with NVMe protocol is engineered to reduce latency by bringing flash storage closer to the system's processor and deliver a performance boost to existing server infrastructure. With performance of up to 30,000 IOPS/watt, the Nytro XP7102 enables more computing with less energy consumption and greater data center efficiency.

Maximizing Data Center Efficiency and TCO Savings

The Nytro XP7102 is a cost-effective solution that supports easy deployment and management for lower total cost of ownership (TCO) in data centers. It can reduce deployment cost by enabling more processing power in existing servers and can also deliver significant cost savings through improved efficiency by enhancing performance without requiring a complete IT overhaul.

The Nytro XP7102 is a bootable PCIe solution that comes in the low-profile half-height half-length (HHHL) add-in card form factor and supports standard NVMe drivers for easy deployment in a wide range of server platforms.

With lower power consumption, the Nytro XP7102 can save on energy and cooling costs and requires less infrastructure to meet the demanding requirements of enterprise and hyperscale data centers.

Robust Enterprise Feature Set

By leveraging Seagate's existing enterprise expertise, mature reliability, manufacturing excellence, and system compatibility test and infrastructure, the Nytro XP7102 delivers the highest levels of data integrity and endurance for critical business applications.

The Nytro XP7102 enables end-to-end data protection, LDPC error correction and Seagate RAISE™ technology for solid reliability and endurance. With available power-loss data protection through on-board capacitors and a backup power rail monitor, the Nytro XP7102 helps maintain data integrity in the event of unexpected power interruptions.

Nytro® XP7102 Add-In Card

Specifications	1600GB[1]	800GB[1]
Standard Model	XP7102-1A2048	XP7102-1A1024
Interface	PCIe Gen3 ×4 NVMe 1.2a	PCIe Gen3 ×4 NVMe 1.2a
NAND Flash Type	MLC	MLC
Sector Size Support[2]	4K / 512	4K / 512
Form Factor	Half-height, half-length (MD2)	Half-height, half-length (MD2)
Performance		
Sequential Read (MB/s) Sustained, 128KB[3]	2500	2500
Sequential Write (MB/s) Sustained, 128KB[3]	900	850
Random Read (IOPS) Sustained, 4KB QD64[3]	245,000	245,000
Random Write (IOPS) Sustained, 4KB QD64[3]	40,000	35,000
Random 70/30 R/W (IOPS) Sustained,4KB QD64[3]	110,000	80,000
Endurance/Reliability		
Lifetime Endurance (Drive Writes per Day)	3	3
Nonrecoverable Read Errors per Bits Read	1 per 10E16	1 per 10E16
Mean Time Between Failures (MTBF, hours)	2M	2M
Power Management		
+12V Max Power (W)	11.5	11.5
Average Read/Write Power (W)	8.1	8.1
Average Idle Power (W)	4.25	4.25
Environmental		
Temperature, Operating (°C) / Airflow	0 to 85 @ 300 LFM	0 to 85 @ 300 LFM
Temperature, Nonoperating (°C)	−25 to 85	−25 to 85
Temperature Change Rate/Hr, Max (°C)	20	20
Shock, 0.5ms (Gs)	1500	1500
Vibration, 7Hz to 800Hz (Grms)	3.08	3.08
Vibration, 20Hz to 2000Hz (Grms)	16.3	16.3
Physical		
Height (in/mm, max)[4]	4.3/111	4.3/111
Length (in/mm, max)[4]	6.6/167	6.6/167
Width, Primary Side (in/mm, max)[4]	0.5/12.5	0.5/12.5
Width, Secondary Side (in/mm, max)[4]	0.08/2	0.08/2
Weight (g)	80	80
Carton Unit Quantity	1	1
Warranty		
Limited Warranty (years)	5	5

1 One gigabyte, or GB, equals one billion bytes and one terabyte, or TB, equals one trillion bytes when referring to drive capacity.

2 Drives are shipped with 4K sector size set as default. Drives can be re-formatted to 512B sectors.

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

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

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Seagate 5-Year Warranty

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