



DATA SHEET

Tough. Ready. Scalable.

IronWolf 510 SSD



Built for NAS, Seagate® IronWolf® 510 delivers high-endurance performance and caching speeds of up to 3150MB/s—or 3GB/s for NVMe-compatible systems. With capacities of up to 1.92TB, it's the go-to solution for creative pros and businesses needing 24×7 multi-user storage.



Best-Fit Applications

- Tiered caching on enabled NAS
- Creative pro NAS
- Small, medium enterprise NAS

Key Advantages

Tap into the power of SSD cache tiering and make 24×7 loading for multiple users a smooth, easy process.

Easily tackle the high-endurance requirements of NAS with 1 DWPD.

Offering best-in-class performance, IronWolf 510 SSD ensures low lag and low down time in multi-user environments.

Seagate has your back in almost every situation possible when it comes to a failed drive with a 2-year Rescue Data Recovery Services plan.

Enjoy long-term reliability with 1.8M hours MTBF in a PCIe form factor.

Choose from an extensive portfolio of capacity options including 240GB, 480GB, 960GB, and 1.92TB.



Specifications				
Capacity	1.92TB	960GB	480GB	240GB
Standard Model	ZP1920NM30001	ZP960NM30001	ZP480NM30001	ZP240NM30001
Features				
Interface	PCIe G3 x4, NVMe 1.3	PCIe G3 x4, NVMe 1.3	PCIe G3 x4, NVMe 1.3	PCIe G3 x4, NVMe 1.3
NAND Flash Type	3D TLC	3D TLC	3D TLC	3D TLC
Form Factor	M.2 2280-D2	M.2 2280-D2	M.2 2280-S2	M.2 2280-S2
Performance				
Sequential Read (MB/s) Sustained, 128KB QD32 ¹	3,150	3,150	2,650	2,450
Sequential Write (MB/s) Sustained, 128KB QD32 ¹	850	1,000	600	290
Random Read (IOPS) (QD32T4) ¹	270,000	345,000	193,000	100,000
Random Write (IOPS) (QD32T4) ¹	25,000	28,000	20,000	12,000
Random Read (IOPS) (QD32T8) ¹	290,000	380,000	199,000	100,000
Random Write (IOPS) (QD32T8) ¹	27,000	29,000	21,000	13,000
Endurance/Reliability				
Total Bytes Written (TBW, TB)	3,500	1,750	875	435
Nonrecoverable Read Errors per Bits Read	1 per 10E16	1 per 10E16	1 per 10E16	1 per 10E16
Mean Time Between Failures (MTBF, hours)	1,800,000	1,800,000	1,800,000	1,800,000
Warranty, Limited (years)	5	5	5	5
Power Management				
Power Supply	3.3V	3.3V	3.3V	3.3V
Active Max Average Power (W)	6.0	6.0	6.0	5.3
Average Idle Power (W)	2.0	1.95	1.83	1.75
Environmental				
Temperature, Operating Internal(°C)	0 to 70	0 to 70	0 to 70	0 to 70
Temperature, Nonoperating (°C)	-40 to 85	-40 to 85	-40 to 85	-40 to 85
Shock, 0.5ms (Gs)	1500	1500	1500	1500
Physical				
Height (in/mm, max)	0.140in/3.58mm	0.140in/3.58mm	0.087in/2.23mm	0.087in/2.23mm
Width (in/mm, max)	0.872in/22.15mm	0.872in/22.15mm	0.872in/22.15mm	0.872in/22.15mm
Depth (in/mm, max)	3.16in/80.15mm	3.16in/80.15mm	3.16in/80.15mm	3.16in/80.15mm
Weight (lb/g)	0.018lb/8.3g	0.017lb/8.1g	0.015lb/6.9g	0.014lb/6.5g
Carton Unit Quantity	10	10	10	10

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



Ordering Information	
Specifications	
Retail Packaging	Box Dimensions
Depth/Length (in/mm)	0.944in/24mm
Width (in/mm)	4.291in/109mm
Height (in/mm)	6.102in/155mm
Weight (lb/kg)	0.14lb/0.062kg
Master Carton Dimensions	
Depth/Length (in/mm)	6.023in/153mm
Width (in/mm)	11.496in/292mm
Height (in/mm)	5.511in/140mm
Weight (lb/kg)	1.9lb/0.88kg
Pallet Dimensions	
Depth/Length (in/mm)	47.24in/1200mm
Width (in/mm)	39.38in/1000mm
Height (in/mm)	52inch/1320mm
Weight (lb/kg)	448lb/203.2kg
Quantities	
Boxes per Master Carton	10
Master Cartons per Pallet	196
Pallet Layers	7

System Requirements	What's Included
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- Windows® 10, Windows 8.1
- Linux
- Seagate® IronWolf® 510 SSD

Region	Model Number	Capacity	Limited Warranty (years)	UPC Code	EAN Code	Multi-Pack UPC
WW	ZP1920NM30011	1.92TB	5	763649135983	8719706018357	10763649135980
WW	ZP960NM30011	960GB	5	763649135976	8719706018340	10763649135973
WW	ZP480NM30011	480GB	5	763649135969	8719706018333	10763649135966
WW	ZP240NM30011	240GB	5	763649135952	8719706018326	10763649135959

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