



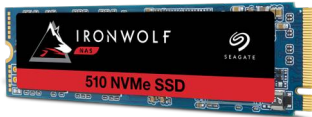
DATA SHEET

Tough. Ready. Scalable.

IronWolf 510 SSD



Built for NAS, Seagate® IronWolf® 510 delivers high-endurance performance and caching speeds of up to 3,150 MB/s — or 3 GB/s for NVMe-compatible systems. With capacities of up to 1.92 TB, 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 240 GB, 480 GB, 960 GB, and 1.92 TB.



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, 128 KB QD32 ¹	3,150	3,150	2,650	2,450
Sequential Write (MB/s) Sustained, 128 KB 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 (TB)	3,500	1,750	875	435
Non-recoverable 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, Non-operating (°C)	-40 to 85	-40 to 85	-40 to 85	-40 to 85
Shock, 0.5 ms (Gs)	1,500	1,500	1,500	1,500
Physical				
Height (in/mm, max)	0.140 in/3.58 mm	0.140 in/3.58 mm	0.087 in/2.23 mm	0.087 in/2.23 mm
Width (in/mm, max)	0.872 in/22.15 mm	0.872 in/22.15 mm	0.872 in/22.15 mm	0.872 in/22.15 mm
Depth (in/mm, max)	3.16 in/80.15 mm	3.16 in/80.15 mm	3.16 in/80.15 mm	3.16 in/80.15 mm
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)	0.944 in/24 mm
Width (in/mm)	4.291 in/109 mm
Height (in/mm)	6.102 in/155 mm
Weight (lb/kg),	0.14 lb/0.062 kg
Master Carton Dimensions	
Depth/Length (in/mm)	6.023 in/153 mm
Width (in/mm)	11.496 in/292 mm
Height (in/mm)	5.511 in/140 mm
Weight (lb/kg),	1.9 lb/0.88 kg
Pallet Dimensions	
Depth/Length (in/mm)	47.24in/1,200 mm
Width (in/mm)	39.38in/1,000 mm
Height (in/mm)	52inch/1,320 mm
Weight (lb/kg),	448 lb/203.2 kg
Quantities	
Boxes per Master Carton	10
Master Cartons per Pallet	196
Pallet Layers	7

System Requirements	What's Included
---------------------	-----------------

- 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

seagate.com



© 2020 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. IronWolf and the IronWolf 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. DS2032.1-2002US February 2020