



DATA SHEET

Tough. Ready. Scalable.

IronWolf 110 SSD



The Seagate® IronWolf® 110 SSD is designed for everything business NAS, with 24x7 performance to handle multi-user environments across a wide range of capacities.



Key Features and Benefits

- SATA 6 Gb/s interface for easy deployment
- Seagate DuraWrite™ lossless data reduction technology
- Tunable capacity for performance- or capacity-optimised SSD solutions
- Power loss data protection circuit
- Enterprise-class reliability with 2M-hr. MTBF and a 5-year limited warranty

Best-Fit Applications

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

Take your NAS to the next level with the IronWolf 110 SATA SSD, providing pure performance in all-flash array or tiered cache NAS-enabled systems. This enterprise-grade SSD gives you increased durability and peace of mind.

Optimised to Be Tough

Boost the performance of NAS, which requires faster random access performance

Maintain fast, consistent performance for read-intensive and mixed workloads

Choose built-in drive monitoring with enabled NAS with IronWolf Health Management¹

Always Accessible, Always Ready

Require less energy to run on 24x7 NAS, and save on cooling and overall energy cost

Acquire the capacity and endurance to fit a range of applications and workloads

Scalable for Data Growth in NAS

Leverage a wide portfolio to fit your growing business needs

Depend on a 5-year limited warranty and included 2-year Data Recovery Services plan

¹ Coming soon on enabled NAS

DURAWRITE



Specifications					
Capacity	3.84TB	1.92TB	960GB	480GB	240GB
Standard Model Numbers	ZA3840NM10001	ZA1920NM10001	ZA960NM10001	ZA480NM10001	ZA240NM10001
Features					
Interface	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s
NAND Flash Type	3D TLC	3D TLC	3D TLC	3D TLC	3D TLC
Form Factor	2.5 in x 7 mm	2.5 in x 7 mm	2.5 in x 7 mm	2.5 in x 7 mm	2.5 in x 7 mm
Performance					
Sequential Read (MB/s) Sustained, 128 KB QD32 ¹	560	560	560	560	560
Sequential Write (MB/s) Sustained, 128 KB QD32 ¹	535	535	535	535	345
Random Read (IOPS) Sustained, 4 KB QD32 ¹	85,000	90,000	90,000	75,000	55,000
Random R70R (IOPS) Sustained, 4KB QD32 ¹	60,000	65,000	50,000	40,000	30,000
Random Write (IOPS) Sustained, 4 KB QD32 ¹	45,000	50,000	55,000	50,000	30,000
Average Read Latency (µs), 4 KB QD1 ¹	175	160	155	155	155
Average Write Latency (µs), 4 KB QD1 ¹	40	35	40	40	40
Endurance/Reliability					
Total Bytes Written (TB)	7,000	3,500	1,750	875	435
Non-recoverable Read Errors per Bits Read	1 per 10E17	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	2,000,000
Limited Warranty (years)	5	5	5	5	5
Power Management					
+5/+12V Active Max Average Power (W) ²	3.5	3.4	3.2	2.7	2.3
Average Idling Power (W)	1.2	1.2	1.2	1.1	1.1
Environmental					
Temperature, Operating Internal (°C)	0°C – 70°C	0°C – 70°C	0°C – 70°C	0°C – 70°C	0°C – 70°C
Temperature, Non-operating (°C)	-40°C – 85°C	-40°C – 85°C	-40°C – 85°C	-40°C – 85°C	-40°C – 85°C
Temperature Change Rate/Hr, Max (°C)	20	20	20	20	20
Shock, 0.5 ms (Gs)	1,000	1,000	1,000	1,000	1,000
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	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	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	100.25 mm/3.947 in
Weight (lb/g)	77 g/0.169 lb	77 g/0.169 lb	77 g/0.169 lb	77 g/0.169 lb	77 g/0.169 lb
Carton Unit Quantity	10	10	10	10	10

¹ Performance data is based on testing under certain workload conditions and is subject to change. Performance assumes that a typical enterprise data workload has 80% entropy.

² 3.84 TB, 1.92 TB, and 960 GB capacity points require 12V in addition to 5V power.

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. DuraWrite, the DuraWrite logo, and IronWolf 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. The export or re-export of Seagate hardware or software is regulated by the U.S. Department of Commerce, Bureau of Industry and Security (for more information, visit www.bis.doc.gov), and may be controlled for export, import and use in other countries. Seagate reserves the right to change, without notice, product offerings or specifications. DS1998.1-1811GB November 2018