Product Highlights

- Robust system responsiveness and exceptional I/O performance
- Tackle NAS workloads with exceptional reliability and endurance
- Tame tough projects like virtualization and collaborative editing
- Perfect for multitasking applications with multiple users
- Scale your NAS device with huge capacities up to 4TB[1]
- Purpose-built and tested to be compatible with popular NAS systems

WD Red™ SN700 NVMe™ SSD

NVMe Solid-State Drive for NAS Devices

Tackle extreme workloads in high-intensity NAS environments with the fast-caching WD Red™ SN700 NVMe™ SSD. This powerful drive is engineered to support 24/7 environments and always-on applications with the ultimate in reliability and endurance. Its robust system responsiveness and exceptional I/O performance are perfect for multi-user, multitasking applications, letting you tame your SMB's toughest projects from virtualization to collaborative editing to intensive database storage with efficient caching—all while helping to lower your TCO. Take your small-to-medium business to the next level with NVMe technology, fast speeds and huge capacities in a drive purpose-built and tested for NAS. That's the power of WD Red.

Accelerate Your NAS

The fast-caching power of the WD Red SN700 NVMe SSD delivers robust system responsiveness and exceptional I/O performance compared to our SATA SSDs.

Built to Last

Tackle 24/7 NAS workload environments with reliability and endurance of up to 5100 TBW (4TB[1] model), backed by a 5-year limited warranty.

Step Up to NVMe

Tame your SMB's toughest projects—from virtualization to collaborative editing to intensive database storage with efficient caching—with storage designed to outperform while helping to lower your TCO.

Perfect for SMBs

Even in smaller operations, multiple people working at the same time can tax a NAS device. NVMe caching easily handles random workloads in multi-user, multitasking applications to let small-to-medium businesses do more.

Scale Up to Keep Up

Keep ahead of the data explosion with huge capacities up to 4TB[1].

Optimize Your Workflow

Purpose-built and tested to be compatible with many of today's most popular NAS systems for maximum flexibility to optimize your workflow.

WD Red™ SN700 NVMe™ SSD

Specifications

General Specifications

Formatted Capacity[1]	250GB	500GB	1TB	2TB	4TB
Model Number	WDS250G1R0C	WDS500G1R0C	WDS100T1R0C	WDS200T1R0C	WDS400T1R0C
Form Factor	M.2 2280-S3-M	M.2 2280-S3-M	M.2 2280-S3-M	M.2 2280-S3-M	M.2 2280-D5-M
Interface[2]	PCIe Gen3 8 Gb/s, up to 4 Lanes	PCIe Gen3 8 Gb/s, up to 4 Lanes	PCIe Gen3 8 Gb/s, up to 4 Lanes	PCIe Gen3 8 Gb/s, up to 4 Lanes	PCIe Gen3 8 Gb/s, up to 4 Lanes
Length	80 ± 0.15mm	80 ± 0.15mm	80 ± 0.15mm	80 ± 0.15mm	80 ± 0.15mm
Width	22 ± 0.15mm	22 ± 0.15mm	22 ± 0.15mm	22 ± 0.15mm	22 ± 0.15mm
Height	2.38mm	2.38mm	2.38mm	2.38mm	2.38mm
Weight	7.5g ± 1g	7.5g ± 1g	7.5g ± 1g	7.5g ± 1g	9.57g ± 1g

Performance[3]

	250GB	500GB	1TB	2TB	4TB
Sequential Read up to (MB/s) (Queues=32, Threads=1)	3,100	3,430	3,430	3,400	3,400
Sequential Write up to (MB/s) (Queues=32, Threads=1)	1,600	2,600	3,000	2,900	3,100
Random Read up to 4KB (IOPS) (Queues = 32, Threads = 1)	220K	420K	515K	480K	550K
Random Write up to 4KB (IOPS) (Queues = 32, Threads = 1)	180K	380K	560K	540K	520K
Endurance (TBW)[4]	500	1,000	2,000	2,500	5,100

Power[5]

	250GB	500GB	1TB	2TB	4TB
Peak Power (10µs)	2.8A	2.8A	2.8A	2.8A	2.8A
PS3 (low power)	70mW	70mW	100mW	100mW	100mW
PS4 (Sleep)(low power)	3.5mW	3.5mW	3.5mW	5mW	5mW

Reliability

MTTF (hours)[6]	1,750,000 hours (Telcordia SR-332, GB, 40°C)

Environmental

	250GB	500GB	1TB	2TB	4TB
Operating Temperatures[7]	32°F to 158°F (0°C to 70°C)	32°F to 158°F (0°C to 70°C)	32°F to 158°F (0°C to 70°C)	32°F to 158°F (0°C to 70°C)	32°F to 158°F (0°C to 70°C)
Non-Operating Temperatures[8]	-67°F to 185°F (-55°C to 85°C)	-67°F to 185°F (-55°C to 85°C)	-67°F to 185°F (-55°C to 85°C)	-67°F to 185°F (-55°C to 85°C)	-67°F to 185°F (-55°C to 85°C)
Certifications	FCC, UL, TUV, KCC, BSMI, VCCI, C-Tick	FCC, UL, TUV, KCC, BSMI, VCCI, C-Tick	FCC, UL, TUV, KCC, BSMI, VCCI, C-Tick	FCC, UL, TUV, KCC, BSMI, VCCI, C-Tick	FCC, UL, TUV, KCC, BSMI, VCCI, C-Tick
Limited Warranty[9]	5 years	5 years	5 years	5 years	5 years

[1] As used for storage capacity, 1GB = 1 billion bytes and 1TB = one trillion bytes. Actual user capacity may be less depending on operating environment.

[2] Backwards compatible with PCIe Gen3 x2, PCIe Gen2 x4, PCIe Gen2 x2, PCIe Gen2 x1, and PCIe Gen3 x1.

[3] 1 MB/s = 1 million bytes per second. Based on internal testing; performance may vary depending upon host device, usage conditions, drive capacity, and other factors.

[4] TBW (terabytes written) values calculated using JEDEC client workload (JESD219) and vary by product capacity.

[5] Measured using MobileMark™ 2014 on HP EliteBook X360 1030 G2 with i7–7600U, 8GB RAM.

Windows 10 Pro 64-bit RS3 using Microsoft StorNVMe driver, Primary drive.

[6] MTTF = Mean Time To Failure based on internal testing using Telcordia stress part testing.

[7] Operational temperature as reported by device (composite temperature).

[8] Non-operational storage temperature does not guarantee data retention.

[9] 5 years or Max Endurance (TBW) limit, whichever occurs first. See support.WesternDigital.com for regional specific warranty details.

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