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WD Red™ SN700 NVMe™ SSD
Distribution Setup Sheet

Product Brand Name	**WD Red™ SN700 NVMe™ SSD**
Product Category	NVMe SSD
Headline	Accelerate Your NAS
Product Title and Description	30 characters: WD Red™ SN700 NVMe™ SSD, 250GB* 30 characters: WD Red™ SN700 NVMe™ SSD, 500GB* 30 characters: WD Red™ SN700 NVMe™ SSD, 1TB* 30 characters: WD Red™ SN700 NVMe™ SSD, 2TB* 30 characters: WD Red™ SN700 NVMe™ SSD, 4TB* 100 characters: WD Red™ SN700 NVMe™ SSD, 500GB* of NVMe Solid-State Drive for NAS devices 100 characters: WD Red™ SN700 NVMe™ SSD, 250GB* of NVMe Solid-State Drive for NAS devices 100 characters: WD Red™ SN700 NVMe™ SSD, 1TB* of NVMe Solid-State Drive for NAS devices 100 characters: WD Red™ SN700 NVMe™ SSD, 2TB* of NVMe Solid-State Drive for NAS devices 100 characters: WD Red™ SN700 NVMe™ SSD, 4TB* of NVMe Solid-State Drive for NAS devices
Product Overview - Short Copy	Tackle extreme workloads in high-intensity NAS environments with a fast-caching NVMe™ SSD. Robust system responsiveness and exceptional I/O performance make this drive perfect for multi-user, multitasking applications.
Product Overview - Medium Copy	Tackle extreme workloads in high-intensity NAS environments with the fast-caching WD Red™ SN700 NVMe™ SSD. The drive's 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.
Product Overview - Long Copy	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, 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.
Feature Bullets	• 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* • Purpose-built and tested to be compatible with popular NAS systems
Full Features	**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 5,100 TBW (4TB* 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*. **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.
Keywords	NVMe, NAS, NAS devices, SSD, solid-state drives, SSDs for NAS, NAS storage

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NVMe SSD

Product Specifications	Interface M.2 2280*		PCIe Gen3 8 Gb/s, up to 4 Lanes
	Formatted capacity**		250GB, 500GB, 1TB, 2TB, 4TB
Performance*	Seq. Read up to (MB/s) (Queues=32, Threads=1)	250GB	3'100
		500GB	3'430
		1TB	3'430
		2TB	3'400
		4TB	3'400
	Seq. Write up to (MB/s) (Queues=32, Threads=1)	250GB	1'600
		500GB	2'600
		1TB	3'000
		2TB	2'900
		4TB	3'100
	Rand Read up to 4KB (IOPS) (Queues=32, Threads=8)	250GB	220K
		500GB	420K
		1TB	515K
		2TB	480K
		4TB	550K
	Rand Write up to 4KB (IOPS) (Queues=32, Threads=8)	250GB	180K
		500GB	380K
		1TB	560K
		2TB	540K
		4TB	520K
	Endurance‡ (TBW)	250GB	500
		500GB	1'000
		1TB	2'000
		2TB	2'500
		4TB	5'100
Power‡‡	Peak Power (10us)		2.8A
	PS3 (low power)		250/500GB: 70mW ; 1TB/2TB/4TB: 100mW
	PS4 (Sleep)(low power)	250GB	3.5mW
		500GB	3.5mW
		1TB	3.5mW
		2TB	5mW
		4TB	5mW
Reliability	MTTF‡‡‡		1,750,000 hours (Telcordia SR-332, GB, 40°C)
Environmental	Operating Temperatures§		32°F to 158°F (0°C to 70°C)
	Non-operating Temperatures§§		-67°F to 185°F (-55°C to 85°C)
	Certifications		FCC, UL, TUV, KCC, BSMI, VCCI, C-Tick
	Limited warranty (years)§§§		5 years
Physical Dimensions M.2 2280	Form factor		M.2 2280-S3-M (250GB-2TB) , M.2 2280 D5-M (4TB)
	Length		80 ± 0.15mm
	Width		22 ± 0.15mm

Height			2.38mm
Weight	250GB	7.5g ± 1g	
	500GB	7.5g ± 1g	
	1TB	7.5g ± 1g	
	2TB	7.5g ± 1g	
	4TB	9.57g ± 1g	

Specifications subject to change without notice.

*Backwards compatible with PCIe Gen3 x2, PCIe Gen2 x4, PCIe Gen2 x2, PCIe Gen2 x1, and PCIe Gen3 x1

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

*** Test Conditions: Performance is based on the CrystalDiskMark 5.2.2 benchmark using a 1000MB LBA range ASUS Z170A desktop with Intel® i7-6700K 4.0GHz, 8GB 2133MHz DDR4. Windows 10 Pro 64-bit using Microsoft StorNVMe driver, secondary drive. Performance may vary based on host device. 1 MB = 1,000,000 bytes. IOPS = input/output operations per second.

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

‡‡ 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.

‡‡‡ MTTF = Mean Time To Failure based on internal testing using Telcordia stress part testing (Telcordia SR-332, GB, 25°C). MTTF is based on a sample population and is estimated by statistical measurements and acceleration algorithms. MTTF does not predict an individual drive's reliability and does not constitute a warranty.

§ Operational temperature is measured by thermal sensors in NAND package. The SSD box package is rated up to 60ºC.

§§ Non-operational storage temperature does not guarantee data retention.

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

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NVMe SSD

CAPACITY *	MODEL NUMBER	UPC
250GB	WDS250G1R0C	7 18037 89141 5
500GB	WDS500G1R0C	7 18037 89143 9
1TB	WDS100T1R0C	7 18037 89132 3
2TB	WDS200T1R0C	7 18037 89133 0
4TB	WDS400T1R0C	7 18037 89142 2

Note: Not all products may be available in all regions of the world.

* As used for storage capacity, one megabyte (MB) = one million bytes, one gigabyte (GB) = one billion bytes, and one terabyte (TB) = one trillion bytes. Total accessible capacity varies depending on operating environment. As used for buffer or cache, one megabyte (MB) = 1,048,576 bytes. As used for transfer rate or interface, megabyte per second (MB/s) = one million bytes per second, megabit per second (Mb/s) = one million bits per second, and gigabit per second (Gb/s) = one billion bits per second. Effective maximum PCI Express 3.0 8Gb/s transfer rate calculated according to the PCI-SIG specification published by the PCI-SIG organization as of the date of this specification sheet. Visit https://pcisig.com/specifications for details.