



Western Digital® PC SN540 NVMe™ SSD

Versatility to Power Mobility

Greater Design Flexibility

The slim and scalable M.2 form factor allows for more design exploration and innovation.

High Performance Designs

Race through various applications with speeds up to 3,500MB/s¹ (2TB² model) while maintaining a low power profile.

Endurance and Reliability

With up to 600TBW³, the Western Digital® PC SN540 NVMe™ SSD helps protect content so you can deliver solutions that provide peace of mind.

More Capacity in Less Space

With up to 2TB² there is plenty of room for applications and files, while still delivering top performance—all packed into a smaller, thinner solution.

Lower Power Mobility Demands

A power-sipping design enables thinner, lighter solutions that focus less on plugging into a wall socket and more on getting things done.

A Standard for Design

Featuring 5x more performance than a SATA SSD, 128-Layer 3D NAND, and our in-house controller, the Western Digital® PC SN540 NVMe™ SSD is built on technology you can trust for your next design.

Key Benefits and Features:

- Read speeds up to 3,500 MB/s¹ (2TB² model)
- Remarkable reliability features to help protect your content
- Low power consumption leverages the PCIe® Gen3 x4 interface and NVMe™ power management
- Slim M.2 2280 form factor
- Save on space with a single-sided M.2 2280 PCIe® Gen3 x4 NVMe™ SSD

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Product Features and Specifications

Form Factor	M.2 2280		
Interface	PCIe® Gen3 x4 NVMe™		
Formatted Capacity ²	512GB ² , 1TB ² , 2TB ²		
Performance⁴	512GB²	1TB²	2TB²
Sequential Read up to (MB/s)	3,200	3,400	3,500
Sequential Write up to (MB/s)	1,500	2,700	3,000
Random Read up to 4KB (IOPS) up to (Queues=32, Threads=16)	180K	250K	450K
Random Write up to 4KB (IOPS) up to (Queues=32, Threads=16)	350K	400K	450K
Endurance ³ (TBW)	150	300	600
Power			
Average Active Power ⁵ (mW)	100	100	110
Low Power (PS3) (mW)	25	25	25
Sleep (PS4) (mW)	5	5	5
Maximum Operating Power (mW) ⁶	3,630	4,125	4,290
Reliability			
MTTF ⁷	Up to 1.75M hours		
Environmental			
Operating Temperature ⁸	32°F to 176°F (0°C to 80°C)		
Non-Operating Temperature ⁹	-67°F to 185°F (-55°C to +85°C)		
Operating Vibration	5 gRMS, 10–2,000Hz, 15min/axis on 3 axes		
Non-Operating Vibration	4.9 gRMS, 7–800Hz, 15min/axis on 3 axes		
Shock	1,500G @0.5 ms half sine		
Certifications	Windows® HCK, Windows HLK		
Limited Warranty ¹⁰	5 years		
Physical Dimensions			
Width	22mm ±0.15mm		
Length	80mm ±0.15mm		
Thickness (max)	2.38mm		
Weight	6.5g ±1g		
Ordering Information	512GB²	1TB²	2TB²
	SDDPNPF-512G	SDDPNPF-1T00	SDDPNPF-2T00

¹ As used for transfer speed, megabyte per second (MB/s) = one million bytes per second. Performance will vary depending on your hardware and software components and configurations.

² 1GB = 1 billion bytes and 1TB = 1 trillion bytes. Actual user capacity may be less depending on operating environment.

³ TBW (terabytes written) values calculated using JEDEC client workload (JESD219) and vary by product capacity.

⁴ Test Conditions: Performance is based on the CrystalDiskMark™ 8.0.1 benchmark using a 1000MB LBA range Asus™ ROG Crosshair VIII Hero X570 desktop with AMD Ryzen® 9 3950X 16-Core, 32GB 3200MHz DDR4. Microsoft® Windows® 10 Pro 64-bit 20H1 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.

⁵ Measured using MobileMark™ 2018 on Dell® Precision 7730 intel® Core™ i5–8300 CPU @ 2.30GHZ 8 GB Windows® 10 RSS (1809) Bios 1.13.1

⁶ Measured during continuous sequential read or write activity and indicates the average over 1 second intervals.

⁷ 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.

⁸ Operational temperature is measured by an on board temperature sensor. The SSD box package is rated up to 60°C.

⁹ Non-operational storage temperature does not guarantee data retention.

¹⁰ 5 years or Max Endurance (TBW) limit, whichever occurs first. See <http://support.westerndigital.com> for more details.



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