PRODUCT BRIEF NVMe™ SSD

Key Benefits and Features:

- Read speeds up to 6,600 MB/s[1] (1TB[2] and 2TB[2] models)
- Remarkable reliability features to help protect your content
- NVMe™ power management
- Slim M.2 2280 form factor
- Save on space with a single-sided M.2 2280 PCIe® Gen4 x4 NVMe™ SSD

Western Digital® PC SN810 NVMe™ SSD

Performance Has Evolved

PCIe® Gen4 and the NVMe™ Architecture

The Western Digital PC SN810 NVMe™ SSD brings a new standard in performance and pushes the boundaries of client computing with a scalable NVMe™ architecture that is ready for tomorrow's higher demand storage applications.

An easy choice for computing customers looking for thin and light storage devices, the Western Digital PC SN810 comes in a variety of high-capacity points ranging from 256GB[2] to 2TB[2] so no one has to sacrifice performance for storage.

Designed around the PCIe® Gen4×4 interface, the Western Digital PC SN810 is ideal for applications that require high performance. Users will see the benefits of this performance boost in applications such as gaming, high-definition video content creation, postproduction processing and high demand computing such as software development and rendering.

Dedicated Quality

Designed as a fully integrated solution, the Western Digital PC SN810 NVMe™ SSD includes an in-house controller, firmware and thorough testing ensuring a robust supply and reliable design. The Western Digital PC SN810 NVMe™ SSD brings a new level of performance with sequential read speeds of 6,600 MB/s[1] and sequential write speeds of 5,000 MB/s[1] and a high endurance of up to 500 TBW[3]. All of this is available in the compact M.2 2280 form factor.

Summary

Delivering incredible performance to tackle the most challenging applications, the Western Digital PC SN810 NVMe™ SSD pulls no punches and brings a reliable design with high-capacity points from 256GB[2] to 2TB[2].

Western Digital® PC SN810 NVMe™ SSD

PRODUCT BRIEF **NVMe™ SSD**

Product Features and Specifications				
Form Factor				M.2 2280
Interface[4]				PCIe® Gen4 x4 NVMe™
Formatted Capacities[2]				256GB, 512GB, 1TB, 2TB
Performance[5]	**250GB[2]**	**500GB[2]**	**1TB[2]**	**2TB[2]**
Sequential Read up to (MB/s)[6]	5,700	6,000	6,600	6,600
Sequential Write up to (MB/s)[6]	1,900	4,000	5,000	5,000
Random Read up to (IOPS)	400K	750K	760K	760K
Random Write up to (IOPS)	490K	630K	650K	650K
Endurance[3] (TBW)	200	300	400	500
Power				
Average Active Power[7] (mW)	200	200	200	200
Low Power (PS3™) (mW)	25	25	25	25
Sleep (PS4) (mW)	5	5	5	5
Maximum Operating Power (mW)	7,000	8,000	8,000	8,250
Reliability				
MTTF[8]				Up to 1,752,000 hours
Environmental				
Operating Temperature[9]				32°F to 176°F (0°C to 80°C)
Non-Operating Temperature[10]				-67°F to 185°F (-55°C to +85°C)
Operating Vibration				5 gRMS, 10–2000Hz, 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, FCC, UL, TUV, KCC, BSMI, VCCI, C-Tick
Limited Warranty[11]				5 years
Physical Dimensions				
Width				22mm ±0.15mm
Length				80mm ±0.15mm
Thickness (max)				2.38mm
Weight				6.5g ±0.5g
Ordering Information	**256GB[2]**	**512GB[2]**	**1TB[2]**	**2TB[2]**
Security Type: Non-SED	SDCPNRY-256G	SDCPNRY-512G	SDCPNRY-1T00	SDCPNRZ-2T00
Security Type: SED	SDCQNRY-256G	SDCQNRY-512G	SDCQNRY-1T00	SDCQNRZ-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] Backward compatible with PCIe® Gen3 x4, PCIe® Gen3 x2, PCIe® Gen3 x1, PCIe® Gen2 x4, PCIe® Gen2 x2 and PCIe® Gen2 x1

[5] Test Conditions: Performance is measured by CrystalDiskMark™ 7.0.0f using 1GB LBA range. Windows® 10 using Microsoft® driver build 18362.116, Primary drive FOB. ASUS™ ROG Crosshair VIII Hero X570 platform with AMD Ryzen™ 9 3950X 16-Core, HyperX Fury 32GB 3200Mhz DDR4 CL 16 DIMM. Performance may vary based on host device, usage conditions, drive capacity, and other factors. 1 MB = 1,000,000 bytes. IOPS = input/output operations per second.

[6] Based on read/write speed. 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.

[7] Measured using MobileMark™ 2014 on AMD Ryzen™ 5 3500 6-core, 16GB DRAM, NVIDIA™ GeFORCE GT 710, C-State on, Windows® 10 Pro.

[8] 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.

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

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

[11] 5 years or Max Endurance (TBW) limit, whichever occurs first. 5 year warranty in regions not recognizing "limited."See http://support.westerndigital.com for more details.

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