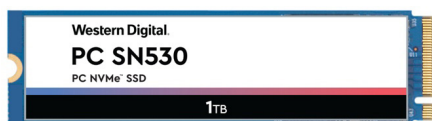




PRODUCT BRIEF



Western Digital® PC SN530 NVMe™ SSD Thin Is In

Innovative Solution

With future-ready, scalable NVMe™ architecture, the Western Digital PC SN530 NVMe SSD offers both manufacturers and end-users the solution to innovate and expand their computing effectiveness.

This NVMe SSD enables greater design flexibility for ultra-thin notebook or tablet designs that require a cost effective, reliable storage device with a small form factor and capacity points up to 1,024GB.

Versatile Options for Mobility

The Western Digital PC SN530 NVMe SSD, supporting PCIe Gen3 x4, is designed for a multitude of applications that require both high performance and low power.

Equipped with a fully integrated solution which includes an in-house controller, 96-layer 3D NAND, firmware, and extensive testing, Western Digital provides longevity of supply in a robust and reliable design.

Designed with Western Digital's in-house tiered-caching NVMe architecture, the Western Digital PC SN530 NVMe SSD delivers high performance with sequential read and write speeds up to 2,400MB/s and 1,950MB/s respectively and high endurance up to 400 TBW, all of which is available in a variety of small form factors: M.2 2230, M.2 2242, M.2 2280.

Summary

The Western Digital PC SN530 NVMe SSD, in variety of small, single-sided form factors, enables customers to build ultra-thin, ultra-small boards and systems that address the ever-changing computing platforms, without sacrificing performance and power consumption.

Key Benefits and Features:

- Read speeds up to 2,400MB/s and low power consumption leverages both the PCIe Gen3 x4 interface, as well as sophisticated NVMe Power Management.
- 256GB-1,024GB capacities available in three small form factors: M.2 2230, M.2 2242, M.2 2280
- Endurance of up to 400 TBW
- 5 year limited warranty

Western Digital PC SN530 NVMe SSD

Product Features and Specifications

Form Factor	M.2 2230-S3-M, M.2 2242-S3-M, M.2 2280-S3-M		
Interface	PCIe Gen3 x4 NVMe v1.4		
Formatted Capacity ¹	256GB, 512GB, 1,024GB		
Performance²	256GB	512GB	1,024GB
Sequential Read up to (MB/s)	2,400	2,400	2,400
Sequential Write up to (MB/s)	950	1,750	1,950
Random Read up to (IOPS)	170K	315K	400K
Random Write up to (IOPS)	120K	230K	400K
Endurance ³ (TBW)	200	300	400
Power			
Average Active Power ^{4,5} (mW)	75	75	75
Low Power (PS3) (mW)	20	20	20
Sleep (PS4) (mW)	5	5	5
Supply Voltage (VDC/ ±5%)	3.3	3.3	3.3
Reliability			
MTTF ⁶	Up to 1.75M hours		
Environmental			
Operating Temperature ⁷	32°F to 158°F (0°C to 70°C)		
Non-Operating Temperature ⁸	-67°F to 185°F (-55°C to 85°C)		
Operating Vibration	5 gRMS, 10–2000Hz, 3 axes		
Non-Operating Vibration	4.9 gRMS, 7–800Hz, 3 axes		
Shock	1,500G @0.5 ms half sine		
Certifications	UL, TUV, FCC, BSMI, CE, KCC, RCM, Morocco, VCCI and CAN ICES-3(B)/NMB-3(B)		
Limited Warranty ⁹	5 years		
Physical Dimensions			
Width	22mm ±0.15mm		
Length	2230: 30mm ±0.15mm; 2242: 42mm ±0.15mm; 2280: 80mm ±0.15mm		
Thickness (max)	2.38mm		
Weight	2230: 3.2g ±1g; 2242: 3.9g ±1g; 2280: 7.5g ±1g		
Ordering Information	256GB	512GB	1,024GB
Form Factor: M.2 2230 S3-M	SDBPTPZ-256G	SDBPTPZ-512G	SDBPTPZ-1T00
Form Factor: M.2 2242 S3-M	SDBPMPZ-256G	SDBPMPZ-512G	SDBPMPZ-1T00
Form Factor: M.2 2280 S3-M	SDBPNPZ-256G	SDBPNPZ-512G	SDBPNPZ-1T00

¹ As used for storage capacity, one gigabyte (GB) = one billion bytes and one terabyte (TB) = one trillion bytes. Total accessible capacity varies depending on operating environment.

² Test Conditions: Performance is Need Measured by CrystalDiskMark 5.2.1 using 1000MB LBA range ASUS G752VSK . Windows 10 Pro 64-bit using Microsoft StorNVMe driver, Primary drive. Performance may vary based on host device. 1 MB = 1,000,000 bytes. IOPS = input/output operations per second.

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

⁴ Measured using MobileMark™ 2014 on ASUS B944UA with i5-7200U, 8GB RAM. Windows 10 Pro 64-bit 19H1 using MicroSoft driver, Primary drive.

⁵ Power measurements at 25°C.

⁶ MTTF = Mean Time To Failure based on internal testing using Telcordia stress part testing. 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. (Telecordia SR-332, GB, 40°C).

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. 5 year warranty in regions not recognizing "limited." See <http://support.wdc.com> for more details.

Western Digital.

5601 Great Oaks Parkway
San Jose, CA 95119, USA
US (Toll-Free): 800.275.4932
International: 408.717.6000

www.westerndigital.com

© 2019 Western Digital Corporation or its affiliates. All rights reserved. Western Digital, and the Western Digital logo are registered trademarks or trademarks of Western Digital Corporation or its affiliates in the US and/or other countries. The NVMe word mark is a trademark of NVM Express, Inc. All other marks are the property of their respective owners. References in this publication to Ultrastar products, programs or services do not imply that they will be made available in all countries. Product specifications provided are sample specifications and do not constitute a warranty. Actual specifications for unique part numbers may vary. Pictures shown may vary from actual products.