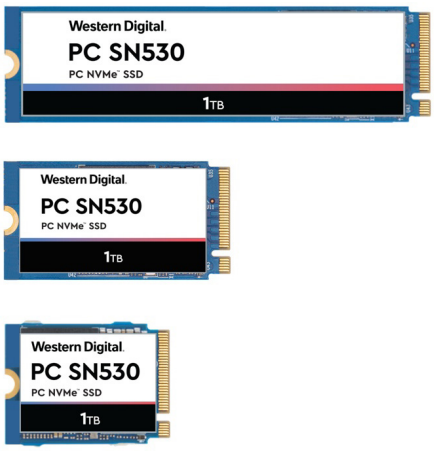
PRODUCT BRIEF



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
Performance[2]	**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.

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SanDisk:

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