

PRODUCT BRIEF



Product Highlights

- Boost your system's performance with next-gen NVMe SSDs
- Up to 4 times faster than SATA SSDs
- Slimline M.2 2280 form factor
- Western Digital®-designed controller and firmware for optimized performance
- Western Digital SSD Dashboard¹⁰ constantly monitors the health of your SSD

WD Blue™ SN550 NVMe™ SSD

Put NVMe Power at the Heart of Your PC

Put NVMe™ power at the heart of your PC for lightning-fast, ultra-responsive performance. The WD Blue™ SN550 NVMe™ SSD can deliver up to 4 times the speed of SATA SSDs. Whether you're working, creating, casually gaming, or processing large amounts of data, take advantage of this powerful internal drive's high speeds to do more, faster. Available in capacities up to 1TB² in an affordable M.2 2280 form factor, there's no time like now to make the change to NVMe.

The Right Storage for Your Next PC

NVMe goes mainstream with a powerful, cost-effective storage solution that adds to the reliability of an SSD.

Boost Your Performance

Get breakneck sequential read speeds up to 2,400 MB/s³ to improve your productivity no matter what you're doing or creating.

Think Small

Build powerful small-form factor PCs with a slim single-sided M.2 2280 PCIe® Gen3 x4 NVMe SSD.

Do More With Less

Scalable NVMe hardware, accelerated architecture for high performance and low power draw.

Do More, Faster

Western Digital-designed controller and firmware paired with our latest 3D NAND for optimized, consistent performance.

Continuing the Legacy

Thousands of hours of hardware, firmware and validation testing combine to advance the award-winning WD Blue heritage of quality and reliability.

WD Blue™ SN550 NVMe™ SSD Product Features and Specifications

Specification

Interface M.2 2280 ¹	PCIe Gen3 8 Gb/s, up to 4 Lanes		
Formatted Capacity ²	250GB, 500GB, 1TB		

Performance ³	250GB	500GB	1TB
Sequential Read (MB/s) up to	2,400	2,400	2,400
Sequential Write (MB/s) up to	950	1,750	1,950
Random Read 4KB IOPS up to	170K	300K	410K
Random Write 4KB IOPS up to	135K	240K	405K
Endurance (TBW) ⁴	150	300	600

Power

Average Active Power ⁵	75	75	75
Low Power (PS3) ⁵	20mW	20mW	20mW
Sleep (PS4) (low power) ⁵	5mW	5mW	5mW
Maximum Operating Power	3.5W	3.9W	4.9W

Reliability

MTTF ⁶	1.7	1.7	1.7
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Environmental

Operating Temperatures ⁷	32°F to 158°F (0°C to 70°C)	32°F to 158°F (0°C to 70°C)	32°F to 158°F (0°C to 70°C)
Non-operating Temperatures ⁸	-67°F to 185°F (-55°C to 85°C)	-67°F to 185°F (-55°C to 85°C)	-67°F to 185°F (-55°C to 85°C)
Operating Vibration	5.0 gRMS, 10–2000 Hz, 3 axes	5.0 gRMS, 10–2000 Hz, 3 axes	5.0 gRMS, 10–2000 Hz, 3 axes
Non-Operating Vibration	4.9 gRMS, 7–800 Hz, 3 axes	4.9 gRMS, 7–800 Hz, 3 axes	4.9 gRMS, 7–800 Hz, 3 axes
Shock	1,500 G @ 0.5 msec half sine	1,500 G @ 0.5 msec half sine	1,500 G @ 0.5 msec half sine
Certifications	BSMI, CAN ICES-3(B)/NMB-3(B), CE, FCC, KCC, Morocco, RCM, TUV, UL, VCCI	BSMI, CAN ICES-3(B)/NMB-3(B), CE, FCC, KCC, Morocco, RCM, TUV, UL, VCCI	BSMI, CAN ICES-3(B)/NMB-3(B), CE, FCC, KCC, Morocco, RCM, TUV, UL, VCCI
Limited Warranty ⁹	5 years	5 years	5 years

Physical Dimensions

Form Factor	M.2 2280	M.2 2280	M.2 2280
Length	80 ± 0.15mm	80 ± 0.15mm	80 ± 0.15mm
Width	22 ± 0.15mm	22 ± 0.15mm	22 ± 0.15mm
Height	2.38mm	2.38mm	2.38mm
Weight	6.5g ± 1g	6.5g ± 1g	6.5g ± 1g

Ordering Information

Model Number	WDS250G2B0C	WDS500G2B0C	WDS100T2B0C
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¹ Backwards compatible with PCIe Gen3 x2, PCIe Gen2 x4, PCIe Gen2 x2, and PCIe Gen2 x1.

² 1TB=1, 000,000,000,000 bytes. 1GB=1,000,000,000 bytes. Actual user storage less.

³ Test Conditions: Performance is based on the CrystalDiskMark 6.0.2 benchmark using a 1000MB LBA range ASUS Z270A desktop with Intel® i7-7700K 3.4GHz, 8GB 2133MHz DDR4. Windows 10 Pro 64-bit 19H1 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.

⁴ TBW (terabytes written) values calculated using JEDEC client workload (JESD219) and vary by product capacity.

⁵ Measured using the MobileMark™ 2014 on ASUS B9440UA WITH I5-7200U, 8GB RAM. Windows 10 Pro 64-bit 19H1 using Microsoft StorNVMe driver, Primary drive.

⁶ 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.

⁷ Operational temperature is measured by an on board temperature sensor.

⁸ Non-operational storage temperature does not guarantee data retention.

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

¹⁰ Available for download at www.westerndigital.com.

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