



WD Blue™ SN580 NVMe™ SSD

Purpose-built PCIe® Gen 4.0 SSDs for Creators and Professionals

Spark Your Imagination with the WD Blue SN580 NVMe SSD with PCIe Gen 4.0 for creators and professionals. Boost productivity or design creatives effortlessly by upgrading to PCIe Gen 4.0 SSDs with up to 4,150 MB/s¹ read speeds (1TB and 2TB² models).

Designed for content creators and professionals

The WD Blue SN580 NVMe SSD boosts creative workflows, delivering application responsiveness for multiple projects. The low-power design prolongs battery life, so you can keep working or creating when you're in the zone.

Make light work of heavy files

Launch applications, load, edit, and publish content with PCIe Gen 4.0 speeds up to 4,150 MB/s¹ (1TB and 2TB² models) and fast file copies with nCache™ 4.0 technology.

Product Highlights

- Boost productivity or design creatives effortlessly by upgrading to PCIe Gen 4.0 SSDs with up to 4,150 MB/s¹ read speeds (1TB and 2TB² models)
- Make light work of heavy files with Western Digital®'s nCache™ 4.0 technology enabling blistering fast copying of large files or media assets
- With up to 2TB² of storage on a slim M.2 2280 form-factor, applications, data, and media such as photos, 4K videos, and music can be stored on the same drive
- Keep creating uninterrupted when you're in the zone or on the go with low-power storage to maximize your laptop's battery life
- NVMe delivers application responsiveness while multitasking between projects with large and complex workflows
- Rated up to 900TBW³ with Western Digital's 5-year limited warranty⁵ for peace of mind reliability

WD Blue™ SN580 NVMe™ SSD

Specifications

	250GB ²	500GB ²	1TB ²	2TB ²
Ordering Information				
Model Number	WDS250G3B0E	WDS500G3B0E	WDS100T3B0E	WDS200T3B0E
Interface	PCIe Gen4 NVMe 1.4b			
NAND Type	WDC TLC			
Performance ¹				
Sequential Read (MB/s) up to (Queues = 32, Threads = 1)	4,000	4,000	4,150	4,150
Sequential Write (MB/s) up to (Queues = 32, Threads = 1)	2,000	3,600	4,150	4,150
Random Read 4KB IOPS up to (Queues=32, Threads=16)	240K	450K	600K	600K
Random Write 4KB IOPS up to (Queues=32, Threads=16)	470K	750K	750K	750K
Endurance (TBW) ³	150	300	600	900
Power				
Average Active Power ⁴	65mW			
Sleep (PS5) ⁶	3.3mW			
Reliability				
MTTF (hours) ⁷	1.5M			
Security				
TCG Pyrite 2.01; ATA Security Passthrough over NVMe				
Environmental				
Operating Temperatures ⁸	32°F to 185°F (0°C to 85°C)			
Non-operating Temperatures ⁹	-40°F to 185°F (-40°C to 85°C)			
Operating Vibration	5.0 gRMS, 10–2000 Hz, 3 axes			
Non-Operating Vibration	4.9 gRMS, 7–800 Hz, 3 axes			
Shock	1,500G @ 0.5 ms half sine			
Certifications	BSMI, CAN ICES-3(B)/NMB-3(B), CE, FCC, KCC, Morocco, RCM, TUV, UL, VCCI			
Limited Warranty ⁵	5 years			
Physical Dimensions				
Form Factor	M.2 2280-S3-M (M key, Single Side Assembly)			
Length	80 ± 0.15mm			
Width	22 ± 0.15mm			
Height	2.38mm			
Weight	5.5g ±.5g			

1. 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.

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. Measured using MobileMark™ 2018 on Lenovo ThinkPad X1 Carbon Gen 9, Intel® Core™ i5-1135G7 CPU @2.40GHz, 16GB DRAM, Windows 11 Pro 64bit 22H2.900, Microsoft StorNVMe™ driver.

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

6. Power consumption during PS5 is measured in system that supports PCIe L1.2.

7. MTTF = Mean Time To Failure based on internal testing using Telcordia stress part testing (Telcordia SR-332, GB, 25°C).

8. Operational temperature is defined as temperature reported by the drive.

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

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