



Highlights

- PCIe® Gen 4.0, NVMe™ SSD
- Sequential read speeds up to 7,100 MB/s and sequential write speeds up to 6,700 MB/s¹ (1TB-2TB² models)
- Random read speeds up to 1M IOPS and random write speeds up to 1.3M IOPS¹ (1TB-2TB² models)
- 500GB, 1TB, and 2TB²
- SANDISK® QLC 3D CBA NAND
- SANDISK® nCache™ 4.0 Technology
- 5-year limited warranty.⁴

WD Blue® SN5100 NVMe™ SSD

Designed for creators and professionals

The WD Blue® SN5100 NVMe™ SSD with PCIe® Gen 4.0 delivers read speeds up to 7,100 MB/s,¹ (1TB-2TB² models), 30% faster than our prior generation.³ Create and store more with capacities up to 2TB² on M.2 2280, and fly through projects with our next generation SANDISK® 3D CBA NAND technology. Copy large files or project folders in blistering speeds thanks to our SANDISK® nCache™ 4.0 technology. Engineered for creators and professionals with AI-enabled workflows, the WD Blue® SN5100 NVMe™ SSD makes editing 8K videos and high-resolution images a breeze.

Speed up your projects

Accelerate your AI-enabled workflow and load assets quicker with PCIe® Gen 4.0 read speeds up to 7,100 MB/s,¹ (1TB-2TB² models), which is 30% faster than our prior generation.³

Create and store more

Make more room for your masterpieces with capacities from 500GB² to 2TB² on M.2 2280 deploying next generation SANDISK® 3D CBA NAND technology.

Work faster, wait less

Copy large files or project folders in blistering speeds thanks to our SANDISK® nCache™ 4.0 technology.

Create confidently

Your new drive comes with a 5-year limited warranty, giving you peace of mind that your hard work isn't wasted.⁴

Free Acronis® True Image™ software

Download Acronis® True Image™ for SANDISK® data migration software to transfer your files to your new SSD.⁵

Monitor your new drive

Monitor your SSD's performance and check for updates with the downloadable SANDISK® Dashboard application.⁶

WD Blue® SN5100 NVMe™ SSD

Datasheet

NVMe™ SSD

Specifications

Capacities ²	500GB	1TB	2TB
Model Numbers	WDS500G5B0E-00CPE0	WDS100T5B0E-00CPE0	WDS200T5B0E-00CPE0
Form Factor	M.2 2280		
Interface ⁷	PCIe® Gen 4.0 x4, NVMe™		
NAND Type	SANDISK® QLC 3D CBA NAND		
Performance ¹			
Sequential Read 1MB (MB/s) up to (Queue Depth=8, Threads=1)	6,600	7,100	7,100
Sequential Write 1MB (MB/s) up to (Queue Depth=8, Threads=1)	5,600	6,700	6,700
Random Read 4KB (IOPS) up to (Queue Depth=32, Threads=16)	660K	1M	1M
Random Write 4KB (IOPS) up to (Queue Depth=32, Threads=16)	1.1M	1.3M	1.3M
Power ⁸			
Average Power - Read	3.8W	3.9W	4.1W
Average Power - Write	3.8W	3.9W	4.1W
Idle (Sleep)	4mW		
Reliability			
Endurance (TBW) ⁹	300	600	900
MTTF (hours) ⁹	1.75M		
Warranty ⁴	5 year limited		
Environmental			
Operating Temperature ¹⁰	32°F to 185°F (0°C to 85°C)		
Non-operating Temperature ¹⁰	-40°F to 185°F (-40°C to 85°C)		
Operating Vibration	5 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		
Regulatory			
Certifications	BSMI, CAN ICES-3(B)/NMB-3(B), CB-Scheme, CE, FCC, KCC, Morocco, RCM, TÜV, UL, VCCI, UKCA		
RoHS Compliant	Yes		
Security	TCG Pyrite 2.01, ATA Security passthrough over NVMe™		
Dimensions ¹¹			
Length	80mm		
Width	22mm		
Height	2.38mm		
Weight	5.7g		

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. IOPS = input/output operations per second.

² 1GB = 1 billion bytes. 1TB = one trillion bytes. Actual user capacity may be less depending on operating environment.

³ As compared to the WD Blue® SN5000 SSD (1TB and 2TB models)

⁴ 5 years or Max Endurance (TBW) limit, whichever occurs first. See [sandisk.com/support](https://www.sandisk.com/support) for region-specific warranty details.

⁵ Download and installation required. Includes 5-year license for your compatible drive. Redeem within 90 days of purchase. May not be combined with other offers. Limited time offer; see [sandisk.com/support](https://www.sandisk.com/support) website for more details. Offer subject to change.

⁶ Available for download at [sandisk.com/support](https://www.sandisk.com/support)

⁷ PCIe® Gen4 storage technology requires a compatible motherboard. Backwards compatible with PCIe® Gen3 x4, PCIe® Gen3 x2, PCIe® Gen3 x1, PCIe® Gen2 x4, PCIe® Gen2 x2 and PCIe® Gen2 x1.

⁸ Average Power – Read and Average Power – Write are measured using IOMeter 1.1.0 during a burst sequential read and write operation (measured separately) and represent a moving average over a 10 second period. Performance may vary depending on test setup, configuration and firmware version.

⁹ TBW (terabytes written) values calculated using JEDEC client workload (JESD219) and vary by product capacity. MTTF = Mean Time To Failure based on internal testing using Telcordia™ stress part testing (Telcordia SR-332, GF, 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.

¹⁰ Operational temperature is defined as temperature reported by the drive. Note that drive temperature readings are expected to be higher than ambient temperature when the SSD is placed inside a system. The SSD box package is rated up to 60°C. Non-operational storage temperature does not guarantee data retention.

¹¹ Physical product dimensions for length and width may vary by ± 0.1mm and product weight may vary by ± 10%.



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