



WD_
BLACK™

WD_BLACK™ SN8100 NVMe™ SSD
PCIe® Gen 5.0 M.2 2280 NVMe™ SSD

EXPERIENCE THE PINNACLE
OF SSD PERFORMANCE.

Build your new gaming or workstation system with our cutting-edge PCIe® Gen 5 SSD, delivering blistering speeds up to 14,900 MB/s¹ for demanding tasks like high-level gaming, professional content creation, and AI applications. As an industry-leader for PCIe® Gen 5 power efficiency, the WD_BLACK™ SN8100 NVMe™ SSD harnesses advanced TLC 3D CBA NAND technology to help ensure performance and reliability, while a low-power profile and optimized thermal performance keep your system cool and running smoothly. With up to 4TB² of storage and a suite of powerful features, this SSD is the ultimate upgrade for discerning users.

KEY FEATURES

- EXPERIENCE PCIe® Gen 5. Drastically enhance your gaming and content creation experience with this PCIe® Gen 5.0x4 NVMe™ M.2 SSD.
- BREAKNECK SPEEDS. Your drive reaches sequential read speeds up to an astonishing 14,900MB/s,¹ sequential write speeds up to 14,000MB/s,¹ and over 2,300,000 IOPS¹ of random performance [2TB - 4TB² models].
- ADVANCED RELIABILITY. Our latest TLC 3D CBA NAND technology helps ensure your experience is exquisite, no matter if you're gaming or working.
- AN INDUSTRY-LEADER IN POWER EFFICIENCY. Enjoy over 100% more power efficiency than our PCIe® Gen4 drive.⁴ Plus, run your machine at optimal performance with an average operating power of 7W¹ or under.
- ENDURANCE FOR YOUR WORKLOAD. Up to 2,400 TBW³ [4TB² model] endurance means your machine can handle even the most intense tasks.
- ROOM FOR REVOLUTION. Hold your biggest projects and still have room for OS updates, models for AI-powered applications, and your game library thanks to immense capacities up to 4TB.²

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PRODUCT FEATURES

EXPERIENCE THE BREAKNECK SPEED OF PCIe® GEN 5

Drastically enhance your gaming and content creation experience with the speed of PCIe® Gen 5.0x4 NVMe™ M.2 SSD technology – perfect for gaming, content creation, and loading models for AI-powered applications.

DESIGNED TO PERFORM

Our latest TLC 3D CBA NAND technology provides our most advanced combination of speed and reliability to help ensure your experience is at top performance, no matter if you're gaming or working.

AN INDUSTRY-LEADER FOR PCIe® GEN 5 POWER EFFICIENCY

Enjoy over 100% more power efficiency than our PCIe® Gen4⁴ drive and simplify your system design without adding expensive cooling. Plus, an average operating power of 7W¹ or under helps keep your drive running at optimal performance.

ENDURANCE FOR EVERY WORKLOAD

With up to 2,400 TBW³ [4TB² model] endurance, your machine can handle even the most intense tasks, such as gaming, caching, video editing, and AI workloads.

BLISTERING SPEEDS FOR INTENSE TASKS

With the help of our nCache™ 4.0 feature, the WD_BLACK™ SN8100 SSD reaches sequential read speeds up to an astonishing 14,900MB/s,¹ sequential write speeds up to 14,000MB/s,¹ and over 2,300,000 IOPS¹ of random performance [2TB – 4TB² models].

ROOM FOR REVOLUTION

Hold your biggest projects and still have room for OS updates, models for AI-powered applications, large datasets, and your game library thanks to immense capacities up to 4TB.² And with the latest security features like TCG Opal, you can help protect and encrypt your sensitive data.

PRODUCT SPECIFICATIONS				
CAPACITIES ² : MODEL NUMBERS:	4TB WDS400T1X0M-00CMT0		2TB WDS200T1X0M-00CMT0	1TB WDS100T1X0M-00CMT0
FORM FACTOR	M.2 2280			
INTERFACE	PCIe® GEN 5X4 NVMe™ 2.0			
NAND	TLC 3D CBA NAND			
DRAM	Yes			
PERFORMANCE ¹				
Sequential Read [up to]	14,900MB/s		14,900MB/s	14,900MB/s
Sequential Write [up to]	14,000MB/s		14,000MB/s	11,000MB/s
Random Read [up to]	2.3M IOPS		2.3M IOPS	1.6M IOPS
Random Write [up to]	2.4M IOPS		2.4M IOPS	2.4M IOPS
POWER ⁵				
Average Active Power Read	6.5W		6.5W	6.2W
Average Active Power Write	7.0W		7.0W	6.2W
Sleep [PS4]	5 mW			
RELIABILITY				
Endurance ³ [TBW]	2,400		1,200	600
MTTF up to [hours]	1.75M Hours			
Limited Warranty ⁸	5 years			
STANDARDS				
Compatibility	Backwards compatible with PCIe® Gen4 x4, PCIe® Gen4 x2, PCIe® Gen4 x1, PCIe® Gen3 x4, PCIe® Gen3 x2, PCIe® Gen3 x1, PCIe® Gen2 x4, PCIe® Gen2 x2 and PCIe® Gen2 x1, Windows® 10+			
RoHS COMPLIANCE	YES			
SECURITY	TCG OPAL 2.02			
ENVIRONMENTAL				
Operating Temperature ⁵	32°F to 185°F [0°C to 85°C]			
Non-Operating Temperature ⁹	-40°F to 185°F [-40°C to 85°C]			
DIMENSIONS ⁷	Length:	Width:	Height	Weight:
	80mm	22mm	2.38mm	7.5g

¹ Based upon read speed, unless otherwise stated. 1MB/s = 1 million bytes per second. IOPS = input/output operations per second. Based on internal testing; performance may vary depending upon host device, usage conditions, drive capacity, and other factors.

² 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 Over 100% more power efficient than 2TB WD_BLACK™ SN850X NVMe™ SSD.

⁵ Power consumption is measured with IOmeter1.1.0 version with AMD Ryzen 9 9950X 16-Core Processor CPU@4.30GHz, DDR5 5600MT/s 16GBx2, OS-Windows 11 Pro 64bit, Chipset-Gigabyte-X870E. Based on internal testing; performance may vary depending upon host device, usage conditions, drive capacity and other factors.

⁶ Physical product dimensions for length and width may vary by ± 0.15mm and product weight may vary by ± 1g.

⁷ 5 years or Max Endurance [TBW] limit, whichever occurs first. See support.sandisk.com for region-specific warranty details.

⁸ 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.

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

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