

WD_BLACK™ SN850X NVMe™ SSD

HIGH-PERFORMANCE
NVMe™ STORAGE
WITH PCIe® GEN4
TECHNOLOGY

Crush load times and slash throttling, lagging, and model pop-ins with the WD_BLACK™ SN850X NVMe™ SSD, the purpose-built gaming drive that lets you compete at your absolute peak.



Heatsink model intended for desktop PCs and PlayStation™5 (Playstation™5 system software version 21.02-04.00.00 or higher required) only.



- Get the ultimate gaming edge over your competition with insane speeds up to 7,300 MB/s¹ for top-level performance and ridiculously short load times.
- Soup up your gaming experience with extremely low latency that loads graphics fast with minimal stutter and lagging for smooth, satisfying action.
- A range of capacities from 1TB to 4TB² means you get to keep more of today's games that can take up 200GB² or more of storage.
- The 1TB and 2TB² drives offer optional RGB lighting plus a heatsink to help maintain peak performance through the most intense gaming sessions.
- Game Mode 2.0 serves up even more PC performance-boosting features like load prediction to ready game assets for fast in-game loading.
- Output approaching the limits of the PCIe® Gen4³ interface helps you get ultra-fast performance out of your storage and system components.



WD_BLACK

PRODUCT FEATURES

GET THE ULTIMATE GAMING EDGE

Insane speeds up to 7,300 MB/s¹ deliver top-tier performance with ridiculously short load times for the elite gaming experience you've been waiting for.

SOUP UP YOUR RIG

Extremely low latency loads graphics fast with minimal stutter and lagging for an incredibly smooth, satisfying gaming experience.

MORE ROOM FOR MORE GAMES

Today's A-list titles can take up to 200GB² or more of storage. A range of capacities from 1TB to 4TB² means you get to keep more games at the ready and get into the action fast.

HEATSINK FOR THE WIN

The WD_BLACK™ SN850X NVMe™ SSD 1TB and 2TB² drives have an optional heatsink version that not only looks awesome but also helps your rig maintain peak performance through the most intense gaming sessions.

GAME MODE 2.0

The latest version of Game Mode serves up even more PC performance-boosting features like load prediction to ready game assets for fast in-game loading.

NEAR-MAX PCIe® GEN4³ SPEEDS

The WD_BLACK™ SN850X NVMe™ SSD delivers output approaching the limits of the PCIe® Gen4 interface to help you get ultra-fast performance out of your storage and system components.

PRODUCT SPECIFICATIONS

CAPACITIES² AND MODELS:

4TB	WDS400T2X0E-00BCA0
2TB	WDS200T2X0E-00BCA0
1TB	WDS100T2X0E-00BCA0
2TB Heatsink	WDS200T2XHE-00BCA0
1TB Heatsink	WDS100T2XHE-00BCA0

INTERFACE³:

PCIe® Gen4 16GT/s, up to 4 Lanes

DIMENSIONS:

NON-HEATSINK

LENGTH [max]: 80 ± 0.15mm

WIDTH [max]: 22 ± 0.15mm

HEIGHT [max]: 2.38mm

WEIGHT [max]: 7.5g ± 1g

HEATSINK

LENGTH [max]: 80 ± 0.20mm

WIDTH [max]: 23.40 ± 0.20mm

HEIGHT [max]: 8.80 ± 0.20mm

WEIGHT [max]: 24g ± 3g

ENDURANCE⁴ [TBW]:

4TB: 2400

2TB: 1200

1TB: 600

PERFORMANCE⁵:

■ Sequential Read:

4TB: 7,300MB/s

2TB: 7,300MB/s

1TB: 7,300MB/s

■ Sequential Write:

4TB: 6,600MB/s

2TB: 6,600MB/s

1TB: 6,300MB/s

■ Random Read:

4TB: 1,200K IOPS

2TB: 1,200K IOPS

1TB: 800K IOPS

■ Random Write:

4TB: 1,100K IOPS

2TB: 1,100K IOPS

1TB: 1,100K IOPS

OPERATING SPECIFICATIONS:

■ Operating Temperature⁶:

32°F to 185°F [0°C to 85°C]

■ Non-operating Temperature⁷:

-40°F to 185°F [-40°C to 85°C]

SYSTEM COMPATIBILITY:

- Computer with M.2 [M-key] port, capable of taking M.2 2280 form factor
- Windows® 11, 10, 8.1
- PlayStation® 5 [Heatsink model only]⁸

LIMITED WARRANTY:

5 Years⁹

¹Based on read speed, unless otherwise stated. 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.

²1GB = 1 billion bytes and 1TB = 1 trillion bytes. Actual user capacity may be less depending on operating environment.

³Backward compatible with PCIe Gen3 x4, PCIe Gen3 x2, PCIe Gen3 x1, PCIe Gen2 x4, PCIe Gen2 x2 and PCIe Gen2 x1

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

⁵Test Conditions: Performance is based on the CrystalDiskMark™ 8.0.1 benchmark using a 1000MB LBA range on AMD Ryzen 9 5950X 16-core processor, BIOS 4204, Microsoft® Windows® 11 Pro x64 2009 (19043.1023) using Microsoft StorNVMe™ driver, secondary drive. 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.

⁶Operational 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.

⁷Non-operational storage temperature does not guarantee data retention.

⁸For PS5™ firmware compatibility, please visit <http://wdblack.com/SN850HS-PS5>

⁹5 years or Max Endurance [TBW] limit, whichever occurs first. See support.wdc.com for regional specific warranty details.

Western Digital, the Western Digital design, the Western Digital logo, WD_BLACK, and the WD_BLACK logo are registered trademarks or trademarks of Western Digital Corporation or its affiliates in the US and/or other countries. NVMe is a trademark of NVM Express, Inc. PCIe is a trademark of PCI-SIG in the United States and/or other countries. PlayStation and PS5 are registered trademarks or trademarks of Sony Interactive Entertainment Inc. in the United States and/or other countries. Windows is a trademark of Microsoft Corporation. All other marks are the property of their respective owners. Product specifications subject to change without notice. Pictures shown may vary from actual products.