GAMING SSD STORAGE

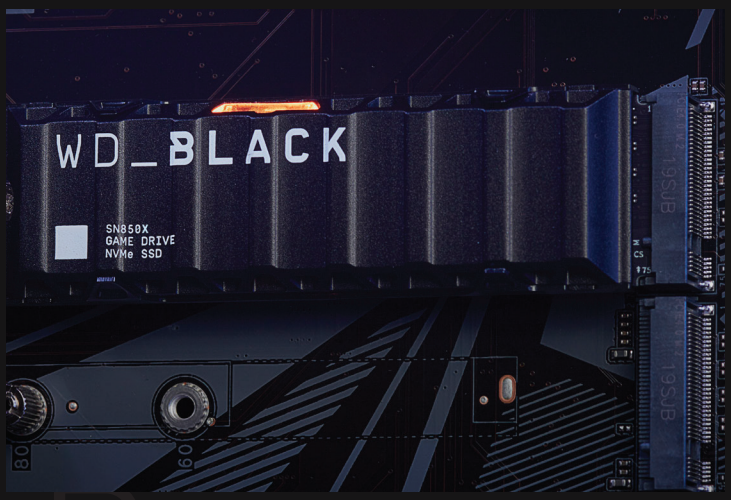
WD_BLACK™ SN850X NVMe™ SSD

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/s[1] for top-tier performance and ridiculously short load times.
- A range of capacities from 1TB to 4TB[2] means you get to keep more of today's games that can take up 200GB[2] or more of storage.
- The 1TB and 2TB[2] drives offer optional RGB lighting plus a heatsink to help maintain peak performance through the most intense gaming sessions.
- The WD_BLACK Dashboard monitors your drive's health, controls your RGB style and can automatically detect games to turn on Game Mode 2.0.[Windows® only]
- Predictive Loading, Overhead Balancing, and Adaptive Thermal Management features come to the SN850X to juice up your gaming performance.
- Supports future games developed for Microsoft's DirectStorage technology for faster load times.

PRODUCT FEATURES

GET THE ULTIMATE GAMING EDGE

Insane speeds up to 7,300 MB/s[1] deliver top-tier performance with ridiculously short load times for the elite gaming experience you've been waiting for.

MORE ROOM FOR MORE GAMES

Today's A-list titles can take up 200GB[2] or more of storage. A range of capacities from 1TB to 4TB[2] means you get to keep more games at the ready and get into the action fast.

MORE CONTROL

The WD_BLACK Dashboard monitors the health of your drive, control of RGB lighting and exclusively on the SN850X, Game Mode 2.0[Windows® only].

HEATSINK FOR THE WIN

The WD_BLACK™ SN850X NVMe™ SSD 1TB and 2TB[2] 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.

FORWARD LOOKING

A new suite of features comes with the SN850X including Predictive Loading, Overhead Balancing and Adaptive Thermal Management.

DIRECTSTORAGE SUPPORTED

Supports Microsoft's DirectStorage technology for future games that improves load times.

PRODUCT SPECIFICATIONS

CAPACITIES[2] AND MODELS:

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

INTERFACE:
PCIe® Gen4 16GT/s, up to 4 Lanes

DIMENSIONS:

NON-HEATSINK
LENGTH: 80 ± 0.15mm
WIDTH: 22 ± 0.15mm
HEIGHT: 2.38mm
WEIGHT: 7.5g ± 1g

HEATSINK
LENGTH: 80 ± 0.20mm
WIDTH: 22 ± 0.15mm
HEIGHT: 8.80mm
WEIGHT: 24g ± 3g

ENDURANCE[4] [TBW]:

4TB: 2400
2TB: 1200
1TB: 600

PERFORMANCE[1]:

- 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 Temperature[6]:
  32°F to 185°F [0°C to 85°C]
- Non-operating Temperature[7]:
  -40°F to 185°F [-40°C to 85°C]

SECURITY SPECIFICATIONS

- TCG Opal v2.01[8]

SYSTEM COMPATIBILITY:

- Computer with M.2 [M-key] port, capable of taking M.2 2280 form factor
- Windows® 11, 10, Windows 8.1
- PlayStation® 5 [Heatsink model only][9]

LIMITED WARRANTY:
5 Years[10]

[1] Based 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.

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

[3] PCIe Gen4 storage technology requires a compatible motherboard. WD_BLACK SN850X is backwards-compatible with PCIe Gen3.

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

[5] 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. Test Conditions: Performance is based on the CrystalDiskMark™ 8.0.1 benchmark using a 1000MB LBA range AMD™ Ryzen 9 5950X 16-core processor, BIOS 4204.
Microsoft® Windows® 10 Pro x64 2009 [19043.1023] using Microsoft StorNVMe™ driver, secondary drive.

[6] 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.

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

[8] The Trusted Computing Group [TCG] is a not-for-profit international standards organization that applies hardware-based encryption to solid state drives

[9] For PlayStation™ 5 firmware compatibility, please visit http://wdblack.com/SN850HS-PS5

[10] 5 years or Max Endurance [TBW] limit, whichever occurs first. See support.wdc.com for regional specific warranty details.

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