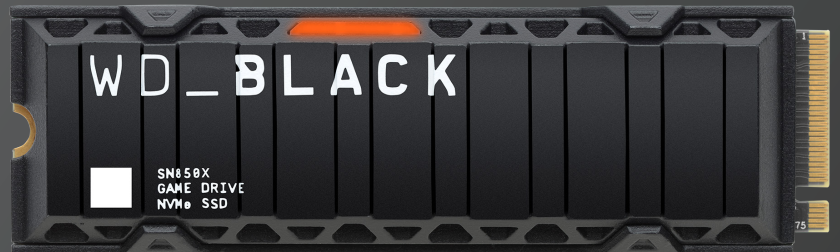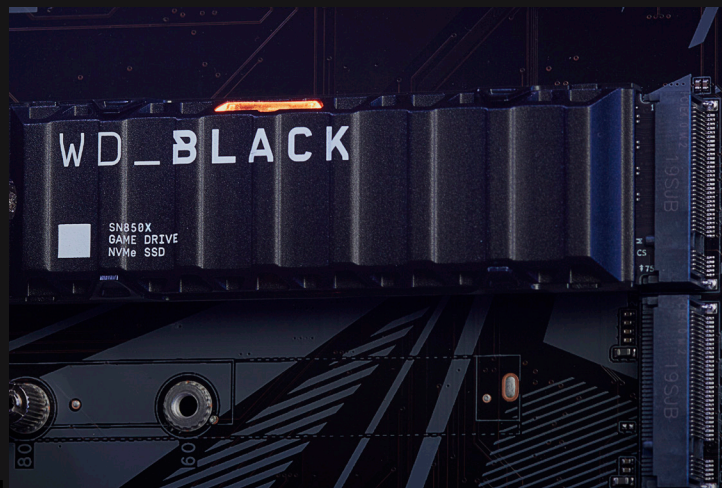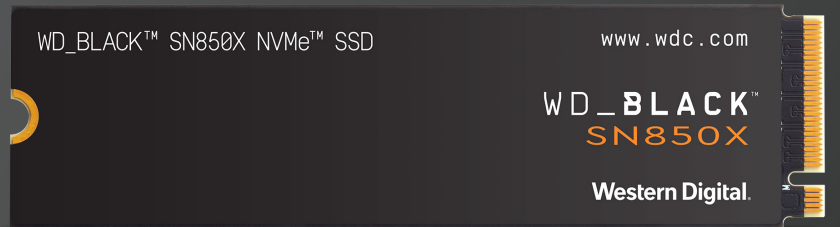# WD_BLACK™ SN850X NVMe™ SSD

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-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 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.

■ 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® Gen4[3] interface helps you get ultra-fast performance out of your storage and system components.

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.

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 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.

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.

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® GEN4[3] 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

CAPACITIES[2] AND MODELS:

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

INTERFACE[3]:
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

ENDURANCE[4] [TBW]:
4TB: 2400
2TB: 1200
1TB: 600

PERFORMANCE[5]:
- 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]

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 Years[9]

[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] Backward compatible with PCIe Gen3 x4, PCIe Gen3 x2, PCIe Gen3 x1, PCIe Gen2 x4, PCIe Gen2 x2 and PCIe Gen2 x1
[4] TBW [terabytes written] values calculated using JEDEC client workload [JESD219] and vary by product capacity.
[5] Test 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.
[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] For PS5™ firmware compatibility, please visit http://wdblack.com/SN850HS-PS5
[9] 5 years or Max Endurance [TBW] limit, whichever occurs first. See support.wdc.com for regional specific warranty details.