

# SANDISK OPTIMUS™ GX PRO

## 850X

M.2 2280 NVMe™ SSD WITH HEATSINK  
PCIe® 4.0 x4

## THE ELITE NVMe™ SSD FOR INTENSE GAMING AND CREATIVE WORKFLOWS.

Champion your gaming sessions and creative workflows with the SANDISK Optimus™ GX PRO 850X with Heatsink NVMe™ SSD. Load levels fast and push through your creative workflow with PCIe® 4.0 Sequential Read/Write speeds up to 7,300/6,600 MB/s<sup>2</sup> (2TB<sup>1</sup> and 4TB<sup>1</sup> models). Integrated SANDISK Optimus™ heatsink helps your drive minimize throttle for those intense game or work sessions. With Random Read/Write speeds up to 1.2M/1.2M IOPS<sup>2</sup> (8TB<sup>1</sup> model) and integrated SANDISK® nCache™ technology, experience seamless game sessions and smooth multitasking. Store your large games and digital assets with capacities up to 8TB<sup>1</sup> on M.2 2280 built with trusted SANDISK® BiCS TLC 3D NAND. Engineered for video editing with an endurance rating of up to 4,800 TBW<sup>4</sup> (8TB<sup>1</sup> model). Help protect your projects and data with TCG Opal v2.01 data-at-rest encryption.<sup>9</sup> With Microsoft® DirectStorage support, you're ready for future games. Ideal for gaming PCs, creator PCs, and laptops.



### KEY FEATURES

- **CHAMPION YOUR GAME SESSION AND CREATIVE WORKFLOW**  
Boasting PCIe® 4.0 Sequential Read/Write speeds up to 7,300/6,600 MB/s<sup>2</sup> (2TB<sup>1</sup> and 4TB<sup>1</sup> models), your SSD enhances your game sessions and your creative workflow.
- **STAY IN THE GAME**  
Experience seamless game sessions and smooth multitasking with Random Read/Write speeds up to 1.2M/1.2M IOPS<sup>2</sup> (8TB<sup>1</sup> model) and integrated SANDISK® nCache™ technology. Supports Microsoft® DirectStorage games.
- **NO NEED TO DELETE**  
Stop deleting to make room for more games or applications. With capacities up to 8TB<sup>1</sup> and trusted SANDISK® BiCS TLC 3D NAND, you'll have room for more.
- **DESIGNED WITH THE CREATOR IN MIND**  
With up to 4,800 TBW<sup>4</sup> (8TB<sup>1</sup> model) endurance rating, your drive stays by your side. Help protect your digital assets with TCG Opal v2.01 data-at-rest encryption.<sup>9</sup>
- **STAY COOL WITH INTEGRATED HEATSINK**  
Enjoy sustained high performance thanks to the integrated heatsink that helps your rig maintain peak performance through intense workloads. Compatible with PS5® and PS5® Pro consoles.
- **YOU CAN DO MORE WITH SANDISK® SOFTWARE**  
Download the SANDISK® Dashboard application<sup>6</sup> (Windows® only) to help keep your drive in peak shape. Or turn on Game Mode to transform your gaming experience.

PRODUCT FEATURES

DOMINATE YOUR GAME SESSION AND CREATIVE PROJECTS

Load levels fast and push through your creative workflow with PCIe® 4.0 Sequential Read/Write speeds up to 7,300/6,600 MB/s² (2TB¹ and 4TB¹ models). This SSD is ready for many tasks from blazing fast video editing to intense gaming sessions.

NO NEED TO DELETE

Stop deleting to make room for more games and applications. With capacities up to 8TB¹ built with our trusted SANDISK® BiCS TLC 3D NAND on M.2 2280, you'll have room for more.

DESIGNED WITH THE CREATOR IN MIND

Up to a 4,800 TBW⁴ (8TB¹ model) endurance rating means your drive stays by your side through rigorous content creation workflows. You can also help protect your digital assets with TCG Opal v2.01 data-at-rest encryption.⁹

STAY IN THE GAME

With Random Read/Write speeds up to 1.2M/1.2M IOPS² (8TB¹ model) and integrated SANDISK® nCache™ technology, experience seamless game sessions and smooth multitasking. Get ready for future games supporting Microsoft DirectStorage.

HEATSINK FOR COOL OPERATION AND BLAZING SPEEDS

Enjoy sustained high performance thanks to the integrated heatsink that's not only eye-catching, but also helps your rig maintain peak performance through intense workloads. Compatible with PS5® and PS5® Pro consoles.

YOU CAN DO MORE WITH SANDISK® SOFTWARE

The downloadable SANDISK® Dashboard application⁶ (Windows® only) keeps your drive up to date, monitors its health, and enables Game Mode to transform your gaming experience. Plus, Acronis® True Image™ for SANDISK® software⁷ helps you migrate to your new drive.

PRODUCT SPECIFICATIONS

CAPACITIES¹	1TB	2TB	4TB	8TB
MODEL NUMBERS	SDSP8100TAH	SDSP81200TAH	SDSP81400TAH	SDSP81800TAH
FORM FACTOR	M.2 2280-S3-M		M.2 2280-D5-M	
INTERFACE¹⁰	PCIe® 4.0 x4 NVMe™ 1.4			
NAND	SANDISK® TLC 3D NAND			
DRAM CACHE	Yes			
SLC CACHE	SANDISK® nCache™ 4.0			
PERFORMANCE²				
Sequential Read 1MB (MB/s) up to (Queue Depth=8, Threads=1)	7,300MB/s	7,300MB/s	7,300MB/s	7,200MB/s
Sequential Write 1MB (MB/s) up to (Queue Depth=8, Threads=1)	6,300MB/s	6,600MB/s	6,600MB/s	6,600MB/s
Random Read 4KB (IOPS) up to (Queue Depth=32, Threads=16)	800K IOPS	1.2M IOPS	1.2M IOPS	1.2M IOPS
Random Write 4KB (IOPS) up to (Queue Depth=32, Threads=16)	1.1M IOPS	1.1M IOPS	1.1M IOPS	1.2M IOPS
POWER³				
Average Power – Read	7.2 W	7.5 W	8 W	6.7 W
Average Power – Write	6.2 W	7 W	7.2 W	8 W
Sleep (PS4)	5 mW			
RELIABILITY				
Endurance⁴ (TBW)	600	1,200	2,400	4,800
MTTF⁴ up to (hours)	1.75M Hours			
Limited Warranty⁵	5 years			
REGULATORY				
Certifications	BSMI, CAN ICES-3(B)/NMB-3(B), CB-Scheme, CE, FCC, KCC, Morocco, RCM, TÜV, UL, VCCI, UKCA			
RoHS Compliance	Yes			
SECURITY	TCG OPAL 2.01⁹			
FEATURED SOFTWARE	SANDISK® Dashboard⁶ (Windows® only), Acronis® True Image™ for SANDISK® software⁷			
ENVIRONMENTAL				
Operating Temperature⁸	32°F to 185°F (0°C to 85°C)			
Non-Operating Temperature⁸	-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			
DIMENSIONS¹¹	Length	Width	Height	Weight
1-2TB¹	80mm	23mm	8.90mm	24g
4-8TB¹	80mm	24mm	10.31mm	30.4g

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

² 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.

³ 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.

⁴ 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.

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

⁶ Available for download at sandisk.com/support

⁷ Download, installation and administrative privileges required. Includes 5-year license for your compatible drive. Redeem within 90 days of purchase. Terms and conditions apply. User account registration may be required. May not be combined with other offers. Limited time offer; see sandisk.com/support for more details. Offer subject to change.

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.

¹⁰ Requires motherboard BIOS or third-party software to enable.

¹¹ Backwards compatible with PCIe® 3.0 x4, 3.0 x2, 3.0 x1, 2.0 x4, 2.0 x2 and 2.0 x1.

Physical product dimensions for length and width may vary by ± 0.5mm and product weight may vary by ± 10%.

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