SANDISK
OPTIMUS™ GX PRO

8100

M.2 2280 NVMe™ SSD WITH HEATSINK
PCIe® 5.0 x4

HELP MAXIMIZE YOUR STORAGE PERFORMANCE WITH THE SANDISK OPTIMUS™ GX PRO 8100 PCIe® 5.0 NVMe™ SSD WITH HEATSINK.

Professionals, creators, and gamers deserve optimal storage performance for demanding AI workflows and intense gaming sessions. The SANDISK Optimus™ GX PRO 8100 SSD with Heatsink is engineered to provide up to 5.5x longer[12] sustained performance for those extended gaming sessions. With groundbreaking PCIe® 5.0 storage performance, this SSD reaches Sequential Read/Write speeds up to 14,900/14,000 MB/s[2] (2TB[1] and 4TB[1] models). Seamlessly multitask with Random Read/Write speeds up to 2.3M/2.4M IOPS[2] (2TB[1] and 4TB[1] models), and transfer files faster thanks to integrated SANDISK® nCache™ 4.0 technology. Store expansive game libraries and large digital assets with capacities up to 8TB[1] on M.2 2280 built with the 8th generation of our trusted SANDISK® BiCS TLC 3D CBA NAND. Engineered to endure write intensive workflows, the SANDISK Optimus™ GX PRO 8100 SSD with Heatsink offers a 4,800 TBW[4] (8TB[1] model) endurance rating. Ideal for workstations, AI PCs, gamer PCs, creator PCs, and anywhere you have a compatible M.2 2280 slot.

KEY FEATURES

■ **SERIOUS PCIe® 5.0 SPEEDS**
Sequential Read/Write speeds up to 14,900/14,000 MB/s[2] (2TB[1] and 4TB[1] models) let you quickly load and store massive projects.

■ **SUPERCHARGE AI WORKFLOWS**
Demanding AI workflows are supercharged with Random Read/Write speeds up to 2.3M/2.4M IOPS[2] (2TB[1] and 4TB[1] models) and integrated SANDISK® nCache™ 4.0 technology.

■ **ROOM FOR YOUR IMMENSE LIBRARIES**
Gamers and professionals with vast libraries can be worry-free with capacities up to 8TB[1] on M.2 2880 built with 8th Generation SANDISK® BiCS TLC 3D CBA NAND.

■ **HEATSINK FOR INTENSE WORKFLOWS**
Low-profile anodized aluminum with RGB LED adds extra thermal protection for sustained high performance during intense workloads.

■ **DURABILITY FOR CREATORS**
With up to 4,800 TBW[4] (8TB[1] model) endurance rating, your drive is designed for write-intensive workloads such as content creation tools and AI-enabled video editors.

■ **PEACE OF MIND**
To champion professionals in their work and play, Sandisk provides a 5-year limited warranty[5] for ultimate peace of mind.

PRODUCT FEATURES

ONE OF THE FASTEST PCIe® 5.0 DRIVES OUT THERE
Whether you're pushing the boundaries at work or play, the SANDISK Optimus™ GX PRO 8100 PCIe® 5.0 NVMe™ SSD with Heatsink keeps up with you. Load and store massive assets, projects, and games thanks to blazingly fast Sequential Read/Write speeds of up to 14,900/14,000 MB/s[2] (2TB[1] and 4TB[1] models).

PUSHING LIMITS DEMANDS HIGHER STORAGE CAPACITIES
Application datasets, 8K video, full frame images, and AAA games have one thing in common: they can get massive. With capacities up to 8TB[1] on an M.2 2280 form factor with the 8th generation of our trusted SANDISK® BiCS TLC 3D CBA NAND, you have room for more.

ENGINEERED TO ENDURE WRITE-INTENSIVE WORKLOADS
With up to 4,800 TBW[4] (8TB[1] model) endurance rating, your drive is designed to handle the heaviest write-intensive workloads, like scientific and financial simulation, 3D modeling, and AI production workflows.

LIGHTNING-FAST PERFORMANCE FOR SUPERCHARGED AI WORKFLOWS
AI models perform optimally with fast Random Read/Write speeds, and this SSD offers just that. With up to 2.3M/2.4M IOPS[2] (2TB[1] and 4TB[1] models) and our integrated SANDISK® nCache™ 4.0 technology, this SSD delivers blistering burst write performance for large file transfers.

HEATSINK FOR SUSTAINED HIGH PERFORMANCE
The SANDISK Optimus™ Heatsink is made with anodized aluminum, designed to efficiently channel heat away for up to 5.5x longer[12] performance compared to without. Plus, the onboard programmable RGB LED lets you customize the look to match your rig.

PEACE OF MIND COMES STANDARD
This SSD comes with a 5-year limited warranty[5] and support for TCG Opal v2.02 for data-at-rest encryption[10], allowing you to focus on what you do best.

PRODUCT SPECIFICATIONS

CAPACITIES[1]	1TB	2TB	4TB	8TB
MODEL NUMBERS	SDSP82100TAH	SDSP82200TAH	SDSP82400TAH	SDSP82800TAH
FORM FACTOR	M.2 2280-S3-M			M.2 2280-D5-M
INTERFACE[11]	PCIe® 5.0 x4 NVMe™ 2.0			
NAND	SANDISK® TLC 3D CBA NAND			
DRAM CACHE	Yes			
SLC CACHE	SANDISK® nCache™ 4.0			
PERFORMANCE[2]				
Sequential Read 1MB (MB/s) up to (Queue Depth=8, Threads=1)	14,900MB/s	14,900MB/s	14,900MB/s	14,900MB/s
Sequential Write 1MB (MB/s) up to (Queue Depth=8, Threads=1)	11,000MB/s	14,000MB/s	14,000MB/s	13,200MB/s
Random Read 4KB (IOPS) up to (Queue Depth=32, Threads=16)	1.6M IOPS	2.3M IOPS	2.3M IOPS	2.2M IOPS
Random Write 4KB (IOPS) up to (Queue Depth=32, Threads=16)	2.4M IOPS	2.4M IOPS	2.4M IOPS	2.4M IOPS
POWER[3]				
Average Power – Read	6.2 W	6.4 W	6.5 W	7.1 W
Average Power – Write	6.1 W	7.0 W	7.0 W	7.3 W
Sleep (PS4)	5 mW			
RELIABILITY				
Endurance[4] (TBW)	600	1,200	2,400	4,800
MTTF[4] up to (hours)	1.75M Hours			
Warranty[5]	5 years Limited			
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 2.02[10]			
FEATURED SOFTWARE	SANDISK® Dashboard[6] (Windows® only), Acronis® True Image™ for SANDISK® software[7]			
ENVIRONMENTAL				
Operating Temperature[8]	32ºF to 185ºF (0ºC to 85ºC)			
Non-Operating Temperature[8]	-40ºF to 185ºF (-40ºC to 85ºC)			
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			
DIMENSIONS[9]	Length	Width	Height	Weight
1TB–4TB[1]	80mm	25mm	9.76mm	28.2g
8TB[1]	80mm	25mm	11.25mm	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. Non-operational storage temperature does not guarantee data retention.

[9] Physical product dimensions for length and width may vary by ± 0.2mm and product weight may vary by ± 10%.

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

[11] Backwards compatible with PCIe® 4.0 x4, 4.0 x2, 4.0 x1, 3.0 x4, 3.0 x2, 3.0 x1, 2.0 x4, 2.0 x2 and 2.0 x1.

[12] SANDISK Optimus GX PRO 8100 SSD (2TB model) with heatsink takes up to 5.5 times longer to throttle compared to the non-heatsink model at 60C ambient temperature. Based on internal testing; performance may vary depending upon host device, usage conditions, drive capacity, and other factors.