

**SANDISK™**

"DATA SHEET"

SN861 SSD

(→) SANDISK® SN861 SSD

Enterprise NVMe™ Drive



Redefining the limits for high-performance storage

Be ready for the future of mission critical workloads with the SANDISK® SN861 SSD. The latest SANDISK® SN861 SSD with cutting-edge PCIe® Gen5 enterprise-class speeds, the SANDISK® SN861 SSD offers exceptional performance and multiple capacities up to 15.36TB.¹ With high random read speeds and low power consumption, the SANDISK® SN861 SSD is optimized for compute-intensive AI and machine learning applications, ensuring superior read/write performance, extremely low latency, and maximize IOPs/Watt. The SANDISK® SN861 SSD also provides a rich feature set including Flexible Data Placement (FDP), NVMe™ 2.0, OCP 2.5 support, 1 DWPD, and a 5-year limited warranty,² making it the ideal solution for hyperscale, cloud, and enterprise data centers.

Product Highlights

- Experience exceptional PCIe® Gen5 performance in multiple capacities up to 15.36TB,¹ perfect for compute-intensive applications
- Engineered for minimal power consumption, optimizing efficiency and reducing operational costs without compromising performance
- Achieve optimized solutions at low cost for your enterprise's mixed workloads with high-speed random read performance
- Delivering consistent QoS, even under heavy workloads, helping latency during mission-critical operations
- U.2 and E3.S options also available, ensuring scalability and flexibility to meet your enterprise storage needs
- Benefit from enterprise-class features including Power Loss Protection, End-to-End Data Path Protection, and SE, ISE, and TCG security and encryption, all backed by a 5-year limited warranty²

Applications/Environments

- AI Model Training and Inference, Machine Learning, Deep Learning
- Hyperscale Cloud and Enterprise Datacenters
- Compute Intensive Applications
- Standard Compute, High CPU, High GPU, HPC Workloads
- Big Data, Data Analytics, Data Modeling, Predictive Analysis

Features

Ready for the Demands of AI Workloads

Designed to handle compute-intensive AI and machine learning applications which require high bandwidth and low latency.

Superior Performance and Capacity

Experience future-ready PCIe® Gen5 read/write speeds with multiple capacities up to 15.36TB.¹

Designed for Power Efficiency

Architected to provide heightened performance per watt, optimizing power efficiency and reducing operational costs.

Outstanding Mixed Workload Performance

High-speed random reads provide enhanced solutions at low cost for your enterprise.

Optimized for Quality of Service (QoS)

Reduce latency during mission-critical workloads, delivering consistent Quality of Service (QoS) for your applications, even under heavy workloads.

Rich Enterprise Features

Benefit from enterprise-class features such as Power Loss Protection, End-to-End Data Path Protection, and SE, ISE, and TCG security and encryption, helping ensure data integrity and security.

Future-Ready Data Infrastructure

Designed with industry compliance NVMe™ 2.0, and NVMe™ MI 1.2c, along with Flexible Data Placement (FDP) and OCP 2.5 support, for enhanced scalability and efficiency.

Product Information						
Capacity ¹	0.96TB	1.92TB	1.92TB	3.84TB	7.68TB	15.36TB
Endurance ² (projected)	1DWPD					
Security	TCG OPAL			SE, ISE, TCG OPAL		
Form Factor	E1.S (9.5mm)			E1.S (15mm)		
Interface	PCIe® Gen5x4					
NVMe™ Specification	NVMe™ 1.4b			NVMe™ 2.0, NVMe™ MI 1.2c		

Performance (projected)						
Read Throughput (max MB/S, Seq 128KiB) ⁴	3,800	7,600	13,700	13,700	13,700	13,700
Write Throughput (max MB/S, Seq 128KiB) ⁴	1,600	2,600	3,600	7,200	8,800	8,000
Read IOPS (max, Rnd 4KiB) ⁴	790K	950K	2,100K	3,300K	3,300K	3,300K
Write IOPS (max, Rnd 4KiB) ⁴	45K	95K	175K	350K	430K	350K
Read Latency (µS) ⁵	70	70	70	70	70	70
Write Latency (µS) ⁵	10	10	10	10	10	10

Reliability	
MTTF ⁶ (hours, projected)	2.5M
Uncorrectable Bit Error Rate (UBER)	1 in 10 ¹⁷
Annualized Failure Rate ⁶ (AFR, projected)	0.35%
Limited Warranty ²	5 years

Power Management (projected)	
Requirement (DC, +/- 10%)	+12v
Operating Mode	10W, 12W, 14W, 16W, 20W, 23W (Default)
Idle (avg.)	~5W

Physical Size	
z-height (mm)	9.5mm, 15mm
Dimensions (width x Lenth)	33.75mm × 118.75mm
Weight (g, max)	95g

Environmental	
Operating Temperature (Ambient) ⁷	0°C to 70°C
Non-Operating temperature ⁸	-40°C to 85°C

Ordering Information: E1.S 15mm

	Security	1.92TB	3.84TB	7.68TB	15.36TB
OTS Number	SE	OTS2569	OTS2570	OTS2571	OTS2576
Model Number	SE	SDS6BA1190KP8X1	SDS6BA1380KP8X1	SDS6BA1760KP8X1	SDS6BA1A10KP8X1
OTS Number	ISE	OTS2572	OTS2573	OTS2574	OTS2577
Model Number	ISE	SDS6BA1190KP8X3	SDS6BA1380KP8X3	SDS6BA1760KP8X3	SDS6BA1A10KP8X3
OTS Number	TCG Opal	OTS2629	OTS2630	OTS2631	OTS2575
Model Number	TCG Opal	SDS6BA1190KP8X7	SDS6BA1380KP8X7	SDS6BA1760KP8X7	SDS6BA1A10KP8X7

Ordering Information: E1.S 9.5mm

	Security	0.96TB	1.92TB
OTS Number	TCG Opal	OTS2685	OTS2686
Model Number	TCG Opal	SDS6A761TP9P8X7	SDS6A762TP9P8X7

1. One terabyte (TB) is equal to 1,000GB (one trillion bytes). Actual user capacity may be less due to operating environment.

2. The warranty for the product will expire on the earlier of (i) the date when the flash media has reached one-percent (1%) of its remaining life or (ii) the expiration of 5 years.

3. NAND Endurance.

4. Based on internal testing. Performance will vary by capacity point, or with the changes in useable capacity. Consult product manual for further details. All performance measurements are in full sustained mode and are peak values. IOPS = input/output operations per second. Subject to change.

5. Average random latency at 4KiB, QD=1

6. MTTF and AFR specifications will be based on a sample population and are estimated by statistical measurements and acceleration algorithms under typical operating conditions for this drive model. MTTF and AFR ratings do not predict an individual drive's reliability and do not constitute a warranty.

7. Composite temperature reading

8. Values are based on ambient temperature. Avoid non-operational exposure to temperatures in excess of 40°C for periods exceeding three months.