SanDisk®

DC SN861

DATA SHEET | **DATA CENTER SOLID STATE DRIVE**

2.5-inch U.2, 15mm, NVMe SSD
1.60TB, 1.92TB, 3.20TB, 3.84TB, 6.4TB, 7.68TB[1]

Highlights

- Experience exceptional PCIe Gen5 performance in multiple capacities up to 7.68TB[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
- E1.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 TCG security and encryption, all backed by a 5-year limited warranty[6]

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

Redefining the limits for high-performance storage

Be ready for the future of mission critical workloads with the SanDisk DC SN861. The latest SanDisk data center SSD with cutting-edge PCIe® Gen5 enterprise-class speeds, the DC SN861 offers exceptional performance and multiple capacities up to 7.68TB[1]. With high random read speeds and low power consumption, the DC SN861 is optimized for compute-intensive AI and machine learning applications, ensuring superior read/write performance, extremely low latency, and maximize IOPs/Watt. The DC SN861 also provides a rich feature set including NVMe® 2.0 and OCP 2.0 support, 1 & 3 DWPD, and a 5-year limited warranty[6], making it the ideal solution for hyperscale, cloud, and enterprise data centers.

Features

Ready for the Demands of AI Workloads
Designed to handle compute-intensive AI and machine learning applications which require high bandwidths and low latencies.

Superior Performance and Capacity
Experience future-ready PCIe Gen5 read/write speeds with multiple capacities up to 7.68TB[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 TCG security and encryption, helping ensure data integrity and security.

Future-Ready Data Infrastructure
Designed to support NVMe 2.0, and NVMe MI 1.2c, and OCP 2.0 supportive, for enhanced scalability and efficiency.

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Product Information						
Capacity[1]	1.92TB	3.84TB	7.68TB	1.60TB	3.20TB	6.40TB
Endurance[2]	1 DWPD	1 DWPD	1 DWPD	3 DWPD	3 DWPD	3 DWPD
Security	SE, ISE, TCG OPAL 2.01					
Form Factor	U.2					
Interface	PCIe Gen5×4					
NVMe Specification	NVMe v2.0					
Performance						
Read Throughput (max MB/s, Seq 128KiB)[3]	13,700	13,700	13,700	13,700	13,700	13,700
Write Throughput (max MB/s, Seq 128KiB)[3]	3,600	7,200	7,500	3,600	7,200	7,500
Read IOPS (max, Rnd 4KiB)[3]	2,100K	3,300K	3,300K	2,100K	3,300K	3,300K
Write IOPS (max, Rnd 4KiB)[3]	165K	330K	430K	350K	665K	800K
Read Latency (µS)[4]	65	65	65	65	65	65
Write Latency (µS)[4]	8	8	8	8	8	8
Reliability						
MTTF[5] (hours, projected)	2.5M					
Uncorrectable Bit Error Rate (UBER)	1 in 10^{17}					
Annualized Failure Rate[5] (AFR, projected)	0.35%					
Limited Warranty[6] (years)	5 years					
Power Management						
Requirement (DC, +/- 10%)	+12v					
Operating Mode	12W, 14W, 16W, 18W, 20W (Default)					
Idle (Average)	~5W					
Physical Size						
z-height (mm)	15mm					
Dimensions (width x length, mm)	69.85mm x 100.45mm					
Weight (g, max)	Not Available					
Environmental						
Operating Temperature (Ambient)[7]	0°C to 70°C					
Non-Operating Temperature[8]	-40°C to 85°C					

Ordering Information

	Region	Security	1.92TB	3.84TB	7.68TB	1.60TB	3.20TB	6.40TB
0TS Number	Worldwide	SE	0TS2516	0TS2517	0TS2518	0TS2537	0TS2538	0TS2539
Model Number	Worldwide	SE	SDS6BA119PSP9X1	SDS6BA138PSP9X1	SDS6BA176PSP9X1	SDS6CA216PSP9X1	SDS6CA232PSP9X1	SDS6CA264PSP9X1
0TS Number	Worldwide	ISE	0TS2525	0TS2526	0TS2527	0TS2531	0TS2532	0TS2533
Model Number	Worldwide	ISE	SDS6BA119PSP9X3	SDS6BA138PSP9X3	SDS6BA176PSP9X3	SDS6CA216PSP9X3	SDS6CA232PSP9X3	SDS6CA264PSP9X3
0TS Number	Worldwide	TCG Opal	0TS2528	0TS2529	0TS2530	0TS2534	0TS2535	0TS2536
Model Number	Worldwide	TCG Opal	SDS6BA119PSP9X7	SDS6BA138PSP9X7	SDS6BA176PSP9X7	SDS6CA216PSP9X7	SDS6CA232PSP9X7	SDS6CA264PSP9X7
0TS Number	China	SE	Not Applicable	0TS2520	0TS2521	Not Applicable	0TS2523	0TS2524
Model Number	China	SE	Not Applicable	SDS6BA138PSP9X1	SDS6BA176PSP9X1	Not Applicable	SDS6CA232PSP9X1	SDS6CA264PSP9X1

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

[2] NAND Endurance.

[3] 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 persecond. Subject to change.

[4] Average random latency at 4KiB, QD=1

[5] 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.

[6] 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.

[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.

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