CLIENT NVMe™ SSDS (→) EMPOWERING STORAGE

SANDISK™

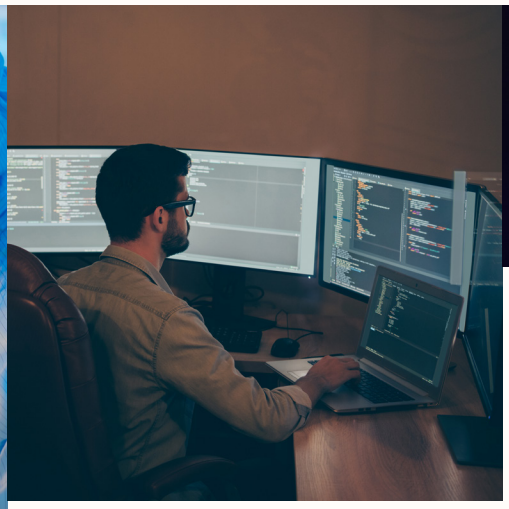
"BROCHURE"

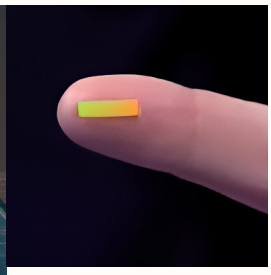
AUGUST . 2025

Trusted Storage Solutions and Seamless Qualifications

Our vast portfolio of client NVMe SSDs enables a seamless and simplified world of resilient data expression and storage for workstations, AI PCs, desktop PCs, laptop PCs, and embedded designs. We believe that everyone should be inspired by their data – to move, create, discover, share, and unlock their potential.

Our product range meets the demands of various storage solutions whether integrated into commercial or consumer designs and serves applications and workload demands including business analytics and productivity, professional creators, data sciences, and modern AI-enabled workflows. Our highly skilled customer experience team ensures seamless designs and qualifications and provide a trusted resource through the system's lifecycle.





BiCS8 NAND flash die

Innovative and Trusted Storage Provider

We engineer our storage solutions to meet a wide spectrum of customer design requirements including performance, capacity, reliability, form-factors, and data encryption.

Client NVMe™ SSDs for the Modern Workload

As a system designer, success relies on the innovation, quality, and dependability of the components integrated into the design. Our spectrum of innovative storage solutions are engineered to tackle demanding workloads with high performance for workstations and AI PCs and provide the power efficiency and form-factor for mobile or embedded applications.

Interface Technology

Experience high speed and responsiveness with PCIe® Gen 5.0 and 4.0 SSDs, powered by the latest NVMe™ technologies. Our designs deliver high data throughput for application workloads whether it's sequential or random transfers. Our NVMe™ controller architecture delivers reduced latency access to data delivering responsiveness for application multitasking or in highly concurrent designs.

Form Factors

Modularity and scalability of storage is important when choosing an SSD. Available in various form factors, our SSDs provide the a variety of form factoring options to help optimize system design whether maxing out capacity with a M.2 2280 or minimizing the footprint with an M.2 2230.

Flash Memory Technology

Benefit from decades of flash memory innovations with the latest generations of SANDISK® BiCS 3D NAND. Our SSDs are designed exclusively with SANDISK® TLC and QLC 3D NAND optimized for consistent high performance and power efficiency. Our newest 8th generation BiCS 3D NAND features CMOS Bonded to Array technology providing scalable storage solution which targets performance and endurance system design requirements.

nCache™ Technology

Our innovative SANDISK® nCache™ technology delivers burst write performance for applications which generate a massive amount of metadata and helps quickly complete large file transfers to the SSD.

Firmware Excellence

Our robust firmware engineering and extensive testing help ensure that our SSDs provide improvements with every generation to minimize qualification timelines and deliver robust performance and reliability over the lifetime of the SSD.

Dependable Support

Our highly skilled customer experience team is available during the design and qualification to get you into production quickly and confidently.

Product Delivery

Having consistent supply of critical components like storage keeps you on schedule. Our products are delivered in packaging suitable for large build requirements. Our customer experience team provides product change and end-of-life notifications to help manage product transitions.

Compatibility Testing

All our SSDs undergo rigorous compatibility testing. This includes system and operating system compatibility testing. To help meet regulatory and compliance requirements, we are able to provide product certifications to help you ship your products to various jurisdictions worldwide.

Power Efficiency

Designed to meet stringent power consumption requirements, our products are optimized for a wide range of systems including portable, mobile and battery-powered designs.

Enhanced Security

Our products are available with multiple security options, including TCG Pyrite and Opal, offering robust protection against unauthorized access to sensitive information and data-at-rest data encryption.

Endurance and Reliability

Our products are engineered with high MTBF and endurance to help you meet your target design goals and all have the trusted Sandisk 5 year limited warranty.[4]

Workstation Performance Storage

SANDISK® PC SN8050S NVMe™ SSD with PCIe® Gen 5.0

The SANDISK® PC SN8050S NVMe™ SSD with PCIe® Gen 5.0 and next generation SANDISK® TLC 3D NAND delivers leading-edge performance of up to 14,900/14,100 MB/s[1] sequential read/write speeds and up to 2.3M/2.4M IOPS[1] random read/write speeds (2TB[2] and 4TB[2] models) for demanding workloads including 8K video, fast loading of AI models, AI or business analytics, and scientific applications involving large datasets. With increased power efficiency providing 80% better MBps/Watt than the prior generation*, the SANDISK® PC SN8050S NVMe™ SSD can be integrated into mobile workstations, desktops and laptops. The SANDISK® PC SN8050S NVMe™ SSD is available in capacities of 512GB to up to 4TB.[2] With up to 2,400 TBW endurance rating (4TB model), the SANDISK® PC SN8050S NVMe™ SSD is designed for write-intensive workloads. The optional TCG Opal v.2.02 data-at-rest encryption enhances data security.

Target Designs:
Workstations, desktops, AI PCs

Workloads:
Heavier workloads, 3D modeling, 8K or higher video editing, scientific, analytics, software design, heavy AI workloads

Features

PCIe® Gen 5.0×4, NVMe™ 2.0d

SANDISK® BiCS TLC 3D NAND

Form-factor: M.2 2280

Capacities: 512GB, 1TB , 2TB, and 4TB[2]

SANDISK® nCache™ 4.0 Technology

Sequential read speeds:
up to 14,900MB/s[1] (2TB – 4TB[2] models)

Sequential write speeds:
up to 14,1000MB/s[1] (2TB – 4TB[2] models)

Random read speeds:
up to 2.3M IOPS[1] (2TB – 4TB[2] models)

Random write speeds:
up to 2.4M IOPS[1] (2TB – 4TB[2] models)

Up to 2,400 TBW[3] Endurance (4TB[2] model)

Optional TCG Opal 2.02 data-at-rest encryption

To download the detailed product datasheet, please visit the product webpage here

* Compared with the PC SN8000S SSD 2,048GB model.

PC Performance Storage

SANDISK® PC SN8000S NVMe™ SSD

The SANDISK® PC SN8000S NVMe™ SSD with PCIe Gen 4.0 is our performance storage solution for PCs to help meet the demands of modern applications and workloads like artificial intelligence, 3D modeling, gaming and professional content creation tools. Designed with the SANDISK® BiCS TLC 3D NAND, the SANDISK® PC SN8000S SSD delivers up to 7,300MB/s[1] (1TB – 2TB[2] models) sequential and up to 1.2M IOPS[2] random read speeds for compute systems requiring high degree of performance scalability. Equipped with capacities up to 4TB[2] on M.2 2280, the SANDISK® PC SN8000S NVMe™ SSD is a great choice for customers seeking a performance at scale storage solution.

Target Designs:
Workstations, desktops, AI PCs

Workloads:
Heavy workloads, 3D modeling, CAD, Scientific, software design, heavy AI workloads

Features

PCIe® Gen 4.0×4, NVMe™ 2.0

SANDISK® BiCS TLC 3D NAND

Form-factor: M.2 2280

Capacities: 512GB, 1TB , 2TB, and 4TB[2]

SANDISK® nCache™ 4.0 Technology

Sequential read speeds:
up to 7,300MB/s[1] (1 – 4TB[2] models)

Sequential write speed:s
up to 6,800 MB/s[1] (1 – 4TB[2] models)

Random read speeds:
up to 1.2M IOPS[1] (1 – 4TB[2] models)

Random write speeds:
up to 1.3M IOPS[1]

Up to 2,400 TBW[3] Endurance (4TB[2] model)

Optional TCG Opal 2.02 data-at-rest encryption

To download the detailed product datasheet, please visit the product webpage here

Mainstream PC Storage

SANDISK® PC SN7100S NVMe™ SSD

The SANDISK® PC SN7100S NVMe™ SSD with PCIe® Gen 4.0 is engineered for deliver performance with low power consumption making it ideal for laptops and energy efficient PC designs. The SANDISK® PC SN7100S NVMe™ SSD delivers a remarkable sequential read and write speeds up to 7,250 MB/s and 6,900 MB/s,[1] and random read and write speeds up to 1M IOPS and 1.4M IOPS (1TB and 2TB models). Capacities are available in 256GB, 512GB, 1TB, and 2TB[2] in M.2 2280 and M.2 2230 form factors accommodating a range of system designs. It is a fully vertically-integrated design built with the latest SANDISK® BiCS TLC 3D NAND. The SANDISK® PC SN7100S NVMe™ SSDs can be equipped with TCG Opal 2.02 for data-at-rest protection.

Target Designs:
Commercial and consumer laptops, mobile workstations, and AI PCs

Workloads:
Productivity, professional creatives/studio, professional content creator workflows, heavy AI workloads

Features

PCIe® Gen 4.0×4, NVMe™ 2.0c

SANDISK® BiCS TLC 3D NAND

Form-factors: M.2 2280 and M.2 2230

Capacities: 256GB, 512GB, 1TB , and 2TB[2]

SANDISK® nCache™ 4.0 Technology

Sequential read speeds:
up to 7,250MB/s[1] (1 – 2TB[2] models)

Sequential write speed:s
up to 6,900 MB/s[1] (1 – 2TB[2] models)

Random read speeds:
up to 1.0M IOPS[1] (1 –2TB[2] models)

Random write speeds:
up to 1.4M IOPS[1] (1 –2TB[2] models)

Up to 1,200TBW[3] Endurance (2TB[1] model)

Optional TCG Opal 2.02 data-at-rest encryption

To download the detailed product datasheet, please visit the product webpage here

All Purpose PC Storage

SANDISK® PC SN5100S NVMe™ SSD

The SANDISK® PC SN5100S NVMe™ SSD is a superb solution for system designs seeking a balance of high performance and cost effectiveness without sacrificing reliability. Equipped with next generation SANDISK® QLC 3D CBA NAND technology, is available in capacities up to 2TB in M.2 2280 or M.2 2230 form-factor. By including the SANDISK® nCache™ 4.0 Technology, the SANDISK® PC SN5100S NVMe SSD provides fast burst write performance for applications with large amounts of metadata or when performing write transfers. The SANDISK® PC SN5100S NVMe SSD provides up to 600 TBW[3] endurance making it a smart choice for mid-range and entry level designs.

Target Designs:
Commercial PCs, consumer PCs, mini-PCs, and SFF designs

Workloads:
Mainstream PC applications and workloads

Features

PCIe® Gen 4.0×4, NVMe™ 2.0d

SANDISK® BiCS QLC 3D NAND

Form-factors: M.2 2280 and M.2 2230

Capacities: 512GB, 1TB , and 2TB[2]

SANDISK® nCache™ 4.0 Technology

Sequential read speeds:
up to 7,300MB/s[1] (1 – 2TB[2] models)

Sequential write speed:s
up to 6,700 MB/s[1] (1 – 2TB[2] models)

Random read speeds:
up to 1.2M IOPS[1] (1 –2TB[2] models)

Random write speeds:
up to 1.4M IOPS[1] (1 –2TB[2] models)

Up to 600TBW[3] Endurance (2TB[1] model)

Optional TCG Opal 2.02 data-at-rest encryption

To download the detailed product datasheet, please visit the product webpage here

Sandisk's innovative portfolio is designed to empower OEMs with some of the most advanced and reliable solutions in the industry. Our technology roadmap helps to ensure that your products stay ahead of the curve, even in a rapidly evolving PC landscape.

Client NVMe SSD Comparison Chart

	PC SN8050S	**PC SN8000S**	**PC SN7100S**	**PC SN5100S**
Best For	Mobile Workstations, AI PCs, Desktop PCs	Premium Laptops and Desktops	Mid-Range Laptops and Desktops	Entry PCs
Interface	PCIe® Gen 5.0	PCIe® Gen 4.0	PCIe® Gen 4.0	PCIe® Gen 4.0
Form Factor	M.2 2280	M.2 2280	M.2 2280, M.2 2230	M.2 2280, M.2 2230
SANDISK® NAND Technology	TLC	TLC	TLC	QLC
Capacities[2]	512GB - 4TB	512GB - 4TB	256GB - 2TB	512GB - 2TB
Sequential Read (max MB/s)[1]	14,900	7,300	7,250	7,300
Sequential Write (max MB/s)[1]	14,100	6,800	6,900	6,700
Random Read (max IOPs)[1]	2.3M	1.2M	1M	1.2M
Random Write (max IOPs)[1]	2.4M	1.3M	1.4M	1.4M
Endurance (TBW)[3]	Up to 2,400	Up to 2,400	Up to 1,200	Up to 600
Power Consumption (Peak)	10.5W	10W	4.7W	5.5W
Drive Reliability[5] (MTTF)	1.75M hours	1.75M hours	1.75M hours	1.75M hours
Optional Encryption Support	TCG Opal 2.02, TCG Pyrite 2.01, ATA Security	TCG Opal 2.02, TCG Pyrite 2.01, ATA Security	TCG Opal 2.02, TCG Pyrite 2.01, ATA Security	TCG Opal 2.02, TCG Pyrite 2.01, ATA Security
Limited Warranty[4]	5 years	5 years	5 years	5 years

1. 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. IOPS = input/output operations per second.
2. 1GB = 1 billion bytes and 1TB = 1 trillion bytes. Actual user capacity may be less depending on operating environment.
3. TBW (terabytes written) values calculated using JEDEC client workload (JESD219) and vary by product capacity
4. 5 years or Max Endurance (TBW) limit, whichever occurs first. See sandisk.com/support for regional specific warranty details.
5. MTTF = Mean Time To Failure based

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