



SanDisk® X300 SSD (Solid State Drive)

RELIABLE AND RESPONSIVE PERFORMANCE WITH LOW POWER



Based on state of the art 1Ynm X3 flash technology, the SanDisk X300 SSD delivers performance with high reliability and low power. It features nCache™ 2.0, SanDisk's next generation tiered caching technology, designed to improve SSD responsiveness for most corporate and consumer workloads.

The X300 is highly versatile and can accommodate a wide range of computing platforms. It is available in 2.5" 7mm cased, M.2 2280, and mSATA form factors with capacities of 128GB, 256GB, 512GB, and 1TB*.

| | | | |
|------|-----|------|--|
| SATA | SAS | PCIe | |
|------|-----|------|--|

X300 KEY FEATURES

NCACHE 2.0 - IMPROVES SSD RESPONSIVENESS FOR HIGH PRODUCTIVITY WORKLOADS

DATAGUARD CLIENT - PROVIDES AN ADDITIONAL LAYER OF DATA PROTECTION USING PAGE-LEVEL STRIPING WITH DISTRIBUTED PARITY

LOW POWER WITH DEVSPLP SUPPORT

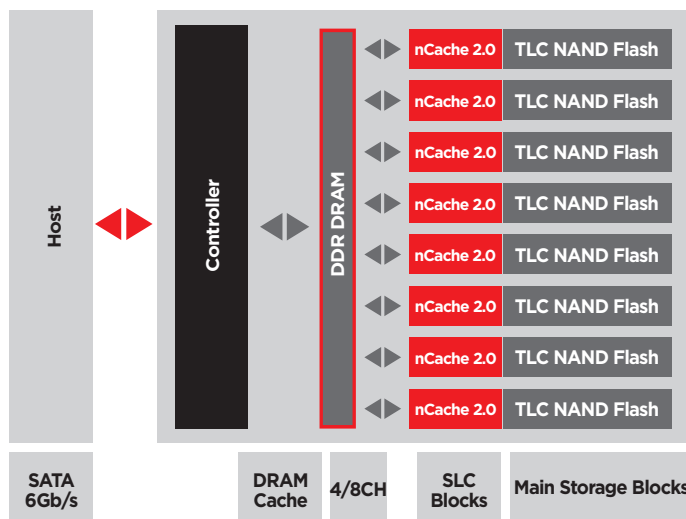
UP TO 1TB* CAPACITIES IN 2.5" 7MM, M.2 2280, AND MSATA FORM FACTORS

TESTED FOR 65 TBW (128GB) AND 80 TBW (256GB-1TB)

SATA REVISION 3.2 6GB/S INTERFACE

WINDOWS® WHCK CERTIFIED

DYNAMIC THERMAL THROTTLING



nCache™ 2.0 Technology

nCache 2.0 uses a combination of SLC and X3/TLC flash blocks to improve endurance, increase efficiency, and boost performance. By first writing all of the data to SLC blocks, the write amplification on the X3 blocks is minimized.

DataGuard Client™

The X300 SSD also includes a new and robust on-the-fly error handling mechanism called DataGuard Client. It uses page-level striping with distributed parity for an added layer of data protection and can recover errors that other traditional error correction mechanisms cannot.

Low Power

The X300 utilizes a SATA DEVSLP low-power mode to minimize its power consumption during idle periods. DEVSLP enables the SSD to completely shut off its SATA PHY, thus resulting in much lower power consumption compared to SATA Slumber. This increases the amount of usable hours per battery charge, which is essential for modern mobile devices.

TCO

SanDisk SSDs can improve total cost of ownership (TCO) by reducing downtime due to hard drive failures. They also offer lower latency and greater read/write speeds over traditional HDDs⁶. IT departments can extend the useful life of their PC inventory by upgrading the HDDs to the X300 SSD, thus prolonging replacement cycles and maximizing asset value.

Specifications subject to change without notice.

¹ Only available as (8-channel) SATA 2.5" 7mm cased form factor.

² Up to stated speed. Performance is based on the CrystalDiskMark benchmark using a 1000MB range for an X300 SSD setup as a secondary drive on a GIGABYTE GA-Z77X-UD5H host system consisting of an Intel[®] i7-3770 3.4GHz, 8M, Ivy Bridge, 8GB RAM, Windows 8, andIRST 12.9. Performance may vary based on host device. 1 megabyte (MB) = 1 million bytes. IOPS = input/output operations per second.

³ Endurance of the X300 SSD is calculated using JEDEC client workload (JESD219). TBW = terabytes written.

⁴ Power measurements 25°C. Based on FW version with HIPM-enable.

⁵ MTTF = Mean Time To Failure based on internal testing using Telcordia stress part testing.

⁶ 5 year warranty in regions not recognizing "limited". See www.sandisk.com/

⁷ As compared to 7200 RPM SATA 2.5" hard drive. Based on published specifications and internal benchmarking tests. wug for more details.

SanDisk is a trademark of SanDisk Corporation, registered in the United States and other countries. nCache is a trademark of SanDisk Corporation. Other brand names mentioned herein are for identification purposes only and may be the trademarks of their respective holder(s).

Contact information

businesspartners@sandisk.com

SanDisk[®]

SOLID STATE FOR BUSINESS

Corporate Headquarters:

951 SanDisk Drive

Milpitas, CA 95035-7933, USA

www.sandisk.com

SanDisk[®] X300 SSD Product Features and Specifications

Specifications are preliminary and subject to change

| Device | SanDisk X300 SSD | | | | |
|--|---|--|-------|--------|-------|
| Form Factor | 7mm 2.5-inch Cased, M.2 2280, mSATA | | | | |
| Interface | SATA III (6 Gb/s) backward compatible to SATA II (3 Gb/s) and SATA I (1.5 Gb/s) | | | | |
| Performance ¹ | 128GB | 256GB | 512GB | 512GB* | 1TB* |
| Seq. Read up to (MB/s) | 520 | 520 | 525 | 530 | 520 |
| Seq. Write up to (MB/s) | 450 | 470 | 470 | 470 | 460 |
| Rand Read up to (IOPS) | 73k | 91k | 96k | 94k | 98k |
| Rand Write up to (IOPS) | 40k | 57k | 68k | 70k | 67k |
| Endurance (TBW)² | 65 | 80 | 80 | 80 | 80 |
| Power (Average) | 128GB | 256GB | 512GB | 512GB* | 1TB* |
| Active Power (mW)³ | 95 | 95 | 95 | 95 | 95 |
| Max Read Operating (mW) | 2,300 | 2,450 | 2,500 | 2,500 | 2,500 |
| Max Write Operating (mW) | 2,950 | 3,900 | 3,900 | 3,900 | 3,900 |
| Slumber (mW) | 70 | 70 | 70 | 70 | 70 |
| DEVSLP (mW) | <7 | <7 | <7 | <7 | <7 |
| MTTF⁴ | Up to 1,752,000 hours | | | | |
| Product Dimensions & Weight | 2.5": | 7.00mm x 69.85mm x 100.5mm @ 58 ± 3g | | | |
| | M.2 2280: | 2.23mm x 22.00mm x 80.0mm @ 7.5 ± 0.5g | | | |
| | mSATA: | 3.82mm x 29.85mm x 50.8mm @ 7.5 ± 0.5g | | | |
| Environmental | | | | | |
| Operating Temperatures | 0°C to 70°C | | | | |
| Non-operating Temperatures | -55°C to 85°C | | | | |
| Operating Vibration | 5.0 gRMS, 10 - 2000 Hz | | | | |
| Non-operating Vibration | 4.9 gRMS, 7 - 800 Hz | | | | |
| Shock | 1,500 G @0.5 msec half sine | | | | |
| Certifications | FCC, UL, TUV, KC, BSMI, VCCI | | | | |
| Warranty⁵ | 3 Years | | | | |

Ordering Information

| Form Factor | Capacity | SKU # |
|-------------|----------|------------------------|
| M.2 2280 | 128GB | SD7SN6S-128G-1022/1122 |
| M.2 2280 | 256GB | SD7SN6S-256G-1022/1122 |
| M.2 2280 | 512GB | SD7SN6S-512G-1022/1122 |
| mSATA | 128GB | SD7SF6S-128G-1022/1122 |
| mSATA | 256GB | SD7SF6S-256G-1022/1122 |
| mSATA | 512GB | SD7SF6S-512G-1022/1122 |
| 2.5" 7mm | 128GB | SD7SB6S-128G-1022/1122 |
| 2.5" 7mm | 256GB | SD7SB6S-256G-1022/1122 |
| 2.5" 7mm | 512GB | SD7SB7S-512G-1022/1122 |
| 2.5" 7mm | 1TB | SD7SB7S-010T-1022/1122 |

Pack-Out Option Use:

-1022 = Bulk

-1122 = Individual Package