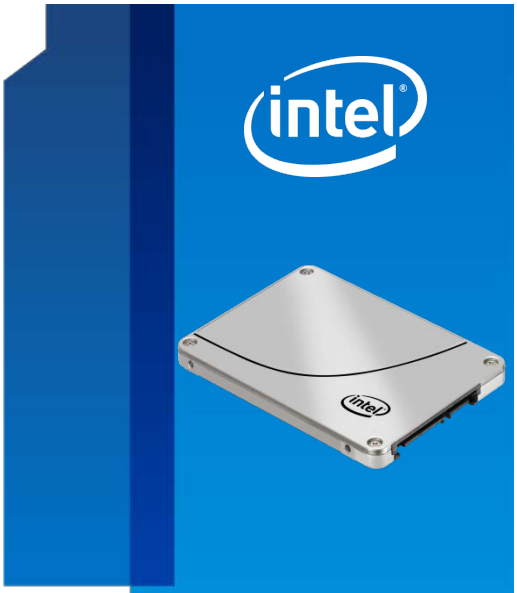
PRODUCT BRIEF

Intel® Solid-State Drive DC S3500 Series

Non-Volatile Memory Storage Solutions from Intel



Consistently Amazing

Premier Performance, Protection, and Optimization for the Data Center

The Intel® Solid-State Drive DC S3500 Series offers the next generation of data center SSDs combining fast consistent read performance with strong data protection, and leading edge 20nm flash technology.

Fast and Consistent Performance

Deliver data at a rapid pace, with consistently low latencies and tight IOPS distribution.
The Intel® Solid-State Drive DC S3500 Series delivers superior Quality of Service for applications such as video streaming/conferencing, virtual client support, and big data analytics. All of these applications benefit from 50µs typical latency with max read latencies[2] of 500µs for 99.9% of the time and 4KB random read performance of up to 75,000 input/output operations per second (IOPS)[1]. Performance delivered with low active read power (less than 1.3 watts[1]) means this Intel SSD helps improve data center efficiency with reduced energy costs—making it an excellent value for data center storage application upgrades!

Stress-free Data Protection

Protect your data center applications with multiple security checkpoints providing protection against data loss and corruption. The Intel® SSD DC S3500 Series combines the following features to provide an SSD you can count on.

Full End-to- End Data Protection. Protects your data from the time it enters the drive to the time it leaves. The Intel® SSD DC S3500 Series uses an advance error correction scheme that ensures data integrity by protecting against possible data corruption in the NAND, SRAM, and DRAM memory. The Intel® SSD DC S3500 Series also protects the data in transit through several techniques such as parity checks, Cyclic Redundancy Checks (CRC) and LBA tag validation. Once an error is detected, an immediate attempt will be made to correct it, and any uncorrectable error will be reported to the host. To further improve data assurance, the Intel® SSD DC S3500 Series provides data redundancy technology to minimize potential data loss.

Enhanced Power-Loss Data Protection. Reduces potential data loss by detecting and protecting data from an unexpected system power loss. The drive saves all cached data in the process of being written prior to shutting down, thereby reducing potential data loss.

Optimized for Efficiency

Reduce the strain on tight IT budgets with leading Intel technologies. By combining the latest 20nm Multi-Level Cell (MLC) NAND flash memory technology with Intel's latest SSD controller technology, the Intel® SSD DC S3500 Series delivers fast and consistent performance, reduced power consumption and stress-free data protection. Optimize your dollars per IOP, energy costs, and floor space in your data center with the amazingly efficient Intel® SSD DC S3500 Series.

Solid-State Computing Starts with Intel Inside®. For more information, visit **www.intel.com/go/ssd**

Product Spotlight

- *Fast and Consistent Performance*
- *Full End to End Data Protection*
- *Enhanced Power-Loss Data Protection*
- *Latest 20nm MLC NAND Flash Memory Technology*
- *Intel based controller technology*

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Technical Specifications[1]		
Model Name	Intel® Solid-State Drive DC S3500 Series	
Capacity	2.5": 80GB, 120GB, 160GB, 240GB, 300GB, 480GB, 600GB and 800GB 1.8": 80GB, 240GB, 400GB and 800GB	
NAND Flash Memory	20nm Intel® NAND Flash Memory Multi-Level Cell Compute-Quality Components	
	Sustained Sequential Reads/Writes	
Bandwidth[2]	2.5" 80GB: up to 340 / 100 MB/s 120GB: up to 445 / 135 MB/s 160GB: up to 475 / 175 MB/s 240GB: up to 500 / 260 MB/s 300GB: up to 500 / 315 MB/s 480GB: up to 500 / 410 MB/s 600GB: up to 500 / 410MB/s 800GB: up to 500 / 450 MB/s	1.8" 80GB: up to 340 / 100 MB/s 240GB: up to 500 / 260 MB/s 400GB: up to 500 / 380 MB/s 800GB: up to 500 / 450 MB/s
Read / Write Latency	50 µs / 65 µs	
	4KB Reads / Writes	
Random I/O Operations per Second	2.5" 80GB: up to 70,000 IOPS / 7,000 IOPS 120GB: up to 75,000 IOPS / 4,600 IOPS 160GB: up to 75,000 IOPS / 7,500 IOPS 240GB: up to 75,000 IOPS / 7,500 IOPS 300GB: up to 75,000 IOPS / 9,000 IOPS 480GB: up to 75,000 IOPS / 11,000 IOPS 600GB: up to 75,000 IOPS / 11,000 IOPS 800GB: up to 75,000 IOPS / 11,500 IOPS	1.8" 80GB: up to 70,000 IOPS / 7,000 IOPS 240GB: up to 75,000 IOPS / 7,500 IOPS 400GB: up to 75,000 IOPS / 11,000 IOPS 800GB: up to 75,000 IOPS / 15,500 IOPS
Interface	SATA 6Gb/s, compatible with SATA 3Gb/s and1.5Gb/s.	
Form Factor, Height and Weight	2.5 inch and 1.8" Industry Standard Form Factor Height: 2.5" 7.0 mm thick; 1.8" 5 mm thick Weight: 2.5" 80GB - 240GB: 70 grams ± 2 grams 2.5" 300GB - 800GB: 72 grams ± 2 grams; 1.8" 80GB: 35 grams ± 2 grams 1.8" 240-800GB: 37 grams ± 2 grams	
Life Expectancy	2 million hours Mean Time Between Failures (MTBF)	
Lifetime Endurance[3]	Up to 450TB Written	
Usage[4]	24/7 operation	
Power Consumption	Read: 1.3 W Typical Write: 5.0 W Typical	Idle: 650 mW Typical
Operating Temperature	0° C to 70° C	
RoHS Compliance	Meets the requirements of European Union (EU) RoHS Compliance Directives	
Product Health Monitoring	Self-Monitoring, Analysis and Reporting Technology (S.M.A.R.T.) commands	
Product Ordering Information	To order, visit intel.com/go/ssd	

1 Based on the Intel® SSD DC S3500 Series Product Specification.

2 Device measured using Iometer with 4K Random Writes QD=32 across 100% span of the drive. Latency measured using write transfer size of 4KB (4,096 bytes) and queue depth set to 1.

3 Based on JESD218 standard with JESD219 workload

4 Based on JESDEC SSD standard JC64.8

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