(intel)

More time. Less grind.

A high-endurance SSD designed for data center performance.

The Intel® Solid-State Drive 710 Series offers the next generation of data center SSDs designed for high-write endurance, extreme performance, and data protection.

Increasing Endurance

Incorporating High Endurance Technology (HET), the Intel® Solid-State Drive 710 Series delivers single-level cell (SLC) solid-state drive (SSD) endurance in a multi-level cell (MLC) SSD package. By combining SSD NAND management techniques and NAND silicon enhancements, HET enables the 300GB Intel® SSD 710 Series to achieve a 4 kilobytes (KB) write endurance of up to 1.5 petabytes (PB) with 20 percent over-provisioning[1]. With HET, the Intel SSD 710 Series also maintains the same uncorrectable error rate as the previous generation of SSDs, but with a much higher program erase cycle when compared to typical MLC-based SSDs.

Increasing Performance

Unleash your I/O-starved applications with the Intel® Solid-State Drive 710 Series. When configured with 20 percent over-provisioning, the Intel SSD 710 Series delivers superior performance—4KB random write values of up to 4,000 input/output operations per second (IOPS)[1] and a 4KB random read performance of up to 38,500 IOPS[1]. And with low active power consumption of up to 3.7 watts[1], this Intel SSD can help reduce your overall energy costs—making it an excellent value for system upgrades!

Increasing Reliability

The Intel SSD 710 Series combines the following features to provide one reliable SSD.

Advanced Encryption Standard (AES). Protects your data from external threats and internal system issues with 128-bit encryption technology, giving you the peace of mind that your company's data is secure.

Data Security. Improves reliability by providing an array of surplus NAND flash. If the controller encounters a faulty NAND array, the Intel SSD 710 Series automatically reconfigures itself to reduce the prospect of 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 before shutting down, thereby minimizing potential data loss.

Temperature Monitoring and Logging. Contains an internal temperature sensor that can be monitored using two Self-Monitoring, Analysis and Report Technology (SMART) attributes.

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

Product Spotlight

Endurance Rating (up to)[1]

4KBs

100 GB	500 TB
200 GB	1.0 PB
300 GB	1.1 PB

4KB - 20% Over-provisioning

100 GB	900 TB
200 GB	1.5 PB
300 GB	1.5 PB

8KBs

100 GB	900 TB
200 GB	1.0 PB
300 GB	1.8 PB

8KB - 20% Over-provisioning

100 GB	2.0 PB
200 GB	1.9 PB
300 GB	3.0 PB

Intel® Solid-State Drive 710 Series

Technical Specifications

Model Name	Intel Solid-State Drive 710 Series
Capacity	100 GB, 200 GB and 300 GB
NAND Flash Memory	25nm Intel NAND Flash Memory Multi-Level Cell Compute-Quality Components with High Endurance Technology

	Sustained Sequential Reads	Sustained Sequential Write
Bandwidth[2]	100 GB: up to 270 MB/s	100 GB: up to 170 MB/s
	200 GB: up to 270 MB/s	200 GB: up to 210 MB/s
	300 GB: up to 270 MB/s	300 GB: up to 210 MB/s

Read / Write Latency[3]	75 µs / 85 µs

	4KB[5] Reads / Writes in IOPS	8KB[5] Reads / Writes in IOPS
Random I/O Operations per Second (IOPS) [4]	100 GB: up to 38,500 / 2,300 (4,000 [5])	100 GB: up to 26,000 / 1,900 (6,000 [5])
	200 GB: up to 38,500 / 2,700 (3,300 [5])	200 GB: up to 27,000 / 1,300 (2,500 [5])
	300 GB: up to 38,500 / 2,000 (2,400 [5])	300 GB: up to 27,000 / 1,700 (2,500 [5])

Interface	SATA 3Gb/s, compatible with SATA 1.5Gb/s.
Form Factor, Height and Weight	2.5 inch Industry Standard Form Factor Height: 7.0 mm thick Weight: up to 80 grams ± 2 grams
Life Expectancy	2 million hours Mean Time Between Failures (MTBF)

	4KB	8KB
Lifetime Endurance	100 GB: up to 500 TB (900 TB[5])	100 GB: up to 900 TB (2.0 PB[5])
	200 GB: up to 1.0 PB (1.5 PB[5])	200 GB: up to1.0 PB (1.9 PB[5])
	300 GB: up to 1.1 PB (1.5 PB[5])	300 GB: up to 1.8 PB (3.0 PB[5])

Power Consumption	Active: up to 3.7 W Typical[6]	Idle: 700 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	

[1] Based on the Intel® SSD 710 Series Product Specification.

[2] Performance measured using Iometer with 64KB (65,536 bytes) of transfer size with queue depth equal to 32.

[3] Device measured using Iometer. Latency measured using transfer size of 4KB (4,096 bytes) and queue depth equal to 1.

[4] Performance measured using Iometer with queue depth equal to 32. Measurements performed on full logical block address (LBA) span of drive.
Four kilobytes (4KB) equals 4,096 bytes. Eight kilobytes (8KB) equals 8,192 bytes.

[5] Value based on 20 percent over-provisioning.

[6] Workload based on 64KB (65,536 bytes) and queue depth equal to 32. Root Mean Squared (RMS) power is measured using scope trigger over a 100ms sample period.