DC400 SSD

Reliable high-performance, low-latency drive built for datacenters.

Kingston's DC400 SSD offers consistent application performance and low latency over a wide range of read/write workloads, and standard as well as user-adjustable over-provisioning to improve random IOPs performance, making it ideal for datacenters. Its enterprise firmware improves latency and helps DC400 deliver consistently low data access times under steady state workloads. It's available in a Performance-Optimized model with greater IOPs for faster application performance and reduced storage latency and in a Read-Intensive Optimized model that's factory-tuned for read-intensive workloads. All models deliver enterprise-class reliability with end-to-end data path protection, SmartECC, SmartRefresh and firmware-controlled power loss management. DC400 is backed by legendary pre- and post-sales support and a five-year limited warranty. In addition, there's Kingston's web-based Ask an Expert program, and the SSD Manager toolbox is available in a free, downloadable application.

> Consistently high sustained IOPs and low latency

> Configurable over-provisioning available

> Performance-Optimized model and Read-Intensive model available by special order

> Enterprise class reliability

> Legendary Kingston support

FEATURES/BENEFITS

> **Reduce application latencies** — Reduce wait time and increase application performance.

> **Ultra-reliable** — DC400 is designed and engineered to protect your data. From ECC protection to a safeguard against read disturbs, it features end-to-end data protection.

> **Firmware-based Pfail** — Reduce the possibility of data corruption on ungraceful power-off with firmware-controlled power loss management.

> **Legendary Kingston support** — Kingston's global technical support provides industry-leading post-sales support to its customers.

SPECIFICATIONS

> **Form factor** 2.5"

> **Interface** SATA Rev. 3.0 (6Gb/s) – with backwards compatibility to SATA Rev. 2.0 (3Gb/s)

> **Capacities[1]** 400GB, 480GB, 800GB, 960GB, 1.6TB, 1.8TB

> **Sequential Read/Write**
400GB – 555 / 535 MB/s
480GB – 555 / 535 MB/s
800GB – 555 / 530 MB/s
960GB – 555 / 520 MB/s
1600GB – 555 / 510 MB/s
1800GB – 555 / 500 MB/s

> **Maximum Random 4k Read/Write**
400GB – 99,000 / 90,000 IOPS
480GB – 99,000 / 90,000 IOPS
800GB – 99,000 / 89,000 IOPS
960GB – 99,000 / 88,000 IOPS
1600GB – 100,000 / 88,000 IOPS
1800GB – 99,000 / 86,000 IOPS

> **Steady-State 4k Read/Write**
400GB – 85,000 / 35,000 IOPS
480GB – 85,000 / 11,000 IOPS
800GB – 78,000 / 32,000 IOPS
960GB – 78,000 / 11,000 IOPS
1600GB – 78,000 / 32,000 IOPS
1800GB – 67,000 / 18,000 IOPS

> **Quality of Service (Latency)[2][3] — Read/Write** <400 μs / <4 ms (99.9%)

> **Hot-Plug Capable**

> **Static and Dynamic Wear Leveling**

> **Enterprise SMART tools** reliability tracking, usage statistics, life remaining, wear leveling, temperature

> **Endurance** 480GB: 257TB[4] (0.30 DWPD[5])
960GB: 564TB[4] (0.32 DWPD[5])
400GB: 422TB[4] (0.57 DWPD[5])
800GB: 860TB[4] (0.58 DWPD[5])
1600GB: 1678TB[4] (0.57 DWPD[5])
1800GB: 1432TB[4] (0.43 DWPD[5])

> **Power Consumption**
Idle: 1.56W / Average: 1.6W / Max Read: 1.8W / Max Write: 4.86W

> **Storage temperature** -40℃~85℃

> **Operating temperature** 0℃~70℃

> **Dimensions** 69.9mm x 100mm x 7mm

> **Weight** 92.34g

> **Vibration operating** 2.17G Peak (7–800Hz)

> **Vibration non-operating** 20G Peak (10–2000Hz)

> **MTBF** 2 million hours

> **Warranty/support[6]** Limited 5-year warranty with free technical support

PART NUMBERS

Standard SKUs

SEDC400S37/480G

SEDC400S37/960G

SEDC400S37/1600G

Performance-Optimized SKUs (Special Order)

KG-S41400-1L

KG-S41800-1L

Read-Optimized SKU (Special Order)

KG-S411T8-1L

1 Some of the listed capacity on a Flash storage device is used for formatting and other functions and thus is not available for data storage. As such, the actual available capacity for data storage is less than what is listed on the products. For more information, go to Kingston's Flash memory Guide at kingston.com/flashguide.

2 Workload based on FIO, Random 4KB QD=1 workload, measured as the time taken for 99.9 percentile of commands to finish the round-trip from host to drive and to host.

3 Measurement taken once the workload has reached steady state but including all background activities required for normal operation and data reliability.

4 Total Bytes Written (TBW) is derived from the JEDEC Enterprise Workload (JESD219A).

5 Drive Writes Per Day (DWPD)

6 Limited warranty based on 5 years or SSD "Life Remaining" which can be found using the Kingston SSD Manager (kingston.com/SSDManager). A new, unused product will show a wear indicator value of one hundred (100), whereas a product that has reached its endurance limit of program erase cycles will show a wear indicator value of one (1). See kingston.com/wa for details

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