DC600M Series 2.5” SATA Enterprise SSD

6Gbps SATA 3.0 storage for mixed-use server workloads

Kingston’s DC600M SSD Series provides high-performance storage solutions for data centers, system integrators and more. Delivering consistent latency and reliability, the drives were designed for mixed-use workloads, featuring 3D TLC NAND, hardware-based power loss protection and capacities of up to 7.68TB, making them ideal for enterprise applications. For additional security, DC600ME is available with AES 256-bit encryption and supports TCG OPAL 2.0 security standards.

- Designed for data center environments
- Hardware-based power loss protection
- Latency and IOPS consistency
- AES 256-bit encryption with DC600ME
- Capacities of up to 7.68TB[1]

Specifications

Form factor	2.5 inch
Interface	SATA Rev. 3.0 (6Gb/s) – with backwards compatibility to SATA Rev. 2.0 (3Gb/s)
Capacities[1]	480GB, 960GB, 1.92TB, 3.84TB, 7.68TB
NAND	3D TLC
DRAM Cache	Yes
Encryption	TCG Opal 2.0, AES 256-bit encryption
Sequential read/write	480GB – 560MBs/470MBs 960GB – 560MBs/530MBs 1.92TB – 560MBs/530MBs 3.84TB – 560MBs/530MBs 7.68TB – 560MBs/530MBs
Steady-state 4k random read/write	480GB – 94,000/41,000 IOPS 960GB – 94,000/65,000 IOPS 1.92TB – 94,000/78,000 IOPS 3.84TB – 94,000/59,000 IOPS 7.68TB – 94,000/34,000 IOPS
DC600M - Quality of service (latency)[2],[3],[4](99.999)	Read/Write 480GB – 180/110 uSec 960GB – 3.84TB – 200/300 uSec 7.68TB – 240/170 uSec
DC600ME - Quality of service (latency)[2],[3],[4](99.999)	Read/Write 480GB – 500/130 uSec 960GB - 200/400 uSec 1.92TB – 450/210 uSec 3.84TB - 410/500 uSec 7.68TB – 200/100 uSec
Typical latency - read/write	<130 µs / <70 us[2],[3],[4]

Hot-plug capable	Static and dynamic wear levelling
Enterprise SMART tools	Reliability tracking, usage statistics, life remaining, wear levelling, temperature
Hardware-based power loss protection	Yes
Endurance (TBW) [5]	480GB – 876TBW, 1 DWPD (5 years), 1.66 DWPD (3 years) 960GB – 1752TBW, 1 DWPD (5 years), 1.66 DWPD (3 years) 1.92TB – 3504TBW, 1 DWPD (5 years), 1.66 DWPD (3 years) 3.84TB – 7008TBW, 1 DWPD (5 years), 1.66 DWPD (3 years) 7.68TB – 14016TBW, 1 DWPD (5 years), 1.66 DWPD (3 years)
Power consumption[4]	Idle: 1.30W Average: 1.45W Max read: 1.6W Max write: 3.6W
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
UBER	≤10 -17
Warranty/support[6]	Limited 5-year warranty with free technical support[6]

Part Numbers SEDC600M

SEDC600M/480G	SEDC600M/960G	SEDC600M/1920G
SEDC600M/3840G	SEDC600M/7680G	SEDC600ME/480G
SEDC600ME/960G	SEDC600ME/1920G	SEDC600ME/3840G
SEDC600ME/7680G		

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.

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

3. Based on 1920GB capacity.

4. Workload based on FIO, random aligned 4KB QD=1 workload. Quality of service is measured as the time taken for 99.999 percentile of commands to finish the round trip from host to drive and to host. Typical latency is measured as the time taken for 99.9 percentile of commands to finish the round trip from host to drive and to host.

5. Total Bytes Written (TBW) and Drives Writes Per Day (DWPD) derived from the JEDEC Enterprise Workload (JESD219A).

6. Five-year conditional SSD warranty based on which of the following events occurs first: (i) five (5) years from the date of purchase by the original end user customer; (ii) when the usage of a SATA SSD as measured by Kingston's implementation of the SMART attribute 231, labelled as "SSD Wear Indicator", reaches a normalised value of one (1) as indicated by Kingston's SSD Manager ("KSM").