

KC600 2.5" and mSATA SSD

Hardware-based self-encrypting drive with 3D TLC NAND

Kingston's KC600 is a full-capacity SSD designed to provide remarkable performance and optimised to provide functional system responsiveness with incredible boot, loading and transfer times. It comes in both 2.5" and mSATA form factors using SATA Rev 3.0 interface with backwards compatibility. The KC600 utilises the latest 3D TLC NAND technology while supporting a full security suite that includes AES 256-bit hardware encryption, TCG Opal 2.0 and eDrive. It features read/write speeds of up to 550/520MB/s[1] to efficiently store your data up to 2TB[2].

- Remarkable performance
- Features the latest 3D TLC NAND technology
- Supports a full security suite (TCG Opal 2.0, AES 256-bit, eDrive)
- Available in range of full capacities

Key Features

- ### Remarkable Performance

  Using the latest 3D TLC NAND technology, it enables read/write speeds up to 550/520MB/s[1].

- ### Full-security suite

  Protect and secure your data with Kingston's self-encrypting drive.

- ### Multiple capacities

  KC600 is available in a range of full capacities from 256GB to 2TB[1]

Specifications

2.5"

Form Factor	2.5"
Interface	SATA Rev. 3.0 (6Gb/s) – with backwards capability to SATA Rev 2.0 (3Gb/s)
Capacities[2]	256GB, 512GB, 1024GB, 2048GB
Controller	SM2259
NAND	3D TLC
Encrypted	XTS-AES 256-bit encryption
Sequential Read/Write[1]	256GB — up to 550/500MB/s 512GB–2048GB — up to 550/520MB/s
Maximum 4K Read/Write[1]	up to 90,000/80,000 IOPS

Power Consumption	0.06W idle / 0.2W avg / 1.3W (MAX) read / 3.2W (MAX) write
Dimensions	100.1mm x 69.85mm x 7mm
Weight	40g
Operating temperature	0°C~70°C
Storage temperature	-40°C~85°C
Vibration operating	2.17G Peak (7-800Hz)
Vibration non-operating	20G Peak (10-2000Hz)
Life expectancy	2 millions hours MTBF
Warranty/support[3]	Limited 5-year warranty with free technical support
Total Bytes Written (TBW)[4]	256GB — 150TB 512GB — 300TB 1024GB — 600TB 2048GB — 1200TB

mSATA

Form Factor	mSATA
Interface	SATA Rev. 3.0 (6Gb/s) – with backwards capability to SATA Rev 2.0 (3Gb/s)
Capacities[2]	256GB, 512GB, 1024GB

Controller	SM2259
NAND	3D TLC
Encrypted	XTS-AES 256-bit encryption
Sequential Read/Write[1]	256GB — up to 550/500MB/s 512GB – 1024GB — up to 550/520MB/s
Maximum 4K Read/Write[1]	up to 90,000/80,000 IOPS
Power Consumption	0.08W Idle / 0.1W Avg / 1.2W (MAX) Read / 2.4W (MAX) Write
Dimensions	50.8mm x2 9.85mm x 4.85mm
Weight	7g
Operating temperature	0°C~70°C
Storage temperature	-40°C~85°C
Vibration operating	2.17G Peak (7-800Hz)
Vibration non-operating	20G Peak (10-2000Hz)
Life expectancy	2 millions hours MTBF
Warranty/support[3]	Limited 5-year warranty with free technical support

Total Bytes Written (TBW)[4]	256GB — 150TB 512GB — 300TB 1024GB — 600TB

Part Numbers

KC600

SKC600/256G
SKC600/512G
SKC600/1024G
SKC600/2048G
SKC600MS/256G
SKC600MS/512G
SKC600MS/1024G

Product Image



The SSD is designed for use in desktop and notebook computer workloads and is not intended for Server environments.

The cryptographic functions mentioned in the present section are implemented in the firmware of the product. The cryptographic functions of the firmware can be changed only during the manufacturing process and cannot be changed by a standard user. The product is designed for installation by the user in accordance with the step-by-step instructions in the installation user guide supplied with the product. It can therefore be used without further substantial support from the supplier.

1. Based on "out-of-box performance" using a SATA Rev. 3.0 motherboard. Speed may vary due to host hardware, software and usage. IOMETER random 4k random read/write is based on 8GB partition.
2. 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.
3. 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.
4. Total Bytes Written (TBW) is derived from the JEDEC Client Workload (JESD219A).

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