KC2500 SSD

Superior NVMe speeds, ultimate flexibility

Kingston's KC2500 NVMe PCIe SSD delivers powerful performance using the latest Gen 3.0 x 4 controller and 96-layer 3D TLC NAND. With read/write speeds of up to 3,500/2,900MB/s[1], KC2500 delivers outstanding endurance and improves the workflow in desktop, workstation and high-performance computing (HPC) systems. The compact M.2 design gives greater flexibility, increasing storage but also saving space.

Available in capacities from 250GB–2TB[2] to meet your system's needs. KC2500 is a self-encrypting drive that supports end-to-end data protection using XTS-AES 256 bit hardware-based encryption and allows the use of independent software vendors with TCG Opal 2.0 security management solutions, such as Symantec™, McAfee™ and WinMagic®. KC2500 also has built-in Microsoft eDrive support, a security storage specification for use with BitLocker.

› **Incredible NVMe PCIe performance**

› **Supports a full-security suite (TCG Opal 2.0, XTS-AES 256 bit, eDrive)**

› **Ideal for desktops, workstations and high-performance computing (HPC) systems**

› **Upgrade your PC with capacities of up to 2TB[2]**

more ››

FEATURES/BENEFITS

Incredible NVMe PCIe performance — Using the latest Gen 3.0 x 4 controller, reach speeds of up to 3,500/2,900MB/s[1].

Full-security suite — Protect and secure your data with Kingston's self-encrypting drive.

Optimal systems — Ideal for desktop, workstation and high-performance computing (HPC) systems.

Multiple capacities — Upgrade your PC with capacities of up to 2TB[2].

SPECIFICATIONS

Form factor
M.2 2280

Interface
NVMe™ PCIe Gen 3.0 x 4 lanes

Capacities[2]
250GB, 500GB, 1TB, 2TB

Controller
SMI 2262EN

NAND
96-layer 3D TLC

Encrypted
XTS-AES 256 bit

Sequential read/write[1]
250GB – up to 3,500/1,200MB/s   500GB – up to 3,500/2,500MB/s
1TB – up to 3,500/2,900MB/s   2TB – up to 3,500/2,900MB/s

Random 4K read/write (TBW)[3]
250GB – up to 375,000/300,000 IOPS   500GB – up to 375,000/300,000 IOPS
1TB – up to 375,000/300,000 IOPS   2TB – up to 375,000/300,000 IOPS

Total Bytes Written (TBW)[3]
250GB – 150TBW   500GB – 300TBW   1TB – 600TBW   2TB – 1.2PBW

Power Consumption
.003W idle / .2W avg / 2.1W (MAX) read / 7W (MAX) write

Storage temperature
-40°C~85°C

Operating temperature
0°C~70°C

Dimensions
80mm x 22mm x 3.5mm

Weight
250GB – 8g   500GB – 10g   1TB – 10g   2TB – 11g

Vibration operating
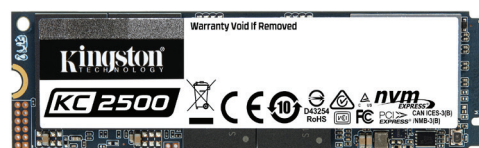2.17G peak (7-800Hz)

Vibration non-operating
20G peak (20-1000Hz)

MTBF
2,000,000

Warranty/support[4]
limited 5-year warranty with free technical support

KINGSTON PART NUMBERS

KC2500 SSD
SKC2500M8/250G
SKC2500M8/500G
SKC2500M8/1000G
SKC2500M8/2000G

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.

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

1. Based on "out-of-box performance" using a PCIe 3.0 motherboard. Speed may vary due to host hardware, software and usage. IOMETER random 4K read/write is based on an 8GB partition.

2. Some of the listed capacity on a Flash storage device is used for formatting and other functions and is thus 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.

3. Total Bytes Written (TBW) is derived from the JEDEC Client Workload (JESD219A).

4. Limited warranty based on 5 years or "Percentage Used", which can be found using the Kingston SSD Manager (Kingston.com/SSDManager). For NVMe SSDs, a new unused product will show a Percentage Used value of 0, whereas a product that reaches its warranty limit will show a Percentage Used value of greater than or equal to one hundred (100).

Kingston
T E C H N O L O G Y