



KC3000 PCIe 4.0 NVMe M.2 SSD

High-Performance Storage for Desktop and Laptop PCs

Kingston KC3000 PCIe 4.0 NVMe M.2 SSD delivers next-level performance using the latest Gen 4x4 NVMe controller and 3D TLC NAND. Upgrade the storage and reliability of your system to keep up with demanding workloads and experience better performance with software applications such as 3D rendering and 4K+ content creation. With formidable speeds up to 7,000MB/s¹ read/write, it ensures improved workflow in high-performance desktop and laptop PCs making it ideal for power users who require the fastest speeds on the market.

The compact M.2 2280 design fits seamlessly into motherboards and gives greater flexibility where high-power users appreciate responsiveness and superior loading times.

Full capacities available from 512GB–4096GB² to meet your data storage requirements.

- PCIe 4.0 NVMe high-performance
- Upgrade with full capacities up to 4096GB²
- Compact M.2 2280 form factor
- Low profile graphene aluminum heat spreader

Key Features

- PCIe 4.0 NVMe Technology**
 Master intensive applications with speeds up to 7,000/7,000MB/s¹ read/write.
- Greater flexibility**
 Compact M.2 design fits easily into small-form-factor (SFF) systems, desktops and laptop PCs.
- Store more**
 Upgrade and manage storage with full capacities up to 4096GB².
- Low profile graphene aluminum heat spreader**
 Exceptional thermal dissipation keeps your drive cool with maximum performance.

Specifications

Form Factor	M.2 2280
Interface	PCIe 4.0 x4 NVMe
Capacities ²	512GB, 1024GB, 2048GB, 4096GB
Controller	Phison E18
NAND	3D TLC
DRAM Cache	Yes
Sequential read/write	512GB – 7,000/3,900MB/s 1024GB – 7,000/6,000MB/s 2048GB – 7,000/7,000MB/s 4096GB – 7,000/7,000MB/s

Random 4K read/write ¹	<p>512GB – up to 450,000/900,000 IOPS</p> <p>1024GB – up to 900,000/1,000,000 IOPS</p> <p>2048GB – up to 1,000,000/1,000,000 IOPS</p> <p>4096GB – up to 1,000,000/1,000,000 IOPS</p>
Total Bytes Written (TBW) ³	<p>512GB – 400TBW</p> <p>1024GB – 800TBW</p> <p>2048GB – 1.6PBW</p> <p>4096GB – 3.2PBW</p>
Power consumption	<p>512GB – 50mW idle / 0.34W avg / 2.7W (MAX) read / 4.1W (MAX) write</p> <p>1024GB – 50mW idle / 0.33W avg / 2.8W (MAX) read / 6.3W (MAX) write</p> <p>2048GB – 50mW idle / 0.36W avg / 2.8W (MAX) read / 9.9W (MAX) write</p> <p>4096GB – 50mW idle / 0.36W avg / 2.7W (MAX) read / 10.2W (MAX) write</p>
Storage temperature	-40°C~85°C
Operating temperature	0°C~70°C
Dimensions	<p>80mm x 22mm x 2.21mm (512GB-1024GB)</p> <p>80mm x 22mm x 3.5mm (2048GB-4096GB)</p>
Weight	<p>512GB-1024GB – 7g</p> <p>2048GB-4096GB – 9.7g</p>
Vibration operating	2.17G peak (7-800Hz)
Vibration non-operating	20G Peak (20-1000Hz)
MTBF	2,000,000 hours
Warranty/Support ⁴	Limited 5-year warranty with free technical support

Part Numbers

KC3000

SKC3000S/512G
SKC3000S/1024G
SKC3000D/2048G
SKC3000D/4096G

Product Image



This 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 4.0 motherboard. Speed may vary due to host hardware, software and usage.
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. [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). See kingston.com/wa for details.



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