

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 of up to 7,000MB/s[1] 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–4096GB[2] to meet your data storage requirements.

- **PCIe 4.0 NVMe high performance**
- **Upgrade with full capacities up to 4096GB[2]**
- **Compact M.2 2280 form factor**
- **Low-profile graphene aluminium heat spreader**

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FEATURES / BENEFITS

PCIe 4.0 NVMe technology — Master intensive applications with speeds of up to 7,000/7,000MB/s[1] read/write.

Store more — Upgrade and manage storage with full capacities of up to 4096GB[2].

Greater flexibility — Compact M.2 design fits easily into small-form-factor (SFF) systems, desktops and laptop PCs.

Low-profile graphene aluminium 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

Sequential read/write[1]
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]
512GB – up to 450,000/900,000 IOPS
1024GB – up to 900,000/1,000,000 IOPS
2048GB – up to 1,000,000/1,000,000 IOPS
4096GB – up to 1,000,000/1,000,000 IOPS

Total bytes written (TBW)[3]
512GB – 400TBW 1024GB – 800TBW
2048GB – 1.6PBW 4096GB – 3.2PBW

Power Consumption
512GB – 50mW idle / 0.34W avg / 2.7W (MAX) read / 4.1W (MAX) write
1024GB – 50mW idle / 0.33W avg / 2.8W (MAX) read / 6.3W (MAX) write
2048GB – 50mW idle / 0.36W avg / 2.8W (MAX) read / 9.9W (MAX) write
4096GB – 50mW idle / 0.36W avg / 2.7W (MAX) read / 10.2W (MAX) write

Storage temperature
-40°C~85°C

Operating temperature
0°C~70°C

Dimensions
80mm x 22mm x 2.21mm (512GB-1024GB)
80mm x 22mm x 3.5mm (2048GB-4096GB)

Weight
512GB-1024GB – 7g
2048GB-4096GB – 9.7g

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



KINGSTON PART NUMBERS

KC3000 SSD
SKC3000S/512G
SKC3000S/1024G
SKC3000D/2048G
SKC3000D/4096G

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 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). See Kingston.com/wa for details.

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