DC1500M U.2 ENTERPRISE SSD

Gen 3.0 x4 PCIe NVME Storage for Mixed-Use Workloads

Kingston DC1500M U.2 NVMe SSD features high-storage capacity and enhanced enterprise performance. It offers a high-performance Gen 3.0 x4 PCIe NVMe design to deliver latency and IOPS consistency. DC1500M is backed by strict QoS requirements to ensure predictable random IO performance as well as predictable latencies over a wide range of workloads.

The U.2 form factor design (2.5", 15mm) works seamlessly with the latest generation servers and storage arrays utilizing PCIe and U.2 backplanes. DC1500M is hot pluggable eliminating the challenges of serviceable PCIe storage.

It boasts enterprise-class features such as end-to-end data path protection, namespace management, power loss protection (PLP), and telemetry monitoring for increased data center reliability. Backed by Kingston's legendary pre- and post-sales support and a five-year limited warranty[6]. Capacities range from 960GB to 7.6TB[1].

Applications
The "mixed-use" workload drive makes it ideal for running a wide range of customer applications including:
• Virtualization
• High performance cloud service
• Web hosting caching
• High-resolution media capture and transport
• ERP, CRM, GL, OLAP, OLTP, ERM, BI, and EDW workloads

› **Enterprise-class U.2 PCIe NVMe Gen 3.0 x4 SSD**

› **Exceptional speeds up to 3GB/s**

› **Predictable low-latency and I/O consistency**

› **On-board Power Loss Protection (PLP)**

more ››

FEATURES / BENEFITS

Data Center NVMe Performance — Incredible I/O consistency with sustained speeds of up to 3GB/s and 510K IOPS.

Enterprise-Class Mixed-Use Storage — An exceptional balance of consistent I/O delivery with high read and write IOPS performance to manage a wide range of transactional workloads.

Reduce Application Latencies — Quality of Service (QoS) delivers ultra-low transactional latency for large data sets and various web-based applications.

On-board Power Loss Protection (PLP) — Enterprise-class protection to reduce possibility of data loss or corruption on ungraceful powerfails.

SPECIFICATIONS

Form Factor
U.2, 2.5" x 15mm

Interface
PCIe NVMe Gen3 x4

Capacities[1]
960GB, 1.92TB, 3.84TB, 7.68TB

NAND
3D TLC

Sequential Read/Write
960GB – 3,100MBs/1700MBs   1.92TB – 3,300MBs/2,700MBs
3.84TB – 3,100MBs/2,700MBs   7.68TBGB – 3,100MBs/2,700MBs

Steady-State 4k Read/Write
960GB – 440,000/150,000 IOPS   1.92TB – 510,000/220,000 IOPS
3.84TB – 480,000/210,000 IOPS   7.68TB – 420,000/200,000 IOPS

Latency Quality of Service (QoS)[2], [3], [4]
99.9 - Read/Write: <110 µs / <206 µs

Static and Dynamic Wear Leveling
Yes

Power Loss Protection (Power Caps)
Yes

Namespace Management Support
Yes - 64 Namespaces supported

Enterprise Diagnostics
Telemetry, Media Wear, Temperature, Health and Error Logs, etc

Endurance
960GB — (1 DWPD/5yrs) [5]   1.92TB — (1 DWPD/5yrs) [5]
3.84TB — (1 DWPD/5yrs) [5]   7.68TB — (1 DWPD/5yrs) [5]

Power Consumption
960GB – Idle: 6.30W   Average Read: 6.21W   Average Write: 11.40W
Max Read: 6.60W   Max Write: 12.24W

1.92TB – Idle: 6.60W   Average Read: 6.30W   Average Write: 13.7W
Max Read: 6.63W   Max Write: 15.36W

3.84TB – Idle: 6.8W   Average Read: 6.40W   Average Write: 14.20W
Max Read: 7W   Max Write: 16W

7.68TB – Idle: 7W   Average Read: 7.30W   Average Write: 17.14W   Max Read: 8.16W   Max Write: 20.88W

Operating temperature
0°C ~ 70°C

Dimensions
100.09mm x 69.84mm x 14.75mm

Weight
960GB — 145g   1.92TB — 150g
3.84TB — 155g   7.68TB — 160g

Vibration operating
2.17G Peak (7–800Hz)

Vibration non-operating
20G Peak (10–2000Hz)

MTBF
2 million hours

Warranty/support[6]
Limited 5-year warranty with free technical support

KINGSTON PART NUMBERS

DC1500M
SEDC1500M/960G
SEDC1500M/1920G
SEDC1500M/3840G
SEDC1500M/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 Guide at kingston.com/flashguide.

2. Workload based on FIO, Random 4KB QD=1 workload, measured as the time taken for 99.9 percentile of commands to finish the round-trip from host to drive and to host.

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

4. Based on 1920GB capacity.

5. Drives Writes Per Day (DWPD) derived from the JEDEC Enterprise Workload (JESD219A).

6. Limited warranty based on 5 years or when the usage of an NVMe SSD as indicated by Kingston's implementation of the Health attribute "Percentage Used" reaches or exceeds a normalized value of one hundred (100) as indicated by 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 it warranty limit will show a Percentage Used value of greater than or equal to one hundred (100).

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