Optimized M.2 NVMe Server Boot Drive with PLP

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DC1000B

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DC1000B M.2 NVMe SSD

Boot Drive for Enterprise Servers

Kingston's Data Center DC1000B is a high-performance M.2 (2280) NVMe PCIe SSD using the latest Gen 3.0 x 4 PCIe interface with 64-layer 3D TLC NAND. DC1000B offers data centers a cost-effective boot drive solution with the reassurance they are purchasing an SSD designed for server use. The DC1000B is ideally suited for use in high-volume rack-mount servers as an internal boot drive(s) as well as for use in purpose-built systems where a high-performance M.2 SSD is needed that includes on-board power loss protection (PLP).

- M.2 (2280) NVMe PCIe SSD Gen 3.0 x 4, performance
- NVMe for server boot workloads
- Application optimized capacities (240GB & 480GB) keep costs low
- On-board (PLP) Power Loss Protection
- Self-Encrypting Drive (SED) with AES-XTS 256bit

Enterprise Data Center NVMe Boot SSD

M.2 NVMe SSDs are evolving within the data center providing efficiencies in booting servers to

and high performance make it attractive for server use. Not all SSD are created equal and using a client SSD in a server application may result in poor inconsistent performance.

Applications

Boot drives are used primarily for booting an OS, but in many use cases today the boot drive has a secondary purpose; logging application data and/or configured as a high-speed local cache drive. Therefore, the DC1000B was designed with added endurance (0.5 DWPD for 5yrs) to handle the OS workload as well as the extra write workload of caching and data logging. In addition to being designed for long term reliability the DC1000B is designed to deliver enterprise level performance consistency and low latency features typically not found on client SSDs. Available in 240GB and 480GB capacities[1].

Key Features

M.2 (2280) NVMe Performance

Incredible speeds of up to 2.6GB/s and 200K IOPS.

Optimized Server Boot Drive

Enhanced for boot workloads as well as caching and logging applications.

On-board (PLP) Power Loss Protection

Reduce the possibility of data loss and/or corruption on ungraceful power-off.

Maximize Drive Bays

Capacity

240GB | 480GB

- Data Center Class SSD for Enterprise applications
- Optimised Boot Drive for Server Use
- M.2 PCIe NVMe Gen3 x4
- Up to 2,200MB/s Read, 290MB/s Write
- Part Number: SEDC1000BM8/240G

Where To Buy

Specifications

Interface	PCIe NVMe Gen3 x4
Capacities[1]	240GB, 480GB
NAND	3D TLC
Self-Encrypting Drive (SED)	AES 256-bit Encryption
Sequential Read/Write	240GB – 2,200MBs/290MBs 480GB – 3,200MBs/565MBs
Steady-State 4k Read/Write[2]	240GB – 111,000/12,000 IOPS 480GB – 205,000/20,000 IOPS
Total Bytes Written (TBW)[3]	240GB – 248TBW 480GB – 475TBW
Latency Read (Avg)	161µs
Latency Write (Avg)	75µs
Power Loss Protection (Power Caps)	Yes
Enterprise SMART tools	Reliability tracking, usage statistics, SSD life remaining, wear leveling, temperature
Endurance	240GB — (0.5 DWPD/5yrs)[3] 480GB — (0.5 DWPD/5yrs)[3]
Power Consumption	240GB: Idle: 1.82W Average Read: 1.71W Average Write: 3.16W

	Max Read: 1.81W Max Write: 5.47W
Storage temperature	-40°C ~ 85°C
Operating temperature	0°C ~ 70°C
Dimensions	80mm x 22mm x 3.8mm
Weight	240GB – 8g 480GB – 9g
Vibration operating	2.17G Peak (7–800Hz)
Vibration non-operating	20G Peak (10–2000Hz)
MTBF	2 million hours
Warranty/support[4]	Limited 5-year warranty with free technical support

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 product. For more information go to Kingston's Flash Memory Guide.

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

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

4. 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.

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