KIOXIA XD6 Series (E1.S)

(KXD6CRJJ)

Data Center NVMe™ SSD

KIOXIA XD6 Series E1.S SSDs are designed to the Enterprise and Datacenter Standard Form Factor (EDSFF) E1.S specification to address the specific requirements of hyperscale applications, including the performance, power and thermal requirements of the Open Compute Project (OCP) NVMe™ Cloud SSD Specification.

Designed to optimize system density and efficiency, the XD6 Series SSDs represent the future of flash storage for servers and storage systems in cloud and hyperscale data centers.

Product image may represent a design model.

Key Features

- Compliant with PCIe® 4.0, NVMe™ 1.3c specifications
- E1.S form factor (9.5 mm thickness)
- KIOXIA proprietary architecture: controller, firmware and BiCS FLASH™ 3D flash memory
- 1.92 TB / 3.84 TB capacity options
- Power loss protection (PLP) and end-to-end data protection
- Security option: SED (TCG-Opal 2.0)

Key Applications

- Servers and storage systems for cloud and hyperscale data centers

Specifications

SED Model Number	KXD6CRJJ3T84	KXD6CRJJ1T92
Capacity	3,840 GB	1,920 GB
Basic Specifications		
Form Factor	E1.S	
Interface	PCIe® 4.0, NVMe™ 1.3c	
Maximum Interface Speed	64 GT/s (PCIe® Gen4 x4)	
Flash Memory Type	BiCS FLASH™ TLC	
Performance (Up to)		
Sustained 128 KiB Sequential Read	6,500 MB/s	
Sustained 128 KiB Sequential Write	2,350 MB/s	1,200 MB/s
Sustained 4 KiB Random Read	880K IOPS	660K IOPS
Sustained 4 KiB Random Write	90K IOPS	50K IOPS

Specifications (Continued)

Capacity	3,840 GB	1,920 GB
Power Requirements		
Supply Voltage	12 V ± 10 %	
Power Consumption (Active)	14 W typ.	12 W typ.
Power Consumption (Ready)	5 W typ.	
Reliability		
MTTF	2,000,000 hours	
DWPD	1	
Dimensions		
Thickness	9.5 mm ± 0.35 mm	
Width	33.75 mm ± 0.25 mm	
Length	118.75 mm ± 0.55 mm	
Weight	75 g Max	
Environmental		
Temperature (Operating)	0 ℃ to 70 ℃	
Temperature (Non-operating)	-40 ℃ to 85 ℃	
Humidity (Operating)	5 % to 95 % R.H.	
Vibration (Operating)	21 m/s² { 2.17 Grms } (7 Hz to 800 Hz)	
Shock (Operating)	9.8 km/s² { 1,000 G } (0.5 ms)	

Definition of capacity: KIOXIA Corporation defines a megabyte (MB) as 1,000,000 bytes, a gigabyte (GB) as 1,000,000,000 bytes and a terabyte (TB) as 1,000,000,000,000 bytes. A computer operating system, however, reports storage capacity using powers of 2 for the definition of 1 GB = 2^30 = 1,073,741,824 bytes and therefore shows less storage capacity. Available storage capacity (including examples of various media files) will vary based on file size, formatting, settings, software and operating system, and/or pre-installed software applications, or media content. Actual formatted capacity may vary.

GT/s: Giga Transfers per second.

A kibibyte (KiB) means 2^10, or 1,024 bytes.

MTTF (Mean Time to Failure) is not a guarantee or estimate of product life; it is a statistical value related to mean failure rates for a large number of products which may not accurately reflect actual operation. Actual operating life of the product may be different from the MTTF.

DWPD: Drive Writes Per Day. One full drive write per day means the drive can be written and re-written to full capacity once a day every day for the specified lifetime. Actual results may vary due to system configuration, usage and other factors.

Read and write speed may vary depending on various factors such as host devices, software (drivers, OS etc.), and read/write conditions.

IOPS: Input Output Per Second (or the number of I/O operations per second).

SED optional model supports TCG Opal SSC except for some features. For more details, please make inquiries through "Contact us" in each region's website, https://www.kioxia.com/.

SED optional model is not available in all countries due to export and local regulations.

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