XG8 Series

Client SSD

The XG8 Series utilizes KIOXIA latest 112-layer, 3D TLC (3-bit-per-cell) flash memory. With 5th generation BiCS FLASH™ and SLC cache features, XG8 SSDs reach up to sequential read/write speeds of 7,000 MB/s and 5,800 MB/s respectively and deliver up to 900K random read and 620K random write IOPS. The power consumption of XG8 Series is 8.1 W or less in active mode and less than 3 mW in stand-by mode.

The new XG8 Series is optimized for power-sensitive mobile PCs, performance-oriented gaming PCs, as well as data center environments for server-boot, caching and logging.

Available in a compact M.2 Type 2280 form factor, the XG8 Series comes in four capacity models of 512 GB, 1,024 GB, 2,048 GB and 4,096 GB, each with the option of a Self-Encrypting Drive (SED) model supporting TCG Opal Version 2.01.

Product image may differ from the actual product.

Key Features

- KIOXIA 112-Layer BiCS FLASH™
- PCIe® 4.0, NVMe™ 1.4
- Capacities up to 4,096 GB
- M.2 Type 2280 Single-sided (512 GB, 1,024 GB, 2,048 GB) / Double-sided(4,096 GB)
- TCG Opal 2.01 Optional for SED

Key Applications

- Thin performance notebook PCs
- High-performance desktop PCs
- Gaming PCs
- Server-boot, caching & logging use in data center

Specifications

Base Model Number	KXG80ZN84T09	KXG80ZNV2T04	KXG80ZNV1T02	KXG80ZNV512G
SED Model Number	KXG8AZN84T09	KXG8AZNV2T04	KXG8AZNV1T02	KXG8AZNV512G
Capacity	4,096 GB	2,048 GB	1,024 GB	512 GB
Basic Specifications				
Form Factor	M.2 2280-D2 Double-sided	M.2 2280-S2 Single-sided		
Connector Type	M.2 M			
Interface	PCIe® 4.0, NVMe™ 1.4			
Maximum Interface Speed	64 GT/s (Gen4 x4)			
Flash Memory Type	BiCS FLASH™ TLC			

Specifications (Continued)

Capacity	4,096 GB	2,048 GB	1,024 GB	512 GB
Sequential Read	7,000 MB/s			
Sequential Write	5,800 MB/s		5,600 MB/s	5,000 MB/s
Power Requirements				
Supply Voltage	3.3 V ± 5 %			
Power Consumption (Ready)	8.1 W typ.	7.7 W typ.		
Power Consumption (L1.2 mode)	3.0 mW typ.			
Reliability				
MTTF	1,500,000 hours			
Dimensions				
Height	3.58 mm Max	2.23 mm Max		
Width	22.0 ± 0.15 mm			
Length	80.0 ± 0.15 mm			
Weight	8.3 g Max	7.1 g Max	6.8 g Max	6.6 g Max
Environmental				
Temperature (Operating)	0 ℃ to 95 ℃ (Controller Temperature)			
Temperature (Operating)	0 ℃ to 85 ℃ (Other Components Temperature)			
Temperature(Non-operating)	-40 ℃ to 85 ℃			
Humidity (Operating)	0 % R.H. to 90 % R.H.			
Vibration (Operating/Non-operating)	196 m/s² { 20 G } (Peak, 20 to 2,000 Hz)			
Shock (Operating)	14.7 km/s² { 1,500 G } (0.5 ms)			

Availability of the SED model line-up may vary by region.

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 1GB = 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, such as Microsoft Operating System and/or pre-installed software applications, or media content. Actual formatted capacity may vary.

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.

Read and write speed, tested on the state of "SLC cache=ON", may vary depending on the host device, read and write conditions, and file size.

*PCIe is a registered trademark of PCI-SIG.
*NVMe is a registered or unregistered mark of NVM Express, Inc. in the United States and other countries.
*Other company names, product names, and service names may be trademarks of their respective companies.