



Press Release

KIOXIA Introduces 2nd Generation SSDs Designed with PCIe 5.0 Technology for Enterprise and Hyperscale Data Centers

New CD8 Series Improves Performance by approximately 14% over previous generation SSDs.



Düsseldorf, Germany, 22 March 2022 – [KIOXIA Europe GmbH](#) today introduced its 2nd generation SSDs designed with PCIe 5.0 interface technology^[1]. The company's new KIOXIA CD8 Series data center NVMe SSDs are optimized for hyperscale data center and enterprise server-attached workloads, and utilize PCIe 5.0 interface technology, which doubles the bandwidth over PCIe 4.0 from 16 gigatransfers per second (GT/s) to 32GT/s. The CD8 Series is now available for customer evaluation.

Based on KIOXIA's 5th generation BiCS FLASH 3D flash memory technology, the CD8 Series utilizes a proprietary KIOXIA controller and firmware, which can be customized to customer needs, and is housed in a 2.5-inch^[2], 15mm Z-height form factor.

The new drives are designed to the PCIe 5.0, Open Compute Project (OCP) Datacenter

NVMe SSD 2.0 and NVMe 1.4 specifications, and are well-suited to applications and use cases that include high-performance computing, artificial intelligence, caching layer, financial trading and analysis.

“PCIe 5.0 is expected to become the dominant interface in the next two to three years,” said Paul Rowan, Vice President SSD Marketing and Engineering, KIOXIA Europe GmbH. “With the introduction of the CD8 Series , KIOXIA is in the ideal situation to support those customers who wish to transition earlier to PCIe 5.0.”

Additional features include:

- Read-intensive 1DWPD endurance models targeted for hyperscale and server-centric workloads, in capacities from 960GB to 15.36TB
- Mixed-use 3DWPD endurance targeted models are available, in capacities from 800GB to 12.8TB
- Delivers up to 1.25M random read IOPS and 7.2GB/s sequential read throughput, an improvement of approximately 14% over the previous generation version^[3]
- Security options include sanitize instant erase (SIE) and self-encrypted drive (SED)^[4]

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Notes

[1] KIOXIA CD7 E3.S Series, as of November 9, 2021. KIOXIA survey.

[2] “2.5-inch” indicates the form factor of the SSD. It does not indicate the drive's physical size.

[3] 1DWPD model comparison with the previous generation KIOXIA CD7 Series.

[4] Availability of security/encryption options may vary by region.

*The sample drives are for evaluation purposes. The specifications of the sample drives may differ from the production drive models.

*Definition of capacity: KIOXIA 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 = 2³⁰ bits = 1,073,741,824 bits, 1GB = 2³⁰ bytes = 1,073,741,824 bytes and 1TB = 2⁴⁰ bytes =

1,099,511,627,776 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.

*Read and write speeds are the best values obtained in a specific test environment at KIOXIA Corporation and KIOXIA Corporation warrant neither read nor write speeds in individual devices. Read and write speed may vary depending on the device used and file size read or written.

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About KIOXIA Europe GmbH

KIOXIA Europe GmbH (formerly Toshiba Memory Europe GmbH) is the European-based subsidiary of KIOXIA Corporation, a leading worldwide supplier of flash memory and solid-state drives (SSDs). From the invention of flash memory to today's breakthrough BiCS FLASH, KIOXIA continues to pioneer cutting-edge memory solutions and services that enrich people's lives and expand society's horizons. The company's innovative 3D flash memory technology, BiCS FLASH, is shaping the future of storage in high-density applications, including advanced smartphones, PCs, SSDs, automotive and data centers.

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