



Press Release

KIOXIA Introduces Industry's First EDSFF Solid State Drives Designed with PCIe® 5.0 Technology

New KIOXIA CD7 E3.S Series EDSFF E3.S Data Center SSDs Optimized for Density and Efficiency



Düsseldorf, Germany, 09 November 2021 - [KIOXIA Europe GmbH](https://www.kioxia.com/europe) announced today the industry's first line-up of Enterprise and Data Center Standard Form Factor (EDSFF) E3.S SSDs designed with PCIe® 5.0 technology^[1]. The new KIOXIA CD7 E3.S Series is bringing a new era to flash memory used in servers and storage. Building on the KIOXIA E3.S development samples that received a "Best in Show" award at last year's Flash



Memory Summit, the CD7 E3.S Series increases flash storage density per drive for optimized power efficiency and rack consolidation^[2].

Breaking free from the design limitations of the 2.5-inch form factor, the EDSFF E3 family is optimized for the needs of high-performance, highly efficient servers and storage. EDSFF enables the next generation of SSDs to address future data center architectures while supporting a variety of new devices and applications. It provides improved airflow and thermals, and signal integrity benefits. Support for higher E3.S power budgets than 2.5-inch form factor SSDs and better signal integrity allows EDSFF to deliver the performance promised by PCIe 5.0 technology and beyond.

KIOXIA is an active and contributing member of the industry development group of EDSFF solutions and is collaborating with leading server and storage system developers to unlock the full power of flash memory, NVMe™ and PCIe®.

“In a time where we require storage media that can easily be adapted while optimising performance or capacity, the new KIOXIA E3.S SSDs, designed with PCIe® 5.0 technology and utilising EDSFF, open up new cost saving opportunities for server and storage systems and make efficient use of flash memory chips for SSD storage density”, said Paul Rowan, Vice President of the SSD Marketing & Engineering at KIOXIA Europe GmbH.

CD7 E3.S Series Key Features:

- EDSFF E3.S form factor with capacities up to 7.68TB
- Designed to the latest PCIe 5.0 specification and optimized for x2 PCIe lane performance
- Using fewer PCIe lanes increases the number of PCIe devices that can be supported
- Built on KIOXIA's BiCS FLASH™ 3D TLC flash memory
- Up to 6,450 MB/s read throughput and 1,050K random read IOPS
- 75µs read and 14µs write latencies, which are approximately 17% and 60% lower latencies than KIOXIA's previous generation PCIe 4.0 SSDs, respectively.
- LEDs are embedded in the casing of E3.S models so that the status of the SSDs can be recognized visually. This means that there is no need to implement additional LEDs, which traditionally were embedded in the drive tray of the



system chassis and is contributing to saving system cost.

The KIOXIA CD7 E3.S Series is now sampling to select OEM customers.

More information on EDSFF E3 technology can be found in the following [whitepaper from Dell, HPE and KIOXIA](#).

Notes:

[1] As of November 9, 2021, KIOXIA survey.

[2] Compared to 2.5-inch form factor SSDs. "2.5-inch" indicates the form factor of the SSD. It does not indicate the drive's physical size.

*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 = 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.

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*Information in this document, including product prices and specifications, content of services and contact information, is correct on the date of the announcement but is subject to change without prior notice.

About KIOXIA Europe

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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