Press Release

KIOXIA to Showcase XL-FLASH Generation 3 Technology, the Next-Generation Low-Latency, High-Performance Flash Memory for AI at KIOXIA Forum

Prototype achieves an average read latency of 3 microseconds



Germany, Düsseldorf, 25 November 2026 – KIOXIA Europe GmbH today announced that KIOXIA Corporation will showcase a prototype of its XL-FLASH™ generation 3 technology, the next generation of its low-latency, high-performance flash memory for AI applications, at KIOXIA Forum in Tokyo on 26 November, 2026.

XL-FLASH™ features significantly lower read latency and higher write endurance than typical NAND flash memory and is being developed for use as a new memory tier that bridges the gap in performance, capacity and cost between storage and DRAM.

XL-FLASH™ generation 3 memory leverages CBA (CMOS directly Bonded to Array) technology, a key feature of KIOXIA BiCS FLASH™ 3D flash memory, to deliver approximately 70% higher bit density than XL-FLASH™ generation 2 flash memory while maintaining high performance.

It also achieves an average read latency of 3 microseconds — less than one-tenth of KIOXIA BiCS FLASH™ generation 8 TLC products(1). In addition, power efficiency for reads in 512-byte units has been improved by approximately 135% compared to XL-FLASH™ generation 2 flash memory(2). Samples for functional evaluation are scheduled to ship to select customers in March 2027.

The growth of data-intensive applications, including generative AI, has driven a rapid increase in demand for high-capacity memory in computing systems. However, keeping most data in DRAM presents challenges in terms of capacity, cost and power consumption. By leveraging the read latency and power efficiency of XL-FLASH™, new system architectures can store data appropriately based on access frequency and performance requirements, complementing DRAM or replacing a portion of it with flash memory.

“As AI continues to drive demand for expanded memory capacities, this approach will help meet these growing requirements while reducing the total cost of ownership (TCO) for AI servers, data centres and a wide range of other applications,” said Axel Störmann, Vice President & Chief Technology Officer at KIOXIA Europe GmbH.

KIOXIA will continue the development of XL-FLASH™, while pursuing its use across a range of applications, including High IOPS SSDs and Compute Express Link (CXL)-enabled memory expansion modules. Through these efforts, KIOXIA aims to create a new memory tier that bridges the gap between DRAM and conventional storage.

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Notes:

1: Comparison of read latency based on measurements of KIOXIA’s BiCS FLASH™ generation 8 1Tb TLC products and an XL-FLASH™ generation 3 prototype. Based on KIOXIA internal testing.

2: Comparison of power efficiency for reads in 512-byte units based on measurements of XL-FLASH™ generation 2 products and an XL-FLASH™ generation 3 prototype. Based on KIOXIA internal testing.

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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 GmbH

KIOXIA 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 NAND flash memory to today's renowned BiCS FLASH™ 3D flash memory, KIOXIA continues to pioneer innovative memory solutions and services that enrich people's lives and expand society's horizons. The company's innovative BiCS FLASH™ 3D flash memory technology is shaping the future of storage in high-density applications, including advanced smartphones, PCs, automotive systems, data centres and generative AI systems.

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