



Press Release

KIOXIA Sampling UFS 5.0 Embedded Flash Memory Devices for Next-Generation Mobile Applications

Enhanced interface speed enables high-performance on-device AI features in smartphones



Germany, Düsseldorf, 24 February 2026 – [KIOXIA Europe](#), a world leader in memory solutions, today announced that KIOXIA Corporation has begun shipping evaluation samples^[1] of embedded flash memory compatible with the next-generation UFS standard, UFS 5.0, which is currently being standardized by JEDEC.^[2]

UFS 5.0 is a new standard for embedded flash storage currently being developed by JEDEC to meet the performance requirements of next-generation mobile devices such as high-end smartphones equipped with on-device AI functions. It utilizes MIPI M-PHY version 6.0 for the physical layer and UniPro version 3.0 for the protocol. M-PHY version 6.0 introduces the new HS-GEAR6 mode, theoretically supporting an interface speed of up to 46.6 Gbps per lane; with 2 lanes, UFS 5.0 can achieve approximately 10.8GB/s of effective read/write performance.



The evaluation samples incorporate an in-house newly developed controller for UFS 5.0 and KIOXIA's 8th-generation BiCS FLASH™ and are available in capacities of 512GB and 1TB. The package has been newly designed with a small 7.5 x 13 mm size, contributing to board space efficiency and design flexibility.

The samples are provided to customers who are developing UFS 5.0-compatible host systems, enabling them to evaluate performance and conduct interoperability testing.

KIOXIA will continue to introduce new flash memory technologies into its UFS products to meet the increasing demands for larger capacity and higher performance in the mobile market.

“As Large Language Models (LLMs) move onto mobile devices, storage must behave more like high-speed system memory to prevent processing bottlenecks,” said Axel Stoermann, Chief Technology Officer & Vice President, KIOXIA Europe. “The massive data throughput of KIOXIA's UFS 5.0 embedded flash memory device enables faster task completion and allows the device to return to a low-power idle state sooner. This high efficiency and fast processing speed are an essential combination for customers developing generative AI applications on battery-powered devices.”

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Notes:

- 1: These samples are intended for functional evaluation only. Specifications of the samples will differ from commercial products.
- 2: Shipments of 512GB evaluation samples began on February 24, and shipments of 1TB samples are scheduled to start from March onwards.

Universal Flash Storage (UFS) is a product category for a class of embedded memory products built to the JEDEC UFS standard specification. Due to its serial interface, UFS supports full duplexing, which enables both concurrent reading and writing between the host processor and UFS device.

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In every mention of a KIOXIA product: Product density is identified based on the density of memory chip(s) within the Product, not the amount of memory capacity available for data storage by the end user.

Consumer-usable capacity will be less due to overhead data areas, formatting, bad blocks, and other constraints, and may also vary based on the host device and application. For details, please refer to applicable product specifications. The definition of 1KB = 2^{10} bytes = 1,024 bytes. The definition of 1Gb = 2^{30} bits = 1,073,741,824 bits. The definition of 1GB = 2^{30} bytes = 1,073,741,824 bytes. 1Tb = 2^{40} bits = 1,099,511,627,776 bits.

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

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 centers and generative AI systems.

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