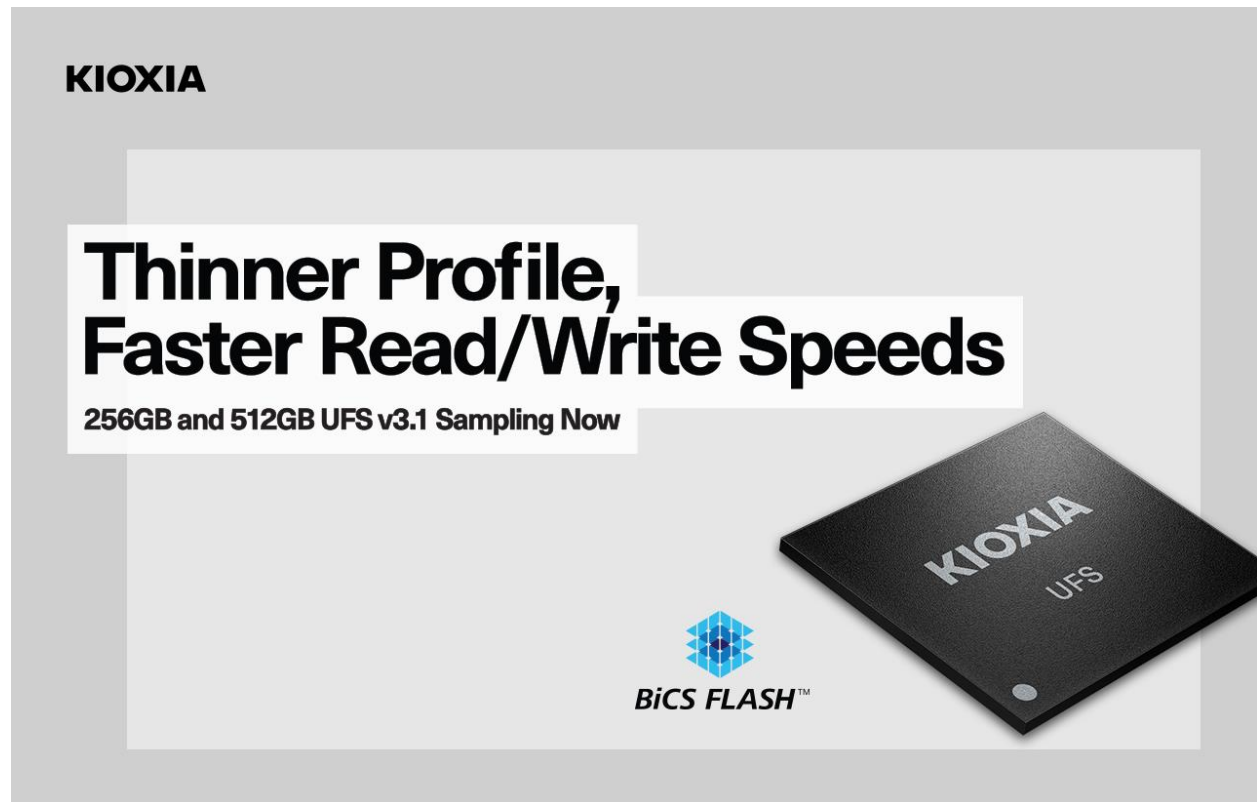




## Press Release

### **KIOXIA pushes performance boundaries with new ver 3.1 UFS embedded flash memory devices**

Built on Fifth-Generation BiCS FLASH™ 3D flash memory; brings thinner profile, faster read/write speeds to demanding applications



**Düsseldorf, Germany, 11 August 2021** – [KIOXIA Europe GmbH](#) today announced sampling of its newest generation of 256 and 512 gigabytes (GB) Universal Flash Storage (UFS) Ver. 3.1 embedded flash memory devices. Housed in 0.8 and 1.0mm-high packages, the new products improve performance by 30% for random read and 40% for random write<sup>[1]</sup> – making them thinner<sup>[2]</sup> and faster than their predecessors. The new KIOXIA UFS devices utilize the company's

most current, high-performance fifth-generation BiCS FLASH™ 3D flash memory and are targeted to a variety of mobile applications.

The broad set of power and space conscious applications that utilize embedded flash memory continue to need higher performance and density, and UFS has increasingly been the solution of choice. From a total gigabyte perspective, UFS now accounts for the majority of the demand relative to e-MMC. According to Forward Insights, when combining overall UFS and e-MMC gigabyte demand worldwide, almost 70% of the demand this year is for UFS, and this will continue to grow<sup>[3]</sup>.

“With the new Ver. 3.1 UFS our continued leadership in JEDEC standardization results in another boundaries breakthrough on performance and form factors in the area of embedded non-volatile memories,” noted Axel Stoermann, Vice President Memory Marketing & Engineering for KIOXIA Europe GmbH. “Consequent review and further development of KIOXIA’s BiCS FLASH 3D flash memory technology not only provides a new product range of random read and write speed in thinnest packaging formats, the new devices have the potential to be the preferred solution for a broad area of demanding industrial applications.”

**The new UFS 256GB and 512GB devices include the following advances:**

- Performance increase of 30% for random read and 40% for random write.
- Host Performance Booster (HPB) Ver. 2.0: Improves random read performance by utilizing the host side memory to store logical to physical translation tables. While HPB Ver. 1.0 only enables 4-kilobyte chunk size access, HPB Ver. 2.0 enables wider access - which can further boost random read performance.
- Thinner 256GB package at just 0.8mm height

**Notes:**

[1] Compared to KIOXIA’s prior generation of 256/512GB UFS.

[2] In the case of 256GB density compared to KIOXIA’s prior generation 256GB UFS.

[3] Source: Forward Insights 2Q21

Universal Flash Storage (UFS) is a product category for a class of embedded memory products built to the JEDEC UFS standard specification.

Read and write speed may vary depending on the host device, read and write conditions, and file size.

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<sup>10</sup> bytes = 1,024 bytes. The definition of 1Gb = 2<sup>30</sup> bits = 1,073,741,824 bits. The definition of 1GB = 2<sup>30</sup> bytes = 1,073,741,824 bytes. 1Tb = 2<sup>40</sup> bits = 1,099,511,627,776 bits.

All company names, product names and service names may be trademarks of their respective companies

### **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.

Visit our [KIOXIA website](#)

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