

# **Press Release**

# KIOXIA Introduces World's Thinnest 1TB Ver 3.1 UFS Embedded Flash Memory Device

Designed to Meet the Demands of High-End 5G Smartphones; Other Data-Intensive, Demanding Mobile Applications



**Düsseldorf, Germany, 10th March 2021 –** <u>KIOXIA Europe GmbH</u> announced sampling of its 1 terabyte (TB) Universal Flash Storage (UFS) Ver. 3.1 embedded flash memory devices. Housed in a 1.1mm-high package – making it the thinnest 1TB UFS<sup>[1]</sup> offering available – the new product utilizes KIOXIA's BiCS FLASH 3D flash memory and achieves sequential read speed of up to 2,050MB/sec and sequential write speed of up to 1,200MB/sec.

Mobile devices are constantly evolving, and 5G networks are poised to deliver levels of speed, scale and complexities the likes of which have never been seen before. Reaping the connectivity benefits of 5G – namely, faster downloads and reduced lag time – requires high performance and low power consumption. Additionally, with 5G making it easier and faster for users to store even more on their mobile devices, the storage requirements for smartphones and other applications are increasing at a rapid pace. KIOXIA's 1TB UFS brings the ultra-high speed read/write performance, low power consumption, shortened application launch times and storage capacity demanded by 5G and other digital consumer products.

KIOXIA's new 1TB UFS device integrates BiCS FLASH 3D flash memory and a controller, which performs error correction, wear leveling, logical-to-physical address translation and bad-block management for simplified system development.

"The introduction of a 1 TB UFS device with a super thin package reconfirms the leading position of KIOXIA in the mobile NAND Flash memory market. Mobile markets continuously require higher performance and densities to enable the development of new features and functions", explains Axel Stoermann, Vice President Memory Marketing & Engineering, KIOXIA Europe GmbH.

# The new UFS 1TB device includes the following features:

- WriteBooster: Enables significantly faster write speeds.
- 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 4KB chunk size access, HPB Ver. 2.0 enables wider access which can further boost random read performance.

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#### Notes:

[1] Source: KIOXIA Corporation survey, as of March 2, 2021

Universal Flash Storage (UFS) is a product category for a class of embedded memory products built to the JEDEC UFS standard specification. JEDEC is a registered trademark of JEDEC Solid State Technology Association.

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  $1KB = 2^{10}$  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.

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.

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