KIOXIA

Press Release

Scale AI Without Limits: KIOXIA Showcases Breakthrough Flash Storage Solutions at FMS 2025

Company Highlights Industry's First 245.76 TB SSD and Other Innovations Redefining Storage for AI-Driven Infrastructure

Düsseldorf, Germany, 5 August 2025 – KIOXIA, the inventor of NAND flash memory, will once again take centre stage at FMS: the Future of Memory and Storage to spotlight how its flash memory and SSD innovations are driving scalable, efficient infrastructure for artificial intelligence (AI). With a focus on real-world applications and performance gains, KIOXIA will demonstrate how its latest solutions meet the evolving demands of AI across data center and enterprise environments.

At FMS 2025, KIOXIA will spotlight its newest products, including the high-capacity KIOXIA LC9 Series - the industry's first[1] 245.76 terabyte (TB)[2] NVMe SSD. Additional highlights include the KIOXIA CM9 Series and KIOXIA CD9P Series SSDs built with the company's BiCS FLASH™ generation 8 3D flash memory, delivering performance, power efficiency, and versatility. KIOXIA will also display BiCS FLASH™ generation 9 memory, which uses 1 terabit (Tb)[3] 3bit/cell technology and utilises the CBA (CMOS directly Bonded to Array) architecture introduced in generation 8. BiCS FLASH™ generation 9 memory provides improvements in data read speed and power consumption reduction, PI-LLT and SCA.

"Artificial intelligence is reforming data infrastructure, and KIOXIA is advancing storage technology alongside it," said Axel Störmann, Vice President and Chief Technology Officer for Memory and SSD products at KIOXIA Europe GmbH. "KIOXIA is at the forefront with its scalable, high-performance solutions designed specifically for AI.

Our BiCS FLASH™ technology features a 32-die stack QLC architecture and innovative CBA technology. Delivering an industry-first[1] 8TB per chip package, this breakthrough redefines the performance, scalability, and efficiency needed to power next-generation AI workloads."

At FMS, KIOXIA will give a keynote presentation and participate in the Executive AI Premier Level Panel covering the following topics:

FMS Keynote Presentation:
“Optimize AI Infrastructure Investments with Flash Memory Technology and Storage Solutions”
Tuesday, August 5 at 11:00 am PDT
Katsuki Matsudera, General Manager of the memory technical marketing managing department for KIOXIA Corporation and Neville Ichhaporia, Senior Vice President and General Manager of the SSD business unit for KIOXIA America, Inc. will present this keynote session.

Executive AI Premier Level Panel:
“Memory and Storage Scaling for AI Inferencing”
Thursday, August 7 at 11:00 am PDT
Rory Bolt, Senior Fellow and Principal Architect, SSD business unit for KIOXIA America Inc., will participate in an executive session, which brings together a panel of experts from inside NVIDIA and across the storage and memory industry. The panel provide insight on how to avoid potential pitfalls and configure, secure, and tune to get the most out of storage and memory for different AI applications.

KIOXIA’s expertise will also be featured in panel discussions and educational tracks throughout the week.

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Educational Speaking Sessions by KIOXIA:

Monday, August 4

Professional Development Series Track
1:00-2:45 pm
PDSD1: KIOXIA AiSAQ™ OSS: Scaling RAG Beyond DRAM Limits with SSD
Speaker: Rory Bolt

- Review of KIOXIA AiSAQ

Tuesday, August 5

Automotive Applications Track
8:30-9:35 am
AUTO-101-1: Software Defined Vehicles
Speaker: Kevin Hsu

- How UFS Storage is Evolving for On-Device AI and Autonomous Vehicles

AI and ML Applications Track
9:45-10:50 am
AIML-102-1: Storage for AI: Applications
Speaker: Assaf Sella

- All-in-storage ANNS Algorithms Optimize Performance Within a RAG System

Computational Storage Track
9:45-10:50 am
COMP-102-1: Computational Storage Implementations and Ideas
Speaker: Mahinder Saluja

- Integrate Multiple Offload Fixed Function Storage Services to Storage Subsystem

Wednesday, August 6

SSD Tech Track
8:30-9:35 am
SSDT-201-1: SSD Technologies for AI and the DC
Speaker: Rory Bolt

- High IOPS SSD for AI Applications

Data Security/Ransomware Protection Track
8:30-9:35 am
DSEC-201-1: Data Defense: Advanced Protection Strategies and Compliance
Speaker: Paul Suhler

- Sanitization: Product Requirements and Legal Requirements

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Industry Associations Track
8:30-9:35 am
INDA-201-1: NVMe™ State of the Union, Configurable Device Security and QoS
Speaker: Cameron Brett (Chairperson)

- Hosting the session

CXL™ Track
3:20-4:25 pm
CXLT-203-1: CXL Use Cases
Speaker: Mahinder Saluja

- Eliminate Data Bottlenecks with CXL Interface and Low-latency XL-Flash

SSD Technology Track
3:20-4:25 pm
SSDT-203-1: High Cap SSDs and Optimizations for QLC Flash Storage
Speaker: Mike Klemm

- To be confirmed

FDP and ZNS Track
3:20-4:25 pm
FARC-203-1: Flash Architectures and Provisioning
Speaker: Rory Bolt

- FDP Use Cases

Thursday, August 7

DC Storage and Memory Track
8:30-9:35 am
DCTR-301-1: Enterprise Storage and SSD
Speaker: Mahinder Saluja

- Offloading Storage Compute Tasks from DPU to SSD Can Free Compute Resources

NVMe Track
9:45-0:50 am
NVME-302-1: NVMe New Features
Speaker: Cameron Brett (Organizer)

- NVMe protocol innovations and their implications for future architectures

SSD Technology Track
1:25-2:30 pm
SSDT-304-1: Error Correction, Reliability, and Telemetry Techniques for SSDs
Speaker: Devesh Rai

- Data Scrubbing and Rebuild in a High-capacity SSD Environment

QLC and PLC Track
1:25-2:30 pm
QLCP-304-1: Multi-Level Cells Part 2
Speaker: Kevin Hsu

- Enabling Higher Capacity Storage with QLC UFS

Data Security/Ransomware Protection Track
1:25-2:30 pm
DSEC-304-1: Quantum Resilience: The New Storage Security Frontier
Speaker: Paul Suhler

- Get Ready for Post Quantum Cryptography

KIOXIA Booth Demos

Product and technology demonstrations will be given in the iconic 2-level KIOXIA booth #307 - featuring ten separate exhibit locations - on the show floor, including:

- **Expanding Use Cases - High-Capacity Package/Low Latency Flash memory:** 32-die stack in a small BGA package of BiCS FLASH™ generation 8 QLC 3D flash memory /XL-FLASH with a CXL™ interface
- **KIOXIA BiCS FLASH™ generation 9 3D Flash Memory: 1 Tb[3]** wafer and a small BGA package with 512Gb chip
- **KIOXIA BiCS FLASH™ generation 10 3D Flash Memory: 1 Tb[3]** wafer and model display
- **KIOXIA UFS - Consumer and Automotive:** High-performance solutions for evolving markets
- **High Capacity 245.76 TB[2] SSD in Dell PowerEdge™ 7715:** Featuring KIOXIA LC9 Series Enterprise NVMe SSDs
- **Performance and Power Demo:** Featuring KIOXIA CD9P Series Data Center NVMe SSDs
- **ML Perf Storage Training:** Featuring KIOXIA CM9 Series Enterprise NVMe SSDs
- **GPU direct SSD Emulation:** Investigating GPU direct storage devices at 143 million IOPS
- **KIOXIA AiSAQ™ Software:** Enabling flexible balancing of capacity and performance
- **RAID Offload and Data Scrubbing:** Featuring KIOXIA CM7 Series Enterprise NVMe SSDs

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Notes:

1: As of August 5, 2025. Based on a KIOXIA survey.

2: Definition of SSD capacity: KIOXIA Corporation 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 = 2^30 bytes = 1,073,741,824 bytes and 1TB = 2^40 bytes = 1,099,511,627,776 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, and/or pre-installed software applications, or media content. Actual formatted capacity may vary.
3: The flash memory capacity is calculated as 1 terabit (1 Tb) = 1,099,511,627,776 (2^40) bits, and 1 terabyte (1 TB) = 1,099,511,627,776 (2^40) bytes

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

About KIOXIA

KIOXIA is a world leader in memory solutions, dedicated to the development, production and sale of flash memory and solid-state drives (SSDs). In April 2017, its predecessor Toshiba Memory was spun off from Toshiba Corporation, the company that invented NAND flash memory in 1987. KIOXIA is committed to uplifting the world with “memory” by offering products, services and systems that create choice for customers and memory-based value for society. KIOXIA's innovative 3D flash memory technology, BiCS FLASH™, is shaping the future of storage in high-density applications, including advanced smartphones, PCs, automotive systems, data centers and generative AI systems.
Visit our KIOXIA website

Contact details for publication:

KIOXIA Europe GmbH, Hansaallee 181, 40549 Düsseldorf, Germany

Tel: +49 (0)211 368 77-0

E-mail: KIE-support@kioxia.com

Contact details for editorial enquiries:

Lena Hoffmann, KIOXIA Europe GmbH

Tel: +49 (0) 211 36877 382

E-mail: lena.hoffmann@eu.kioxia.com

Issued by:

Birgit Schöniger, Publitek
Tel: +49 (0)172 617 8431
E-Mail: birgit.schoeniger@publitek.com
Web: www.publitek.com

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