

# KIOXIA

## Press Release

### KIOXIA First to Deliver PCIe® 4.0 Solid State Drives

*Customers Now Qualifying Latest Generation of PCIe®/NVMe™ SSDs Driving Next-Level Performance for Enterprise, Hyperscale Data Centers*



**Düsseldorf, Germany, 21 February 2020** – PCI Express® 4.0 was designed to enable doubling the performance of client, server and storage systems, pushing speeds up to 16.0GT/s (gigatransfers per second throughput per lane), driving new performance levels for cloud and enterprise applications. Today, KIOXIA Europe GmbH (formerly Toshiba Memory Europe GmbH), has announced that its line-up of PCIe® 4.0 NVMe™ enterprise and data center solid state drives (SSDs) are now shipping to customers<sup>[1]</sup>.

“As established leader in developing PCIe® 4.0 NVMe™ Express™ SSDs, KIOXIA continues to push the limits of flash storage performance”, said Paul Rowan, VP SSD Marketing & Engineering at KIOXIA Europe GmbH. “We were the first company to publicly demonstrate PCIe® 4.0 SSDs<sup>[2]</sup>, and are now the first to commence shipment of these next-generation drives.”

**CM6 Series Enterprise NVMe SSDs**

Dual-ported for high-availability, KIOXIA's CM6 Series of PCIe® 4.0, Gen4 4lane (or Dual-port, 2lane), and NVMe™ 1.4 Enterprise SSDs deliver best-in-class<sup>[3]</sup> sequential and random read/write performance of up to 6.9 GB/s and up to 1.4M IOPS. These represent improvements of up to 2x over its PCIe® 3.0 predecessors and are 12x faster than typical SATA drives<sup>[4]</sup>. Designed for enterprise applications and use cases – including high-performance computing, artificial intelligence, caching layer, financial trading and data analytics – the CM6 Series is available in capacities of up to 30.72TB<sup>[5]</sup>.

### **CD6 Series Data Center NVMe SSDs**

KIOXIA's CD6 Series of PCIe® 4.0, Gen4 4lane and NVMe™ 1.4 data center SSDs are single-ported for servers, and targeted to hyperscale data center and general purpose applications, such as database, cloud/container environments, web servers and media streaming. The CD6 Series will be available in capacities of up to 15.36TB, with up to 6.2GB/s throughput and 1.0 M IOPS random access performance.

Both, the CM6 and CD6 Series have a lineup of 1 DWPD (Drive Write per Day) and 3 DWPD<sup>[6]</sup> devices, and include a broad range of security/encryption options<sup>[7]</sup>. Also, the new SSDs have successfully passed PCI-SIG Workshop compliance and are on the UNH-IOL Integrator's list for NVMe™ 1.4 device compatibility.

#### Notes

[1] Samples of 30.72TB products are scheduled to be available after June.

[2] Exhibited at the Flash Memory Summit in August 2019.

[3] As of February 21, 2020, in the category of enterprise SSDs. KIOXIA Corporation survey.

[4] Compared to existing SATA interface KIOXIA products. KIOXIA Corporation survey.

Performance estimates are preliminary and subject to change without notice.

[5] Definition of capacity: KIOXIA 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<sup>30</sup> bytes = 1,073,741,824 bytes, 1TB = 2<sup>40</sup> 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, such as Microsoft® Operating System and/or pre-installed software applications, or media content. Actual formatted capacity may vary.

[6] 1 DWPD models will be available in capacities of 960GB to 30.72TB, while the 3DWPD models will be available in capacities of 800GB to 12.8TB.

[7] Availability of security/encryption options may vary by region.

\* PCI Express and PCIe are registered trademarks of PCI-SIG.

\*NVMe is a trademark of NVM Express, Inc.

\* Microsoft is either a registered trademark or a trademark of Microsoft Corporation in the United States and/or other countries.

\* Company names, product names, and service names mentioned herein may be trademarks of their respective companies.

Related Links:

\*The new CM6 Series and the line-up of KIOXIA Enterprise SSDs

<https://business.kioxia.com/en-jp/ssd/enterprise-ssd.html>

\*The new CD6 Series and the line-up of KIOXIA Data Center SSDs

<https://business.kioxia.com/en-jp/ssd/data-center-ssd.html>

\*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 (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 3D technology, 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 highdensity applications, including advanced smartphones, PCs, SSDs, automotive and data centers.

### **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](mailto:KIE-support@kioxia.com)

### **Contact details for editorial enquiries:**

Lena Hoffmann, KIOXIA Europe GmbH

Tel: +49 (0) 211 36877 382

E-mail: [lena1.hoffmann@kioxia.com](mailto:lena1.hoffmann@kioxia.com)

### **Issued by:**

Birgit Schöniger, Publitek

Tel: +44 (0)1582 390980

E-mail: [birgit.schoeniger@publitek.com](mailto:birgit.schoeniger@publitek.com)

Web: [www.publitek.com.com](http://www.publitek.com.com)