Enterprise Storage &
Technology Newsletter

May 2023

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# KIOXIA Introduces New BG6 Series SSDs Brings PCIe 4.0 Performance & Affordability

# KIOXIA

*Posted by Karen Heumann, May 22, 2023*

[KIOXIA America, Inc.](#) today announced the addition of the BG6 Series to its lineup of PCIe® 4.0 solid state drives (SSDs) – the first product to feature the company's new, 6th generation BiCS FLASHTM 3D flash memory and almost 1.7 times the performance of its predecessor. Designed to unleash the increased speeds and affordability of PCIe 4.0 for PC users, the powerful and compact KIOXIA BG6 Series client SSDs offer a discrete M.2 2230 form factor with higher capacities and improved power efficiency. M.2 2280 single-sided form factor versions are also available.

The KIOXIA BG6 Series will be on display during Dell Technologies World at booth #815. KIOXIA BG6 Series will start sampling in the second half of 2023 for OEM customer evaluation.

The KIOXIA BG6 Series unlocks back-end flash performance while maintaining affordability and increasing capacity, making it an especially attractive option for commercial and consumer notebooks and desktops. KIOXIA BG6 drives support the fully matured Host Memory Buffer (HMB) technology, which utilizes part of the host memory (DRAM) as if it were its own, to realize a DRAM-less, high-performance SSD.

Additional features and benefits include:

- Capacities of 256 gigabytes (GB), 512 GB, 1,024 GB and 2,048 GB
- PCIe standard 64 gigatransfers per second (GT/s) interface (Gen4 x4 lanes)
- Up to 6,000 megabytes per second (MB/s) sequential read and 5,300 MB/s sequential write
- Up to 850,000 IOPS random read and 900,000 IOPS random write
- Forward-looking support for the NVMe® technology 1.4c feature set and basic management command over System Management Bus (SMBus), enabling tighter thermal management
- Support for the latest TCG Pyrite and Opal standards3, as well as end-to-end data protection ensures data is secure whether at home or in the office
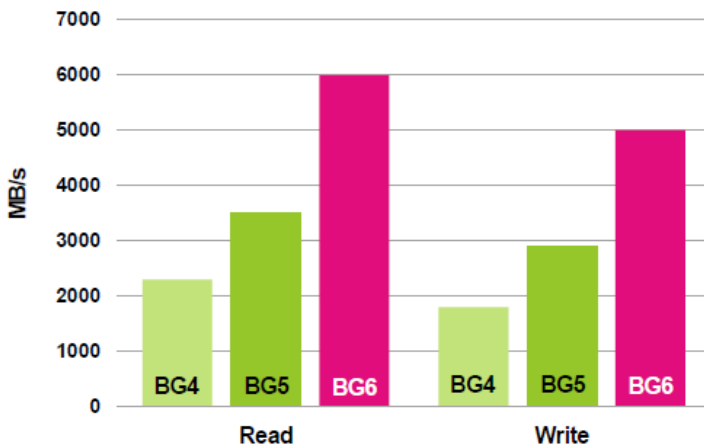
- Power Loss Notification signal support to protect data against forced shut downs
- Sideband signal (PERST#, CLKREQ# and PLN#) support for both 1.8V and 3.3V
- Supports platform FW recovery feature

"Next generation storage for commercial and personal mobile computing applications needs to keep pace with consumer demand for ultra mobility without compromise," said Neville Ichhaporia, senior vice president and general manager of the SSD business unit, KIOXIA America, Inc. "Our new KIOXIA BG6 SSDs deliver increased performance and density in a small footprint, making them well-suited to today's 'work and play from anywhere' lifestyle."
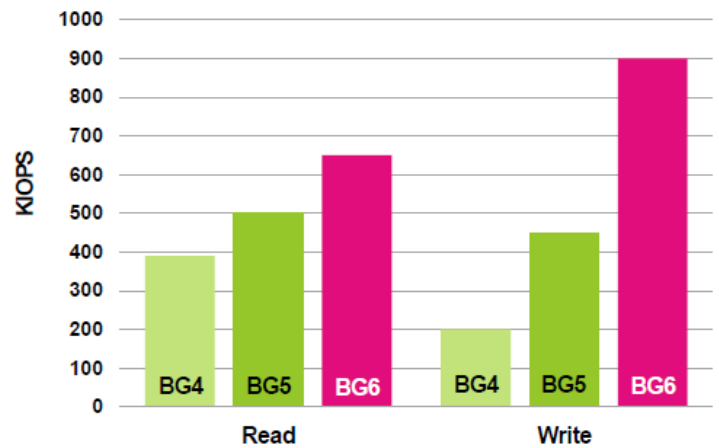
# KIOXIA BG6 Series – Better, Faster, Stronger…



Performance comparison based on specifications and benchmark testing between KIOXIA BG4 Series, BG5 Series SSDs and BG6 Series SSDs with 1024GB capacity as of May 2023. **Subject to change.**

# Dell Technologies – At the Forefront & 39 Years Relevant



***Posted by Mike Heumann, May 22, 2023***

[Dell Technologies World 2023](#) is underway this year at Mandalay Bay in Las Vegas with learning tracks Multicloud and as a Service, Future of World, Modern Data Infrastructure, Edge, and Security. Keynotes for Inspiring New Ideas from Michael Dell, Chairman and CEO of Dell Technologies; Tim Bicio, Chief Technology Officer for Lightstorm Entertainment; Cassandra Garber, Vice President of ESG at Dell; Matt Hicks, President and CEO at Red Hat; June Jooyun Woo, Senior Client Executive at Dell; Jon Landau, Academy Award winning producer; Staya Nadella, Chairman and CEO for Microsoft; Roshan Navagamuw Chief Information Officer, CVS Health; Jung Sik Suh, Chief Executive Officer for Hyundai AutoEver; Ed Ward, President Client Product Group at Dell; Chuck Whitten, Co-Chief Operating Officer for Dell, and Naroa Zurutuza, Chief Technology Officer at Giga.



An article in [CEO magazine](#) highlights the achievements of [Michael Dell](#) and Dell Technologies and cites Dell Technologies as having the rare distinction among big tech companies of staying relevant and at the cutting edge of innovation for nearly all of its 39 years. Dell himself has described it as the "world's biggest startup". In just the past six months, the company has launched a new generation of ultra-fast PowerEdge servers and a limited-edition quantum computing package that will boost AI processing capacities to new levels, reinventing the digital landscape and fundamentally altering the expertise required from IT teams.

[James Cameron](#), with technology triumphs including Aliens, Terminator, and Avatar, will present Catalysts of Innovation. Diamond sponsors for this year's Dell Technologies World are Deloitte, Intel, KIOXIA, Microsoft, Samsung, and VMWare.

# WekaIO Version 4.2 of WEKA Data Platform



***Posted by Karen Heumann, May 22, 2023***

[WekaIO](#), the data platform provider for performance-intensive workloads, unveiled version 4.2 of the WEKA Data Platform. The new release brings a variety of enhanced features and new capabilities to the company designed to increase the affordability and performance of next-generation technologies for WEKA's customers. These include advanced data reduction and a new container storage interface (CSI) plug-in for stateful containerized workloads that can help customers dramatically lower their storage and operational costs. WEKA 4.2 also offers significant performance improvements in the cloud, providing the limitless scale and application data protection needed to support thousands of containers for cloud-native artificial intelligence (AI) and machine learning (ML).

The release builds on the fourth generation of WEKA's software-defined, hybrid cloud data platform. Launched in June 2022, WEKA 4 seamlessly runs in on-premises environments on commodity servers, natively in one or more major public clouds – including AWS, Azure, Google Cloud, and Oracle Cloud – or in hybrid configurations. It transforms stagnant data silos into dynamic data pipelines that can more quickly, efficiently, and sustainably fuel next-generation technologies and performance-intensive workloads like generative AI, natural language processing engines, AI/ML model training, high-performance data analytics, genomic sequencing, and more.

With its 4.2 software release, WEKA continues to deliver on its mission to provide uncompromising speed, simplicity, scale, and sustainability benefits for organizations grappling with rapid structured and unstructured data growth, large-scale data analysis, managing performance-intensive workloads, and controlling data management costs. The release offers numerous features and benefits, including:

- Enhanced Data Reduction: Advanced block-variable differential compression combined with cluster-wide data deduplication delivers data reduction at scale for an estimated cost savings of

up to 6x for AI/ML training models, 3–8x for exploratory data analysis, and up to 2x for bioinformatic or large-scale media and entertainment workloads like visual effects (VFX).

- Improved Azure Performance and Scale: The fastest file storage in Microsoft Azure offers a 6x performance improvement over market alternatives with better economics. WEKA 4.2 also fully supports Azure VM Scale Sets, so customers can auto-scale their storage up and down to control costs as workloads peak and recede.

- Advanced Kubernetes Support: A new CSI-plugin adds persistent volume claim (PVC) snapshots and PVC clone features to provide better data management at scale for large-scale container deployments, particularly for next-generation transactional workloads such as NoSQL distributed databases, events, message processing applications, and large language model processing for generative AI engines.

- Increased DataOps Efficiency with Efficient Client Management: The new capability makes data from multiple WEKA clusters accessible to a single client, alleviating the need for complex client management or data copies in data pipeline workflows and drastically improving the efficiency of data operations.

- Superior Observability: The WEKA Home cloud monitoring platform now provides better observability for large-scale deployments, including improved filtering, anonymized upload of analytics and usage data, and software upgrade history.

- Accelerated On-Ramp with New WEKA Software Appliance: A new pre-packaged, software-only appliance that drastically reduces time to on-ramp by automating the installation of the WEKA platform on bare metal servers and streamlining technical support so customers can get started within as little as 30 minutes.

"The recent explosion of data-intensive workloads like generative AI and containerized cloud-native stateful applications is driving a monumental upsurge in data infrastructure complexity and costs," said Nilesh Patel, chief product officer at WEKA. "The latest enhancements in WEKA 4.2 are designed to give our customers an easy button for managing AI and other next-generation workloads. For any organization managing commerce-attached applications, performance-intensive workloads, or that require a modern containerized infrastructure, WEKA can provide a highly efficient, affordable, and easy-to-deploy solution that supports faster time to market, insights, and improved production capabilities."

## G2M Research Multi-Vendor Webinar Series

Our webinar schedule is below. We are offering a Cybersecurity series and an Enterprise Storage & Technology multivendor series.

"The Need for Speed: NVMe™, NVMe-oF™, and Data Processing Accelerators" webinar featured [Tony Afshary](#), Vice President, Products and Marketing at [Pliops](#); [Rob Davis](#), Vice President of Storage Technology at [NVIDIA](#); and [Peter Onufryk](#), Intel fellow for [NVMexpress](#). Companies are focused on storage/networking/processing acceleration. Higher-level networking protocols and custom protocols for specific workloads require "offloads" to lower CPU utilization and increase application performance. Advanced storage capabilities such as those offered by NVMe and NVMe-oF can also tax CPUs, reducing cycles available for workloads.  And then there is security, data resilience, and other very real needs that take CPU cycles away from workloads. This webinar explored where non-hyperscalers go to accelerate their workload in the same way hyperscalers do.  The webinar video is available to [view](#) and a copy of the slidedeck is available [here](#).

Interested in Sponsoring a webinar? Contact **[G2M](#)** for a prospectus. We can create custom webinar, custom webinar series, and add or modify topics to specifically appeal to your target audience. [View](#) our webinars and [access](#) slide deck presentations on our website.

**Enterprise Storage & Technology**

| | |
|---|---|
| [Empowering Real-Time Interactions for Modern Business Applications](#) | May 25 |
| [NVMe & NVMe-oF – Past, Present, & Future](#) | July 11 |
| [GPUs, SSDs, & Shared Memory: Accelerating Computing?](#) | August 22 |

**Cybersecurity**

# Upcoming Conferences

| | |
|---|---|
| May 21-25 | ISC, Frankfurt, Germany |
| May 22-25 | Dell World, Las Vegas |
| May 22-25 | Government Fleet Expo, Dallas, TX |
| June 2-6 | School Transportation Network Expo East, Indianapolis, IN |
| June 4-8 | Cisco Live, Las Vegas |
| June 5-7 | Gartner Security & Risk Managemnt, National Harbor, MD |
| June 7-9 | Synnex Red, White and You, Greenville, SC |
| June 11-14 | 36th Electric Vehicle Symposium & Expo, Sacramento, CA |
| June 11-16 | 2023 VLSI Symposium, Kyoto, Japan |
| June 14-16 | Interop Tokyo, Chiba, Japan |
| June 20-22 | HPE Discover, Las Vegas |
| June 20-22 | Info Security Europe, London |
| July 14-19 | School Transportation Network Expo, Reno, NV |
| August 5-10 | Black Hat USA, Las Vegas |
| August 8-10 | Flash Memory Summit, Santa Clara, CA |
| August 28-31 | VMWare Explore, San Francisco, CA |
| August 30-Sept 1 | Security Expo, Sydney, Australia |
| September 11-13 | Gartner Security & Risk Management, London |
| September 11-13 | Global Security Exchange, Dallas, TX |
| September 18-20 | Crowdstrike fal.con, Las Vegas |
| September 18-21 | SDC 2023, Fremont, CA |

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| October 2-4 | DattoCon, Miami, FL |
| October 3-4 | CyberTech Europe, Rome |
| October 16-19 | Gartner IT Symposium/Xpo, Orlando, FL |
| November 15-16 | Microsoft Ignite, TBD |
| Nov 27- Dec 1 | AWS re:Invent, Las Vegas |



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