Micron Launches Memory Expansion Module Portfolio to Accelerate CXL 2.0 Adoption

August 7, 2023 at 9:02 AM EDT

Company helping to expand CXL ecosystem with its Technology Enablement Program

BOISE, Idaho, Aug. 07, 2023 (GLOBE NEWSWIRE) -- Micron Technology, Inc. (Nasdaq: MU), today announced sample availability of the Micron CZ120 memory expansion modules to customers and partners. The Micron CZ120 modules come in 128GB and 256GB capacities in the E3.S 2T form factor, which uses PCIe® Gen5 x8 interface. Additionally, the CZ120 modules are capable of running up to 36GB/s memory read/write bandwidth[1] and augment standard server systems when incremental memory capacity and bandwidth is required. The CZ120 modules use Compute Express Link™ (CXL™) standards and fully support the CXL 2.0 Type 3 standard. By leveraging a unique dual-channel memory architecture and Micron's high-volume production DRAM process, the Micron CZ120 delivers higher module capacity and increased bandwidth. Workloads that benefit from more memory capacity include AI training and inference models, SaaS applications, in-memory databases, high-performance computing and general-purpose compute workloads that run on a hypervisor on premise or in the cloud.

"Micron is advancing the adoption of CXL memory with this CZ120 sampling milestone to key customers," commented Siva Makineni, vice president of the Micron Advanced Memory Systems Group. "We have been developing and testing our CZ120 memory expansion modules utilizing both Intel and AMD platforms capable of supporting the CXL standard. Our product innovation coupled with our collaborative efforts with the CXL ecosystem will enable faster acceptance of this new standard, as we work collectively to meet the ever-growing demands of data centers and their memory-intensive workloads."

"To accelerate the industry initiative to establish and expand the CXL ecosystem, Intel is collaborating with Micron to test and evaluate their CZ120 memory expansion module on our 4th generation Xeon Scalable processors and Xeon platforms," said Jim Pappas, director of Technology Initiatives at Intel.

"AMD and Micron have had a long and successful history of collaboration. Since the introduction of our EPYC™ processors, we have validated Micron memory on multiple platforms powered by AMD EPYC processors. With the introduction of the CXL standard, we have extended our joint efforts to include the Micron CZ120 memory expansion module. We've recently tested our AMD EPYC 9754 processor with the CZ120 modules and are seeing impressive results in TPC-H benchmark performance compared to DRAM only," said Mahesh Wagh, senior fellow of Server Systems Architecture at AMD.

Qualified customers and partners that enroll in the Micron Technology Enablement Program (TEP) can rely on Micron's world-class collaboration, quality and support. Additional TEP benefits include hands-on support to aid in the development of CXL-enabled designs; technical resources such as data sheets, electrical and thermal models to aid in product development and evaluation; and engineering consultation related to signal integrity and other technical support topics.

Micron's high-capacity, CXL-based memory expansion modules allow the flexibility to compose servers with more memory capacity and low latency to meet application workload demands, with up to 96% more database queries per day and 24% greater memory read/write bandwidth per CPU than servers using RDIMM memory alone.[2] With 256GB Micron CZ120 memory expansion modules, independent software vendors, cloud service providers, original equipment manufacturers and original design manufacturers can build servers with up to 2TB of incremental memory capacity.[3] Adding more capacity means better performance and increased memory bandwidth without the need for more servers. By improving the use of compute and memory resources for enterprise and cloud applications, organizations can reduce their capital and operating expenses for their data center applications.

---

[1] Measured by running MLC workload with 2:1 read/write ratio on a single CZ120 memory expansion module.

[2] MLC bandwidth using 12 x 64GB Micron 4800MT/s RDIMMs + 4 x 256GB CZ120 memory expansion modules vs. RDIMM only.

[3] By adding 8x256GB CZ120 memory expansion modules, system limitations may apply.

Industry Quotes:

"As a Contributor member of the CXL Consortium, Micron is helping to enhance the memory test and repair capabilities in the CXL specification to add the reliability, availability and serviceability features needed for enterprise and data center applications," said Larrie Carr, president of the CXL Consortium.

"Microchip Technology's SMC2000 Smart Memory Controllers provide high-capacity expansion and performance with reduced latency overhead. Our collaboration with Micron has allowed us to harness their memory architecture expertise and combine that with Microchip controllers to rapidly co-innovate and create a CXL-based memory expansion solution designed purposefully to meet the needs of highly reliable AI and data center workloads," said Samer Haija, director of marketing for Microchip's Data Center Solutions business unit.

"Supermicro's continuing collaboration with Micron benefits a wide variety of key customers," said Don Clegg, senior vice president of Worldwide Sales at Supermicro. "Micron's CZ120 memory expansion module, which utilizes an E3.S form factor, PCIe Gen5 and leverages CXL for better memory functionality, complements Supermicro's Petascale server and storage portfolio to deliver validated, tested, and proven solutions for data center deployments and memory-intensive workloads."

Visit micron.com/CXL for more information.

Resources Section:

- CXL webpage
- Six Five Insider podcast interview with Ryan Baxter

About Micron Technology, Inc.

We are an industry leader in innovative memory and storage solutions, transforming how the world uses information to enrich life *for all*. With a relentless focus on our customers, technology leadership and manufacturing and operational excellence, Micron delivers a rich portfolio of high-performance DRAM, NAND and NOR memory and storage products through our Micron® and Crucial® brands. Every day, the innovations that our people create fuel the data economy, enabling advances in artificial intelligence and 5G applications that unleash opportunities — from the data center to the intelligent edge and across the client and mobile user experience. To learn more about Micron Technology, Inc. (Nasdaq: MU), visit micron.com.

© 2023 Micron Technology, Inc. All rights reserved. Information, products, and/or specifications are subject to change without notice. Micron, the Micron logo, and all other Micron trademarks are the property of Micron Technology, Inc. Intel, the Intel logo, and other Intel marks are trademarks of Intel Corporation or its subsidiaries. All other trademarks are the property of their respective owners.

Micron Media Relations Contact Kelly Sasso Micron Technology, Inc. +1 (208) 340-2410 ksasso@micron.com