



Micron Advances Memory Innovation With the World's First Ultra-Dense Module for Next-Generation Servers

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Micron's advanced DRAM packaging enables the 512GB DDR5 RDIMM to unlock data center performance with speeds up to 9,200 MT/s and reduced operating power by more than 60%

BOISE, Idaho, Sept. 15, 2026 (GLOBE NEWSWIRE) -- Micron Technology, Inc. (Nasdaq: MU), today announced a major milestone in memory innovation with the successful demonstration of the world's first 512GB DDR5 module on multiple server platforms. The achievement reinforces Micron's leadership in high-performance, high-capacity server memory and provides enterprise data center and cloud customers with a path to support large and demanding AI, analytics, in-memory database and simulation-heavy workloads with greater efficiency. Leading semiconductor enablers, AMD and Intel, are both actively validating the module, which will deliver speeds up to 9,200 MT/s.

The module's high capacity is possible due to Micron's advanced vertical interconnect packaging innovations. This product vertically stacks DRAM dies interconnected by through-silicon vias (TSVs) to maximize density within individual DRAM packages while preserving the performance modern data center architectures demand. The module enables up to 12TB of DDR5 DRAM in a single 24-slot dual-socket server.

"Micron continues to set the pace for memory technology, delivering a new class of ultra-dense, high-performance server memory that helps customers keep larger datasets closer to the compute engines that need them," said Raj Narasimhan, senior vice president and general manager of the Cloud Memory Business Unit at Micron. "A 512GB RDIMM enables multi-terabyte servers, supporting larger AI and database workloads, greater virtualization density and improved power efficiency, all within existing server footprints."

Ecosystem partner validation

Micron is collaborating closely with leading ecosystem enablers to validate the 512GB DDR5 RDIMM across next-generation server platforms, ensuring broad compatibility and a smooth path to deployment.

"AMD solutions continue to advance data center performance, scalability and efficiency as AI and data-intensive workloads reshape infrastructure requirements," said Amit Goel, corporate vice president, Compute and Enterprise AI Platform Solutions Engineering, AMD. "Our close engineering collaboration with Micron brings compute and memory innovation together to help customers realize the full value of AMD-powered platforms. Together, we're enabling balanced, high-performance infrastructure for the growing scale and complexity of modern workloads."

"The growth of AI and other data-intensive workloads is placing new demands on server infrastructure, making memory capacity and bandwidth increasingly important to overall system performance," said Karin Eibschitz Segal, general manager of platform and system engineering in Intel's Data Center Group. "Intel is working closely with Micron to validate its 512GB DDR5 RDIMM and help enable future server platforms designed to meet the growing demands of next-generation data center workloads."

Meeting the memory demands of data-intensive workloads

The rapid proliferation of large language models (LLMs), agentic AI, real-time inference and high-core-count CPU workloads is driving demand for greater server memory capacity, higher bandwidth and improved power efficiency. Micron 512GB RDIMMs address these demands by enabling larger datasets to remain resident in main memory, reducing reliance on slower storage tiers and minimizing costly data movement. The new 512GB RDIMM also improves efficiency, reducing operating power by more than 60% compared with four 128GB RDIMMs.¹

For memory-bound workloads such as Spark Support Vector Machines (SVM)-based data analytics, Micron 512GB RDIMMs can deliver up to 1.4 times higher performance compared to 256GB DDR5 configurations. The 512GB module also provides significant advantages for memory-intensive databases and caching platforms, including RocksDB and Redis, improving throughput, increasing concurrency and helping scale datasets more efficiently.

What the industry has to say about this future memory solution

"As data center workloads continue to grow, we are increasingly focused on how we can optimize the balance between compute, memory and efficiency across the stack," said Darrin Alves, chief information officer for Infrastructure Platforms at JPMorganChase. "Higher-capacity memory technologies like Micron's 512GB RDIMMs will help enterprises support larger in-memory workloads, improve resource utilization and enhance the flexibility needed to scale modern computing environments."

Micron expects 512GB RDIMMs to be in volume production sometime in the second half of 2027 aligned to customer needs. For more information on Micron's currently available data center solutions, visit the [Micron data center memory webpage](#).

About Micron Technology, Inc.

Micron Technology, Inc., is a global leader in semiconductor memory and storage, powering AI and compute-intensive applications from cloud to edge. With a relentless focus on our customers, technology and product leadership, and manufacturing and operational excellence, Micron's comprehensive portfolio of high-performance DRAM, NAND and NOR solutions deliver the speed, efficiency and scale today's workloads demand, accelerating intelligence to enrich life for all. To learn more about Micron Technology, Inc. (Nasdaq: MU), visit micron.com.

Forward-Looking Statements

This press release contains forward-looking statements, including statements regarding Micron's 512GB DDR5 RDIMM, its expected performance, capabilities, benefits, validation and deployment, and the timing of volume production. These forward-looking statements are subject to a number of risks and uncertainties that could cause actual results to differ materially. Please refer to the documents Micron files with the Securities and Exchange Commission, specifically its most recent Form 10-K and Form 10-Q. These documents contain and identify important factors that could cause actual results to differ materially from those contained in these forward-looking statements. These factors can be found at <https://investors.micron.com/risk->

factor. Although Micron believes that the expectations reflected in the forward-looking statements are reasonable, Micron cannot guarantee future results, levels of activity, or achievements. Micron is under no duty to update any of the forward-looking statements after the date of this press release to conform these statements to actual results.

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¹ Based on 16.0W for one 512GB module compared with the 44.2W total for four 128GB modules.