Micron Announces Volume Production of Ninth-Generation NAND Flash Technology

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Industry-leading Micron 2650 NVMe SSD, based on ninth-generation NAND, begins volume shipment

BOISE, Idaho, July 30, 2024 (GLOBE NEWSWIRE) -- Micron Technology, Inc. (Nasdaq: MU), announced today that it is shipping ninth-generation (G9) TLC NAND in SSDs, making it the first in the industry to achieve this milestone. Micron G9 NAND features the industry's highest transfer speed of 3.6 GB/s, delivering unsurpassed bandwidth for reading and writing data. The new NAND enables best-in-class performance for artificial intelligence (AI) and other data-intensive use cases from personal devices and edge servers to enterprise and cloud data centers.[1]

"The shipment of Micron G9 NAND is a testament to Micron's prowess in process technology and design innovations," said Scott DeBoer, executive vice president of Technology and Products at Micron. "Micron G9 NAND is up to 73% denser than competitive technologies in the market today, allowing for more compact and efficient storage solutions that benefit both consumers and businesses."

Leading-edge technology delivers unrivaled performance
Micron G9 NAND leverages the industry's fastest NAND I/O speed to meet the high-throughput needs of data-centric workloads, delivering 50% faster data transfer than any NAND currently shipping in an SSD.[2] Micron G9 NAND also delivers up to 99% higher write bandwidth and 88% better read bandwidth per die than currently available competitive NAND solutions.[3] These per-die benefits translate to performance and energy efficiency gains in SSDs and embedded NAND solutions.

Like its previous-generation NAND, Micron G9 NAND fits in a compact 11.5mm x 13.5mm package, using 28% less space than competing products, making it the smallest high-density NAND available.[4] Higher density in a smaller footprint maximizes design options for a diverse set of use cases.

"For the third generation in a row, Micron has led the industry in introducing innovative, leading-edge NAND technology. Products integrating Micron G9 NAND will provide demonstrable performance benefits over competitive offerings," said Sumit Sadana, executive vice president and chief business officer at Micron. "Micron G9 NAND will serve as a foundation for storage innovations, delivering value for customers across all end markets."

Micron G9 NAND enables class-leading performance in the Micron 2650 SSD
The Micron 2650 NVMe SSD integrates the cutting-edge G9 TLC NAND to deliver a best-in-class user experience for everyday computing that surpasses competitors in PCMark® 10 testing.[5]

"Nearing theoretical saturation levels for PCIe Gen4, the Micron 2650 SSD uses our new G9 NAND to push the boundaries of what a value TLC client SSD can achieve," said Prasad Alluri, Micron's vice president and general manager of Client Storage. "Delivering up to 38% higher PCMark 10 benchmark scores than competitive solutions, this drive is set to redefine the user experience for this class of SSD."

"AI advancements are increasing the data generated and driving the need for more storage, leading customers to require better performance to keep pace with AI," said Jeff Janukowicz, research vice president of IDC's Solid State Drives and Enabling Technologies. "SSDs like the Micron 2650, which benefit from the latest generation NAND innovations, will be essential to a broad range of users from businesses to individual consumers."

The Micron 2650 NVMe SSD offers class-leading reliability and features performance-enhancing accelerated caching for faster write performance, courtesy of its Dynamic SLC Cache. The Micron 2650 NVMe SSD provides real-world saturation performance for PCIe Gen4, with up to 7,000 MB/s sequential read. When compared to the competition, it delivers best-in-class performance with up to 70% better sequential read, up to 103% better sequential write, up to 156% better random read, and up to 85% better random write.[6] These impressive figures underscore Micron's commitment to pushing the boundaries of technology and delivering unparalleled performance to our customers.

Available in the Micron 2650 SSD for client OEMs, G9 NAND is also in qualification with customers in component form and in a consumer-based Crucial SSD. Visit Micron G9 NAND and Micron 2650 client SSD to learn more about them.

Additional resources:

- Micron launch blog
- Micron G9 NAND webpage
- Micron 2650 SSD webpage
- Micron 2650 product brief link
- Micron image gallery

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 (AI) and compute-intensive 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.

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[1] Based on the industry-leading ONFI transfer rate of 3.6 GB/s, faster than NAND speeds from competitors, including specifically Samsung, SK hynix, Solidigm, and Kioxia/WD.

[2] "[I]n the market" refers to NAND product that has reached volume manufacturing (>10k units/month) and is being sold and publicly marketed in a currently available SSD.

[3] Bandwidth comparisons are made against different competitive devices in the market.

[4] "High-density" refers to 1Tb 3D TLC NAND.

[5] SSD comparisons are based on currently in-production client value SSDs from the top five competitive suppliers of client SSDs by revenue as of May 2024, excluding consoles, as per Forward Insights analyst report, "SSD Supplier Status Q1/24". 1TB SSDs tested in Micron labs.

[6] Performance comparisons are based on publicly available data sheet information available at product launch vs. Gen4 SSD competitors per Footnote 4.

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