



Micron Redefines Performance for AI PCs, Gamers and Professionals

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Micron 4600 PCIe Gen5 NVMe SSD enables next-level performance and unrivaled user experience

BOISE, Idaho, Feb. 18, 2025 (GLOBE NEWSWIRE) -- Micron Technology, Inc. (Nasdaq: MU), today announced the Micron 4600 PCIe® Gen5 NVMe™ SSD, an innovative client storage drive for OEMs that is designed to deliver exceptional performance and user experience for gamers, creators and professionals. Leveraging Micron® G9 TLC NAND, the 4600 SSD is Micron's first Gen5 client SSD and doubles the performance of its predecessor.¹

The Micron 4600 SSD showcases sequential read speeds of 14.5 GB/s and write speeds of 12.0 GB/s. These capabilities allow users to load a large language model (LLM) from the SSD to DRAM in less than one second,² enhancing the user experience with AI PCs. For AI model loading times, the 4600 SSD reduces load times by up to 62% compared to Gen4 performance SSDs³ ensuring rapid deployment of LLMs and other AI workloads. Additionally, the 4600 SSD provides up to 107% improved energy efficiency (MB/s per watt) compared to Gen4 performance SSDs,¹ enhancing battery life and overall system efficiency.

The 4600 SSD is the second Micron client SSD to incorporate the most advanced Micron G9 NAND technology, following the Micron 2650 NVMe SSD already in production.

Why it matters

Accomplishing more and cutting down wait time is more important than ever to gamers, creators and professionals alike. The 4600 leverages PCIe Gen5 technology and the Micron [G9 TLC NAND](#) to provide remarkable speed and energy efficiency.

"With the 4600 NVMe SSD, users can load large language models in less than one second, enabling PC experiences in data-intensive applications, especially for AI," said Prasad Alluri, vice president and general manager for Client Storage at Micron. "As AI inference runs locally on the PC, the transition to Gen5 SSDs addresses the increased need for higher performance and energy efficiency."

Gen5 SSD technology will grow rapidly in 2025 and 2026. The 4600 NVMe SSD is compatible with the leading-edge platforms such as AMD's Ryzen™ 9000 Series processors, and the Intel® Core™ Ultra Desktop and Mobile (Series 2) processors, ensuring seamless integration for PC OEMs.

"AMD is excited to collaborate on the validation of the Micron 4600 NVMe™ SSD with our latest Ryzen family of processors," said Joe Macri, senior vice president and chief technology officer of Compute and Graphics at AMD. "The Micron 4600 NVMe™ SSD is anticipated to deliver exceptional performance and a best-in-class user experience for the most demanding professional applications and high-speed gaming."

"The co-validation efforts with Micron in our Intel Folsom Open Labs have been instrumental to achieving today's compatibility milestone. The Micron 4600 SSD, which has been designed for PCIe Gen5 platforms and offers fantastic performance and power efficiency, is now listed on the Intel PCL (Platform Component List)," said Todd Lewellen, vice president of Client Ecosystem Group at Intel. "The 4600 SSD is an ideal fit for AI PCs based on Intel Core Ultra processors, as well as future platforms."

"Lenovo will qualify the Micron 4600 SSD because of its industry-leading performance and its use of low temperature soldering (LTS) technology during SSD module assembly," said Takashi Sugawara, director and principal engineer at Lenovo. "As a pioneer in LTS technology, Lenovo has been collaborating with Micron in the pursuit of reducing the amount of energy consumed in the SSD manufacturing process."

Level up to high-performing Gen5 storage

The Micron 4600 NVMe SSD delivers up-to performance improvements over Gen4 SSDs:⁴

- **14.5 GB/s sequential read** speeds, 107%
- **12.0 GB/s sequential write** speeds, 71%
- **2.1 million random read IOPS**, 83%
- **2.1 million random write IOPS**, 83%

Enhanced user experience

Designed to elevate AI, scientific, gaming and content creation experiences, the Micron 4600 NVMe SSD unlocks best-in-class PCMark 10 benchmark scores:

Micron 4600 PCIe Gen5 NVMe Client SSD



Leveraging Micron® G9 TLC NAND, the 4600 SSD is Micron's first Gen5 client SSD and doubles the performance of its predecessor.

Micron 4600 PCIe Gen5 NVMe Client SSD



The Micron 4600 PCIe® Gen5 NVMe™ SSD is an innovative client storage drive for OEMs that is designed to deliver exceptional performance and user experience for gamers, creators and professionals.

- Up to 38% better than Gen4 performance SSDs⁴
- Up to 11% better scores compared to Gen5 competitors⁵

The 4600 SSD provides exceptional user experiences over previous Gen4 drives for scientific, media and entertainment, along with a variety of other use cases, as demonstrated with the SPECwpc5 benchmark results on speed improvements:⁴

- **Media and entertainment** applications: up to 61% faster
- **Energy industry** applications: up to 59% faster
- **Product development** applications: up to 45% faster
- **Life sciences** applications: up to 38% faster

Building upon prior ultra-secure features like TCG Opal, signed firmware and secure boot, the 4600 SSD includes the latest in advanced security features such as Security Protocol and Data Model (SPDM), Data Object Exchange (DOE) and Device Identifier Composition Engine (DICE), helping provide improved protection of user data.

The Micron 4600 NVMe SSD is now available for OEM sampling globally. For more information, visit [Micron 4600 NVMe SSD](#).

Additional Resources:

- [Micron 4600 Gen5 Client SSD webpage](#)
- [Micron 4600 Client SSD product brief](#)
- [Micron 4600 Client SSD product images](#)
- [Gen5 SSD infographic](#)

About Micron Technology, Inc.

Micron Technology, Inc. is 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 Performance and power efficiency statements are based on comparisons to PCIe Gen4 Micron 3500 SSD vs. Micron 4600 SSD.

² The large language model (LLM) used in testing was the Llama2 with 13 billion parameters and 10.4GB file size.

³ Statement based on a Llama2 with 13 billion parameter model load times using a 1TB Micron 3500 PCIe Gen4 SSD compared to the same model's load times using a 1TB Micron 4600 PCIe Gen5 SSD.

⁴ All performance statements in this section are relative to the claim made and are based on PCIe Gen4 Micron 3500 SSD vs. PCIe Gen5 Micron 4600 SSD comparisons.

⁵ Comparisons are made to publicly announced client SSD suppliers with at least 10% client OEM SSD revenue share, excluding Apple® and gaming consoles, as noted in Forward Insights analyst report: *SSD Supplier Status Q3/24 November 2024*. Scores are based on benchmark testing in Micron labs with competitive drives available at the time of Micron 4600 SSD announcement.

Photos accompanying this announcement are available at:

<https://www.globenewswire.com/NewsRoom/AttachmentNg/77292e81-46a9-4efd-a11a-f6bf283c361c>

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