Silicon Motion Showcases Differentiated Enterprise SSD Controllers and PCIe NVMe Boot Drive Solutions Aligned with NVIDIA AI Ecosystem at GTC

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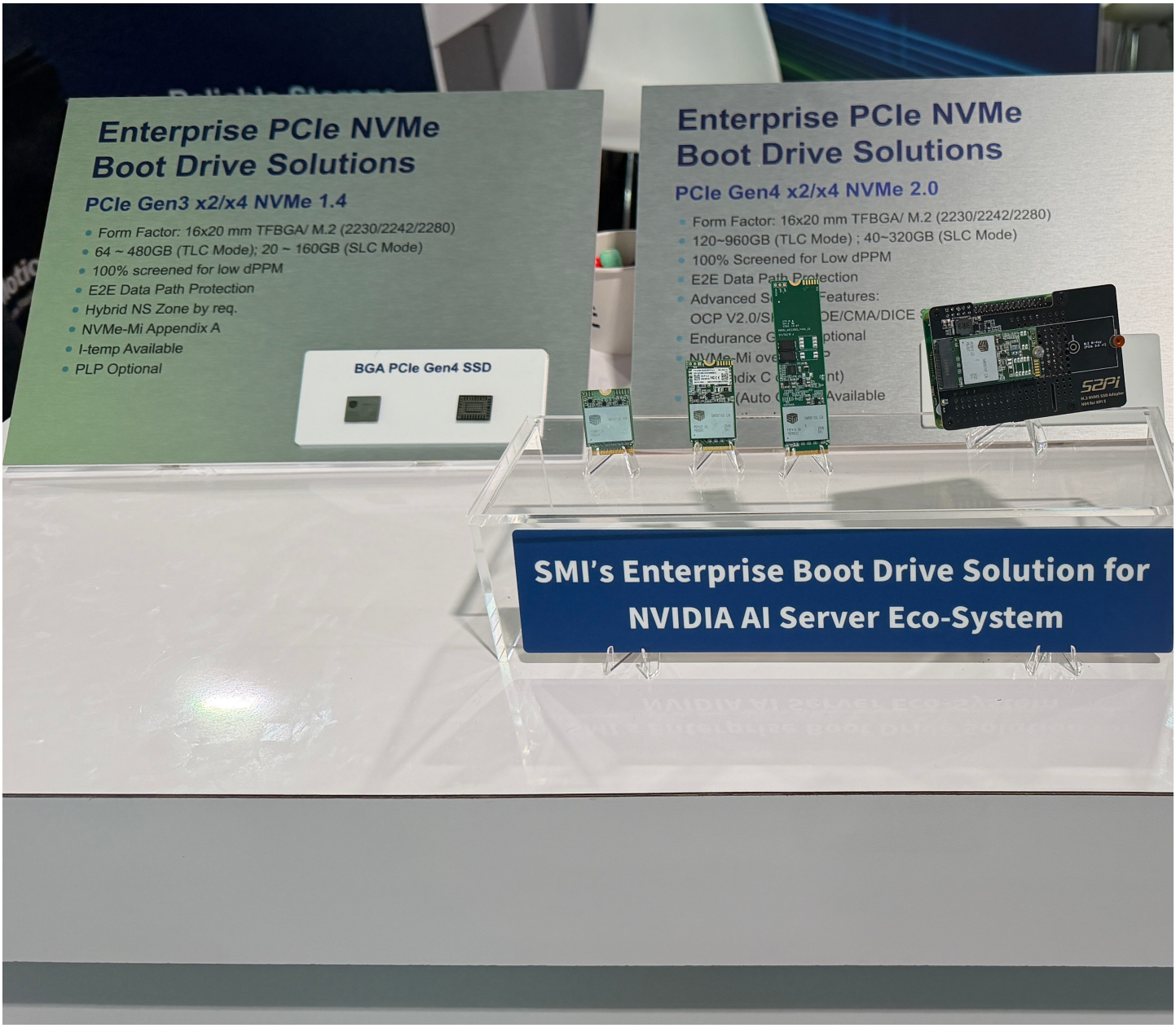
Enabling Multi-Tier AI Storage Architecture from Boot to Near-CPU and Near/Inline Storage

TAIPEI, Taiwan & MILPITAS, Calif.--(BUSINESS WIRE)--Mar. 16, 2026-- Silicon Motion Technology Corporation (Nasdaq:SIMO), a global leader in designing and marketing NAND flash controllers for solid-state storage devices, today announced that it will showcase a rich portfolio of differentiated enterprise SSD controllers and PCIe NVMe BGA boot SSD at NVIDIA GTC 2026. Booth #3029, purpose-built to meet the evolving requirements of the NVIDIA AI ecosystem.

As AI models scale, inference architectures are extending beyond HBM and system DRAM into high-performance NAND storage tiers, as reflected in NVIDIA's ICMS initiative. In this new architecture, NAND-based Storage becomes a performance-critical layer that requires deterministic latency and quality-of-service differentiation.

Silicon Motion delivers a vertically-integrated storage solution encompassing advanced SSD controller design, full firmware development, and compact Reference Design Kits (RDKs) aligned with leading enterprise form factors such as E1.S, E1.L, E3.S, E3.L, and U.2 for AI server deployments. The company also provides enterprise PCIe NVMe BGA boot SSD with strong endurance and long-term operational stability, deployed in AI systems.



"NAND storage is becoming a strategic layer in AI infrastructure," said Wallace Kou, President and CEO of Silicon Motion. "As inference control continues to expand, storage must deliver not only high capacity, but also deterministic latency, sustained bandwidth, and predictable quality-of-service. Controller technology is the key that unlocks the full potential of NAND. Our advanced controller architecture is designed to meet the requirements emerging from innovations such as NVIDIA ICMS, enabling NAND storage to operate as an active, performance-driven tier within the AI memory hierarchy."

"AI infrastructure requires tight integration between intelligent data management software and high-performance storage hardware," said Avery Pham, VP of Operations Strategy at VAST Data. "VAST's unified data platform consolidates structured and unstructured data into a single scalable architecture optimized for AI workloads. Flexible, high-performance SSD controller technologies, such as those developed by Silicon Motion, are crucial for enabling the performance consistency and scalability required to activate massive AI datasets across tiers."

At CTC, Silicon Motion will demonstrate storage solutions optimized for AI infrastructure across multiple tiers within the ecosystem, including:

- NVIDIA ICMS for KV Cache Extension – MicroTitan™ SM8388 / SM8388

NVIDIA Inference Control Memory Storage (ICMS) initiative highlights evolving requirements to extend KV cache beyond traditional memory into latency-sensitive NAND storage tiers. Such architectures require deterministic quality-of-service, tight tail latency control, strong workload isolation, multi-tenancy support, and sustained read performance to maintain efficient GPU utilization.

Silicon Motion's MicroTitan™ enterprise SSD controllers are architected to align with these emerging demands. Leveraging the company's patented PerformanceShape™ technology, the controllers dynamically optimize workload behavior, enhance isolation across concurrent workloads, and manage latency distribution to deliver predictable performance under AI inference workloads.

- Near-GPU High-Performance Storage – MicroTitan™ SM8388 / SM8388

For near-GPU acceleration tiers, storage must sustain high bandwidth and IOPS under mixed and dynamic workloads. MicroTitan™ Enterprise SSD Controllers deliver low latency, strong parallelism, and predictable performance to support inference processing, data staging, and model updates in GPU-accelerated environments.

- Compute-Optimized Storage – SM8388, SM8388 and SM8388

Within AI compute nodes, storage requirements emphasize throughput consistency, endurance, and system-level efficiency. Silicon Motion's MicroTitan™ Enterprise SSD controllers enhance I/O scheduling, reduce unnecessary data movement, and maintain balanced power-performance operation under sustained mixed workloads.

- Newline SSD and Warm Data Storage – SM8388 and SM8388 with TLC and QLC NAND Support

For capacity-driven AI infrastructure, newline SSD storage prioritizes high density and cost efficiency. Silicon Motion's Enterprise SSD controllers support both TLC and QLC NAND, enabling high-capacity deployments for warm datasets and extended AI data repositories. With advanced ECC and robust error management, these controllers ensure data integrity and reliable operation in high-density QLC environments, delivering scalable storage for large-scale AI deployments.

- Boot Drive Solutions for AI Servers – Enterprise PCIe NVMe BGA Boot SSDs and SM8388 Controller

In AI data center infrastructure, boot storage forms the trusted foundation of system availability and secure operation. Silicon Motion provides enterprise PCIe NVMe BGA boot SSD solutions designed for compact integration, strong endurance, and long-term stability, deployed in AI systems.

The company also offers the SM8388 boot drive controller, enabling customers to develop flexible, high-reliability boot storage solutions tailored to AI server platform requirements.

Visit Silicon Motion at CTC Booth #2023 to learn how its storage solutions enable scalable, efficient, and reliable AI storage architectures across the NVIDIA AI ecosystem.

About Silicon Motion:

Silicon Motion Technology Corporation (Nasdaq/ID: SMCI) is the global leader in supplying NAND Flash controllers for solid-state storage devices. The company ships more SSD controllers than any other supplier worldwide for servers, PCs, and other client devices, and is also the leading merchant provider of eMMC and UFS embedded storage controllers used in smartphones, IoT products, and automotive applications.

Silicon Motion also delivers customized, high-performance solutions for hyperscale data centers, industrial systems, and automotive SSDs. Its controllers are designed to power the world's most advanced AI, cloud, and enterprise storage platforms, combining high-performance, low-power, and proven reliability.

Our customers include most of the world's NAND flash vendors, data center and enterprise storage solution providers, storage device module makers, and leading OEMs, all of whom rely on Silicon Motion's proven controller technologies to enable innovative, high-quality storage solutions. For further information, please visit www.silicon-motion.com.

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Corporate Media:
Mimiko Li
Director of Marketing Communication
mimiko.li@siliconmotion.com

Investors:
ir@siliconmotion.com

Sales:
E-mail: sales@siliconmotion.com

Source: Silicon Motion Technology Corporation