

SMART Modular Technologies Introduces its Non-Volatile CXL E3.S Memory Module

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New module provides persistent memory that enables checkpointing, snapshotting and low latency write cache for demanding data center compute and storage applications

NEWARK, Calif.--(BUSINESS WIRE)-- **SMART Modular Technologies®**, Inc. ("SMART"), a **Penguin Solutions®**, Inc. brand (Nasdaq: **PENG**) and a global leader in integrated memory solutions, solid-state drives, and hybrid storage products, announced today it is now sampling its redefined **Non-Volatile CXL Memory Module (NV-CMM)** to Tier 1 OEMs based on the CXL® 2.0 standard. This innovative product combines non-volatile high-performance DRAM memory, persistent flash memory and an energy source in a single removable EDSFF form factor to deliver superior reliability and serviceability for data-intensive applications. The NV-CMM module further expands the SMART family of CXL products introduced in the last year.

SMART Modular's NV-CMM, utilizing the CXL standard, combines the speed of DRAM with the persistence of NAND flash memory to deliver unprecedented performance and reliability for data-intensive applications.

"Our NV-CMM represents a paradigm shift in memory technology for data centers," said Torry Steed, senior product

marketing manager at SMART Modular Technologies. "By combining the benefits of non-volatile memory with the CXL standard, we're making it significantly easier for system integrators to incorporate compact, non-volatile, high performance persistent memory into their products."

The NV-CMM represents a significant leap forward in memory technology, offering:

- **Enhanced System Performance:** By ensuring data persistence and minimizing the need for complex recovery processes, NV-CMMs significantly boost system responsiveness and performance. This is particularly

beneficial for write-latency sensitive applications such as high-performance computing, in-memory databases, and real-time analytics.

- Data Persistence: Onboard backup power ensures critical data is preserved during unexpected power outages, enhancing system reliability and cluster availability.
- Versatile Form Factor: The E3.S 2T form factor provides flexibility for various server configurations.
- Advanced Connectivity: PCIe Gen 5 and CXL 2.0 compliance ensures seamless integration with the latest data center architectures.

The NV-CMM is poised to redefine memory in several key areas:

- Accelerate Storage Systems: As a high-speed cache tier, NV-CMMs significantly boost storage appliance performance.
- Enhanced Data Recovery: Critical for maintaining data integrity during power failures or system crashes.
- Optimized Virtualization: Supports faster virtual machine (VM) restarts and reduces downtime in cloud infrastructures.
- Efficient Write Caching: Improves overall system performance by quickly acknowledging write operations.

Mike Howard, from TechInsights, commented: "The introduction of NV-CMMs leveraging the CXL standard marks a significant milestone in addressing the growing demands of artificial intelligence (AI), machine learning (ML), and big data analytics. SMART's innovation in this space positions them at the forefront of the memory industry."

SMART is offering NV-CMM evaluation samples for enterprise customers and system integrators. For more information including specifications, pricing, and availability, visit **the product page**.

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About SMART Modular Technologies, Inc.
A Penguin Solutions Company

SMART Modular Technologies helps customers around the world enable high performance computing through the design, development, and advanced packaging of integrated memory solutions. Our portfolio ranges from today's leading edge memory technologies to standard and legacy DRAM and Flash storage products. For more than three decades, we've provided standard, ruggedized, and custom memory and storage solutions that meet the needs of diverse applications in high-growth markets. **www.smartm.com**

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