



Innodisk Introduces High-Speed DDR5 12800 MT/s MRDIMM to Power AI Workloads

Taipei, 30 July 2026 — Innodisk, a leading global AI solution provider, introduces the DDR5 12800 MT/s MRDIMM to support the rapid growth of generative AI, large language models (LLMs), and robotics applications. With an industry-leading data rate of 12800 MT/s, this advanced memory module delivers exceptional bandwidth efficiency and scalability to meet the growing processing demands of AI-driven innovations.

Breaking the Memory Wall with Advanced Architecture

The growing complexity of AI and HPC workloads has exposed the limitations of traditional memory architectures, often referred to as the "memory wall"—a bottleneck where memory bandwidth fails to keep up with processing speeds, leading to inefficiencies. The DDR5 12800 MT/s MRDIMM overcomes this challenge with its innovative Multiplexed Registering Clock Driver (MRCD) and Multiplexed Data Buffer (MDB) architecture. By enabling simultaneous two-rank access, this breakthrough design increases bandwidth by 60% compared to traditional DDR5 8000 MT/s RDIMMs, significantly improving data transfer speeds and computational efficiency. By reducing the load on the memory controller and lowering latency, this module enhances AI model training, large language models (LLMs), and robotic automation applications.

Optimized for AI and Data-Intensive Workloads

AI workloads require faster and more efficient memory solutions. The DDR5 12800 MT/s MRDIMM eliminates memory bottlenecks, ensuring that CPU and GPU speeds are not hindered by slow memory access. Its high-speed architecture optimizes token-based data processing, enhancing computing efficiency for AI models without the need for major hardware modifications.

Reliable, Scalable, and Energy-Efficient Design

Designed for seamless integration, the DDR5 12800 MT/s MRDIMM is fully compatible with standard DDR5 RDIMM slots, making system upgrades effortless. Its compact and robust design incorporates MDB, MRCD, eFuse, and TVS technologies to ensure stable data transmission and protection against power surges. Additionally, its energy-efficient design minimizes power consumption and supports the sustainability goals of modern data centers.

The DDR5 12800 MRDIMM will be available in Q4 2026, with capacities ranging from 32GB to 128GB to accommodate diverse application requirements.

With this latest innovation, Innodisk continues to push the boundaries of memory performance, providing AI and HPC industries with the speed, efficiency, and reliability needed for next-generation computing.

For more information, please visit <https://www.innodisk.com/en/index>

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Architect Intelligence - About Innodisk

Established in 2005 in Taiwan, Innodisk is a global leader in industrial-grade memory and storage solutions, maintaining the largest market share in industrial-grade storage and ranking among the top 10 worldwide providers of memory modules. Building on this strong foundation, we are now evolving beyond the industrial market to pioneer innovations in Edge AI domains.

From storage to cutting-edge AI applications, our solutions serve as reliable building blocks for AI deployments, enabling real-time data sensing, accelerated computing, and intelligent decision-making at the edge. Through hardware-software integration, we create comprehensive solutions that address the dynamic needs of modern enterprises. As we expand our global presence, our goal is to accelerate the widespread adoption of AI and edge computing, contributing to architecting a more intelligent world.

For more information about Innodisk's solutions and AI application cases, please visit

<https://www.innodisk.com/>

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