NEWS RELEASE

Penguin Solutions Introduces CXL-Enabled DDR4 Module to Help Address Memory Shortages in AI Data Centers

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Validated reuse of prior-generation DDR4 provides performance, cost savings, and an alternative path to procuring memory for AI infrastructure buildouts

FREMONT, Calif.--(BUSINESS WIRE)-- **Penguin Solutions**, Inc. (Nasdaq: **PENG**), the AI Factory Platform Company, today introduced the SMART CXL-8F2W-D4, an eight-DIMM DDR4 Compute Express Link® (CXL) memory add-in card that enables organizations to adapt DDR4 memory for use in AI systems. Using DDR4 as an alternative to newer-generation DDR5 memory provides an innovative approach offering performance, sourcing, and economic benefits for the buildout of AI infrastructure.

According to TechInsights, Inc., AI data centers account for 34% of DRAM demand in 2026, a figure expected to climb to nearly 50% by 2029. This rapid growth is driving up memory costs and putting increasing pressure on infrastructure budgets. For organizations deploying new servers, whether as part of a technology refresh or a new data center buildout, the rising cost of memory presents a significant challenge, underscoring the need for more cost-effective ways to expand memory capacity.

“As AI inference workloads accelerate, rising memory costs are creating new challenges for organizations building and scaling AI data centers,” said Satya Iyer, Senior Vice President and General Manager, Integrated Memory at Penguin Solutions. “Many organizations already have significant investments in DDR4 memory that can be leveraged to address growing memory demands. By combining CXL technology with our proven memory screening and validation expertise, we're helping customers maximize the value of existing memory investments, reduce infrastructure costs, and meet the performance and reliability requirements of production AI environments.”

Penguin's SMART CXL-8F2W-D4 utilizes the Marvell® StructeraX™ CXL controller and supports up to eight DDR4 RDIMMs, making that memory available to compatible servers as additional system capacity. This helps IT teams address memory limitations for AI inference, in-memory databases, and other memory-intensive workloads.

With DDR4 memory available from previous-generation servers and data centers, Penguin Solutions has launched a program to recover memory during technology refresh cycles or source it through resellers. The program enables organizations to repurpose existing DDR4 inventory to address immediate memory needs.

To help customers deploy reused memory with confidence, Penguin Solutions combines the SMART CXL-8F2W-D4 with its **Zefr® ultra-high reliability memory screening process**. The process simulates strenuous real-world conditions to validate DDR4 for production environments. Customer-owned DDR4 memory undergoes inspection, testing, and qualification before installation, and each populated card is validated in a compatible host system prior to shipment.

By repurposing existing DDR4 memory, organizations can potentially reduce the cost of expanding system memory capacity, extend the useful life of existing components, and maximize previous investments while addressing evolving workload requirements and the reliability and compatibility considerations associated with reused components.

The SMART CXL-8F2W-D4 is available for qualified customer opportunities on compatible CXL 2.0 platforms. To learn more, visit **PenguinSolutions.com**.

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About Penguin Solutions

Penguin Solutions is the AI Factory Platform Company. We design, build, and manage next-generation data centers for enterprises, sovereign AI initiatives, and neocloud providers.

With deep design expertise at the intersection of data center AI infrastructure and memory solutions, our Full-Stack AI Factory Platform combines differentiated infrastructure software, advanced memory, compute systems, end-to-end services, and industry-leading partner technologies to help customers accelerate deployment, optimize token economics, and maximize the return on their AI investments.

Learn more at **PenguinSolutions.com**.

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