SMART DRAM for High Performance Computing
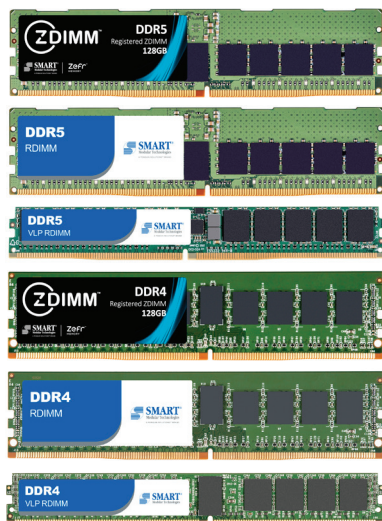
Features & Benefits

- Zefr screening process for OEM and SMART Modular memory modules ensures ultra-high reliability.

- Available in DDR5 (ZDIMM, VLP RDIMM) and DDR4 (ZDIMM, RDIMM, VLP RDIMM) configurations.

- Supports high speeds (up to DDR5-6400) and large module densities (up to 256GB per module).

- Backed by comprehensive pre-sale and post-sale technical support, including system configuration assistance, technical support, and failure analysis.

- Global sales and support infrastructure with consultative sales approach and fast RMA services for on-time delivery

- Minimizes memory failures, reducing the risk of downtime and data loss in critical HPC environments.

- Delivers maintenance-free performance, lowering total cost of ownership.

- Enables uninterrupted service and operational efficiency for applications such as drug development, oil exploration, and advanced simulation in automotive and aerospace industries.

- Provides scalable memory solutions that meet the evolving demands of high-performance computing workloads.

Problem Statement

High-performance computing (HPC) environments, such as those used in scientific research, finance, and data analytics, demand exceptional computational power and memory reliability. As workloads become increasingly complex and mission-critical, even brief memory failures can result in costly downtime, data loss, or operational delays. Standard memory modules often lack the resilience required for these demanding settings, leading to increased maintenance costs and a higher risk of system interruptions.

Solution Overview

SMART Modular Technologies addresses these challenges with its Zefr™ Memory solution, specifically engineered for HPC workloads. Zefr Memory utilizes a specialized screening process on OEM original or SMART Modular-built memory modules to ensure ultra-high reliability and maintenance-free performance. By minimizing memory failures and maximizing uptime, Zefr Memory delivers uninterrupted service and operational efficiency, helping organizations avoid costly downtime and data loss. SMART offers a range of DRAM modules, including DDR5 and DDR4 ZDIMM, RDIMM, and VLP RDIMM, with capacities and speeds tailored for large-scale, data-intensive applications.

Product Summary Overview

DRAM High Performance Computing (HPC) Applications			
Technology	Module Type	Speeds	Densities
DDR5	ZDIMM	DDR5-5600/6400	16GB - 256GB
	RDIMM		16GB - 256GB
	VLP RDIMM		32GB - 64GB
DDR4	ZDIMM	DDR4-3200	16GB - 64GB
	RDIMM		8GB - 32GB
	VLP RDIMM		8GB - 64GB

Individual part nos. can be found on www.smartm.com

Service and Support:

- SMART's engineering team provides pre-sale and post-sale technical assistance for system configuration, technical support, and failure analysis.

- SMART's professional worldwide sales organization uses a consultative sales approach, provides excellent service, and is backed with speedy RMA support for on-time delivery.

Products shown represent a sampling of SMART DIMMs for industrial applications

SMART®
Modular Technologies
A PENGUIN SOLUTIONS® BRAND

For more information, please visit: **www.smartm.com**

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