



SMART DRAM Memory for IIoT Applications

Features & Benefits

- High Density & Performance
- Form Factor Flexibility
- Reliability
- Long-Term Support
- Cost Effectiveness

Problem Statement

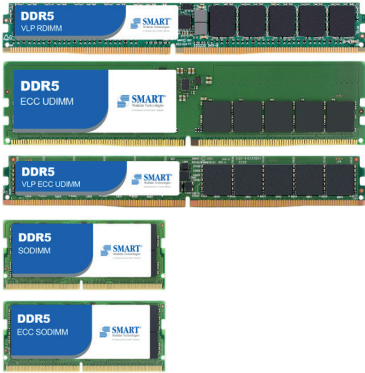
The rapid expansion of Industrial Internet of Things (IIoT) deployments is driving exponential growth in endpoint data creation, placing unprecedented demands on memory solutions. IIoT applications increasingly require localized data processing to reduce the need for high-bandwidth data transmission, while also operating in harsh environments where reliability is critical. Furthermore, these systems demand long lifecycle service and support, especially for remotely deployed industrial computing equipment. The challenge lies in providing a diverse portfolio of memory products that deliver high reliability, robust environmental protection, and cost-effective, long-term performance to meet the evolving needs of IIoT infrastructure.

Solution Overview

SMART Modular Technologies addresses these IIoT challenges with a comprehensive suite of memory solutions and advanced protective features:

- **High-Reliability Memory Products:** Offers a wide range of DRAM modules engineered for reliability in harsh and remote settings, supporting long lifecycle requirements.
- **Zefr™ Memory:** Utilizes Zefr Memory technology, which is designed for enhanced endurance and reliability, making it ideal for mission-critical IIoT applications.
- **Anti-Sulfur Resistors:** Incorporates anti-sulfur resistors to prevent corrosion and failure in environments with high sulfur content, ensuring long-term stability.
- **Conformal Coating:** Applies conformal coating to protect memory modules from moisture, dust, chemicals, and temperature extremes, significantly increasing durability.
- **Underfill:** Uses underfill materials to reinforce solder joints, improving resistance to mechanical shock, vibration, and thermal cycling.
- **Module Retention Clips:** Employs module retention clips to secure memory modules in place, preventing dislodgement due to vibration or impact in industrial settings.
- **Industrial Temperature Range:** Modules are tested to operate between -40°C and +85°C, ensuring consistent performance in extreme conditions.
- **Long-Life Support:** Provides long lifecycle service and support, ensuring the longevity and stability required by industrial applications.

SMART Modular Technologies delivers memory solutions that are reliable, trusted, and proven for the demanding requirements of IIoT applications.



Products shown represent a sampling of SMART DIMMs for industrial applications

Product Summary Overview

DRAM for IIoT Applications			
Technology	Module Type	Speeds	Densities
DDR5	VLP RDIMM	DDR5-4800/5600/6400	32GB - 64GB
	ECC UDIMM		64GB
	ECC VLP UDIMM		16GB, 64GB
	Non-ECC SODIMM		24GB, 48GB
	ECC SODIMM		16GB - 64GB
	ULP Mini-RDIMM		16GB, 32GB

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

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

**Product images are for promotional purposes only. Labels may not be representative of the actual product.*

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