Enclustra Introduces MLSoC Modalix System-on-Module to Accelerate Multi-Modal and Gen Al Applications at the Edge



Strategic Partnership with SiMa.ai Delivers a High-Performance, Compact Solution for Next-Generation AI Workloads

Zurich, Switzerland – March 10, 2025 – Enclustra, the leading innovator in FPGA-based System-on-Modules (SoMs) and high-performance embedded solutions, today announced the launch of its latest SoM featuring SiMa.ai's MLSoC Modalix 50 TOPs device. This cuttingedge solution expands Enclustra's portfolio to address the growing demand for multi-modal and Gen Al applications at the embedded edge, providing organizations with a compact, high-efficiency platform to accelerate Al adoption.

Designed in collaboration with SiMa.ai, the MLSoC Modalix SoM offers seamless compatibility with leading GPU-based SoM solutions, enabling customers to integrate AI capabilities without major architectural overhauls. When combined with SiMa.ai's Palette and Palette Edgematic software, this SoM streamlines AI development, drastically reducing time-to-market and deployment complexity.

"As a pioneer in high-performance embedded solutions, Enclustra is committed to pushing the boundaries of FPGA and SoM innovation," said Philipp Baechtold, CEO of Enclustra. "By partnering with SiMa.ai, we are delivering a next-generation SoM that not only enhances Al processing at the edge but also provides a scalable and efficient pathway for organizations looking to transition from legacy solutions to advanced Al-enabled systems."

Unleashing AI at the Edge with Modalix SoM

The MLSoC Modalix SoM delivers best-in-class performance per watt, making it an ideal choice for applications requiring a compact yet powerful AI processing solution. Key benefits include:

- **Best-in-Class Processing:** Built around SiMa.ai's MLSoC with 50 TOPS of computing power, optimized for edge AI workloads.
- **Seamless Integration & Flexibility:** A compact form factor with extensive I/O options allows easy integration into existing architectures.
- Accelerated AI Development: SiMa.ai's ONE Platform for Edge AI, including the Palette software suite, enables rapid AI application deployment with built-in support for Python, PyTorch, OpenCV, and other open standards.
- **Scalable Performance:** Advanced thermal management, real-time performance monitoring, and industrial-grade reliability ensure robust operation across diverse environments, including robotics, industrial automation, and unmanned aerial systems.

"The introduction of our Modalix SoM represents a critical expansion that addresses the diverse needs of the fragmented edge Al market," said Krishna Rangasayee, CEO and founder of SiMa.ai. "Our partnership with Enclustra is removing integration barriers that typically slow companies down, making it remarkably simple for companies to upgrade from legacy edge compute solutions to Modalix's superior performance."

Engineering samples of the MLSoC Modalix SoM will be available through Enclustra's exclusive Early Access Program. Organizations interested in early adoption can request participation here.

About Enclustra GmbH

Enclustra is a leading innovator in FPGA technology, shaping the future of high-performance embedded solutions. Headquartered in Zurich, Switzerland, with offices in Germany, the USA, and China—alongside a global network of subsidiaries—the company is fast-growing and dynamic, redefining FPGA design. Its cutting-edge portfolio includes FPGA-based electronic modules and FPGA-optimized IP solutions, delivering unparalleled performance and efficiency to industrial customers and R&D organizations.

In addition to its products, Enclustra provides world-class engineering services covering the entire FPGA system development lifecycle, from high-speed hardware and HDL firmware to embedded software, system architecture, and rapid prototyping. By combining deep FPGA expertise with industry-specific insights, Enclustra enables customers to minimize development complexity, optimize performance, and accelerate time to market. Learn more at www.enclustra.com.

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About SiMa.ai

SiMa.ai is a software-centric, embedded edge machine learning system-on-chip (MLSoC) company. SiMa.ai delivers ONE Platform for Edge AI that flexibly adjusts to any framework,

network, model, sensor, or modality. Edge AI applications that run completely on the SiMa.ai MLSoC and Modalix and Palette product family see a tenfold increase in performance and energy efficiency, bringing higher fidelity intelligence to AI use cases spanning computer vision to generative AI in minutes. With SiMa.ai, customers unlock new paths to revenue and significant cost savings to innovate at the edge across industrial manufacturing, retail, aerospace, defense, agriculture, and healthcare. SiMa.ai was founded in 2018, has raised \$270M, and is backed by Fidelity Management & Research Company, Maverick Capital, Point72, MSD Partners, VentureTech Alliance, and more.

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