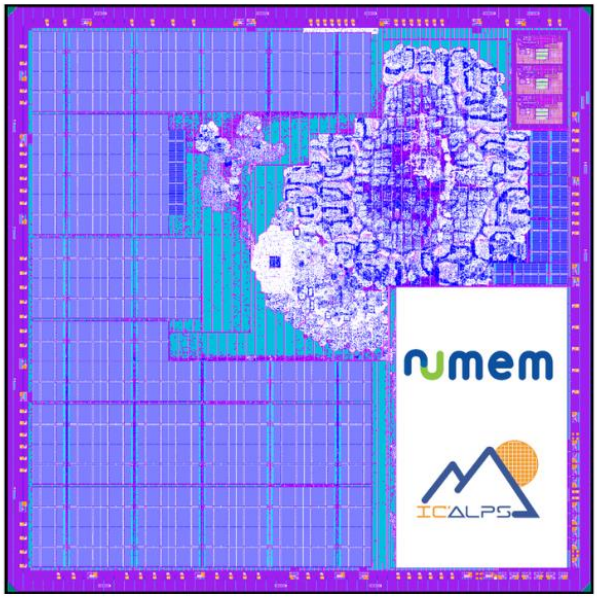
For immediate release

NUMEM & IC'ALPS Collaborate to Develop an ultra-low-power SOC for Sensor and AI applications

Layout of the ultra-low-power SOC



Sunnyvale, USA - Meylan, FRANCE – May 29, 2024

Numem - a leader in high-performance Memory IP Cores and Memory Chip/Chiplet based on its patented NuRAM (MRAM) and SmartMem technologies, and IC'ALPS - a leader in ASIC/SoC design and supply chain management, have pooled their expertise to meet the challenge of developing an ambitious integrated circuit with RISC-V processors, 2MBytes of NuRAM and a DSP/AI Custom Datapath Accelerator. The Custom SoC was developed in an advanced technology node.

This SoC has been designed and implemented to highlight the Numem high-performance, low power Memory subsystem with a RISC V Processor and AI Accelerator for ultra-low power applications. It has been developed through a close collaboration between Numem and IC'ALPS.

The physical implementation of this integrated circuit was made in a secure space (isolated location, network, and servers, encrypted exchanges, etc.) to meet with the stringent protection of sensitive data required by this program.

"We were very pleased with the collaboration and quality of service provided by IC'ALPS which made this on-time tape out possible and first time functional silicon" said Jack Guedj, CEO of Numem. NuRAM with SmartMem is a high-performance memory subsystem which is 2-3x smaller and boast significant power reduction over SRAM", he added.

Lucille Engels, COO of IC'ALPS indicated: "The challenges were numerous including: architecture, power domains, protection of the sensitive data, run times pushing improvement of EDA flow and the pressure of the tape out deadline".

Numem and IC'Alps intend to extend their partnership to serve new customers SoC projects – fell free to contact us

About NUMEM

Numem, headquartered in Sunnyvale, California, is the leading provider of Memory Subsystem Chip/Chiplet and IP based on proven foundry MRAM process. Numem's patented NuRAM technology enables best in class power/performance and reliability with 2.5x smaller area and 85x lower leakage power than traditional SRAM. Numem's SmartMem subsystem technology significantly improves performance and endurance as well as ease-of-use and reliability for high-volume deployment and enables to reach ultra-high bandwidth.

Visit our website at https://www.numem.com or contact us at sales@numem.com.

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ABOUT IC'Alps

IC'Alps is your one-stop-shop ASIC partner. Based in France (HQ in Grenoble, two design centers in Grenoble and Toulouse), the company provides customers with a complete offering for Application Specific Integrated Circuits (ASIC) and Systems on Chip (SoC) development from circuit specification, mastering design in-house, up to the management of the entire production supply chain. Its areas of expertise include analogic, digital and mixed-signal circuits (sensor/MEMS interfaces, ultra-low power consumption, power management, high-resolution converters, high voltage, signal processing, ARM and RISC-V based multiprocessors architectures, hardware accelerators) on technologies from 0.18 µm down to 5 nm, and from multiple foundries (TSMC, Global Foundries, Tower Semiconductor, X-FAB, STMicroelectronics, etc.). The company is active worldwide in medical, industrial, automotive, IoT, IA, mil-aero and digital identity & security sectors. IC'Alps is ISO 9001:2015, ISO 13485:2016, EN 9100:2018 certified, Common Criteria on-demand, IATF16949-ready, member of TSMC Design Center Alliance (DCA), ARM Approved Design Partner and X-FAB's partner network. More information on www.icalps.com and follow us on https://www.linkedin.com/company/ic-alps

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