IC'ALPS announces successful physical implementation of a demo-chip designed for Weebit Nano's ReRAM technology

Grenoble, FRANCE – February 23, 2023 - IC'ALPS, a France-based provider of ASIC Design & Supply Services, announces the successful physical implementation of a chip design project for Weebit Nano, with the fully functional demo chip manufactured first-time-right and delivered for qualification. The demo chip, which integrates Weebit Nano's embedded Resistive Random-Access Memory (ReRAM) module manufactured on SkyWater's 130 nm CMOS process, is working as expected and achieving the targeted performances including speed, power and die size.

This achievement demonstrates how the IC'Alps design methodology allows companies to shorten design cycles and quickly achieve working silicon. The demo chip is a key enabler for companies to adopt Weebit's innovative non-volatile memory (NVM) for development of their system-on-chip (SoC) designs for industrial, automotive and consumer applications.

"IC'Alps performed the physical implementation of the demo chip from Weebit Nano RTL code embedding its non-volatile memory block. This included successful adaptation of an analog technology design kit for a digital flow. We are obviously very happy with the results as the testing phase completed successfully." – Lucille Engels – Chief Operating Officer – IC'Alps

"We were extremely pleased with IC'Alps' work on our demo chip for SkyWater's 130nm process. The IC'Alps team is highly skilled with all aspects of physical implementation, from RTL-to-GDS implementation to tape-out. They met schedule and quality targets, and the chip is fully functional." – Ilan Sever – Vice-President of R&D – Weebit Nano

The Weebit Nano demo chip comprises a full sub-system for embedded applications, including the Weebit ReRAM module, a RISC-V microcontroller (MCU), system interfaces, memories and peripherals. Weebit's embedded ReRAM module includes a 256Kb ReRAM array, control logic, decoders, IOs (Input/Output communication elements) and error correcting code (ECC).

IC'Alps and Weebit Nano at Embedded World 2023

IC'Alps and Weebit Nano will both exhibit at the Embedded World Exhibition and Conference 2023, being held in Nuremberg, Germany, March 14-16. Visit IC'Alps in Hall 4, Booth 650c. See a demonstration of Weebit ReRAM IP in Hall 4, Booth 650a.

ABOUT IC'ALPS

IC'Alps is your one-stop-shop ASIC partner. Based in France, 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, low power consumption, high-resolution converters, high voltage, signal processing, ARM and RISC-V based multiprocessors architectures, hardware accelerators) on technologies from 0.18 µm down to 7 nm, and from multiple foundries (TSMC, GlobalFoundries, Tower Semiconductor, X-FAB, STMicroelectronics, etc.). The company is active worldwide in medical, industrial, transport, IoT, IA, mil-aero and digital identity & security sectors. IC'Alps is ISO 9001-2015, ISO 13485-2016, EN 9100-2018 certified, Common Criteria ready, ARM Approved Design Partner, and member of the 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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