NEWS RELEASE

Think Silicon and Ambiq Enable Ultra-Low Power IoT Devices with Smartphone-Class, 3D-Like Graphics

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ATHENS, Greece and AUSTIN, TX—Think Silicon S.A., the leading provider of ultra-low power GPU IP for embedded systems, and Ambiq, a technology leader recognized in ultra-low power system on chips (SoCs) and real-time clocks (RTCs), today announced the companies are working together to bring high-end graphics capabilities to designers of everyday wearable devices.

To provide high-performance, low-power graphics, Ambiq's newest Apollo4 SoC family now incorporates Think Silicon's NEMA® pico GPU and NEMAdc display controller IP. The Apollo4 SoC family is the fourth-generation processor solution built upon Ambiq's proprietary Sub-threshold Power-Optimized Technology (SPOT®) platform. The Apollo4's complete hardware and software solution enables the battery-powered edge devices of tomorrow to achieve a higher level of intelligence without sacrificing battery life. The Apollo4 is purpose-built to serve as both an application processor and a coprocessor for battery-powered edge devices, including smartwatches, children's watches, fitness bands, animal trackers, far-field voice remotes, predictive health and maintenance devices, smart security devices, and smart home devices.

NEMA|pico XL/XS Series is a SoC-optimized GPU with display controller IP in a feature-complete design targeting the most rigorous power, performance and area requirements for mid- to high-end wearables and embedded IoT display devices. The scalable multi-core GPU IP platform has the ability to run on bare metal / RTOS, which requires only a small amount of on-chip memory and system resources, making it ideal for memory- and power-limited SoCs. The NEMA|pico XL/XS Series is designed to reduce overall system power by minimizing memory and display access without sacrificing battery life, graphics quality and performance.

“Adding the NEMA GPU and display controller widens the application space for the Apollo family of SoCs. It allows our customers to build ultra-low power wearables with industry-leading graphics performance, delivering feature-rich and uncompromising user interfaces,” said Dan Cermak, the VP of Architecture and Product Planning at Ambiq. “The flexibility of the Think Silicon IP gives our customers a wide range of options for display, allowing them to support multiple end-product tiers with few changes to the underlying design.”

“Incorporating the NEMA Pico GPU IP with the Apollo4 SoC family allows us to push the limits of what’s possible in high-performance, low-power graphics,” said Ulli Mueller, Director of IP Licensing and Marketing at Think Silicon. “Together, our solution provides stunning graphics in a power / performance envelope with battery life measured in weeks instead of days, all on the smallest silicon footprint.”

About Ambiq

Ambiq was founded in 2010 with the mission to foster a cleaner, greener, and safer environment where mobile and portable devices could either reduce or eliminate their total power consumption from the batteries. Ambiq has been laser-focused on inventing and delivering the most revolutionary system on chip (SoC) solutions in the market for the last ten years. Through the advanced Sub-threshold Power Optimized Technology (SPOT®) platform, Ambiq has helped many leading manufacturers worldwide create products that can operate for days, months, and sometimes years on a lithium battery or a single charge. For more information, visit **www.ambiq.com**.

About Think Silicon

Think Silicon Research and Technology S.A., an Applied Materials company, is a leading provider of ultra-low power 2D & 3D graphics, AI and video IP for smart IoT/edge connected end nodes such as display and camera devices and embedded systems. At Think Silicon our innovation enables the rapid deployment of multitude applications on resource-constrained devices while significantly improving battery life to shape a more sustainable future in graphics, vision and AI processing. Think Silicon Research and Technology S.A.’s headquarters and development center are based in Athens and Patras, Greece, with sales and technical support offices in North America, Europe and Taiwan.

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