

FOR IMMEDIATE RELEASE

Signaloid joins Open Chiplet Atlas Alliance and Announces Plans to Make Its UxHw ASICs Available via OCA Ecosystem

- *British compute hardware company Signaloid joins Open Chiplet Alliance (OCA) and plans to bring its distribution-extended compute hardware (UxHw) compute acceleration technology to the OCA ecosystem.*
- *UxHw technology speeds up compute-intensive stochastic workloads in AI, science and engineering simulations, robotics, and quantitative finance.*

Cambridge, 15th September 2026 — British compute hardware company Signaloid has joined the Open Chiplet Alliance (OCA) and announced plans to make its UxHw® compute acceleration technology available as chiplets within the OCA ecosystem. The UxHw technology targets AI and simulation workloads that rely on stochastic methods, including quantitative finance, reinforcement learning, engineering simulations, and world models. The announcement follows Signaloid's recent tapeout of a UxHw ASIC for robotics and physical AI in an ultra-low-power TSMC process.

"The Open Chiplet Atlas (OCA) increases innovation in chip design by defining an open architecture for multi-vendor chiplet interoperability. In doing so, it enables new Systems-in-Package (SiPs) with reduced non-recurring engineering (NRE) costs and a vastly expedited time-to-market," says Wei-han Lien, Chief CPU Architect and Senior Fellow of Tenstorrent. *"We are thrilled to welcome Signaloid to the OCA ecosystem. Their unique, innovative accelerator for stochastic workloads adds a highly specialized capability that enriches our expanding suite of chiplets."*

A Different Kind of AI Accelerator Chiplet

Signaloid's UxHw technology delivers orders-of-magnitude speedups for workloads common in robotics, machine learning, quantitative finance, and engineering simulations. These workloads often rely on iterative algorithms with randomized variations, including Monte Carlo methods, importance sampling, and particle filters, to evaluate large numbers of possible scenarios in searching for a solution.

Unlike conventional CPUs and GPUs, which handle such computations through repeated execution across many compute cores, Signaloid's UxHw dynamically restructures computations to process information about probable outcomes directly and more efficiently. In competitive benchmarking against contemporary high-end server processors, UxHw has demonstrated speedups of multiple orders of magnitude while often reducing energy consumption by up to 1000×.

What the Chiplet Will Enable

Signaloid's existing binary-translation-based cloud instances, FPGA implementations, and ASIC realizations of UxHw already provide multiple orders-of-magnitude speedups over conventional approaches for stochastic workloads. By bringing UxHw to the OCA ecosystem as a chiplet, Signaloid aims to enable tighter integration with next-generation heterogeneous AI accelerators. The UxHw technology and its implementation are covered by a growing portfolio of more than 90 intellectual property filings across the US, China, Taiwan, Japan, and the EU.

About Signaloid

Signaloid was founded by Prof. Phillip Stanley-Marbell, a former Professor of Physical Computation at the University of Cambridge and a researcher whose previous roles include Bell Labs, IBM, Apple, and MIT. Signaloid provides a computing platform that benefits computationally-challenging workloads, many of which can be reformulated in terms of algorithms that process probability distributions. Its technology is already used by more than 3,000 users worldwide and is available as cloud, on-premises and low-power edge hardware. www.signaloid.com

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