Baum's Power Analysis Suite is Adopted by FuriosaAI

PowerBaum Used to Optimize Power in an AI Chipset

SEOUL, KOREA, November 22, 2021 /EINPresswire.com/ -- Baum, an electronic design automation (EDA) company, today announced that FuriosaAI, a fabless semiconductor company focusing on AI chip architecture, used Baum's power analysis suite to lower both peak power and average power consumption of their AI chip, Warboy, and plan to continue applying it in the design of next generation chips.

FuriosaAI's Warboy, designed for high performance computer vision, has demonstrated better performance in image classification and object detection processing compared to NVIDIA T4 in the MLPerf inference benchmark results.

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"Baum power model enables fast and accurate transient power analysis for long usage scenarios, which is very difficult with other power simulation solutions." said June Paik, CEO of FuriosaAI. "Transient analysis is a key in detecting the scenarios causing abrupt power changes and in extracting detailed power breakdown which our designers heavily rely on for power optimization. In addition, the AI chip instantiates multiple processing elements, and PowerBaum is innovative in creating a power model of one processing element, which itself is instantiated multiple times for AI chip power analysis."

"Baum is delighted to provide FuriosaAI with the power analysis tools they need to optimize the power and thermal efficiency of their current and future Warboy product lines," remarked Youngsoo Shin, co-CEO of Baum. "PowerBaum's very high-speed and assurance of implementation accuracy combine for an ideal power analysis solution across FuriosaAI's entire development phase."

"Large and complex chip designers such as FuriosaAI can benefit even more by using Baum's technology in a hardware emulation environment." said Joonhwan Yi, co-CEO of Baum, "Baum power models can accurately analyze power consumption considering glitches with emulator-generated FSDB files."

Baum will showcase its technology at Design Automation Conferences, San Francisco, CA, USA, on December 6-9.

The Latest Version of PowerBaum

PowerBaum automatically generates high-level power models from design sources and applies advanced learning techniques of gate-level behavior to achieve very high accuracy. Baum power models run in higher abstraction environments, such as RTL simulation, ESL (virtual prototypes), and hardware emulation to achieve orders of magnitude performance improvement compared to competing solutions in the market. Baum's automated power analysis and power modeling solutions support both dynamic and leakage power, taking in register transfer level (RTL) and netlist descriptions of the design.

PowerBaum 2.9 is shipping today and available globally. Pricing is available upon request.

About Baum
Baum provides electronic design automation (EDA) solutions for very fast yet accurate power analysis through power modeling technology. Founded in 2016 by seasoned semiconductor professionals with technical, R&D, and business development expertise, Baum is privately held and funded.

About FuriosaAI

FuriosaAI is an artificial intelligence (AI) fabless company founded in 2017, with the goal of developing hardware and software tools used to fabricate high-performance AI chips. They provide the most efficient and optimized silicon solutions for nascent yet powerful AI applications by employing innovative architecture and vertical engineering. FuriosaAI's first silicon chip Warboy demonstrated high performance in the MLPerf 2021 AI inference benchmark. Currently, the Warboy chip has consistently proved its performance and has been tested in a variety of application areas such as metaverse, cloud data center, autonomous driving, robotics, live streaming, and smart retail.

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