Synopsys and SiMa.ai Collaborate to Bring Machine Learning Inference at Scale to the Embedded Edge

Engagement Leverages Synopsys' DesignWare IP, Verification Continuum, and Fusion Design Solutions to Accelerate Development of SiMa.ai MLSoC Platform

MOUNTAIN VIEW, Calif., Oct. 14, 2020 /PRNewswire/ -- Synopsys, Inc. (Nasdaq: SNPS) today announced its collaboration with SiMa.ai to bring its machine learning inference at scale to the embedded edge. Through this engagement, SiMa.ai has adopted key products from Synopsys DesignWare® IP, Verification Continuum® Platform, and Fusion Design Platform™ for the development of their MLSoC™, a purpose-built machine-learning platform targeted at specialized computer vision applications, such as autonomous driving, surveillance, and robotics.

SiMa.ai selected Synopsys due to its expertise in functional safety, complete set of proven solutions and models, and silicon-proven IP portfolio that will help SiMa.ai deliver high-performance computing at the lowest power. With Synopsys' automotive-grade solutions, SiMa.ai can accelerate their SoC-level ISO 26262 functional safety assessments and qualification while achieving their target ASILs.

"Working closely with top-tier customers, we have developed a software-centric architecture that delivers high-performance machine learning at the lowest power. Our purpose-built, highly integrated MLSoC supports legacy compute along with industry-leading machine learning to deliver more than 30x better compute-power efficiency, compared to industry alternatives," said Krishna Rangasayee, founder and CEO, at SiMa.ai. "We are delighted to collaborate with Synopsys towards our common goal to bring high-performance machine learning to the embedded edge. Leveraging Synopsys' industry-leading portfolio of IP, verification, and design platforms enables us to reduce development risk and accelerate the design and verification process."

"We are pleased to support SiMa.ai as it brings MLSoC chip to market," said Manoj Gandhi, general manager of the Verification Group at Synopsys. "Our collaboration aims to address SiMa.ai's mission to enable customers to build low-power, high-performance machine learning solutions at the embedded edge across a diverse set of industries."

Since SiMa.ai's inception it has strategically collaborated with Synopsys to support all aspects of their MLSoC architecture design and verification.

The Synopsys Fusion Design Platform solutions enable optimized implementation, including:

- Design Compiler® synthesis solution
- PrimeTime® for timing signoff
- PrimePower for power signoff
- Formality® equivalence-checking solution

The industry-leading hardware and software verification solutions from the Verification Continuum platform enable scalable SoC verification, including:

- Virtualizer™ virtual prototyping for earlier and faster software development
- VCS® simulation with the smallest memory footprint
- ZeBu® Server for system verification, benchmarking, and power analysis

Synopsys' high-quality DesignWare IP enables rapid development of SiMa.ai's MLSoC, including:

- DesignWare ARC® Embedded Vision Processor IP
- DesignWare MIPI, DDR, and PCI Express IP solutions
- DesignWare Foundation IP
- DesignWare Security IP

Learn more about Synopsys DesignWare IP, Verification Continuum Platform, and Fusion Design Platform.

About Synopsys

Synopsys, Inc. (Nasdaq: SNPS) is the Silicon to Software™ partner for innovative companies developing the electronic products and software applications we rely on every day. As the world's 15th largest software company, Synopsys has a long

history of being a global leader in electronic design automation (EDA) and semiconductor IP and is also growing its leadership in software security and quality solutions. Whether you're a system-on-chip (SoC) designer creating advanced semiconductors, or a software developer writing applications that require the highest security and quality, Synopsys has the solutions needed to deliver innovative, high-quality, secure products. Learn more at www.synopsys.com.

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