# Synopsys Honored at TSMC 2023 OIP Ecosystem Forum with Multiple Partner of the Year Awards

Awards Recognize Synopsys' Significant Contribution to Driving Advanced-Node Silicon Success and Technology Innovation

Leadership

## Highlights:

- Certification of new Synopsys digital and analog design flows delivers proven power, performance, and area results for TSMC N2 and N3P processes.
- Silicon success of Synopsys Interface IP portfolio on TSMC N3E reduces integration risk, accelerates time-to-market, and provides a fast path to TSMC N3P.
- Comprehensive multi-die system solution integrated with 3Dblox 2.0 standard boosts productivity for fast heterogeneous integration.
- Radio frequency design reference flow on TSMC N4P developed in collaboration with Ansys and Keysight delivers superior performance and power with an interoperable, front-to-back design flow.

SUNNYVALE, Calif., Oct. 26, 2023 /PRNewswire/ -- Synopsys, Inc. (Nasdaq: SNPS) has been selected as a TSMC Open Innovation Platform® (OIP) Partner of the Year, earning five awards spanning digital, analog, multi-die system, radio frequency (RF) design, and interface IP. The long-standing collaboration between the two companies continues to deliver production-proven solutions, including certified design flows, powered by the Synopsys.ai<sup>TM</sup> full-stack Al-driven EDA suite, that help mutual customers accelerate the development and silicon success of innovative AI, automotive, and high-performance computing designs. Synopsys solutions were featured in an unprecedented number of presentations at the 2023 North America TSMC OIP Ecosystem forum, highlighting strong collaboration with TSMC and partners on proven solutions for TSMC's advanced process and 3DFabric<sup>TM</sup> technologies.

"TSMC and Synopsys are making huge leaps to provide engineering teams with innovative solutions to successfully develop complex designs on the latest advanced process nodes," said Dan Kochpatcharin, head of Design Infrastructure Management Division at TSMC. "The partner awards recognize the significant contributions made by the TSMC OIP ecosystem partners like Synopsys to advance the next generation of high-performance designs on TSMC's technologies, with massively improved quality of results and time to results."

"Being recognized by TSMC underscores Synopsys' commitment to providing the industry with leading solutions including Synopsys.ai, a full-stack Al-driven EDA suite, and silicon-proven IP solutions that help chipmakers bring differentiated products to market faster," said Sanjay Bali, vice president of Strategy and Product Management for the EDA Group at Synopsys. "Our longstanding collaboration with TSMC continues to deliver new EDA and IP innovations that enable the semiconductor industry to efficiently transition to 2nm and multi-die systems, while also facilitating Al-based analog design migration. These significant technology advancements help our customers meet and beat their design and productivity targets."

Over the past year, the companies' collaboration has yielded impactful design solutions for mutual customers, garnering five awards including:

- **Development of 2nm and N3P Design Infrastructure:**Synopsys' production-proven digital and analog design flows certified on TSMC N2 and N3P process technology enhance the quality of results for high-performance computing, mobile, and AI designs.
- Interface IP: Synopsys' broad, silicon-proven interface IP portfolio on the TSMC N3E process, with a fast path to the N3P process, provides a competitive edge for chipmakers looking to reduce integration risk and accelerate time to first-pass silicon success.
- **Development of mmWave Design Solutions:** Synopsys RF reference design flow, developed in collaboration with Ansys and Keysight, provides an open, front-to-back design flow with performance, power, and productivity benefits.
- **Development of 3Dblox Design Prototyping Solution:** Synopsys's comprehensive Multi-Die System solution combined with 3Dblox standard enables early architecture exploration and feasibility analysis, efficient die/package codesign, robust die-to-die connectivity, and improved manufacturing and reliability.
- Partner Collaboration: Synopsys, Ansys, and Keysight were recognized for their unprecedented collaboration to develop the RF reference flows for TSMC's leading N16, N6 and N4P processes.

### **Additional Resources**

 News Release: Synopsys and TSMC Collaborate to Accelerate 2nm Innovation for Advanced SoC Design with Certified Digital and Analog Design Flows

- News Release: Synopsys and TSMC Advance Analog Design Migration with Reference Flow Across Advanced TSMC Processes
- News Release: Synopsys Unveils Industry's Broadest Portfolio of Automotive-Grade IP on TSMC's N5A Process Technology
- News Release: Synopsys and TSMC Streamline Multi-Die System Complexity with Unified Exploration-to-Signoff Platform and Proven UCle IP on TSMC N3E Process
- News Release: Keysight, Synopsys, and Ansys Accelerate RFIC Semiconductor Design with New Reference Flow for TSMC's Advanced 4nm RF FinFET Process

### **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 an S&P 500 company, Synopsys has a long history of being a global leader in electronic design automation (EDA) and semiconductor IP and offers the industry's broadest portfolio of application security testing tools and services. Whether you're a system-on-chip (SoC) designer creating advanced semiconductors, or a software developer writing more secure, high-quality code, Synopsys has the solutions needed to deliver innovative products. Learn more at www.synopsys.com.

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