

Synopsys and Samsung Collaborate to Deliver Broad IP Portfolio Across All Advanced Samsung Foundry Processes

Synopsys Interface & Foundation IP for Samsung 8LPU, SF5(A), SF4(A) and SF3 Processes Accelerate Path to Silicon Success for Advanced SoC Designs

Highlights:

- Synopsys Interface IP for the most widely used protocols, such as USB, PCI Express, 112G Ethernet, UCIe, LPDDR, DDR, MIPI and more, delivers high performance and low latency in Samsung processes
- Synopsys Foundation IP, including logic libraries, embedded memories, TCAMs and GPIOs, delivers optimal power, performance and area on advanced nodes
- Synopsys automotive-grade IP in Samsung processes helps to ensure long term operation and reliability for ADAS, powertrain and radar SoCs
- Broad IP portfolio in Samsung processes complement Synopsys' certified digital and custom design flows to accelerate time to silicon success

MOUNTAIN VIEW, Calif., June 13, 2023 /PRNewswire/ -- [Synopsys, Inc.](#) (Nasdaq: [SNPS](#)) today announced an expanded agreement with Samsung Foundry to develop a broad portfolio of IP to reduce design risk and accelerate silicon success for automotive, mobile, high-performance computing (HPC) and multi-die designs. This agreement expands Synopsys' collaboration with Samsung to enhance the Synopsys IP offering for Samsung's advanced 8LPU, SF5, SF4 and SF3 processes and includes Foundation IP, USB, PCI Express, 112G Ethernet, UCIe, LPDDR, DDR, MIPI and more. In addition, Synopsys will optimize IP for Samsung's SF5A and SF4A automotive process nodes to meet stringent Grade 1 or Grade 2 temperature and AEC-Q100 reliability requirements, enabling automotive chip designers to reduce their design effort and accelerate AEC-Q100 qualification. The auto-grade IP for ADAS SoCs will include design failure mode and effect analysis (DFMEA) reports that can save months of development effort for automotive SoC applications.

"Our extensive co-optimization efforts with Samsung across both EDA and IP help automotive, mobile, HPC, and multi-die system architects cope with the inherent challenges of designing chips for advanced process technologies," said John Koeter, senior vice president of product management and strategy for IP at Synopsys. "This extension of our decades-long collaboration provides designers with a low-risk path to achieving their design requirements and quickly launching differentiated products to the market."

"Samsung's longstanding collaboration with Synopsys, as our primary IP partner, has benefited our mutual customers by providing access to high-quality IP through each generation of Samsung's technology advancements," said Jongshin Shin, corporate executive vice president of Foundry IP Development at Samsung Electronics. "Extending this partnership across Samsung's full range of advanced nodes gives designers access to the industry's broadest IP portfolio, enabling them to meet the performance, power and area requirements of their target applications with less risk and faster time-to-market."

Availability

Synopsys IP available or in development for Samsung processes includes [logic libraries](#), [embedded memories](#), [TCAMs](#), [GPIOs](#), [eUSB2](#), [USB 2.0/3.0/3.1/4.0](#), [USB-C/DisplayPort](#), [PCI Express 3.0/4.0/5.0/6.0](#), [112G Ethernet](#), [Multi-Protocol 16G/32G PHYs](#), [UCIe](#), [HDMI 2.1](#), [LPDDR5X/5/4X/4](#), [DDR5/4/3](#), [SD3.0/eMMC 5.1](#), [MIPI C/D PHY](#), and [MIPI M-PHY G4/G5](#).

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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