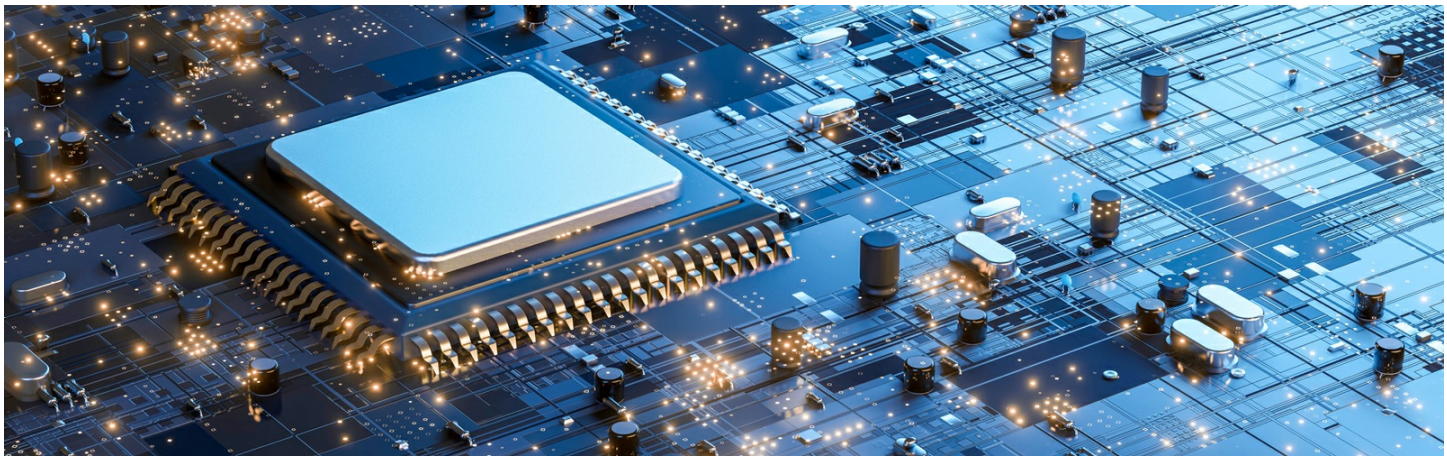
Synopsys Extends OptoCompiler Support for New GF Fotonix™ Platform

Unified Electro/Optical Solution for Designing Photonic-Enabled Chips Accelerates Development of Next-Generation Optical Communications



MOUNTAIN VIEW, Calif., March 7, 2022 /PRNewswire/ -- Synopsys, Inc. (Nasdaq: SNPS) today announced that the Synopsys OptoCompiler™ solution will enable designers to leverage the new GlobalFoundries (GF) silicon photonics platform. GF's next generation, widely disruptive, monolithic platform, GF Fotonix™, is the first in the industry to combine its differentiated 300mm photonics and RF-CMOS features on a silicon wafer, delivering best-in-class performance at scale.

OptoCompiler is the foundation of Synopsys' unified electronic and photonic design platform and is a complete end-to-end design, verification and signoff solution for photonic ICs. OptoCompiler combines mature and dedicated photonic technology with industry-leading simulation and physical verification tools to enable engineers to design and verify complex photonic ICs quickly and accurately.

"With the extremely large amounts of data and high-power consumption, there is a need for innovative solutions to move data faster and more efficiently," said Mike Cadigan, senior vice president for Customer Design Enablement at GlobalFoundries. "GF Fotonix will help to solve these issues and we welcome Synopsys' support for our new platform. The availability of the Synopsys dedicated electro-optical design solution will help designers efficiently create powerful, flexible, power-efficient new solutions required in today's datacenter, computing and sensing applications."

"As the leading provider of electrical/photonic design and verification solutions, Synopsys is committed to helping the industry accelerate adoption of photonic IC technologies," said Raja Tabet, senior vice president of the Custom Design and Manufacturing Group at Synopsys. "The process design kit for their new GF Fotonix platform enables mutual customers to leverage Synopsys solutions to shorten turnaround times and improve quality of results when developing next-generation silicon photonics chips."

GF solutions to move and compute data at speed of light
GF Fotonix is a monolithic platform, which is the first in the industry to combine elite 300mm photonics features and 300GHz-class RF-CMOS on a silicon wafer. GF Fotonix consolidates complex processes that were previously distributed across multiple chips onto a single chip by combining a photonic system, radio frequency (RF) components and high-performance complementary metal–oxide–semiconductor (CMOS) logic on a single silicon chip.

Synopsys's platform will support the process design kit (PDK) offered by GF with an end-to-end seamless design flow that includes schematic capture and layout synthesis with OptoCompiler, simulation with Synopsys PrimeSim™ and Synopsys OptSim™, and design rule checking (DRC) and layout versus schematic (LVS) with Synopsys IC Validator™. The unified platform supports PDK-driven design and custom design with Synopsys' Photonic Device Compiler. "With our expert customer success team that has supported more than 1,500 photonic tape-outs, Synopsys is uniquely positioned to help our customers ramp to the GF Fotonix platform more quickly and get products to market faster," said Tabet.

Synopsys will demonstrate its support for the GF Fotonix process and solutions this week in Booth #3215 at the Optical Fiber Communications Conference and Exposition (OFC) in San Diego.

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.

Editorial Contact:
Simone Souza
Synopsys, Inc.
650-584-6454
simone@synopsys.com

SOURCE Synopsys, Inc.