Synopsys Collaborates with GLOBALFOUNDRIES to Deliver Up to 50 Percent Power Reduction for Designs Using the 22FDX Platform

Reference Flow Using Galaxy Design Platform Available for Early Customer Engagement

MOUNTAIN VIEW, Calif., Nov. 9, 2015 /PRNewswire/ --

Highlights:

- GLOBALFOUNDRIES 22FDX Reference Flow includes support for Design Compiler, IC Compiler II, PrimeTime and StarRC
- Optimal power and performance achieved using IEEE 1801 (UPF) standard format to support comprehensive reverse and forward bias techniques

Synopsys, Inc. (Nasdaq: SNPS) today announced that its collaboration with GLOBALFOUNDRIES has resulted in a comprehensive RTL-to-GDSII solution for the industry's first 22-nanometer (nm) fully-depleted silicon-on-insulator (FD-SOI) technology process. GLOBALFOUNDRIES' 22FDX™ platform delivers FinFET-like performance and energy-efficiency at a cost comparable to 28-nm planar technologies. The industry-leading implementation and signoff tools from the Synopsys Galaxy™ Design Platform have been enabled for the current version of GLOBALFOUNDRIES' 22FDX™ platform reference flow. GLOBALFOUNDRIES has qualified these tools to use body bias to manage power, performance and leakage to achieve optimal energy efficiency and cost effectiveness.

Key tools and features of the Galaxy Design Platform in the 22FDX reference flow include:

- Design Compiler® Graphical synthesis with IEEE 1801 (UPF) driven bias-aware multi-corner multi-mode (MCMM) optimization
- Formality® formal verification with bias-aware equivalence checking
- IC Compiler™ and IC Compiler II layout with physical implementation support for non-uniform library floorplanning, implant-aware placement, multi-rail routing, and advanced power mesh creation
- StarRC™ parasitic extraction for multi-rail signoff with support for multi-valued standard parasitic exchange format (SPEF)
- PrimeTime® timing analysis and signoff including DMSA static timing and noise analysis, using AOCV and POCV technology

In addition, Synopsys and GLOBALFOUNDRIES are continuing the collaboration with the qualification and integration of IC Validator In-Design physical verification into the reference flow.

The Galaxy Design Platform supports body biasing techniques throughout the design flow, key to achieving optimal power and performance when using the 22FDX technology. Both forward body bias and reverse body bias are supported, enabling power/performance trade-offs to be made dynamically and delivering up to 50% power reduction.

"GLOBALFOUNDRIES and Synopsys have collaborated to provide designers with the tools and methodology to fully leverage the power, performance and cost advantages of 22FDX technology," said Pankaj Mayor, vice president of business development at GLOBALFOUNDRIES. "The qualification of Synopsys' tools for the 22FDX reference flow will enable customers to create innovative products."

"Our close collaboration with GLOBALFOUNDRIES helps accelerate adoption of the 22FDX technology," said Bijan Kiani, vice president of product marketing for Synopsys' Design Group. "Together, Synopsys and GLOBALFOUNDRIES address the requirements for developing energy-efficient designs in the highly competitive, cost-sensitive environment of mobile and wearable computing."

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 16th 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 quality and security solutions. Whether you're a system-on-chip (SoC) designer creating advanced semiconductors, or a software developer writing applications that require the highest quality and security, Synopsys has the solutions needed to deliver innovative, high-quality, secure products. Learn more at www.synopsys.com.

Editorial Contact:

Sheryl Gulizia
Synopsys, Inc.
650-584-8635
sgulizia@synopsys.com

SOURCE Synopsys, Inc.