SMIC Standardizes on Synopsys StarRC for Signoff Parasitic Extraction

StarRC Technology Files Available in 28-nm PDK for Digital and Custom Designs

MOUNTAIN VIEW, Calif., Oct. 26, 2016 /PRNewswire/ -- Semiconductor Manufacturing International Corporation ("SMIC") (NYSE: SMI; SEHK: 981), China's largest and most advanced semiconductor foundry and one of the world's largest foundries, and Synopsys, Inc. (Nasdaq: SNPS) today announced that it has adopted Synopsys' StarRC™ product as the standard solution for signoff parasitic extraction for its 28-nanometer (nm) process technology. This standardization is a result of a growing collaboration between SMIC and Synopsys to provide best-in-class solutions to mutual customers to meet their increasing needs for accuracy, performance and efficiency at advanced nodes. The StarRC solution delivered silicon-accurate extraction and productivity validated by SMIC for its 28-nm process. The qualified StarRC technology files are available as the default in SMIC's 28-nm process design kits (PDKs) for both digital and custom designs.

"Continuing to build on the momentum of our 28-nm process technology, a favorite node for semiconductor companies, is a priority for us, and the availability of qualified design tools is critical to support our expanding global customer base," said Anderson Huang, senior director of technology development at SMIC. "The partnership with Synopsys represents an enduring commitment to providing customers with the high-quality technologies and standards for use with our world-class manufacturing process. The deployment of StarRC in our 28-nm PDKs bolsters the resources available to our mutual customers through StarRC's proven silicon accuracy and comprehensive capabilities for both digital and custom designs, allowing them to develop advanced designs with increased confidence and productivity."

The StarRC product, an integral part of the Synopsys Galaxy™ Design Platform signoff solution, is the market leader and industry gold standard for gate-level and transistor-level parasitic extraction. It achieves superior performance and efficiency with its ultra-scalable multi-core architecture, simultaneous multi-corner (SMC) extraction and fast ECO capabilities, while maintaining industry-standard golden accuracy. The StarRC product provides extraction capabilities across a wide range of applications, from 100+ million instance digital system-on-chip (SoC) designs to custom memory, IP, standard cell and analog designs. Integration with Synopsys IC Compiler™ II place and route and PrimeTime® static timing analysis solutions allows designers to achieve even faster ECO design closure, while reducing disk space and processor core resources. In custom design environments, designers can cross-probe between parasitic and schematic views, annotate schematics with parasitics and perform visual debug. Significantly faster simulation runtimes and reduced disk space resources are realized through highly optimized extraction tuned for performance. The result of the collaboration between SMIC and Synopsys delivers qualified StarRC technology files in SMIC's 28-nm PDK that enable mutual customers to use a silicon-accurate and efficient extraction solution for their designs targeting SMIC's 28-nm node.

"Meeting customers' increasing needs to address complexity and accelerate design and analysis cycles are critical to propel them to silicon success at advanced process technologies," said Bijan Kiani, vice president of marketing for the Design Group at Synopsys. "SMIC's standardization on StarRC for parasitic extraction for its 28-nm process technology highlights the strong trust in our industry-leading technology to deliver on these important requirements and supports the innovations being driven by our mutual customers."

About SMIC

Semiconductor Manufacturing International Corporation ("SMIC") (NYSE: SMI; SEHK: 981) is one of the leading semiconductor foundries in the world and the largest and most advanced foundry in mainland China. SMIC provides integrated circuit (IC) foundry and technology services at 0.35-micron to 28-nanometer. Headquartered in Shanghai, China, SMIC has a 300mm wafer fabrication facility (fab) and a 200mm mega-fab in Shanghai; a 300mm mega-fab and a majority owned 300mm fab under development for advance nodes in Beijing; and 200mm fabs in Tianjin and Shenzhen. SMIC also has marketing and customer service offices in the U.S., Europe, Japan, and Taiwan, and a representative office in Hong Kong. For more information, please visit www.smics.com.

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 a leader in software quality and security testing with its Coverity® 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.

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