TSMC and Synopsys Extend Custom Design Collaboration into 16-nm

TSMC Certifies Laker Custom Design Solution for 16-nm FinFET and Provides iPDK

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Highlights:

- TSMC certifies Laker custom design solution for TSMC 16-nm FinFET process Design Rule Manual (DRM) v0.5
- Laker features for TSMC 16-nm v0.5 iPDK include support of complex FinFET abutment rules, double-patterning, middle end-of-line (MEOL) layers and other requirements of advanced-node design
- TSMC and Synopsys continue support for iPDKs to foster innovation in custom design

Synopsys, Inc. (Nasdaq: SNPS), a global leader providing software, IP and services used to accelerate innovation in chips and electronic systems, today announced TSMC's certification of Synopsys' Laker® custom design solution for the TSMC 16-nanometer (nm) FinFET process Design Rule Manual (DRM) V0.5 as well as the availability of a 16-nm interoperable process design kit (iPDK) from TSMC. With its robust support for the iPDK standard, Synopsys' Laker custom design solution provides users with access to a wide range of TSMC process technologies, from 180-nm to 16-nm. Along with support for the TSMC 16-nm V0.5 iPDK, the Laker tool has been enhanced to enable full use of FinFET technology.

Laker enhancements for 16-nm layout include an extensive set of new features for FinFET devices, including fin grid pattern snapping, fin display and interactive FinFET rule checking. Laker's built-in double-pattern checking has been enhanced to support pre-coloring and color density checking. Laker support for MEOL layers includes contactless connectivity, unidirectional layer rules and enhancements to support 16-nm guard rings. Laker has also been enhanced to support continuous diffusion (CNOD) and poly over diffusion edge (PODE) abutment rules used in the TSMC 16-nm V0.5 iPDK.

"Synopsys is TSMC's long-term Open Innovation Platform partner," said Suk Lee, TSMC senior director, Design Infrastructure Marketing Division. "The certification of Synopsys' Laker custom design solution demonstrates our collaboration to serve mutual customers' adoption of 16-nm FinFET technology."

"Synopsys has been working closely with TSMC to prepare for the 16-nanometer generation of design technology," said Bijan Kiani, vice president of product marketing, design and manufacturing products at Synopsys. "With early SPICE model development, close collaboration with the Synopsys IP team and now with the enablement of the Laker custom design solution, we are well prepared to support TSMC's 16-nanometer technology and customers."

About Synopsys

Synopsys, Inc. (Nasdaq: SNPS) accelerates innovation in the global electronics market. As a leader in electronic design automation (EDA) and semiconductor IP, Synopsys delivers software, IP and services to help engineers address their design, verification, system and manufacturing challenges. Since 1986, engineers around the world have been using Synopsys technology to design and create billions of chips and systems. Learn more at www.synopsys.com

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