

# Synopsys and HHNEC Announce the Availability of Low Power Reference Flow 3.0

**SHANGHAI, China., April 25, 2011** -- Synopsys, Inc. (NASDAQ: SNPS), a world leader in software and IP for semiconductor design, verification and manufacturing, and Shanghai Hua Hong NEC Electronics Company, Ltd (HHNEC), one of Mainland China's leaders in the field of IC foundry service, today announced the availability of the 130-nanometer (nm) reference flow, version 3.0. The reference flow, a result of collaboration between Synopsys and HHNEC, adds the Synopsys Eclipse™ Low Power Solution to previous reference flows available to designers. Designers have immediate access to an optimized path to HHNEC silicon at 130-nm, enabling them to meet their project and cost requirements.

Reference Flow 3.0 includes implementation and verification capabilities of Synopsys' Galaxy™ Implementation and Discovery™ Verification platforms to enable engineers to deploy advanced low power techniques. Capabilities added for reference flow 3.0 include Synopsys' Formality™ solution for low power equivalence checking, MVRC for static rule checking, Power Compiler™ tool for power optimization, and VCS™ with MVSIM for multi-voltage simulation.

The reference design flow was validated using HHNEC's in-house-developed cell library, SRAM, and IO Library for 130-nm. A full low power cell library from HHNEC is ready for customer use. The test chip used to validate the reference flow features a multi-supply and multi-voltage design.

"Hua Hong NEC's 130-nanometer non-volatile memory process requires a flow that addresses leakage power to meet our customers' need for power efficient designs," said Wang Nan, design service director at HHNEC. "We worked closely with Synopsys to deliver a solution that enables mutual customers to leverage Synopsys's strength in low power design and our manufacturing expertise.

"Synopsys works closely with our semiconductor foundry partners to enable our mutual customers to accelerate their designs into manufacturing," said Rich Goldman, vice president of corporate marketing and strategic alliances at Synopsys. "Our collaboration with Hua Hong NEC gives engineering teams a proven reference flow to advance their system-on-chip designs targeting Hua Hong NEC's 130-nanometer process technology, while leveraging Synopsys' low power implementation and verification technologies."

## **Availability**

The HHNEC-Synopsys Reference Flow 3.0 is available now from HHNEC; for more information, please contact your HHNEC account manager ([ds@hhnec.com](mailto:ds@hhnec.com)).

## **About Hua Hong NEC:**

Founded in July 1997, Shanghai Hua Hong NEC Electronics Company Limited is the first 8 inch semiconductor manufacturer of Mainland China and has become one of the world's leading pure-play wafer foundries, providing value-added foundry services to worldwide customers. The Company has two 8-inch foundry production lines in Mainland China which are both in mass production with the total capacity around 90K wafers per month. Hua Hong NEC, with its headquarters located in Shanghai China, extends its sales and technical support to Taiwan, Japan, North America and Europe.

<http://www.hhnec.com>

## **About Synopsys**

Synopsys, Inc. (Nasdaq: SNPS) is a world leader in electronic design automation (EDA), supplying

the global electronics market with the software, intellectual property (IP) and services used in semiconductor design, verification and manufacturing. Synopsys' comprehensive, integrated portfolio of implementation, verification, IP, manufacturing and field-programmable gate array (FPGA) solutions helps address the key challenges designers and manufacturers face today, such as power and yield management, system-to-silicon verification and time-to-results. These technology-leading solutions help give Synopsys customers a competitive edge in bringing the best products to market quickly while reducing costs and schedule risk. Synopsys is headquartered in Mountain View, California, and has approximately 70 offices located throughout North America, Europe, Japan, Asia and India. Visit Synopsys online at <http://www.synopsys.com/>.

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