

# Renesas Technology Selects Synopsys Proteus OPC for 45-nm Node Production

Highly Scalable Proteus Engine Offers Best Cost of Ownership

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MOUNTAIN VIEW, Calif., Aug. 25 /PRNewswire-FirstCall/ -- Synopsys, Inc. (NASDAQ: SNPS), a world leader in software and IP for semiconductor design, verification and manufacturing, today announced that Renesas Technology Corp., the world's No.1 supplier of microcontrollers and one of the world's premier semiconductor system solutions providers for mobile, automotive and PC/AV (Audio Visual) markets, has adopted Synopsys Proteus OPC for 45-nanometer (nm) production. With the introduction of 45-nm and below technologies, the demand for optical proximity correction (OPC) becomes greater due to design complexity and layer volume, making time to market and cost of ownership critical factors in OPC vendor selection. Proteus OPC is the industry's most cost-effective solution, since its highly scalable engine runs on standard hardware.

"At Renesas, we are faced with the challenge to tape out large volumes of 45-nm designs with severe schedule constraints," said Hitoshi Sugihara, department manager, DFM & Digital EDA Technology Dept., Design and Development Unit at Renesas Technology Corp. "We selected Proteus OPC since it meets our technology, schedule, and costs requirements. This decision will enable us to sustain our leadership in microcontrollers and semiconductor system solutions."

Proteus delivers near-linear scalability so that designers can efficiently utilize hundreds of cores, allowing them to balance turnaround-time with cost. Proteus is the only tool that enables users to effectively manage technology requirements, turnaround time and cost through the inclusion of both frequency- and space-domain simulation engines. With this capability, users can deploy the more accurate frequency-domain engine for the most critical layers and utilize the faster space-domain engine for the non-critical layers. ProGen, Proteus' highly customizable solution calibrates a single model that is utilized by both the space- and frequency-domain engines.

"As a leading semiconductor system solutions provider focusing on cutting-edge designs, Renesas has a critical need for an OPC solution that reduces turnaround time and cost," said Howard Ko, senior vice president and general manager of the Silicon Engineering Group at Synopsys. "Renesas' adoption of Synopsys Proteus OPC is proof that Synopsys' technology is the best solution to address these advanced design requirements."

## 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, software-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 more than 65 offices located throughout North America, Europe, Japan, Asia and India. Visit Synopsys online at <http://www.synopsys.com/>.

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