Renesas Technology Has Adopted Synopsys Proteus OPC for 28-nm Development

Proteus Delivers Best Accuracy Without Compromising Runtime or Cost of Ownership

MOUNTAIN VIEW, Calif., March 23 /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 leading semiconductor system solutions providers for mobile, automotive and PC/AV (Audio Visual) markets, has adopted Synopsys Proteus optical proximity correction (OPC) for 28-nanometer (nm) development. The 28-nm node pushes the limits for single-exposure photon-based lithography, and by selecting Proteus, Renesas can achieve their aggressive OPC accuracy specifications with improvement of process robustness. Proteus' advanced frequency domain simulators, highly scalable OPC engine and compact physical models offer unmatched accuracy, runtime performance and cost of ownership on industry-standard hardware.

"Process-window-aware OPC accuracy was a very important component at this aggressive technology node, but minimizing the cost of ownership was also required," said Hitoshi Sugihara, department manager, DFM & Digital EDA Technology Dept., Design and Development Unit at Renesas Technology Corp. "Proteus' compact physical models, user-programmable recipe with powerful function components, and highly scalable OPC engine allow us to achieve our objectives within a relatively short development cycle."

By optimizing the lithography simulation engine for standard x86 architecture, Proteus helps customers manage turnaround time with the lowest cost of ownership. Unlike software designed for custom hardware, Proteus takes advantage of the 1.6x performance improvement of each x86 generation. Through a combination of these ongoing microprocessor advancements and algorithmic enhancements, Proteus has delivered more than 12x better performance over the last three years.

"Renesas' success using Proteus to deploy their 28-nm OPC flow once again validates that Proteus delivers to our customers the best combination of accuracy and runtime performance," said Howard Ko, senior vice president and general manager of the Silicon Engineering Group at Synopsys. "By working with an industry leader like Renesas, Synopsys is able to deliver the industry's most advanced solutions, and we look forward to our continued collaboration."

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 https://www.synopsys.com/.

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