Novatek Uses Synopsys NanoSim Simulator With HVMOS to Improve Design Yield

Unique LCD Driver Verification Solution Cuts Design Margin by 50 Percent

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Synopsys, Inc. (NASDAQ: SNPS), a world leader in semiconductor design software, today announced that Novatek, a global leader and provider of flat panel thin-film transistor (TFT) liquid crystal display (LCD) driver ICs, successfully verified several designs using the Synopsys NanoSim® FastSPICE simulator with the newly available, built-in HSPICE® High-Voltage MOS (HVMOS) device model. With the foundry-endorsed HVMOS model, the NanoSim simulator enabled Novatek design engineers to accurately predict circuit behavior, thereby improving design yield while significantly reducing over-design.

"We constantly seek to improve our product quality and reduce cost," said Tommy Chen, vice president of engineering at Novatek. "The Synopsys NanoSim simulator with HVMOS model provides us with an accurate and robust top-level circuit verification solution. The NanoSim simulator enabled us to achieve a 50 percent reduction in the required design margins with our last chip. The NanoSim simulator is clearly superior to competitive offerings, and we intend to deploy it in our other product lines."

Synopsys' industry-leading, high-performance NanoSim simulator with the HVMOS model is a comprehensive solution for LCD driver verification. This HVMOS model incorporates all of the critical physical effects of various high- voltage transistor technologies deployed in applications such as flat panel displays and automotive electronics. Synopsys' unique HSPICE model technology enables the NanoSim simulator to provide simulation results that correlate within a few percent of the actual silicon.

"The NanoSim simulator has long been accepted as the industry standard for simulating complex integrated circuit designs, and our innovative HVMOS modeling is addressing application-specific IC designs such as flat-panel LCDs," said George Zafiropoulos, vice president of marketing for verification products at Synopsys. "NanoSim clearly helps leading-edge companies like Novatek to deliver more competitive products."

About Synopsys AMS

Synopsys offers the industry's most comprehensive portfolio of analog and mixed-signal simulation solutions. The Synopsys Discovery™ AMS mixed-signal verification solution is based on the leading golden HSPICE simulator, NanoSim simulator, HSIM® simulator, and VCS® simulator. The Discovery AMS platform provides a unique combination of accuracy, performance and capacity with the flexibility of simulating design abstractions in any combination of Verilog, SPICE, Verilog-A and Verilog-AMS. This comprehensive solution enables designers to achieve superior throughput and accuracy for the largest mixed-signal systems on chips (SoCs).

Availability

Synopsys' HVMOS device model is currently available in the HSPICE and NanoSim simulators, as well as in the Aurora ™ model parameter extraction tool.

About Synopsys

Synopsys, Inc. is a world leader in EDA software for semiconductor design. The company delivers technology-leading semiconductor design and verification platforms and IC manufacturing software products to the global electronics market, enabling the development and production of complex systems-on-chips (SoCs). Synopsys also provides intellectual property and design services to simplify the design process and accelerate time-to-market for its customers. Synopsys is headquartered in Mountain View, California and has offices in more than 60 locations throughout North America, Europe, Japan and Asia. Visit Synopsys online at www.synopsys.com.

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