

Synopsys' HSPICE High-Voltage MOS Transistor Model Adopted by UMC

New, Accurate Model Speeds Time to Results by 2X

Synopsys, Inc. (NASDAQ: SNPS), a world leader in semiconductor design software, today announced that UMC (NYSE: UMC), a leading semiconductor foundry, has adopted Synopsys' new high-voltage MOS (HVMOS) transistor model and is distributing model parameters to UMC customers who use the HSPICE® simulator. Synopsys' HVMOS model incorporates all the critical physical effects of various high-voltage transistor technologies that are in use today, thereby improving simulation accuracy and reducing the risk of chip re-spins. This new model will help UMC customers improve the quality of results and time to results for their design projects.

"UMC has verified Synopsys' HVMOS model for our high-voltage processes and is adopting it for our 0.25um and 0.18um HVMOS customers," said Dr. Jin Shyong Jan, director of device modeling at UMC. "We have found Synopsys' HVMOS model to be highly accurate when compared with other approaches. Since using the new model, we have seen significant improvement in turnaround time for model parameter extraction and validation."

UMC offers high voltage process technologies that are used to support applications including LCD and plasma display drivers, automotive electronics, computer periphery, small DC motor controls, DC-DC converters, power management and consumer electronic products.

"The HSPICE simulator has been widely accepted as the industry's 'gold standard' circuit simulator, especially in regards to its breadth and depth of model support," said Edmund Cheng, vice president of marketing, Silicon Engineering Group at Synopsys. "The superior accuracy and speed of parameter extraction that this new HVMOS model offers is the reason why we have seen increased adoption by major IDM and foundry customers since the model's introduction six months ago."

Availability

Synopsys' HVMOS transistor model is currently available in the HSPICE simulator, as well as in the Aurora™ model parameter extraction tool.

About Synopsys AMS

Synopsys offers the industry's most comprehensive portfolio of analog and mixed-signal simulation and optimization solutions. The Synopsys' Discover™ AMS mixed-signal verification solution is based on the leading golden HSPICE simulator, NanoSim® simulator, HSIM® simulator, Circuit Explorer tool and VCS® simulator. The Discovery AMS platform provide 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 even the largest mixed-signal SoC's.

About Synopsys

Synopsys, Inc. is a world leader in electronic design automation (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 <https://www.synopsys.com/>.

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