

# LG Electronics Accelerates Analog Simulation by 10X with Synopsys CustomSim

LG Electronics Adopts CustomSim for Mixed-signal SoC Verification

MOUNTAIN VIEW, Calif., Oct. 13, 2011 /PRNewswire/ -- Synopsys, Inc. (Nasdaq: SNPS), a world leader in software and IP used in the design, verification and manufacture of electronic components and systems, today announced that LG Electronics, Inc. has selected Synopsys' CustomSim™ FastSPICE simulator for the verification of its advanced analog intellectual property (IP) and mixed-signal system-on-chip (SoC) designs. By deploying the CustomSim simulator, LG Electronics has accelerated verification of its analog IP and SoCs by an average of 10X over previous solutions, enabling designers to simulate more process corners with post-layout data to accurately model circuit behavior in silicon.

"Rapidly changing market forces in consumer electronics are driving us to deliver SoCs in a continuously shrinking timeframe. To achieve aggressive tapeout schedules, we need a circuit simulation solution that not only delivers superior performance but also has the capacity to simulate our largest designs with required accuracy," said Dr. Kirt (Kuk-Tae) Hong, mixed-signal group leader at LG Electronics. "Our evaluation clearly demonstrated CustomSim's superior performance and capacity advantage over other competing analog simulators. We have seen an average improvement of 10X in analog IP verification throughput and are confident that CustomSim will meet our present and future transistor-level and mixed-signal verification needs."

The CustomSim FastSPICE simulator is an integral part of Synopsys' Discovery™ Verification Platform and delivers superior transistor-level verification performance and capacity for various classes of design, including custom digital, memory and analog/mixed-signal circuits. CustomSim provides a comprehensive suite of analysis features that include circuit electrical rule-checking, electromigration, IR-drop and MOS aging analysis. For full-chip mixed-signal verification, CustomSim is tightly coupled with Synopsys' VCS® functional verification solution and CustomExplorer™ Ultra mixed-signal verification environment, providing a high-performance, advanced mixed-signal simulation and regression debug and analysis solution.

"With the complexity of mobile communication devices, system providers such as LG Electronics are designing integrated circuits that combine multiple functional blocks, including analog, custom digital, memory and mixed-signal circuitry in a single device," said Bijan Kiani, vice president of product marketing at Synopsys. "CustomSim is delivering the performance and capacity needed to accelerate analog/mixed-signal verification for complex analog IP and SoCs."

## 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 [www.synopsys.com](http://www.synopsys.com).

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## Editorial Contacts:

Sheryl Gulizia  
Synopsys, Inc.  
650-584-8635  
[sgulizia@synopsys.com](mailto:sgulizia@synopsys.com)

Lisa Gillette-Martin  
MCA, Inc.  
650-968-8900 ext. 115  
[lgmartin@mcapr.com](mailto:lgmartin@mcapr.com)

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