Foveon Switches to Galaxy Custom Designer Solution to Accelerate Time-to-Tapeout

Synopsys Galaxy Custom Designer Enables First-pass Silicon Success on Foveon's Advanced Digital Sensor Product

MOUNTAIN VIEW, Calif., July 26 /PRNewswire-FirstCall/ -- Synopsys, Inc. (Nasdaq: SNPS), a world leader in software and IP for semiconductor design, verification and manufacturing, today announced that Foveon Inc., a world innovator in the design and development of image sensors and image capture systems, has taped out its newest-generation direct image sensor using Synopsys' Galaxy Custom Designer® solution. The Foveon X3® direct image sensor, used in high-end consumer cameras such as Sigma's SD15 digital SLR camera, has over 14 million pixels and is implemented on a 180-nanometer (nm) CMOS die. Foveon chose Synopsys' custom design solution to replace its existing solution to accelerate time-to-tapeout. The open environment of the Custom Designer solution provided Foveon with a rapid, low-risk path to migrate from its incumbent solution and complete tapeout in fewer than two months.

"We switched to Synopsys' custom solution because it offered greater productivity for our large, complex designs compared to our previous solution," said Andrew Cole, general manager and vice president of engineering at Foveon. "We also found that Custom Designer's open, standards-based environment made migration straightforward, with no impact to our design schedules. This was an important factor in our decision to adopt Synopsys."

The total time to completely transition to Custom Designer and tape out was less than two months. This effort included the development of an interoperable process design kit (iPDK), verification of layout against the legacy design database, and full netlist simulation to verify accuracy of the migrated schematic. Custom Designer's modern architecture accelerated Foveon's deployment, allowing its designers to easily take advantage of its advanced layout features and streamlined user interface.

"Synopsys' comprehensive custom design solution is enabling higher productivity and accelerating time-to-tapeout for custom digital designs such as Foveon's X3 direct image sensor," said Bijan Kiani, vice president of product marketing at Synopsys. "Furthermore, Custom Designer's open, standards-based environment lowers the barriers to adopting a more productive, non-proprietary custom solution."

Synopsys' custom solution for front-end design and simulation consists of the Custom Designer Schematic Editor (SE) with simulation and analysis environment, HSPICE® circuit simulator, CustomSim™ FastSPICE simulator and Custom WaveView waveform analyzer. The Synopsys custom physical design and verification flow consists of the Custom Designer Layout Editor (LE) with schematic-driven Layout (SDL) and SmartDRD design rule-driven technology, IC Validator physical verification tool and StarRC™ parasitic extraction tool.

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 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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