Solarflare Communications Tapes Out 10-Gigabit Ethernet Controller Chip Using Synopsys IC Compiler

IC Compiler Reduces Power Up to 20 Percent for Critical Design Blocks

MOUNTAIN VIEW, Calif., June 20 /PRNewswire-FirstCall/ -- Synopsys, Inc. (NASDAQ: SNPS), a world leader in semiconductor design software, today announced that Solarflare Communications, Inc. has taped out its new 90-nanometer (nm) 10-gigabit (Gb) Ethernet controller using the Synopsys IC Compiler place-and-route solution. Earlier this year, Solarflare announced Solarstorm™, the lowest-power 10-Gb Ethernet controller chip. Aiming to continue to strengthen its leadership position, Solarflare turned to Synopsys' IC Compiler for this new chip. IC Compiler helped Solarflare significantly reduce design time and improve results by delivering smaller overall area as well as 10 to 20 percent power reduction in several critical blocks.

"Synopsys physical design tools have been a key enabler of our drive to stay ahead of the curve with high throughput and low power. Synopsys' IC Compiler has helped us take this to an even higher level on our new 90-nanometer designs," said Brad Masters, vice president of Engineering at Solarflare. "Continuing on this strategy, we have already begun deploying IC Compiler advanced low-power capabilities, like automated multi-voltage, on our next-generation 65-nanometer designs."

Solarflare designed the Solarstorm 10-Gb Ethernet controller to deliver the lowest-power, highest-performance solution and to enable the host CPU to operate as efficiently as possible. Solarstorm server adapter reference designs (10GBASE-T, 10GBASE-CX4, and XFP optical) are available now. In addition to aggressive timing optimizations enabling high clock frequencies, IC Compiler provided a comprehensive set of low-power techniques. These advanced techniques included physical clock-gating optimizations, power-aware placement optimization, low-power clock tree synthesis, multi-threshold, MTCMOS and multi-voltage support.

"IC Compiler's optimization technology was instrumental in helping Solarflare meet its area and power design constraints and complete the Solarstorm product tapeout quickly," said Antun Domic, senior vice president and general manager of Synopsys' Implementation Group. "As Solarflare designs move to smaller silicon technologies, it can leverage more of the advanced capabilities in IC Compiler for further product differentiation."

About IC Compiler

The IC Compiler tool is Synopsys' new-generation place-and-route solution. It provides superior results and faster time-to-results by extending physical synthesis to full place-and-route, and by enabling signoff-driven design closure. Previous-generation solutions have a limited horizon because placement, clock tree, and routing are separate, disjointed operations. IC Compiler's Extended Physical Synthesis (XPS) technology breaks down the walls between these steps by extending physical synthesis to full place-and-route. IC Compiler has a unified, TCL-based architecture that implements innovations and harnesses some of the best Synopsys core technologies. It is a complete place-and-route system with everything necessary to do next-generation designs, including physical synthesis, placement, routing, timing, signal integrity (SI) optimization, power reduction, design-for-test (DFT), and yield optimization.

About Solarflare Communications, Inc.

Solarflare Communications, Inc. is a leading silicon vendor delivering Ethernet products that enable the rapid adoption of 10 Gigabit for data center and enterprise networks. Solarflare was the first company to demonstrate and sample to customers a 10GBASE-T PHY reaching 100 meters over a Category 6A link. The company's high-performance Ethernet solutions will lower the cost of 10 Gigabit networking for data center and enterprise customers. The privately held company is headquartered in Irvine, California with a development center in Cambridge, UK. For more information, visit http://www.solarflare.com/.

About Synopsys

Synopsys, Inc. (NASDAQ: SNPS) is a world leader in electronic design automation (EDA) software for semiconductor design. The company delivers technology-leading system and semiconductor design and verification platforms, IC manufacturing and yield optimization solutions, semiconductor intellectual property and design services to the global electronics market. These solutions enable the development and production of complex integrated circuits and electronic systems. Through its comprehensive solutions, Synopsys addresses the key challenges designers and manufacturers face today, including power management, accelerated time to yield and system-to-silicon verification. Synopsys is headquartered in Mountain View, California, and has more than 60 offices located throughout North America, Europe, Japan and Asia. Visit Synopsys online at https://www.synopsys.com/.

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