

Synopsys DesignWare USB 2.0 and Ethernet IP Enables First-Pass Silicon Success for STMicroelectronics

High-Quality DesignWare IP Speeds Time-to-Market for STM32 Connectivity Line of SoCs

MOUNTAIN VIEW, Calif., Oct. 7 [PRNewswire-FirstCall](#)/ -- Synopsys, Inc. (NASDAQ: SNPS), a world leader in software and IP for semiconductor design, verification and manufacturing, today announced that STMicroelectronics (ST) has achieved first-pass silicon success for its STM32 Connectivity Line of system-on-chips (SoCs) utilizing the Synopsys DesignWare® USB 2.0 On-The-Go (OTG) and Ethernet digital controllers. ST, a global leader in developing and delivering SoC and semiconductor solutions, evaluated several IP vendors and selected Synopsys DesignWare IP solutions because they are high-quality, include the right feature set, and have been silicon-proven in a wide range of applications. ST also benefitted from having convenient access to a knowledgeable, local technical support team. By using Synopsys DesignWare IP, ST was able to focus their engineering expertise on their product differentiation and meet their time-to-market schedule.

The STM32 Connectivity Line, targeting networked, real-time and audio applications, required a USB 2.0 OTG interface, to allow end products to act as both a USB host and device, and an Ethernet interface that supports the newly released IEEE 1588-2008 Precision Time Protocol. After evaluating several IP providers on features, technical support, scalability and maturity of the IP, ST determined that Synopsys DesignWare IP was the clear leader in all areas. Synopsys delivered USB and Ethernet IP solutions that were highly configurable, enabling ST to easily integrate the cores within weeks. In addition, the DesignWare Ethernet IP was the only IP solution at the time to support the IEEE 1588-2008 specification.

"Synopsys is well trusted in the design community and provided us with high-quality DesignWare USB and Ethernet IP solutions that enabled us to meet our aggressive project schedule and achieve first-pass silicon success," said Ludovic Ruat, digital IP design manager, Microcontrollers Division, STMicroelectronics. "Our established relationship with Synopsys enables us to have access to a very strong roadmap that we can rely on for future product developments."

"As a leader in connectivity IP, Synopsys focuses on providing top companies such as ST with high-quality IP solutions that not only include the right features but are also backed by an expert technical support team to help ensure their success," said John Koeter, vice president of marketing for the Solutions Group at Synopsys. "It is important for Synopsys to provide IP that works right the first time so that our customers can lower risk and deliver innovative products to the market faster."

The STM32 family of 32-bit Flash Microcontrollers is based on the breakthrough ARM Cortex™-M3 Processor, which is specifically developed for embedded applications. The STM32 family offers a complete 32-bit product range that combines high-performance, real-time, low-power and low-voltage operation, while maintaining ease of integration. Compatibility of pin assignments, peripherals and software across all STM32 devices is a key technical feature throughout this family of microcontrollers. The STM32 Connectivity Line features USB OTG, CAN2.0B and Ethernet interfaces. With the successful launch of the STM32 Connectivity Line, ST now offers 75 MCUs across all STM32 families, enabling more customers to benefit from the 32-bit ARM Cortex-M3 processor and complete pin-to-pin and software compatibility.

About DesignWare IP

Synopsys is a leading provider of high-quality, silicon-proven interface and analog IP solutions for system-on-chip designs. Synopsys' broad IP portfolio delivers complete connectivity IP solutions consisting of controllers, PHY and verification IP for widely used protocols such as USB, PCI Express, DDR, SATA, HDMI and Ethernet. The analog IP family includes Analog-to-Digital Converters, Digital-to-Analog Converters, Audio Codecs, Video Analog Front Ends, Touch Screen Controllers and more. In addition, Synopsys offers SystemC transaction-level models to build virtual platforms for rapid, pre-silicon development of software. With a robust IP development methodology, extensive investment in quality and comprehensive technical support, Synopsys enables designers to accelerate time-to-market and reduce integration risk. For more information on DesignWare IP, visit: <http://www.synopsys.com/designware>

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, software-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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