Synopsys Enhances DesignWare Ethernet IP With Support for IEEE 1588 Specification and ARM AMBA 3 AXI Interface

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Silicon-Proven IP Delivers Precision Clock Synchronization Capabilities and High-Throughput Connection for Ethernet-Based SoCs

MOUNTAIN VIEW, Calif., Jan. 20 /PRNewswire-FirstCall/ -- Synopsys, Inc. , a world leader in software and IP for semiconductor design and manufacturing, today announced it has enhanced the DesignWare® Ethernet MAC 10/100/1G IP to include support for the latest IEEE 1588 specification as well as an interface to the ARM® AMBA® 3 AXI™ protocol. The IEEE 1588 specification provides a standard method to synchronize devices on a network with sub-microsecond precision. This capability is a key requirement for consumer products in digital home applications as well as measurement and control systems. The addition of the AMBA 3 AXI interface enables designers to easily add Ethernet connectivity to their systems-on-chips (SoCs). Synopsys' DesignWare Ethernet IP solution is certified by the University of New Hampshire Interoperability Lab (UNH-IOL), which demonstrates proven interoperability and conformance to the IEEE standards.

As Ethernet is increasingly a standard interface in applications such as set-top boxes, routers, control systems and entertainment systems, synchronizing these devices within the Ethernet network can be challenging. The IEEE 1588 specification implements real-time clocks to precisely synchronize all of the connected devices, allowing systems to exchange the required amount of data such as audio and video streams, within a predefined time. Support for this specification has been added to the silicon-proven DesignWare Ethernet MAC 10/100/1G IP to help designers quickly incorporate this functionality into their SoCs. By using the new AMBA 3 AXI interface available in the DesignWare Ethernet IP, designers can leverage this high-performance on-chip bus to deliver higher throughput designs with access to a wealth of Ethernet-based systems and peripherals.

In addition to Ethernet IP, Synopsys offers a comprehensive portfolio of digital and mixed-signal IP including USB, PCI Express, DDR3/DDR2, SATA, 1394, Datapath and AMBA On-Chip Bus targeted for digital home applications. All are optimized to support advanced process technologies and deliver high system performance, enabling designers to develop feature-rich digital home SoCs.

"As a leader in Ethernet IP, Synopsys develops high-quality IP that enables designers to benefit from the latest on-chip bus standards and IEEE specifications," said John Koeter, vice president of marketing for the Solutions Group at Synopsys. "By adding support for the IEEE 1588 specification and an AXI interface, Synopsys is providing a UNH Certified Ethernet IP solution that is ideally suited for the latest requirements in digital home networking applications."

Availability

The DesignWare Ethernet MAC 10/100/1G IP solution with IEEE 1588 and AMBA 3 AXI interface support is available now, for more information visit: http://www.synopsys.com/ethernet.

About DesignWare IP

Synopsys offers a broad portfolio of high-quality, silicon-proven digital, mixed-signal and verification IP for system-on-chip designs. As a leading provider of connectivity IP, Synopsys delivers the industry's most comprehensive solutions for widely used protocols such as USB, PCI Express, SATA, Ethernet and DDR. In addition to connectivity IP, Synopsys offers SystemC transaction-level models to build virtual platforms for rapid, pre-silicon development of software. When combined with a robust

IP development methodology, extensive investment in quality and comprehensive technical support, DesignWare IP 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. is the world leader in electronic design automation (EDA), supplying the global electronics market with the software, intellectual property (IP) and services used in semiconductor design 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 60 offices located throughout North America, Europe, Japan, Asia and India. Visit Synopsys online at http://www.synopsys.com/.

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