Synopsys Unveils Ethernet Controller IP With New Audio Video Bridging Feature

DesignWare Ethernet QoS Controller Enables Efficient Streaming of 802.1 Audio and Video Applications

MOUNTAIN VIEW, Calif., May 5 /PRNewswire-FirstCall/ -- Synopsys, Inc. (Nasdaq: SNPS), a world leader in software and IP for semiconductor design, verification and manufacturing, today announced the immediate availability of the DesignWare® Ethernet Quality-of-Service (QoS) Controller IP which implements the new IEEE specifications for audio video bridging (AVB) features. The DesignWare Ethernet IP solution supports the new IEEE 802.1AS and 802.1-Qav version D6.0 specifications. These specifications enable efficient networking of streaming audio video (AV) applications through IEEE 802.1 networks found in consumer electronics, automotive AV and professional sound system products. Synopsys' DesignWare Ethernet QoS Controller, which supports 10/100/1G data transfer speeds, allows designers to develop system-on-chips (SoCs) that deliver time-synchronized, low-latency audio and video over Ethernet networks with exceptional quality-of-service while retaining compatibility with legacy networks.

"Ambarella experienced great success using Synopsys' DesignWare Ethernet IP for our innovative hybrid camera SoC platform," said Chan Lee, vice president of engineering at Ambarella. "The high-quality DesignWare Ethernet IP solution is clearly the best we have used, providing advanced features, high performance and the smallest silicon area. By providing the new Ethernet QoS Controller IP with support for the audio video bridging feature, Synopsys continues to demonstrate its technology leadership in this space."

The configurable DesignWare Ethernet QoS Controller provides:

- Low power consumption by supporting the IEEE 802.1az (Energy Efficient Ethernet) specification
- Improved network performance by easing server bottlenecks through multiple TCP/IP offload functions
- A programmable PHY interface, which enables easy connection to all industry-standard Ethernet PHYs
- Ease of integration by supporting multiple system interfaces such as ARM® AMBA® 2.0, AHB™ and AMBA 3 AXI™ interconnect, allowing designers to easily add Ethernet connectivity to their SoCs.

"As a leader in Ethernet IP, Synopsys continues to develop features and products that support the latest IEEE specifications. The DesignWare Ethernet QoS Controller IP enables designers to efficiently support streaming audio video applications such as set-top boxes and network storage," said John Koeter, vice president of marketing for the Solutions Group at Synopsys. "As streaming audio video applications become more prevalent in today's devices, the availability of high-quality Ethernet IP supporting the quality-of-service specifications helps designers deliver a more enhanced and reliable user experience."

Availability

The DesignWare Ethernet QoS Controller supporting 10/100/1G data transfer rates is available now. The DesignWare Ethernet 10/100/1G MAC, 10/100 MAC, 1G/2.5G/10G MAC, Ethernet PCS controllers and Ethernet Verification IP including SystemC models are also available now. For more information, visit: https://www.synopsys.com/IP/InterfaceIP/Ethernet/Pages/default.aspx.

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, Ethernet, HDMI and MIPI IP including 3G DigRF, CSI-2 and D-PHY. 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. Follow us on Twitter at http://twitter.com/designware_ip.

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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