Synopsys' New DesignWare Bridge IP for PCI Express to AMBA 2.0 AHB Connects Two Industry Standard Protocols

Bridge Connects a Wealth of PCI Express Technology-Based Systems and Peripherals to AMBA 2.0 AHB Protocol-Based Designs

Synopsys, Inc. (NASDAQ: SNPS), a world leader in semiconductor design software, today announced the availability of the DesignWare® Bridge for PCI Express to AMBA 2 AHB intellectual property (IP) linking between the PCI Express standard to the AMBA® 2.0 AHB™ protocol. The bridge to AMBA 2.0 AHB protocol is used in conjunction with Synopsys' DesignWare digital IP portfolio for the PCI Express standard, including Endpoint, Root Complex and Dual Mode Cores. The DesignWare Bridge core enables designers who are using the AMBA 2.0 AHB system-on-chip (SoC) interconnect in their designs for networking, embedded, storage and computer applications to easily add PCI Express external connectivity to their SoCs in order to connect to a wealth of available PCI Express technology-based systems and peripherals.

"Synopsys' continues to show industry leadership and support for standards-based technologies like PCI Express," said Al Yanes, chairman of the PCI-SIG. "We are pleased to see the development of a new connectivity IP that provides easy integration of these standards and will ultimately expand the PCI Express market."

The AMBA specification and the PCI Express standard are the leading on-chip and off-chip interconnect specifications, respectively, and bridging these two standards enables connectivity for key application areas. However, creating a bridge between these two bus protocols is challenging because not all aspects of the buses' protocol map directly from one to the other. The difficulty increases when developing a configurable bridge that supports multiple system performance objectives at both ends of the bridge. Synopsys is the first to map the complete PCI Express protocol across the bridge to the AMBA 2.0 AHB protocol, while providing multiple configuration options to enable designers to select an optimal solution for their specific applications.

"Synopsys continues to be the leader in PCI Express IP and was the first to release a complete PCI Express solution for Gen II, the AMBA 3 AXI™ specification and the AMBA 2.0 AHB protocol," said Guri Stark, vice president of Marketing for the Solutions Group at Synopsys. "We've responded to our customers' requests for PCI Express IP with standards-based interfaces. By working with key customers to develop our PCI Express standard to AMBA 2.0 AHB Bridge, we've ensured that designers can quickly add a PCI Express interface to their AMBA 2.0 AHB protocol-based SoCs to meet critical market windows."

Availability

The DesignWare Bridge for PCI Express standard to AMBA 2 AHB protocol is currently in use by early adopters and is now available for general use. The bridge is part of the complete DesignWare IP solution for PCI Express standard, including digital cores, mixed-signal PHY IP and Verification IP.

The DesignWare Bridge for PCI Express standard to AMBA 2.0 AHB protocol can be used in conjunction with the DesignWare IP solutions for AMBA 2.0 AHB protocol, including the synthesizable IP, Verification IP and automated assembly with the Synopsys coreAssembler tool. The DesignWare IP solutions for AMBA 2.0 AHB protocol are available today for no additional charge to DesignWare Library licensees. The DesignWare AMBA 2.0 AHB protocol synthesizable IP is also available as RTL source code on a fee-per-project basis.

About DesignWare Cores

Synopsys DesignWare Cores provide system designers with silicon-proven, digital, and mixed-signal connectivity IP for some of the world's most recognized products, including communications processors, routers, switches, game consoles, digital cameras, computers and computer peripherals. Provided as synthesizable RTL source code or in GDS format, these cores enable designers to create innovative, cost-effective system-on-chips and embedded systems. Synopsys provides flexible licensing options for the DesignWare Cores. Each core can be licensed individually, on a fee-per-project basis, or users can opt for a Purchase Agreement, which enables them to license all the cores as part of one simple agreement. For more information on DesignWare IP, visit: http://www.designware.com/ .

About Synopsys

Synopsys, Inc. is a world leader in EDA software for semiconductor design. The company delivers technology-leading semiconductor design and verification platforms and IC manufacturing software products to the global electronics market, enabling the development and production of complex systems-on-chips (SoCs). Synopsys also provides intellectual property and design services to simplify the design process and accelerate time-to-market for its customers. Synopsys is headquartered

in Mountain View, California and has offices in more than 60 locations throughout North America, Europe, Japan and Asia. Visit Synopsys online at https://www.synopsys.com/ .

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