

Synopsys' New DesignWare IP Significantly Simplifies Transition to PCI Express

Cost-Effective DesignWare IP for PCI Express is Optimized for Single Lane Implementation into ASIC or FPGA Designs

MOUNTAIN VIEW, Calif., April 2, 2008 [PRNewswire-FirstCall](#)/ -- Synopsys, Inc. (NASDAQ: SNPS), a world leader in software and IP for semiconductor design and manufacturing, today announced the availability of the DesignWare® LE IP for PCI Express (PCIe) optimized for ASIC and FPGA designs that utilize a single lane (x1) PCI Express endpoint interface. The DesignWare LE IP for PCIe is a cost-effective solution that provides innovative ease-of-use features to simplify the complexities of transitioning to PCI Express for applications requiring a single lane, such as existing PCI/PCI-X designs, ExpressCards, Ethernet controllers, SATA controllers and wireless hubs.

The new DesignWare LE endpoint digital controller IP for PCIe provides a simplified feature set that enables designers to benefit from a 20 percent area reduction in their ASIC or FPGA implementations while maintaining the same architecture and interfaces as Synopsys' complete DesignWare IP for PCIe solution. By maintaining interface compatibility, designers can upgrade to a full-featured version when future designs require additional functionality. The silicon-proven DesignWare LE IP is a part of Synopsys' complete PCI Express IP portfolio and has successfully passed the PCI Express compliance testing at the PCI-SIG interoperability workshops.

The DesignWare LE IP utilizes several innovative ease-of-use features to lower the integration time and cost of incorporating PCI Express IP into a design. The DesignWare LE IP automatically connects the PCI Express digital controller and PHY together. During implementation, the DesignWare LE IP automatically optimizes the parameters across the PIPE interface and synthesizes the complete PCI Express interface. In addition, the new IP includes a reference design that helps designers quickly integrate the PCI Express interface, while providing a starting point for the assembly and verification of their chip design.

"The new DesignWare LE IP for PCI Express is designed specifically to address the needs of ASIC and FPGA designers who are looking for an easy upgrade path to PCI Express IP at a competitive price point," said John Koeter, senior director of marketing for IP and Services at Synopsys. "More than 40 percent of ASICs and ASSPs that utilize PCI Express contain a single lane endpoint solution. As the technology leader for PCI Express IP, we continually invest in providing innovative products that help designers quickly integrate PCI Express interfaces while lowering risk and meeting their critical market windows."

Availability

The DesignWare LE IP for PCI Express is available immediately. For more information visit:
<https://www.synopsys.com/pciexpress>

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 the leading provider of connectivity IP, Synopsys delivers the industry's most comprehensive solution 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 <https://www.synopsys.com/designware>.

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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