

# Synopsys and Alereon Demonstrate Interoperability for Certified Wireless USB Technology

Testing Conducted With Synopsys' Wireless USB Device Controller IP and Alereon's WiMedia Ultra-Wideband PHY

PRNewswire-FirstCall

MOUNTAIN VIEW, Calif. and AUSTIN, Texas

- Synopsys, Inc. (NASDAQ: SNPS), a world leader in semiconductor design software, and Alereon, a leader in Ultra-wideband (UWB) solutions, today announced successful interoperability testing between Alereon's WiMedia UWB compatible physical layer (PHY) and the Synopsys DesignWare® Cores Wireless Universal Serial Bus (WiUSB) device controller IP, based on the Certified Wireless USB specification from the USB Implementers Forum (USB-IF). Testing is performed on a Synopsys reference design that includes the Synopsys WiUSB device controller IP in an FPGA and the AL4000 Family PHY from Alereon. Interoperability testing between the digital core and the analog PHY lowers the risk for engineers integrating Certified Wireless USB into their system-on-chips (SoCs) and accelerates their development cycle.

The Synopsys WiUSB device controller includes the Wireless USB Platform Adaptation Layer (PAL) and a WiMedia UWB MAC optimized for use in Certified Wireless USB products. The WiMedia MAC handles WiMedia UWB traffic and has a WiMedia MAC-PHY interface for compatibility with standard, discrete WiMedia PHYs, such as the Alereon PHY.

"Synopsys' recognized leadership in providing fully verified IP to major SoC suppliers makes them an ideal partner," said Eric Broockman, CEO at Alereon. "By providing a fully tested solution based on our AL4000 480 Mbps chipset, Synopsys and Alereon can reduce risk and accelerate time to market for Certified Wireless USB enabled products."

"Interoperability testing with one of the original promoters of the WiMedia Ultra-wideband Common Radio Platform and Certified Wireless USB specifications gives designers confidence that they will be able to seamlessly integrate this new standard into their SoC design," said Guri Stark, vice president of Marketing, Synopsys' Solutions Group. "As the leaders in wired USB intellectual property, we continue to take the necessary steps to help lower risk and ensure chip success for our customers."

In addition, Microsoft is testing its Certified Wireless USB software drivers with the Synopsys WiUSB device controller IP reference design, which includes the Alereon PHY.

"As we develop drivers for Certified Wireless USB products, Synopsys and Alereon have kept pace by providing a working hardware platform acting as a device based on Certified Wireless USB," said Fred Bhesania, program manager of Wireless USB in the Windows Device Experience Group at Microsoft Corp. "Microsoft is committed to ensuring that the wireless support in Windows meets the needs of the marketplace, and the Synopsys reference design with the Alereon PHY helped us achieve our earliest milestones of software and hardware interoperability."

## Availability

The Synopsys DesignWare WiUSB Device Controller core is available now for early adopters. General availability is expected in early 2006. The Alereon AL4100 Analog Front End and AL4200 BaseBand is expected to be available in Q4 2005.

## 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 systems-on-chips and embedded systems. Synopsys is the leading provider of USB IP for the fourth year in a row according to Dataquest. 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 the Volume Purchase Agreement, which enables them to license all the cores as part of one simple agreement. For more information on DesignWare IP, visit: [www.synopsys.com/designware](http://www.synopsys.com/designware)

## About Alereon

Alereon, Inc. is a fabless semiconductor company providing complete solutions for Certified Wireless USB and WiMedia ultra-wideband (UWB) applications. A technology pioneer, Alereon was first to demonstrate a WiMedia PHY running at 480Mbps in October of 2004. Alereon's products promise to replace the complex tangle of wiring used to interconnect today's consumer electronics, computer peripheral, and mobile devices with high-bandwidth, low-power, low-cost wireless links. Further information is available on the company's website: [www.alereon.com](http://www.alereon.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 <http://www.synopsys.com>.

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Editorial Contacts:  
Troy Wood  
Synopsys, Inc.  
650-584-5717  
[twood@synopsys.com](mailto:twood@synopsys.com)

Melissa Chanslor  
Edelman  
650-429-2797  
[melissa.chanslor@edelman.com](mailto:melissa.chanslor@edelman.com)

SOURCE: Synopsys, Inc.

CONTACT: Troy Wood of Synopsys, Inc., +1-650-584-5717, or [twood@synopsys.com](mailto:twood@synopsys.com); or Melissa Chanslor of Edelman, +1-650-429-2797, or [melissa.chanslor@edelman.com](mailto:melissa.chanslor@edelman.com), for Synopsys

Web site: <http://www.synopsys.com/>

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