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**Synopsys' New DesignWare Sonic Focus IP Solutions Deliver Exceptional Sound through  
Standard Speakers**

*Audio Post-Processing IP Significantly Enhance Audio Quality in Low-Power DSP-based Consumer  
Electronics Devices*

**MOUNTAIN VIEW, Calif. – January 6, 2011** — Synopsys, Inc. (Nasdaq: SNPS), a world leader in software and IP for semiconductor design, verification and manufacturing, today announced the availability of two new [DesignWare™ Sonic Focus™ IP](#) products that enable system-on-chip (SoC) designers and original equipment manufacturers (OEMs) to significantly enhance audio quality and deliver an immersive audio experience for a broad range of low power, DSP-based consumer electronics devices. The DesignWare Sonic Focus Stereo and Stereo HD (High-Definition) IP are audio post-processing solutions that help restore clarity, warmth, detail and realism to compressed digital audio content in consumer electronics devices. The Sonic Focus Stereo IP, targeted at low-power, portable devices such as handheld game consoles, mobile phones, docking stations and Bluetooth headsets, enables high-quality sound to be delivered through the smallest of speakers. The Sonic Focus Stereo HD IP delivers high-performance virtual surround sound for tethered stereo devices such as digital TVs, advanced stereo speakers, speaker sound bars and digital signal processing (DSP) enabled headphones.

As multimedia consumer electronics products get smaller and thinner, audio suffers tremendously due to the limited size of the speakers and audio cabinets. The DesignWare Sonic Focus Stereo and Stereo HD IP solutions help restore audio fidelity that is obscured by compression. They also overcome audio limitations due to creative industrial designs and recreate the original user experience from digital content. In addition, the Synopsys solutions include a robust set of components that enable designers to meet the performance, power and memory requirements of their stereo-enabled applications.

- The DesignWare Sonic Focus Audio Software IP uses advanced, multi-channel internal processing algorithms, enabling devices to accept and process multi-channel stereo audio content (including 5.1 and 7.1 audio channel input modes) and reproduce a rich audio experience
- The DesignWare Sonic Focus Surround IP expands the sound field of the device's audio output, helping to create the desired immersive impact and effect from high-performance stereo products
- The DesignWare Sonic Focus Product Mastering tools, which work directly with the embedded Sonic Focus audio algorithms, providing designers with real-time feedback and control of the audio software to create a high-quality audio experience

“DesignWare Sonic Focus Stereo post-processing IP has been successfully implemented by leading PC manufacturers to deliver a rich, compelling audio listening experience for end users,” said John Koeter, vice president of marketing for the Solutions Group at Synopsys. “The Sonic Focus Stereo IP solutions extend this benefit into low-power DSP and cost-effective embedded stereo audio applications, delivering enhanced performance in ultra-thin speaker-based designs. In addition, by using the new Synopsys Sonic Focus logo on their products, OEMs and ODMs can further differentiate their leading consumer multimedia products that take advantage of this unique audio technology.”

### **Availability**

The DesignWare Sonic Focus Stereo IP solutions are available now. For additional information, please visit <http://www.synopsys.com/sonicfocus>. To see the DesignWare Sonic Focus Stereo and Stereo HD IP demonstrations at CES 2011 visit Synopsys in the Venetian Suite exhibits, room 30-334.

### **About DesignWare IP**

Synopsys is a leading provider of high-quality, silicon-proven IP solutions for SoC designs. The broad DesignWare IP portfolio includes complete [interface IP](#) solutions consisting of controllers, PHY and Verification IP for widely used protocols, [analog IP](#), [embedded memories](#), [logic libraries](#), embedded test & repair IP, [audio post-processing](#) software and [configurable processor cores](#). In addition, Synopsys offers [SystemC transaction-level models](#) to build virtual prototypes for rapid, pre-silicon development of software. With a robust IP development methodology, [reuse tools](#), 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](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, system-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 approximately 70 offices located throughout North America, Europe, Japan, Asia and India. Visit Synopsys online at <http://www.synopsys.com/>.

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