

# Synopsys and Philips Announce New Philips' CoolFlux DSP Core to be Distributed in Synopsys' DesignWare Library

More Than 25,000 DesignWare Library Users Gain Access to Philips' Ultra-low Power DSP Core Through Star IP Program

PRNewswire-FirstCall

MOUNTAIN VIEW, Calif. and AMSTERDAM, The Netherlands

Synopsys, Inc. (NASDAQ: SNPS), the world leader in semiconductor design software, and Royal Philips Electronics (AEX: PHI)(NYSE: PHG), a leader in digital audio technology, today announced a collaboration that gives designers access to Philips' ultra-low power CoolFlux™ DSP core through Synopsys' DesignWare® Star IP (intellectual property) program. The agreement provides more than 25,000 DesignWare Library users access to the CoolFlux DSP core for use in low-power consumer audio applications such as hearing instruments, MP3 players, and headsets. The CoolFlux DSP is the first DSP core in the DesignWare Star IP program, joining the 16- and 32-bit microcontrollers from industry leaders such as IBM, Infineon, MIPS and NEC.

The Philips CoolFlux DSP technology is based on years of research and product experience in the field of digital audio and ultra-low power technologies at Philips Digital Systems Labs, Leuven, Belgium, a founding member of DSP Valley, a technology networking organization grouping more than 1800 DSP engineers, also headquartered in Leuven, Belgium.

"Philips selected Synopsys as the exclusive distribution and support channel for the CoolFlux DSP core for Synopsys customers, because of their leadership in the IP market, their dependability, and the quality of Synopsys' IP products and support," said Ad Huijser, Chief Technology Officer Philips Electronics. "Working with Synopsys helps to ensure that Philips core IP is dependable and reusable and that it will reach a large number of DSP designers."

In addition to distributing and supporting the CoolFlux DSP, Synopsys worked with Philips to ensure that the core is fully reusable and compliant with the "Reuse Methodology Manual" (RMM). The CoolFlux DSP will be distributed as a DesignWare coreKit, packaged with coreBuilder and delivered with coreConsultant, which automates the verification and synthesis processes for the core.

"Adding Philips' CoolFlux DSP core to our Star IP offering further strengthens Synopsys' comprehensive DesignWare portfolio of quality IP," said John Chilton, senior vice president and general manager of Synopsys' Solutions Group. "The core will have broad appeal for designers who require ultra-low power DSP cores for their products. We continue to add high-quality, reliable IP to our DesignWare Library to give designers dependable, easy-to-use solutions for their complex designs."

"As the lead adopter of the CoolFlux DSP technology for implementation in future generations of Dspfactory products, we are very excited to see that it is now widely available for audio applications and become a standard processor," said Dr. Peter Balsiger, president of Dspfactory SA, a leading provider of ultra-miniaturized, ultra-low power, chips for audio applications. "Synopsys' IP distribution and support capabilities, combined with Philips technology, will give the low-power audio industry a great DSP solution. This collaboration between Synopsys and Philips will enhance our already excellent relationship with both companies."

The CoolFlux DSP is also easily programmable with the software development kit provided by Philips and developed by DSP Valley partner Target Compiler Technologies, including an optimizing C compiler, assembler, instruction-set simulator and graphical debugger, using its retargetable compilation technology to ensure efficient C level programmability of the CoolFlux DSP.

Pricing, Availability and General info

The DesignWare CoolFlux DSP Design Views coreKit, including simulation and timing models, and documentation, are currently available at no additional charge to DesignWare Library licensees ([www.synopsys.com/dwrequest](http://www.synopsys.com/dwrequest)). The Implementation Views coreKit, including the synthesizable RTL, is available for purchase from Philips, via its technology licensing division Philips Intellectual Property and Standards (Philips IP&S) and will be delivered and supported by Synopsys.

The CoolFlux DSP core and its tool suite will be shown in a joint Philips-Synopsys-Target event at the Embedded Processor Forum 2004 in San Jose, CA on Wednesday May 19, 5pm-7pm. Visit [www.CoolFluxDSP.com](http://www.CoolFluxDSP.com) for advanced registration and General CoolFlux DSP information.

About DesignWare IP

DesignWare®, the world's most widely used, silicon proven IP, provides designers with a comprehensive portfolio of synthesizable implementation IP, hardened PHYs and verification IP for ASIC, SoC and FPGA designs. The DesignWare IP family includes industry leading connectivity IP Cores and Verification IP (e.g., USB 1.1, USB 2.0, USB 2.0 PHY, USB 2.0 On-The-Go, PCI, PCI-X®, PCI Express™, Ethernet, I2C), AMBA™ on-chip bus (logic, peripherals, verification IP), Memory components (e.g., memory controllers, BIST and models), high-speed Datapath components, Microcontrollers (8051, 6811) and Star IP processors (e.g., IBM PowerPC® 440, Infineon C166™ S and TriCore™ 1, MIPS32™ 4KE™, NEC V850E™, and Philips CoolFlux™ DSP).

For a complete directory of Synopsys' available IP visit: [www.synopsys.com/ipdirectory](http://www.synopsys.com/ipdirectory)

For more information on DesignWare IP, visit: [www.designware.com](http://www.designware.com) or call 1-877-4BEST-IP

#### About Synopsys

Synopsys, Inc. is the world leader in electronic design automation (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 more than 60 offices located throughout North America, Europe, Japan and Asia. Visit Synopsys online at [www.synopsys.com](http://www.synopsys.com).

#### About Royal Philips Electronics

Royal Philips Electronics of the Netherlands is one of the world's biggest electronics companies and Europe's largest, with sales of EUR 29 billion in 2003. It is a global leader in color television sets, lighting, electric shavers, medical diagnostic imaging and patient monitoring, and one-chip TV products. Its 165,300 employees in more than 60 countries are active in the areas of lighting, consumer electronics, domestic appliances, semiconductors, and medical systems. News from Philips is located at [www.philips.com/newscenter](http://www.philips.com/newscenter).

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SOURCE: Synopsys, Inc.

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