

# Synopsys Announces Immediate Availability of Silicon-Proven DesignWare Data Converter IP in SMIC 65-nm LL Process Technology

Family of High-Performance, Low Power Data Converter IP Eases Integration Effort and Lowers Risk for Wireless Communications and Digital TV SoCs

MOUNTAIN VIEW, Calif., Feb. 22, 2011 /PRNewswire/ -- Synopsys, Inc. (Nasdaq: SNPS), a world leader in software and IP for semiconductor design, verification and manufacturing, today announced the immediate availability of the silicon-proven DesignWare™ Data Converter IP for SMIC's popular 65-nanometer (nm) Low Leakage (LL) process technology, enabling designers to improve their chips' power efficiency and ease their integration efforts. Synopsys is the first IP provider to offer a comprehensive portfolio of high-performance data converter IP solutions consisting of analog-to-digital converters (ADCs) and digital-to-analog converters (DACs) in this high density, low leakage process technology. The DesignWare Data Converter IP is targeted at battery powered broadband wireless communications (WiFi802.11n, LTE, WiMAX) and digital TV reception (CMMB, DVB) applications.

"The combination of Synopsys' silicon-proven DesignWare Data Converter IP and SMIC's low-leakage 65-nanometer process technology enables our mutual customers to meet their specific application requirements and integrate advanced functionality into their SoCs," said Chris Chi, Senior Vice President and Chief Business Officer of SMIC. "Synopsys' strong application expertise in broadband wireless communications and digital TV make them a trusted IP provider and valued partner. As SMIC's business continues to expand, we look forward to further developing our synergistic relationship with Synopsys to meet the increasing requirements of our mutual customers."

The new DesignWare Data Converter IP solutions for the SMIC 65-nm LL process consist of a comprehensive portfolio of low power, compact ADCs and DACs for broadband wireless communications, including high-speed ADCs and DACs for the receive and transmit path as well as very efficient auxiliary converters for general purpose applications, including:

- 10-bit 80 MSPS Dual pipeline ADC
- 10/8-bit 2 MSPS SAR ADC with differential 8:1 input mux
- 12-bit 160 MSPS Current Steering IQDAC
- 11-bit 20 MSPS General Purpose DAC

These IP products offer a highly flexible analog interface that simplifies the connection between the digital SoC and the RFIC or other transceivers, eliminating the need for external components. These elements help designers reduce silicon costs and significantly simplify the integration of the IP into a SoC.

"By working closely with SMIC to make the DesignWare Data Converter IP available in SMIC's 65-nanometer low leakage process, we continue to provide designers with the optimized IP they need for their specific applications in their required foundry processes," said John Koeter, senior vice president of marketing for IP and Systems at Synopsys. "Achieving first-pass silicon success with our data converter IP demonstrates the robustness of Synopsys' design and verification processes as well as the scalability of the architectures, enabling designers using advanced process technologies to lower their integration risk and meet their time-to-market schedules."

## Availability

The DesignWare Data Converter IP for SMIC 65-nm LL process is available now. DesignWare Data Converter IP in 180-to-40-nm is also available for a range of leading edge technology processes. For more information on DesignWare Data Converter IP, please visit: <http://www.synopsys.com/dataconverter>

## 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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## **About SMIC**

Semiconductor Manufacturing International Corporation ("SMIC"; NYSE: SMI; SEHK: 981) is one of the leading semiconductor foundries in the world and the largest and most advanced foundry in Mainland China, providing integrated circuit (IC) foundry and technology services at 0.35-micron to 45/40-nanometer. Headquartered in Shanghai, China, SMIC has a 300mm wafer fabrication facility (fab) and three 200mm wafer fabs in its Shanghai mega-fab, two 300mm wafer fabs in its Beijing mega-fab, a 200mm wafer fab in Tianjin, a 200mm fab under construction in Shenzhen, and an in-house assembly and testing facility in Chengdu. SMIC also has customer service and marketing offices in the U.S., Europe, and Japan, and a representative office in Hong Kong. In addition, SMIC manages and operates a 300mm wafer fab in Wuhan owned by Wuhan Xinxin Semiconductor Manufacturing Corporation. For more information, please visit <http://www.smics.com/>.

## **Safe Harbor Statements**

(Under the Private Securities Litigation Reform Act of 1995)

This press release contains, in addition to historical information, "forward-looking statements" within the meaning of the "safe harbor" provisions of the U.S. Private Securities Litigation Reform Act of 1995. These forward-looking statements, including statements regarding the expected benefits of the cooperation, are based on SMIC's current assumptions, expectations and projections about future events. SMIC uses words like "believe," "anticipate," "intend," "estimate," "expect," "project" and similar expressions to identify forward-looking statements, although not all forward-looking statements contain these words. These forward-looking statements are necessarily estimates reflecting the best judgment of SMIC's senior management and involve significant risks, both known and unknown, uncertainties and other factors that may cause SMIC's actual performance, financial condition or results of operations to be materially different from those suggested by the forward-looking statements.

Investors should consider the information contained in SMIC's filings with the U.S. Securities and Exchange Commission (SEC), including its annual report on 20-F filed with the SEC on June 29, 2010, especially in the "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" sections, and such other documents that SMIC may file with the SEC or The Hong Kong Stock Exchange Limited ("SEHK") from time to time, including on Form 6-K. Other unknown or unpredictable factors also could have material adverse effects on SMIC's future results, performance or achievements. In light of these risks, uncertainties, assumptions and factors, the forward-looking events discussed in this press release may not occur. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date stated, or if no date is stated, as of the date of this press release. Except as required by law, SMIC undertakes no obligation and does not intend to update any forward-looking statement, whether as a result of new information, future events or otherwise.

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