# Synopsys Announces Immediate Availability of Broad Portfolio of IP for TSMC 28HPC Process

Production-Ready DesignWare IP for TSMC 28HPC Process Enables Designers to Reduce Power Consumption and Area for Mobile and Ultra Low-Power IoT Designs

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# **Highlights:**

- Synopsys DesignWare® IP portfolio for TSMC 28HPC includes interface, analog, embedded memory and logic library IP
- Production-ready IP portfolio enables fast time-to-market by leveraging compatibility with silicon-proven DesignWare IP for TSMC 28HPM process
- Both the process and IP have been optimized for cost-sensitive mobile applications such as tablets, smartphones and LTE basebands as well as ultra low-power IoT applications

Synopsys, Inc. (Nasdaq:SNPS), a global leader providing software, IP and services used to accelerate innovation in chips and electronic systems, today announced the immediate availability of a wide range of DesignWare interface, analog, logic library and embedded memory IP for TSMC's 28-nanometer (nm) high-performance compact (HPC) process. Synopsys' production-ready DesignWare IP reduces risks for designers who want to take advantage of the lower power consumption, area reduction and performance improvements that the TSMC 28HPC process offers. The DesignWare IP portfolio for the TSMC 28HPC process delivers high performance with low leakage and active power in a compact footprint, giving designers the ability to optimize their mobile and internet-of-things (IoT) SoC designs for energy efficiency, area and speed.

"TSMC continues to build on our long history of collaboration with Synopsys to deliver high-quality, proven IP on advanced technologies that help our mutual customers speed their time to volume production," said Suk Lee, TSMC senior director, design infrastructure marketing division. "The 28HPC process enables designers to reduce power consumption by up to 30 percent and area by up to 10 percent, or improve performance by up to 20 percent, compared to the 28LP process. The availability of Synopsys' interface, analog, logic library and embedded memory IP portfolio for our 28HPC customers provides a low-risk path to integrating high performance IP and reducing SoC area and power consumption."

The immediate availability of the DesignWare IP for TSMC 28HPC extends Synopsys' broad portfolio of IP for TSMC's processes. TSMC and Synopsys now have more than 1,400 IP products listed in the TSMC IP catalog. As the leading supplier of physical IP, Synopsys is uniquely positioned to provide designers with production-ready TSMC 28HPC IP that is compatible with TSMC's established 28HPM process, enabling them to get to market quickly.

"Synopsys and TSMC have closely collaborated for many years to bring high-quality IP to market quickly," said John Koeter, vice president of marketing for IP and prototyping at Synopsys. "By offering a broad portfolio of DesignWare IP for TSMC's 28HPC process, Synopsys enables designers to more easily meet their goals of creating differentiated products with less risk and faster time to volume production."

# **Availability**

The Synopsys DesignWare IP portfolio, including interface, analog, logic library and embedded memory IP, is available on the TSMC 28HPC process now. The DesignWare HPC Design Kit, a suite of high-speed and high-density memories and logic libraries that allows SoC designers to optimize their processor cores for maximum speed, smallest area, lowest power, or an optimum balance of the three, is also available on the TSMC 28HPC process now.

#### **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 controller, PHY and next-generation verification IP, analog IP, embedded memories, logic libraries, processor solutions and subsystems. To accelerate prototyping, software development and integration of IP into SoCs, Synopsys' IP Accelerated initiative offers IP prototyping kits, IP software development kits and customized IP subsystems for rapid integration of IP into SoCs. Synopsys' extensive investment in IP quality, comprehensive technical support and robust IP development methodology enables designers to reduce integration risk and accelerate time-to-market. For more information on DesignWare IP, visit www.synopsys.com/designware.

# **About Synopsys**

Synopsys, Inc. (Nasdaq:SNPS) accelerates innovation in the global electronics market. As a leader in electronic design automation (EDA) and semiconductor IP, Synopsys delivers software, IP and services to help engineers address their design, verification, system and manufacturing challenges. Since 1986, engineers around the world have been using Synopsys technology to design and create billions of chips and systems. Learn more at www.synopsys.com.

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