Synopsys to Showcase Design and IP Solutions for Optical Datacom and Hyperscale Data Centers at OFC 2019

Latest Design Features for Photonic Devices and Systems, PICs, and High-performance SoCs Drive Innovation

MOUNTAIN VIEW, Calif., March 5, 2019 /PRNewswire/ -- Synopsys, Inc. (Nasdaq: SNPS) will showcase its industry-leading RSoft™ product portfolio; Photonic Integrated Circuit (PIC) Design Suite, which comprises the OptSim™ Circuit and OptoDesigner tools; and DesignWare® Ethernet IP at OFC 2019, March 5-9, 2019 at the San Diego Convention Center. Synopsys offers high-quality, silicon-proven IP solutions and a seamless design flow from concept to manufacturable design to accelerate innovation for optical datacom, 5G, radio-over-fiber networks, microwave photonics, cloud computing, and leading-edge applications ranging from artificial intelligence (AI)/deep learning, AR/VR, quantum computing, LiDAR, and biophotonics. Register for a free exhibit pass to OFC 2019 at https://www.ofcconference.org/en-us/home/registration/exhibits-pass-plus-attendees/.

Visit Synopsys at OFC 2019, Booth 2831

Synopsys will demonstrate its optical datacom design and high-speed IP solutions in Booth 2831:

- **Device Design.** The RSoft photonic device tools comprise the industry's widest portfolio of photonic device simulators for passive and active devices in optical communications and optoelectronics. See the latest innovations for AR/VR and PIC design, such as the S-Matrix/PDK Generation Utility, which gives PIC designers and process design kit (PDK) developers a powerful tool to create and use custom PDKs.
- **System Design**. The RSoft OptSim and ModeSYS™ tools simulate the performance of optical datacom system links through comprehensive simulation techniques and component models. The demo will highlight features to evaluate PIC performance in the context of an optical datacom system.
- **Photonic Integrated Circuit Design.** Synopsys is driving the advancement of photonic integrated circuit technologies with its PIC Design Suite, which includes the OptSim Circuit and OptoDesigner tools. The demo will show how the PIC Design Suite offers a complete, seamless design flow with photonic-aware physical layout capabilities enabled by support for foundry-specific PDKs, including:
  - Bidirectional interface between OptSim Circuit and OptoDesigner for an efficient PIC design workflow
  - Full support for schematic-driven layout (SDL)
  - PDK support for PIC foundries offering multi-project wafer (MPW) services, including Advanced Micro Foundry (AMF), AIM Photonics, Fraunhofer HHI, imec, Institute of Microelectronics of Chinese Academy of Sciences (IMECAS), Infinera, LIGENTEC, LioniX International, Sandia National Laboratories, SMART Photonics, TowerJazz, and VTT
- **56G Ethernet PHY IP.** Use the PAM-4 DesignWare 56G Ethernet PHY IP supporting optical and copper interconnects to enable 100G/200G/400G hyperscale data center SoCs. The demo will show transceiver IP performance that exceeds the standard specification limits for jitter and interference tolerance. The scalable IP architecture enables easy migration to 800G Ethernet applications.

PIC Workshop – Wednesday, March 6, Room 29ABCD

Synopsys will participate in this interactive workshop with key PIC service providers involved in the design, fabrication, and packaging of photonic chips. Twan Korthorst, director of Photonic Solutions for Synopsys, will present an overview of PIC design challenges and solutions. For more information, visit the 7 Pennies website.

Visit the OFC 2019 event page on the Synopsys website for more details about the exhibition and how to schedule an onsite meeting with Synopsys.

About Synopsys RSoft Products

Synopsys RSoft products are leading solutions in photonic design software and serve several industries including optical communication, optoelectronics, and semiconductor manufacturing. RSoft products provide a full range of design, optimization, and planning tools for optical communications, as well as solutions for optoelectronics components and subsystems. Learn more at https://www.synopsys.com/optical-solutions/rsoft.html.

About Synopsys Photonic Solutions

Synopsys is driving the PIC revolution with design automation solutions for a wide range of application requirements, from data communications to sensors and biomedical devices. Synopsys' PIC Design Suite, which comprises the OptSim Circuit and

OptoDesigner tools, offers a seamless PIC design flow from concept to manufacturable design, as well as access to a single, world-class support channel. Learn more at https://www.synopsys.com/photonic-solutions.html.

About Synopsys DesignWare IP

Synopsys is a leading provider of high-quality, silicon-proven IP solutions for SoC designs. The broad Synopsys DesignWare IP portfolio includes logic libraries, embedded memories, embedded test, analog IP, wired and wireless interface IP, security IP, embedded processors, 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 IP subsystems. 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 Synopsys DesignWare IP, visit http://www.synopsys.com/designware.

About Synopsys

Synopsys, Inc. (Nasdaq: SNPS) is the Silicon to Software™ partner for innovative companies developing the electronic products and software applications we rely on every day. As the world's 15th largest software company, Synopsys has a long history of being a global leader in electronic design automation (EDA) and semiconductor IP and is also growing its leadership in software security and quality solutions. Whether you're a system-on-chip (SoC) designer creating advanced semiconductors, or a software developer writing applications that require the highest security and quality, Synopsys has the solutions needed to deliver innovative, high-quality, secure products. Learn more at www.synopsys.com.

Editorial Contact:
James Watts
Synopsys, Inc.
650-584-1625
jwatts@synopsys.com

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