Synopsys and Mindtree Collaborate to Deliver Complete Bluetooth Smart IP Solution for IoT SoCs

Validated Interoperability of DesignWare Bluetooth Smart PHY IP with Mindtree's Link Layer and Software Stack IP Reduces Integration Risk

MOUNTAIN VIEW, Calif., Feb. 23, 2016 /PRNewswire/ -- **Highlights:**

- Solution consists of IP qualified by the Bluetooth Special Interest Group (SIG), meeting compliance with the Bluetooth® Smart v4.2 specification
- Synopsys' Bluetooth Smart PHY IP operates below one volt supply to extend battery life and supports TSMC's 180-nm and 55-nm processes
- PHY IP includes an integrated on-chip transceiver matching network and single pin-to-antenna interface to reduce BOM cost and simplify board design
- Mindtree's production-proven BlueLitE link layer and software stack IP consist of all the mandatory and optional features of the Bluetooth Smart core stack and all the adopted profiles

Synopsys, Inc. (Nasdaq:SNPS) today announced that it has collaborated with Mindtree to deliver a complete Bluetooth Smart IP solution consisting of Synopsys' DesignWare® Bluetooth® Smart PHY IP on TSMC's 55-nanometer (nm) and 180-nm processes and Mindtree's BlueLitE link layer and software stack IP. The interoperable Bluetooth Smart IP solution addresses the growing requirements for wireless connectivity in ultra-low-power system-on-chips (SoCs) for the Internet of Things (IoT) applications. Synopsys' PHY IP operates below one volt supply to extend battery life and is compliant with the Bluetooth Smart v4.2 specification. The PHY IP offers an integrated antenna matching network to ensure proper signal transmission between antenna and source, reducing external component cost. Mindtree's BlueLitE link layer and software stack IP are highly configurable, extremely compact and have unique power save mechanisms built in. This enables designers to easily incorporate the IP in a variety of applications and meet the key requirements of cost and power. Synopsys' PHY IP and Mindtree's link layer and software stack IP solutions have gone through rigorous characterization testing to ensure high quality and accurate IP functionality.

"Designers prefer complete solutions that minimize product risk and integration effort. Mindtree is pleased to collaborate with Synopsys, a leading IP provider, to address this specific need in the Bluetooth Smart technology space," said Jayanth Krishna, general manager, short range wireless at Mindtree. "The mature IP solutions used by mutual users enable them to meet their aggressive design schedules."

"It is one of the key missions of the Bluetooth SIG to support and grow the business of our members. True to this mission, Mindtree and Synopsys are using Bluetooth to provide the technical innovations necessary to make next-level IoT products possible," said Marriot Winquist, vice president of member development and services at Bluetooth SIG. "When members collaborate like this, creativity is sparked, challenges are met, and – together – we are able to champion Bluetooth as the leader in wireless technology."

"Bluetooth Smart technology is a key enabler for the Internet of Things, providing fast wireless connectivity between devices, with low power consumption," said John Koeter, vice president of marketing for IP and prototyping at Synopsys. "Our collaboration with Mindtree allows designers to leverage silicon-proven Bluetooth IP solutions that are qualified by the Bluetooth SIG and meet the latest power-efficient Bluetooth specification, enabling integration of high-quality IP into SoCs with less risk, while meeting power and cost requirements."

Availability

The DesignWare Bluetooth Smart PHY IP on TSMC's 55-nm and 180-nm process technologies is available now. The Mindtree BlueLitE link layer and software stack IP are available 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 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 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 16th 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 quality and security solutions. Whether you're a system-on-chip (SoC) designer creating advanced semiconductors, or a software developer writing applications that require the highest quality and security, Synopsys has the solutions needed to deliver innovative, high-quality, secure products. Learn more at www.synopsys.com.

About Mindtree

Mindtree [NSE: MINDTREE] delivers digital transformation and technology services from ideation to execution, enabling Global 2000 clients to outperform the competition. "Born digital," Mindtree takes an agile, collaborative approach to creating customized solutions across the digital value chain. At the same time, our deep expertise in infrastructure and applications management helps optimize your IT into a strategic asset. Whether you need to differentiate your company, reinvent business functions or accelerate revenue growth, we can get you there. Visit www.mindtree.com to learn more. Mindtree is in its 15th year of offering a comprehensive portfolio of Bluetooth intellectual property solutions and a range of design, engineering, testing and consulting services to semiconductor vendors and OEMs. The portfolio includes product proven, certified, customizable, ultra-low power and ultra-compact IP for Bluetooth Smart v4.2 and also has robust roadmap for Bluetooth Smart v5.0. For more information visit http://www.mindtree.com/solutions/bluetooth-technology.

Editorial Contacts:
Monica Marmie
Synopsys, Inc.
650-584-2890
monical@synopsys.com

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