

# Synopsys Silicon-Proven DesignWare Bluetooth Low Energy Link Layer and PHY IP Achieve Bluetooth 5 Qualification

New Bluetooth Low Energy PHY Delivers Up to 60 percent Smaller Area for Low-Power IoT Designs

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## Highlights:

- Synopsys' silicon-proven DesignWare Bluetooth Low Energy Link Layer and PHY IP solution is Bluetooth 5 qualified to ensure compliance and interoperability
- PHY IP in 40-nm process delivers up to 60 percent smaller area, reducing bill of materials for compact, low-power IoT devices
- DesignWare Link Layer and PHY IP, validated with third-party software stacks and profiles, provide a complete Bluetooth IP solution

Synopsys, Inc. (Nasdaq: SNPS) today announced that the silicon-proven [DesignWare® Bluetooth® Low Energy Link Layer IP and PHY IP](#) in industry-standard 40-nanometer (nm) and 55-nm processes have achieved Bluetooth 5 qualification and have been declared compliant by the Bluetooth Special Interest Group. Achieving qualification ensures the robustness of the IP and that it functions as expected within a system-on-chip (SoC). The DesignWare Bluetooth IP solution has been validated with third-party software stack providers, including SEARAN, to provide designers with a complete hardware and software solution. The IP has been tested in third-party interoperability workshops to ensure that it operates reliably in real-world environments. The new, qualified DesignWare Bluetooth Low Energy PHY IP delivers up to 60 percent smaller area compared to the previous Bluetooth PHY solution, providing designers with a compact, low-power wireless IP solution for IoT applications such as medical, smart appliances, smart thermostats and wearables.

"SEARAN and Synopsys are addressing our mutual customers' low energy wireless connectivity needs by providing a proven, complete Bluetooth 5 IP solution," said Arkady Pittel, president and CEO at SEARAN. "The integrated solution, consisting of SEARAN's compact dotstack and Synopsys' DesignWare Bluetooth Low Energy Link Layer IP and PHY IP, allows designers to quickly bring differentiated Bluetooth-based products to the fast moving IoT market."

Synopsys' Bluetooth 5 Link Layer and PHY IP solutions support Bluetooth mesh and enable secure wireless connectivity with extended reach, and data rates up to 2Mbps with an integrated on-chip transceiver matching network. The PHY also supports the IEEE 802.15.4 standard for connectivity over wireless networks such as Zigbee or Thread. With more than 15 years of analog and radio frequency (RF) design experience and a portfolio of silicon-proven IP shipping in volume, Synopsys provides a robust wireless IP solution for integration into SoCs.

"Connected devices like wearables, smart locks and smart thermostats require Bluetooth technology to communicate wirelessly at extremely low power," said John Koeter, vice president of marketing for IP at Synopsys. "By providing a silicon-proven and qualified Bluetooth Low Energy Link Layer and PHY IP solution, Synopsys enables designers to integrate the required functionality into their SoCs to ensure compliance, interoperability and robustness of their designs."

## Availability and Additional Resources

The next-generation Bluetooth Low Energy PHY IP in 40-nm process is scheduled to be available in Q4 of 2017. Synopsys' DesignWare Bluetooth Low Energy Link Layer IP and PHY IP in 40-nm and 55-nm are available now.

For more information on Synopsys' [DesignWare Bluetooth Low Energy IP solutions](#), visit the web page.

## 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 enable designers to reduce integration risk and accelerate time-to-market. For more information on DesignWare IP, visit [www.synopsys.com/designware](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](http://www.synopsys.com).

### **Forward-Looking Statements**

This press release contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, including statements regarding the expected release and benefits of the DesignWare Bluetooth Low Energy PHY IP in 40-nm process. Any statements that are not statements of historical fact may be deemed to be forward-looking statements. These statements involve known and unknown risks, uncertainties and other factors that could cause actual results, time frames or achievements to differ materially from those expressed or implied in the forward-looking statements. Other risks and uncertainties that may apply are set forth in the "Risk Factors" section of Synopsys' most recently filed Quarterly Report on Form 10-Q. Synopsys undertakes no obligation to update publicly any forward-looking statements, or to update the reasons actual results could differ materially from those anticipated in these forward-looking statements, even if new information becomes available in the future.

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