Synopsys Expands DesignWare IP Portfolio with Acquisition of Kilopass Technology

Acquisition Enables Synopsys to Provide a Broad Non-Volatile Memory IP Offering Optimized to Meet Performance, Power, and Area Targets for a Wide Range of Applications

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Highlights

- Kilopass Technology's one-time programmable (OTP) non-volatile memory (NVM) IP has been integrated by more than 170 customers into more than 400 SoC designs, and shipped in more than 10 billion units worldwide
- Kilopass Technology's OTP NVM IP is available and silicon-proven in a broad range of standard logic CMOS processes including 10-nm and 7-nm
- Acquisition complements Synopsys' NVM portfolio with OTP products that are optimized for fuse replacement, secure key storage, device ID, analog trim, and code storage
- Synopsys' combined OTP and multi-time programmable (MTP) NVM IP solutions provide designers with a broad portfolio optimized for performance, power, and area for a wide range of automotive, IoT, industrial, and mobile applications

Synopsys, Inc. (Nasdaq:SNPS) today announced that it has acquired Kilopass Technology, Inc., a leading provider of antifuse one-time programmable (OTP) non-volatile memory (NVM) IP used in automotive, mobile, industrial, and Internet of Things (IoT) applications. Kilopass Technology's one-transistor (1T) and two-transistor (2T) bitcell OTP NVM IP complements Synopsys' existing DesignWare® OTP and MTP NVM IP solutions with support for up to 4-Mbit OTP instances in 180-nm to 7-nm process technologies. With this acquisition, Synopsys further extends its leadership in physical IP, enabling customers to benefit from its development scale, worldwide sales channel, and expert technical support.

The terms of the deal, which are not material to Synopsys financials, have not been disclosed.

"Kilopass Technology's secure, low-power, high-density OTP NVM solutions support a wide range of process technologies to meet specific application requirements," said Joachim Kunkel, general manager of the Solutions Group at Synopsys. "The combination of Kilopass Technology's OTP NVM and Synopsys' existing OTP and MTP NVM IP solutions provides designers with a highly optimized and comprehensive NVM IP portfolio that meets market demands for increased integration, higher densities, lower costs, better reliability, and improved security."

Kilopass Technology's antifuse-based 1T and 2T OTP NVM IP products support ultra-low-power NVM requirements for code storage and include high-density NVM to reduce costs compared to ROM or embedded Flash. Kilopass Technology's OTP NVM IP is manufactured in standard logic CMOS fabrication processes and does not require any additional mask layers or process steps. Kilopass Technology's OTP NVM IP offerings include:

- **XPM NVM** Ideal for efuse replacement. It is a field programmable memory that provides a high level of security, large capacity with a small footprint, and low active and standby power.
- **Gusto NVM** The first and only 4-Mbit embedded NVM in the industry. It utilizes Kilopass Technology's patented 2T antifuse bitcell with proven security that is critical for secure code storage applications.
- **SecretCode NVM** Secure antifuse OTP used for security engines and roots of trust. It offers content protection at the bit level to protect against active and passive attacks, tampering, hacking, and reverse engineering.

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.

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.

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