NSITEXE Achieves First-Pass Silicon Success for High-Performance Data Flow Processor-based SoC Test Chip Using DesignWare IP

Silicon-Proven DesignWare Interface and Foundation IP Portfolios Lower Integration Risk and Accelerate Time to Market for Automotive Application

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Highlights:

- DesignWare Controller and PHY IP for PCI Express and LPDDR accelerates development of the advanced data flow processor-based SoC
- Embedded Memories and Logic Libraries offer options for high-temperature PVT corners for superior, power, performance, and area
- STAR Memory System and STAR Hierarchical System helps allow efficient test, repair, and diagnostics of embedded memories

Synopsys, Inc. (Nasdaq: SNPS) today announced that NSITEXE, a Denso Group Company, achieved first-pass silicon success for its high-performance Data Flow Processor (DFP)-based SoC test chip using Synopsys' DesignWare® Interface and Foundation IP portfolios. With Synopsys' silicon-proven DesignWare IP, NSITEXE met the advanced functionality, processing, performance, and testability requirements of its DFP-based SoC. NSITEXE's DFP-based SoC combines both a CPU and a GPU to process large and complex datasets for parallel data management with power-efficient parallelism and quality.

"To implement state-of-the-art capabilities in our SoC, we needed a broad range of IP that met our aggressive power, performance, and area requirements," said Hideki Sugimoto, chief technology officer at NSITEXE. "After evaluating Synopsys' comprehensive portfolio of interface IP, we were confident that with Synopsys' high-quality DesignWare IP we are able to accelerate our project schedule and achieve first-pass silicon success."

Synopsys' silicon-proven DesignWare IP for PCI Express 3.0 delivers low latency and high performance for efficient system throughput in advanced designs. The robust architecture of the DesignWare LPDDR4 IP enables fast access to the DRAM with high data bandwidth and low power. The DesignWare Embedded Memories and Logic Libraries deliver the industry's only foundation IP solution to offer options for high-temperature process, voltage, and temperature (PVT) corners, enabling designers to achieve the best combination of performance, power, and area. For comprehensive test coverage, Synopsys' STAR Hierarchical System and STAR Memory System initialize the LPDDR PHY and perform high-quality user-programmable tests on the external memory and interconnect. The STAR Hierarchical System's Measurement Unit performs accurate on-chip characterization for critical phase-locked-loop (PLL) clock measurement without the need for additional fractional PLLs or high-frequency clock sources.

"SoCs for advanced applications are growing in complexity and require a range of IP to implement the necessary functionality," said John Koeter, vice president of marketing for IP at Synopsys. "By providing the industry's broadest IP portfolio, Synopsys is enabling innovative companies like NSITEXE to meet their advanced design needs, while accelerating the development of their automotive SoCs."

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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