Synopsys Delivers Automotive-Grade IP in TSMC 7-nm Process for ADAS Designs

DesignWare IP in FinFET Processes Adopted by More Than a Dozen Companies Designing ADAS and Autonomous Driving SoCs

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Highlights:

- Broad portfolio of controller and PHY IP in the 7-nm process includes LPDDR4X, MIPI CSI-2 and D-PHY, PCI Express 4.0, and security IP
- IP solutions implement advanced automotive-grade design rules for TSMC 7-nm process to meet the reliability and 15-year automotive operation requirements
- ISO 26262 ASIL Ready IP with safety packages, FMEDA reports, and safety manuals accelerates SoC-level functional safety assessments

Synopsys, Inc. (Nasdaq: SNPS) today announced delivery of automotive-grade DesignWare® Controller and PHY IP for TSMC's 7-nanometer (nm) FinFET process. The DesignWare LPDDR4x, MIPI CSI-2 and D-PHY, PCI Express® 4.0, and security IP implement advanced automotive design rules for TSMC 7-nm process to meet the stringent reliability and operation requirements of ADAS and autonomous driving system-on-chips (SoCs). The delivery of automotive-grade IP in TSMC's 7-nm process further extends Synopsys' broad portfolio of ISO 26262 ASIL Ready IP solutions in FinFET processes, which has been adopted by more than a dozen leading automotive companies. The IP meets stringent AEC-Q100 temperature requirements, delivering high reliability for automotive SoCs. In addition, the included automotive safety packages with Failure Modes, Effects, and Diagnostic Analysis (FMEDA) reports enable designers to save months of development effort and accelerate SoC-level functional safety assessments.

"TSMC's and Synopsys' long history of successful collaboration has enabled our mutual customers to benefit from the latest technology advancements to help them achieve their performance, power, and area goals," said Suk Lee, TSMC senior director of the Design Infrastructure Marketing Division. "Delivering automotive-grade DesignWare IP for TSMC's 7-nanometer FinFET process underscores Synopsys' continued commitment to providing designers with the quality IP necessary to meet their aggressive design goals and get products to market faster."

"Developing automotive-grade IP requires intensive knowledge and strict processes to ensure the IP meets stringent ISO 26262 functional safety and AEC-Q100 reliability standards," said John Koeter, vice president of marketing for IP at Synopsys. "Synopsys continues to make significant investments in developing automotive-qualified IP for the most advanced processes, such as TSMC's 7-nanometer, to help designers accelerate their SoC-level qualification effort for functional safety, reliability, and automotive quality."

Availability & Additional Resources

The automotive-grade DesignWare IP for LPDDR4X, MIPI CSI-2, MIPI D-PHY, and PCI Express 4.0 IP solutions in TSMC's 7-nm process are available now.

For more information, visit our automotive IP website.

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 https://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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