Synopsys Accelerates Development of Safety-Critical Products with Design Solutions for ARM Cortex-R52

Synopsys Tools Enable Design and Safety Certification of Automotive, Industrial and Health Care SoCs Based on New ARMv8-R Architecture CPU

MOUNTAIN VIEW, Calif., Sept. 19, 2016 /PRNewswire/ --

Highlights:

- Galaxy Design Platform tools, including IC Compiler II place and route, Design Compiler Graphical synthesis, and ISO 26262-certified TetraMAX II ATPG enable optimal power, performance and area for ARM Cortex-R52 designs
- Verification Continuum Platform technologies, including:
    - High speed Z01X and Certitude fault simulation help assure functional safety for automotive safety standards, including ISO 26262 and IEC 61508
    - VCS, ZeBu, HAPS and Verdi solutions accelerate hardware/software integration and debug
    - Virtualizer Development Kits for the ARM Cortex-R52 Fast Model enable early software development and testing of safety-critical systems requiring ISO 26262 compliance
- Software Integrity Platform, including Coverity, Defensics and Protecode tools, helps build-in software cybersecurity and quality

Synopsys, Inc. (Nasdaq: SNPS) today announced broad tool support for designers creating safety-critical SoCs with the new ARM® Cortex®-R52, the first processor based on the ARMv8-R architecture that ARM announced today. Synopsys' design solutions for the ARM Cortex-R52, which span optimized implementation, prototyping, software bring-up, hardware/software integration, system validation, functional safety verification and software integrity, accelerate design and certification of automotive, industrial and health care SoCs.

"Targeting a range of applications in the automotive, industrial and health care markets, the new ARM Cortex-R52 is our most advanced processor for functional safety," said James McNiven, general manager for CPU and media processing groups, ARM. "Designers can take advantage of the extensive Synopsys design solution support to accelerate product compliance with safety requirements for SoCs."

Synopsys solutions available today to support development of safety-critical applications with the ARM Cortex-R52 include:

- Galaxy™ Design Platform, including Design Compiler® Graphical, IC Compiler™ II, and ISO 26262-certified TetraMAX® II tools, implements highly reliable, automotive-grade circuits with optimal performance, power and area (PPA)
- Synopsys ISO 26262-certified test solution delivers higher manufacturing test quality, decreases test costs and accelerates time-to-safety standard certification
- The Z01X high-speed fault simulator and the Certitude® functional qualification system grade the quality of software test libraries and provide functional safety assurance for automotive safety standards, including ISO 26262 and IEC 61508
- Virtualizer Development Kits (VDKs) with ARM Fast Models, including the Cortex-R52 model, enable early software development and software testing in support of ISO 26262 functional safety validation
- Platform Architect™ Multicore Optimization (MCO) with ARM Cycle Models enable early analysis and optimization of multicore SoC architectures for performance and power
- HAPS® physical prototyping solution accelerates software development, hardware/software integration and system validation
- VCS® functional verification and ZeBu® emulation solutions with Verdi® HW/SW support, deliver fast emulation and prototype performance, and ease hardware/software integration and debug
- Software Integrity Platform, including Coverity®, Defensics® and Protecode™ tools, helps build-in software cybersecurity and quality

"Our support for design, verification and safety certification of ARM Cortex-R52 based SoCs builds on more than 20 years of collaboration with ARM as well as our proven tools for designing safety-critical products," said Glenn Dukes, vice president of strategic alliances at Synopsys. "Early adopters of ARM's first ARMv8-R processor can get started today with Synopsys' solutions spanning silicon to software design."

Synopsys Automotive: Enabling Safe, Secure, Smarter Cars – from Silicon to Software

Customers across the automotive supply chain use Synopsys' Silicon to Software™ solutions to develop ICs and

software for infotainment, ADAS, V2X and autonomous driving applications. Synopsys' portfolio of automotive-specific IC design and verification tools, automotive-grade IP and automotive software cybersecurity and quality solutions accelerate time to market and enable the next generation of safe, secure and smarter connected cars. Learn more at http://www.synopsys.com/automotive.

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 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.

Editorial Contact:
Monica Marmie
Synopsys, Inc.
650.584.2890
monical@synopsys.com

SOURCE Synopsys, Inc.