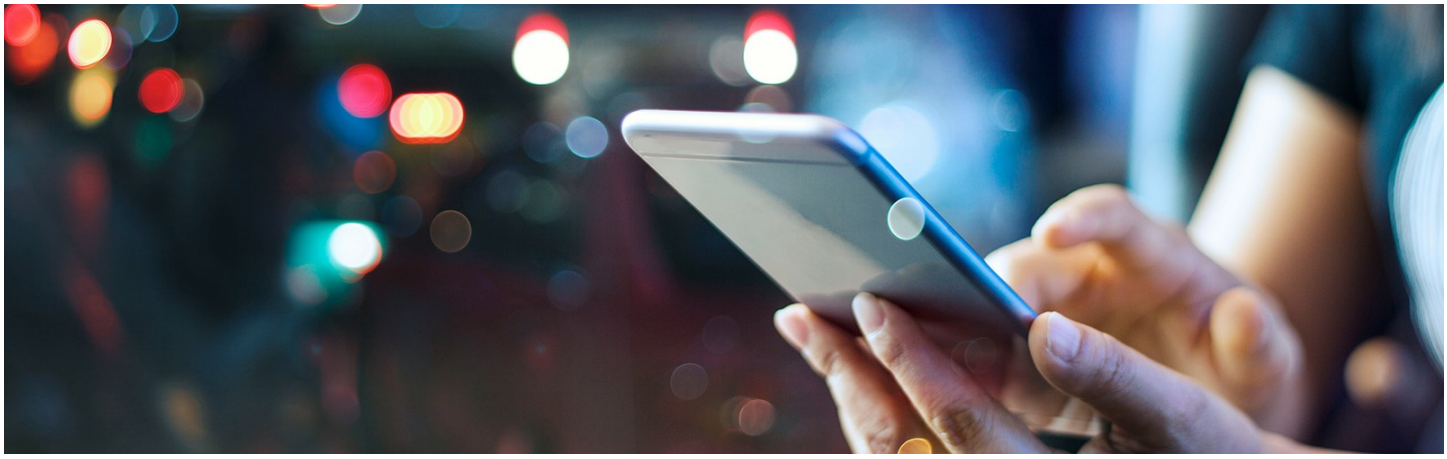
Synopsys and Arm Strengthen Partnership to Advance Next-Gen Mobile SoCs for Arm's Total Compute Solutions



Synopsys Design, Verification and IP Solutions Maximize Performance and Energy Efficiency for New Arm Cortex CPUs and Latest-Generation Arm GPUs

MOUNTAIN VIEW, Calif., June 28, 2022 /PRNewswire/ -- Enabling mutual customers to deliver specialized compute, high performance and high efficiency for mobile applications including laptops, smartphones, gaming and augmented/virtual reality, Synopsys, Inc. (Nasdaq: SNPS) today announced that its design, verification and IP solutions are optimized to deliver maximum performance-per-watt for the latest Arm®v9 architecture-based SoCs. Synopsys' leading EDA and IP solutions combined with the new Arm Immortalis™ and Mali™ GPUs and Arm Cortex®-A and Cortex-X CPUs address the specialized processing demands of high-performance computing applications, complementing the Arm Total Compute Solutions approach to SoC design. Early adopters of the new cores have successfully taped out multiple SoCs, achieving optimum power, performance and area (PPA) targets using Synopsys' solutions.

"The growing demand for specialized processing, enhanced security and AI capabilities is driving demand for Armv9 architecture-based processors," said Paul Williamson, SVP and GM, Client Line of Business, Arm. "The long-standing collaboration between Synopsys and Arm provides the foundation for our mutual customers to confidently develop next-generation mobile applications with sustained high performance and high efficiency required to deliver the ultimate user experiences."

Building on more than three decades of deep ecosystem collaboration, Synopsys and Arm continue to deepen and broaden collaboration activities, aligned with the principles of Arm Total Compute, to accelerate time-to-market through highly optimized and silicon-ready system design and implementation solutions. Synopsys QuickStart Implementation Kits (QIKs), tuned to extract maximum entitlement from the latest 5, 4 and 3nm process technologies, provide the most efficient path to realizing optimally scaled compute architectures for the most demanding end-user applications.

"The principles of Arm's Total Compute strategy are built on a solutions-focused approach to deliver optimized SoC designs, which aligns with Synopsys' end-to-end design, verification and IP solutions that enable design teams to achieve optimal PPA goals," said Sanjay Bali, vice president of Marketing and Strategy for the Silicon Realization Group at Synopsys. "As we continue deepening our relationship, we are together addressing the need for secure, specialized processing to optimize the digital experience on next-generation devices."

Supporting Synopsys Technologies

Key Synopsys technologies supporting the new Cortex-A715, Cortex-A510 and Cortex-X3 CPUs and Immortalis-G715,Mali-G715 and Mali-G615 gaming-optimized GPUs include:

- The Synopsys Digital Design Family, consisting of technology-fused products with shared best-in-class engines to provide a framework to achieve optimum PPA for Arm-based designs across all leading technology processes. Synopsys RTL Architect, Synopsys Fusion Compiler™, Synopsys DSO.ai™ and Synopsys Tweaker™ ECO products accelerate the development, implementation and signoff of power-optimized architectures for Arm cores. The family also includes Synopsys Silicon Lifecycle Management optimization software, which quickly finds the best configurations to maximize

performance of the new Arm cores.
- The Synopsys Verification Family, which speeds software development, verification throughput and time-to-market for Arm-based designs. Early adopters of the latest Armv9 architecture are using the Synopsys Verification Family of products, including virtual prototyping with Arm Fast Models, simulation, hardware and software debug, verification IP for the latest Arm AMBA® interconnect, emulation and prototyping hardware to accelerate hardware-software bring-up and power and performance validation, resulting in shorter time-to-market.
- The silicon-proven Synopsys Interface IP products, which deliver the required performance, power efficiency, security and real-time connectivity for systems implementing the latest Arm processor cores. The broad Synopsys IP portfolio, consisting of controllers and PHYs, supports the latest protocols optimized for the rapid development of Arm-based SoCs.

Availability

Synopsys QuickStart Implementation Kits (QIKs) include implementation scripts and reference guides that enable early adopters of the newest Armv9 cores to accelerate time-to-market and achieve their demanding performance-per-Watt targets. These QIKs are available today by request through the Arm support hub or from Synopsys SolvNet.

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 an S&P 500 company, Synopsys has a long history of being a global leader in electronic design automation (EDA) and semiconductor IP and offers the industry's broadest portfolio of application security testing tools and services. Whether you're a system-on-chip (SoC) designer creating advanced semiconductors, or a software developer writing more secure, high-quality code, Synopsys has the solutions needed to deliver innovative products. Learn more at www.synopsys.com.

Editorial Contact:
Simone Souza
Synopsys, Inc.
650-584-6454
simone@synopsys.com

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