Synopsys Announces New ARC HS4x/4xD Development Kit to Speed Software Development

Silicon-based Hardware Platform with DSP Functionality Accelerates Software Development for Mobile Baseband, Voice/Speech, Home Audio, and Artificial Intelligence Applications

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Highlights:

- Synopsys ARC HS4x/4xD Development Kit accelerates software development for SoC based on the superscalar ARC HS4x and DSP-enhanced HS4xD processors
- Includes commonly-used peripherals and interfaces such as Ethernet, GPU, HDMI, USB, SD card, Bluetooth, WiFi, audio I/O, and A-to-D converters
- The Development Kit operates at 1GHz, includes 4GB of DDR memory, and allows developers to easily extend the kit to add new functionality

Synopsys, Inc. (Nasdaq: SNPS), today announced availability of the DesignWare® ARC® HS4x/4xD Development Kit to accelerate software development for the ARC HS4x/4xD family of high-performance processor IP. The ARC HS4x/4xD Development Kit is a ready-to-use software development platform with support for the Linux kernel and access to the embARC open-source software packages on the embARC website, enabling designers to start software development prior to SoC availability. The ARC HS4x/4xD Development Kit includes a multicore ARC HS4x/HS4xD-based chip implemented in a 28-nm process, and integrates a wide range of interfaces including Ethernet, HDMI, USB, SDIO, I^2C, SPI, UART, and GPIO, as well as a low-power GPU. The kit also features an on-board WiFi (802.11abgn) and Bluetooth (BT4.0) module. This combination of ARC HS4x/4xD processors and the comprehensive set of peripherals allow developers to build and debug complex software on a fully-featured hardware platform.

The ARC HS4x/4xD Development Kit is configurable to support single and dual-core HS45D and HS47D processors and up to quad-core ARC HS48 processors, giving developers the flexibility to use a single development board for multiple ARC HS processor configurations. The kit offers an ARC HS4x processor running at 1 GHz and includes 4 GB of DDR memory to run full software loads. With the Development Kit's support for the Linux kernel, Yocto, and Buildroot systems, developers can immediately begin Linux application development. For bare-metal and RTOS-based development, the freely available embARC Open Software Platform (OSP) provides drivers, FreeRTOS and middleware for embedded and IoT application development. All software for the ARC HS4x/4xD Development Kit is available on the embARC website, a comprehensive resource for embedded developers that provides a single point of access to free and open source software (FOSS) and tools to accelerate the development of embedded applications for ARC Processors.

The ARC HS4x/4xD Development Kit is supported by Synopsys' ARC MetaWare Development Toolkit, enabling the development and debugging of highly optimized, high-density code. The GNU Toolchain for ARC also supports the ARC HS4x/4xD family of processors. A HapsTrak® connector, enabling designers to easily connect the ARC HS4x/4xD Development Kit to Synopsys' HAPS® FPGA-based prototyping system, extends the platform so that it can be used for prototyping of new IP and associated driver development. The ARC HS4x/4xD Development Kit is also extensible through the available Digilent Pmod, mikroBUS, and Arduino connectors.

"Integrated hardware and software solutions are crucial in helping designers rapidly develop and debug software for their embedded SoC designs," said John Koeter, senior vice president of marketing and strategy for IP at Synopsys. "Synopsys' new ARC HS4x/4xD Development Kit provides developers with a ready-to-use platform and access to a comprehensive set of free and open source software, drivers, and operating systems to reduce development time and effort for their ARC HS DSP Processor-based systems."

Availability

- The ARC HS4x/4xD Development Kit will be available in Q1, 2020.
- Learn more about Synopsys' ARC Development Tools and Ecosystem

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 enables 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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