Synopsys' New ARC HS Development Kit Accelerates Software Development for ARC-based Systems

Silicon-based Hardware Platform with Wide Range of I/O and Comprehensive Software Support Reduces Development Time for SoCs Targeting High-Performance Embedded Applications

Disclaimer: GlobalFoundries acquired the Synopsys Processor Solutions business on June 1, 2026. Clickhere to learn more.

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Highlights:

- Quad-core ARC HS Development Kit operates at speeds up to 1GHz and offers a rich set of interfaces to enable early software development for ARC HS3x-based systems
- The Development Kit is extensible through Pmod, Arduino, mikroBUS, and Synopsys HAPS connectors, allowing the developer to easily add new functionality to the kit
- Free and open-source software packages available include ARC Linux and the embARC Open Software Platform based on FreeRTOS

Synopsys, Inc. (Nasdaq:SNPS) today announced availability of theDesignWare® ARC® HS Development Kit to accelerate software development for the ARC HS processor family. The ARC HS Development Kit is a ready-to-use software development platform that includes access to the embARC open source software packages on the embARC website, enabling designers to start software development prior to SoC availability. The ARC HS Development Kit includes a multicore ARC HS-based chip, implemented in a TSMC 28 HPM process, that integrates a wide range of interfaces including Ethernet, USB, SDIO, I^2C, SPI, UART, and GPIO, as well as a Vivante GC7000 Nano Ultra GPU. The kit also features an on-board WiFi and Bluetooth module. This combination of ARC HS processors and the comprehensive set of peripherals allow developers to build and debug complex software on a fully-featured hardware platform.

The ARC HS Development Toolkit is configurable to support single-core and dual-core ARC HS34 processors and single-, dual- and quad-core ARC HS36 and HS38 processors, giving developers the flexibility to use a single development board for multiple ARC HS processor configurations. The kit offers an ARC HS processor running at 1 GHz and includes 4 GB of DDR memory to run full software loads. The ARC HS Development Kit is ready for immediate software development and with 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 HS 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 HS 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 HS3x family of processors. A HapsTrak™ connector, enabling designers to easily connect the ARC HS 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 HS Development Kit is extensible through the available Digilent Pmod, mikroBUS, and Arduino connectors.

"Embedded designs are becoming increasingly complex, making integrated hardware and software solutions necessary to help designers speed their SoC development," said John Koeter, vice president of marketing for IP at Synopsys. "Synopsys' ARC HS 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."

Availability

The ARC HS Development Kit is available now.
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 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.

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