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## Multicore SHARC+ARM SOC Achieves Five Times Power Efficiency Improvement for Real-Time Audio and Industrial Applications

NORWOOD, Mass.--(BUSINESS WIRE)-- [Analog Devices, Inc.](http://www.analog.com) introduced eight SHARC® processors as part of a new, high-performance, power-efficient, real-time series that delivers peak performance greater than 24 giga-floating-point operations per second using two enhanced SHARC+® cores and advanced DSP accelerators (FFT, FIR, IIR). The ADSP-SC58x and ADSP-2158x series consume less than two watts at high temperature, making the new processor line-up more than five times more power efficient than previous SHARC products and more than two times more efficient than the nearest competitive processors. This advantage provides industry leading digital signal processing performance for applications where thermal management sets the limit for power consumption, or where the higher costs and lower reliability of fans cannot be tolerated. Applications include automotive, consumer and professional audio, multi-axis motor control, and energy distribution systems. Watch this video to learn more: <http://analog.com/ADSP-SC58xVideo>

This Smart News Release features multimedia. View the full release here:

<http://www.businesswire.com/news/home/20150616006058/en/>

- Order samples and download ADSP-SC58x and ADSP-2158x data sheets, reference designs and other technical documents: <http://www.analog.com/SC58x>
- Order rapid development EZ-Kit evaluation boards: <http://www.analog.com/SC58xEZKIT>
- Get questions answered by ADI engineers on EngineerZone®, ADI's online technical processor and DSP support community: [ez.analog.com/community/dsp](http://ez.analog.com/community/dsp)

The ADSP-SC58x products complement the SHARC+ cores and DSP accelerators with the addition of an ARM® Cortex-A5 processor, with FPU and Neon® DSP extensions to handle additional real-time processing tasks and manage peripherals used to interface to time-critical data in audio, industrial closed-loop control, and industrial sensing applications. These interfaces include Gigabit Ethernet (with AVB and IEEE-1588 support), USB High-Speed, mobile storage (including SD/SDIO), PCI Express and a rich variety of other connectivity options for a flexible and simplified system design.

The ADSP-2158x family, without the ARM Cortex-A5 core, is designed for applications where a DSP co-processor is typically needed and includes the two SHARC+ cores and DSP accelerators with a peripheral set matched to the cores.

With software IP protection a growing industry security concern, ARM® TrustZone® security and an onboard crypto hardware accelerators are included. For applications where reliability is a critical requirement, memory parity and error-correction hardware provide higher data integrity.

The overall integration and low-power features offered by the new ADSP-SC58x and ADSP-2158x series deliver significant BOM and board area savings and provide lower design complexity and reduced time to market for today's complex applications.

### Supported by ADI's CrossCore® Embedded Studio

The ADSP-SC58x/2158x is supported by ADI's award winning CrossCore® Embedded Studio development tool suite, providing design engineers with interactive, real-time development tools that help optimize their design and speed time to market.

- Learn more about the CrossCore® Embedded Studio and its extensive family of add-in products here: <http://www.analog.com/cces>

Additionally, ADI and Micrium have collaborated to offer µC/OS-II® and µC/OS-III® real-time kernels on both SHARC+ and ARM Cortex-A5 cores, as well as Micrium's USB Host, USB Device and file system stacks running on the ARM Cortex-A5.

Analog Devices also provides a Linux Add-In for CrossCore Embedded Studio, enabling customers interested in taking advantage of the communication stacks and application packages available for embedded Linux, running on the ARM Cortex-A5 core.

The ADSP-SC58x EZ-KIT-Lite development boards and ICE-1000/2000 emulators facilitate the creation, test, and debug of

advanced applications.

### **Pricing, Evaluation Board and Product Sample Availability**

Product samples are available today along with the full set of development tools. Options include one or two SHARC+ cores, with or without the ARM Cortex-A5 core, various peripheral configurations, and two 19-mm x 19-mm BGA package alternatives. Pricing for these products starts at \$17.00 each for 10,000-unit production quantities. For a limited time, the ADSP-SC589 EZ-KIT-Lite with an ICE-1000 emulator and CrossCore Embedded Studio license is available for the special product announcement price of \$495.

### **About Analog Devices**

Analog Devices (NASDAQ: ADI) designs and manufactures semiconductor products and solutions. We enable our customers to interpret the world around us by intelligently bridging the physical and digital with unmatched technologies that sense, measure and connect. Visit <http://www.analog.com>.

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