June 16, 2016

New Analog Devices SHARC® Processor Platform Delivers Superior Sound Experience in Audio System Applications

NORWOOD, Mass.--(BUSINESS WIRE)--

Analog Devices, Inc. (ADI) today announced the addition of ADSP-SC57x and ADSP-2157x processors to its growing series of single-chip multicore SHARC processors. The devices advance the audio experience by enabling superior sound quality and more cost-effective and reliable audio systems. The new processor platform meets automotive temperature ranges without the need for costly, bulky heat sinks or fans, which saves space in the end application. By combining ADI's SHARC technology with ARM® Cortex-A5 system control capability, the series provides a high performance, low cost solution for complex applications such as Dolby Atmos®, DTS:X® or active noise cancellation with performance headroom remaining for further audio post-processing. Target applications include automotive premium audio, consumer and pro-audio, and industrial systems that require high floating-point performance. With more than 2MBytes of on-chip memory, designers are able to realize higher DSP performance at lower power while reducing system complexity, time to market, board space, and cost.

This Smart News Release features multimedia. View the full release here: http://www.businesswire.com/news/home/20160616005077/en/

New Analog Devices SHARC® Processor Platform Delivers Superior Sound Experience in Audio System Applications (Photo: Business Wire)

- Order samples and download ADSP-SC57x/ADSP-2157x data sheets, reference designs and other technical documents: http://www.analog.com/SC57x
- Order rapid development EZ-Kit evaluation boards: http://www.analog.com/SC573EZKIT
- Get questions answered by ADI engineers on EngineerZone®, ADI's online technical support community: https://ez.analog.com/community/dsp/sharc-processors

Higher Performance with Optimized Connectivity

With the ADSP-SC57x processors, the SHARC+ cores and the DSP accelerators provide real- time performance while the ARM® Cortex-A5 processor handles connectivity and system operation. The ARM® NEON™ engine provides additional signal processing capability if needed. These features are coupled with the latest interface technology including Gigabit Ethernet AVB, MLB for MOST150, CAN 2.0B, USB2.0 and mobile storage, which are all managed independently by the ARM processor and provide optimal flexibility in system design from a common product series.

Scalable Application, Price and Performance Levels with a Common Platform

The ADSP-SC57x processors provide scalable performance with ARM and single- or dual-SHARC+ DSP variants in two package options that include large on-chip memory and the choice of with or without external DDR3(L)/DDR2/LPDDR1. These options allow designers to optimize both BOM cost and board complexity. The ADSP-2157x series is designed for applications for which only a DSP is needed and includes two SHARC+ cores, a DSP-centric peripheral set and computational accelerators. With the demand for increasingly complex audio algorithms in automotive and consumer applications, such as multi-channel audio decode and active noise cancellation, the series' superior DSP performance can meet challenging requirements.

Greater IP Protection

The new processors include ARM® TrustZone® security, integrated cryptographic hardware accelerators and secure OTP memory for key storage to mitigate growing industry concerns around software IP protection.

Increased Reliability and Reduced BOM Cost in Smaller, Quieter End Systems

The overall integration, low power, and automotive temperature range options deliver significant BOM and board area savings, which, in turn, provide lower design complexity with reduced time to market for applications. This includes the flexibility to operate within smaller enclosed areas at high automotive temperatures without needing heat sinks or fans. For applications with reliability as a critical requirement, memory parity and error-correction hardware provide higher data integrity.

Optimized Algorithms and Graphical Design Tools Simplify Audio Development

The ADSP-SC57x and ADSP-2157x processors are supported by Analog Devices' award-winning CrossCore® Embedded Studio suite, providing design engineers with interactive, real-time development tools. Additionally, SigmaStudio™ support provides an extensive selection of optimized audio libraries with easy-to-use graphical audio development and tuning tools for faster time to market. An optimized royalty free Ethernet AVB stack developed and supported by Analog Devices, AUTOSAR MCAL drivers, and many third-party algorithms and software components are available specifically for automotive applications. Linux and Micrium RTOS support is available for the ADSP-SC57x processors. Learn more about CrossCore Embedded Studio and its extensive series of add-in products at: http://www.analog.com/SC573EZKIT and http://www.analog.com/CCES.

Pricing and Availability

Product	SHARC+ Core1+Core2 (MHz max)	ARM Cortex-A5 (MHz max)	Sample Availability	Starting Price Each (Per 1,000)	Packaging
ADSP-SC570	450 + N/A	450	Now	$13.99	176-lead LQFP-EP
ADSP-SC571	450 + 450	450	Now	$17.24	176-lead LQFP-EP
ADSP-SC572	450 + N/A	450	Now	$15.39	400-ball CSP BGA
ADSP-SC573	450 + 450	450	Now	$19.39	400-ball CSP BGA
ADSP-21571	450 + 450	N/A	Now	$16.12	176-lead LQFP-EP
ADSP-21573	450 + 450	N/A	Now	$18.13	400-ball CSP BGA

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 worlds with unmatched technologies that sense, measure and connect.

Follow ADI on Twitter at http://www.twitter.com/ADI_News

Subscribe to *Analog Dialogue*, ADI's monthly technical journal, at: http://www.analog.com/library/analogDialogue/

View source version on businesswire.com: http://www.businesswire.com/news/home/20160616005077/en/

Analog Devices, Inc.
Stephen Daly, 781-937-1530
Stephen.daly@analog.com
or
Porter Novelli
Andrew MacLellan, 617-897-8270

andrew.maclellan@porternovelli.com

Source: Analog Devices, Inc.