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New Generation of High-Performance Blackfin Processors Optimized for Power-Constrained Industrial Imaging, Audio and Automotive Applications

ADSP-BF70x processor family with up to 800 MMACs performance and 1 MB of embedded SRAM consumes half the power of competing devices.

NORWOOD, Mass.--(BUSINESS WIRE)-- Analog Devices, Inc. (NASDAQ: ADI), a global leader in high-performance signal processing technology, introduced today the ADSP-BF70x Blackfin® processor family, a high-performance DSP series that delivers a class-leading 800 MMACS of processing power at less than 100 mW - double the performance or half the power of competing devices. The cost-effective eight-member Blackfin processor family includes up to 1 MB of internal SRAM, eliminating external memory in many applications, while a second configuration features an optional DDR memory interface. The combination of performance, power efficiency, integration and value allows designers to incorporate 16- and 32-bit processing in a range of new embedded vision use cases, including industrial imaging and building controls as well as portable and automotive audio. The ADSP-BF70x family offers designers' unparalleled flexibility and functionality through an array of advanced connectivity options (including USB, SDIO, CAN, ePPI, SPORT, QuadSPI) while enabling power sensitive bus-powered applications and extending the life of battery-powered devices. Watch a video here.

- Order samples and rapid development EZ-Kit evaluation boards
  http://www.analog.com/BF70xboard
- Download ADSP-BF70x data sheets, reference designs and other technical documents
  http://www.analog.com/BF70x
- Get questions answered by ADI engineers on EngineerZone™, ADI's online technical processor and DSP support community
  http://ez.analog.com/community/dsp

"The ADSP-B70x Blackfin family provides a scalable design approach for commercial-, industrial- and automotive-grade equipment where systems engineers must maintain high performance while designing for environmental regulations, portability, extended battery life and shrinking power budgets," said Andy Lanfear, product marketing manager, Analog Devices. "Our latest processor line extends ADI's leadership position for high-performance, ultra-low-power DSPs by delivering up to 400 MHz with single-cycle, dual-16-bit, 32-bit and complex fixed-point math capability- all while operating on a 95-mW core power budget."

More About the ADSP-B70x Blackfin Processor Family

The ADSP-BF70x Blackfin processors are designed for a range of industrial and building automation applications, including intelligent lighting and occupancy sensing and industrial imaging in cameras, barcode readers and biometric sensors. The processor family's low-power consumption, new 32-bit math and large on-chip SRAM also suits it to portable audio and automotive audio, where deterministic real-time processing is critical for high-fidelity sound.

With software IP protection a growing industry security concern, the ADSP-B70x Blackfin processor family additionally includes an onboard crypto hardware accelerator that features fast secure boot with decryption and authentication. For always-on safety critical applications, the BF70x series also provides high data integrity with parity and error-correction code (ECC)-protected memory circuitry. ADI's new line of highly integrated Blackfin processors is available in single 12 × 12 QFN or 12 × 12 BGA packages starting at under $4.00/1k units.

Blackfin Audio and Video Software Modules Available at No Charge from ADI

For audio and video system architects, Analog Devices makes available ADI software modules, including image processing applications software (such as video occupancy sensing, image processing toolbox, 2D graphics); video imaging codecs such as JPEG and H.264BP/MP; audio codecs including MP3 and WMA; and post processing software including asynchronous sample rate converters and multi-band graphic equalizers. Dolby and DTS algorithms are also available via a software license.

Supported by ADI's CrossCore® Embedded Studio

The ADSP-B70x is supported by ADI's award winning Crosscore® Embedded Studio integrated development environment (IDE) providing design engineers with an interactive real-time development tool that helps optimize their design and speeds time to market.

- Learn more about the Crosscore Embedded Studio Integrated Development Environment http://www.analog.com/en/evaluation/adswt-cces/eb.html

The ADSP-BF707 EZ-KIT-Lite development board and new ICE-1000/2000 emulators facilitate the creation, test, and debug of advanced applications on ADI's latest Processors and DSPs. Working in tandem with the CrossCore® Embedded Studio development environment, the emulators provide state-of-the-art support for all JTAG-compliant Analog Devices processors. New debug features are also added for the ADSP-BF70x, supporting program trace, system trace, and cross-trigger channel control via ARM® CoreSight™ serial wire debug support.

Pricing, Evaluation Board and Product Sample Availability

Full-featured 400-MHz, 1-MB SRAM ADSP-BF706 (QFN) and ADSP-BF707 (BGA) product samples are available today. With multiple memory variants, pricing for the ADSP-BF70x family starts at $3.99 for 1,000 unit production quantities. Begin developing today with the ADSP-BF707 EZ-KIT-Lite complete with an ICE-1000 emulator & CrossCore® Embedded Studio for $299.

About Analog Devices

Innovation, performance, and excellence are the cultural pillars on which Analog Devices has built one of the longest standing, highest growth companies within the technology sector. Acknowledged industry-wide as the world leader in data conversion and signal conditioning technology, Analog Devices serves over 60,000 customers, representing virtually all types of electronic equipment. Analog Devices is headquartered in Norwood, Massachusetts, with design and manufacturing facilities throughout the world. Analog Devices is included in the S&P 500 Index. http://www.analog.com

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Analog Devices, Inc.
Joe Dussi, 781-937-1216
joe.dussi@analog.com
or
Porter Novelli
Andrew MacLellan, 617-897-8270
andrew.maclellan@porternovelli.com

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