

Blackfin BF50x Processors Break Price, Performance Barriers

NORWOOD, MA - January 18, 2010 - Analog Devices, Inc. (NYSE: ADI) today unveiled the latest entries in its Blackfin® family of processors for converged digital signal and control processing applications – the Blackfin BF50x series. Delivering up to 100% greater performance than competing, comparably priced processors with integrated analog-to-digital converters (ADCs) and flash memory, BF50x series processors enable designers to achieve significant gains in signal conversion and computational precision, and apply advanced power control techniques to yield greater energy efficiency for industrial applications. Analog Devices also introduced a new low-cost (\$199) EZ-KIT Lite® evaluation platform for the Blackfin BF50x series, providing a cost-effective entry point for processor evaluation. Blackfin BF50x processors are sampling to customers today.

Blackfin BF50x processors deliver up to 400MHz of performance at a price point where 150-200MHz clock speeds have been the norm, extending high-performance digital signal processing capabilities to a wider range of applications, including those previously serviced by high-end microcontrollers. This performance headroom enables designers to achieve greater system functionality and precision through the use of more sophisticated algorithms, and allows greater flexibility to optimize system interface and control capabilities. Designers are also enabled to utilize more advanced software tools and libraries for code generation, which helps shorten product development cycles and speed time to market – without compromising on processor cost.

Blackfin BF50x processors combine industry-standard interfaces with a high-performance signal processing core to ensure that applications can be developed quickly and cost-effectively, without the need for expensive external components. With optional integrated dual-SAR 12-bit ADI ADCs for more accurate data conversion and 4MB of on-board executable flash memory, Blackfin BF50x processors minimize off-chip components to lower overall system costs.

Highlights:

The highest performing DSP with integrated ADC.

No other DSP with integrated ADC matches the 400MHz performance of Blackfin BF50x processors. The dual-SAR ADI ADC integrated within the Blackfin BF506F leverages ADI's world-class ADC technology expertise to deliver twice the effective resolution of other DSP-integrated 12-bit ADCs, with industry-leading 11.5 effective number of bits (ENOB). This attribute distinguishes the Blackfin BF506F as an ideal fit for applications including power inverters, uninterruptible power supplies (UPS), servo controls and motor controls. The Blackfin BF50x series also introduces a new

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peripheral to the Blackfin portfolio - the ADC Control Module (ACM) - which provides a low-overhead, precise means to synchronize ADC sampling with external events.

A new standard for industrial applications.

Blackfin BF50x processors equip designers with the performance they need to develop more accurate, energy-efficient industrial control and automation systems spanning power inverters, UPS, power and motion control, as well as smart metering and advanced sensing applications including power metering and flow/level metering.

Greater processing performance for greater system optimization.

The performance headroom provided by Blackfin BF50x series processors enables modern control theory and mathematics to be used in advanced system modeling, resulting in optimal power and control efficiency for many real-time systems. Designers will use Blackfin BF50x processors to yield more precise control (e.g. motion), efficiency (e.g. power consumption), reliability (e.g. power quality), and capabilities (e.g. power line communications).

Independent validation of price/performance leadership.

Berkeley Design Technology, Inc.'s (BDTI) DSP Kernel Benchmarks™ results for the Blackfin BF504 place it ahead of all other competing, BDTI-benchmarked processors in terms of speed-per-dollar ratio for fixed-point processors. The Blackfin BF504 obtained a BDTIsimMark2000/\$ score of 498, based on a BDTIsimMark2000 of 2240 and a cost of \$4.50. The BDTIsimMark2000™ provides a summary measure of signal processing speed distilled from the BDTI DSP Kernel Benchmarks, which are among the most widely used digital signal processing benchmarks in the world. For more information see www.BDTI.com. Scores © 2009 BDTI.

New low-cost development platform.

EZ-KIT Lite evaluation kits for Blackfin BF50x processors are available for only \$199, and include an evaluation suite of ADI's VisualDSP++® development environment. ADI also offers a \$150 Blackfin emulator (ADZS-ICE-100B), providing designers with a comprehensive development platform that lowers the cost of entry to the Blackfin BF50x series.

Third-party ecosystem embraces Blackfin BF50x.

Third-parties providing value-added design services and technology for Blackfin BF50x include Boston Engineering, Advanced Energy Conversion, and Schmid Engineering.

Supporting Quotes

“Designers who have previously been constrained by the performance profiles of low-cost processors and microcontrollers can now overcome these limitations to

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realize new levels of performance and cost efficiency via an elegant, unified processing platform,” said Jerry McGuire, vice president, DSP division, Analog Devices, Inc. “Blackfin BF50x processors provide the performance headroom and integrated peripherals to drive greater innovation in embedded applications, with low-cost evaluation kits and a rich ecosystem of software tools to ensure unmatched value.”

Pricing and Availability

The BF50x family includes the BF504 starting at \$4.50, the BF504F with integrated flash memory starting at \$6.50, and the BF506F with integrated flash memory and ADC starting at \$10.60 - all prices are based on 10,000 unit quantities. Processors are sampling to customers today. EZ-KIT Lite evaluation kits for Blackfin BF50x processors are available from ADI’s authorized distributors and are priced at \$199. To learn more about the Blackfin BF50x processor family and development platform, view a webcast presentation hosted by Arrow Electronics and ADI.

Source URL (retrieved on 11/24/2014 - 9:02am):

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