# EZ-KIT Lite for Analog Devices ADSP-BF533 Blackfin Processor

Key Features

- ADSP-BF533 Blackfin Processor
- 64 MB (32M × 16-bit) SDRAM
- 2 MB (512k × 16-bit × 2) flash memory
- AD1836 96 kHz audio codec with 4 input and 6 output RCA jacks
- ADV7183 video decoder with 3 input RCA jacks
- ADV7171 video encoder with 3 output RCA jacks
- ADM3202 RS-232 line driver/receiver
- DB9 male connector
- USB-based debugger interface
- JTAG ICE 14-pin header
- SPI connector
- SPORT1 connector
- Background telemetry channel
- Evaluation suite of VisualDSP++
- 10 LEDs: 1 power, 1 board reset, 1 USB reset, 1 USB monitor, 6 general purpose
- 5 push-buttons with debounce logic: 1 reset, 4 programmable flag
- Three 90-pin connectors providing PPI, SPI, EBIU Timers0–2, UART, programmable flags, SPORT0, and SPORT1 expansion interfaces for analyzing and interfacing
- CE certified

System Requirements
- Pentium® 500 MHz or higher
- Minimum of 256 MB of RAM
- Windows® 2000 or Windows XP
- One available USB connector
- 750 MB disk space
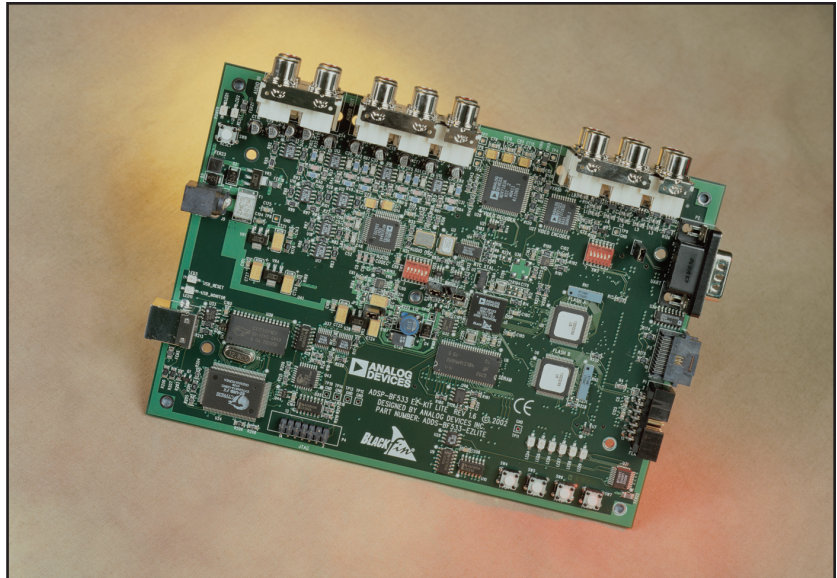
Overview

The ADSP-BF533 EZ-KIT Lite® provides developers with a cost-effective method for initial evaluation of the ADSP-BF533 Blackfin® Processor for a wide range of applications, including audio and video processing. The EZ-KIT Lite includes an ADSP-BF533 desktop evaluation board and fundamental debugging software to facilitate architecture evaluations via a USB-based PC-hosted tool set. Real-time debugging is made possible via the background telemetry channel (BTC) feature. Through BTC, data can be streamed both to and from the processor over the JTAG connection between host and embedded processor without the overhead involved with halting the target application, getting the desired information, and then restarting the target application. With this EZ-KIT Lite, users can learn more about ADI's ADSP-BF533 hardware and software development and prototype applications.

The ADSP-BF533 EZ-KIT Lite provides an evaluation suite of the VisualDSP++® integrated development and debugging environment with C/C++ compiler, advanced plotting tools, statistical profiling, and the VisualDSP++ kernel (VDK). Other features of VisualDSP++ include: assembler, linker, libraries, and splitter. VisualDSP++ offers programmers a powerful programming tool with flexibility that significantly reduces the time to market. The VisualDSP++ software included with the EZ-KIT Lite is limited in program memory size for use solely with the EZ-KIT Lite product.

Analog Devices (ADI) has EZ-Extender® products (sold separately) that plug into the expansion interface of the ADSP-BF533 EZ-KIT Lite for additional functionality. The Blackfin EZ-Extender daughter board allows developers to connect to a number of Analog Devices high speed converter (HSC) evaluation boards, the OV6630 OmniVision camera evaluation board, and an external LCD display. The Blackfin USB-LAN EZ-Extender daughter board contains a USB 2.0 interface and 10/100 Ethernet MAC.

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The Blackfin A-V EZ-Extender daughter board contains advanced audio and video circuitry, as well as connectors allowing connection to three camera sensor evaluation boards (Kodak, Mircron, and OmniVision) and a flat panel display (FPD) module. The Blackfin FPGA EZ-Extender extends the capabilities of the evaluation system by providing a Xilinx FPGA with external memory, IDC connectors for off-board connections, and a small breadboard area.The Blackfin Audio EZ-Extender expands the capabilities of the evaluation system by providing an interface for 8 channels of analog audio input and 16 channels of analog audio output along with an interface to digital audio I/O through a Sony/Philips Digital Interface (S/PDIF) transceiver.

CROSSCORE Development Tools

The ADSP-BF533 EZ-KIT Lite is part of the Analog Devices CROSSCORE® Tools product line, which is composed of a comprehensive set of development tools providing engineers with easier and more robust methods for developing and optimizing systems.

The CROSSCORE components include:

• VisualDSP++ development and debugging environment

• EZ-KIT Lite evaluation kits

• EZ-Extender daughter boards

• Emulators

The easy to use VisualDSP++ integrated development environment speeds development, debugging, and deployment while shrinking product development cycles and improving time to market.

The EZ-KIT Lite evaluation kits provide an easy way to investigate the performance of Analog Devices' family of embedded processors and DSPs.

EZ-Extender daughter boards give developers access and ability to connect various peripherals from Analog Devices and third parties to the expansion interface of the EZ-KIT Lite evaluation kits. Emulators are available for both PCI and USB host platforms for rapid on-chip debugging. Analog Devices is committed to continuous expansion of leading-edge development solutions for design engineers everywhere.

Embedded Processors and DSPs

Analog Devices is a leading supplier of embedded and digital signal processing solutions, from the high performance Blackfin Processors, TigerSHARC® Processors, and SHARC® Processors, to integrated mixed-signal DSPs for an increasing spectrum of applications. ADI's advances in design provide faster processing, more memory, lower power consumption, and simplified system integration. ADI gives you a competitive edge by providing a complete solution including expert technical support, comprehensive development tools, and an independent network of third party developers called The Collaborative™. For more information about ADI embedded processors and DSPs, *visit www.analog.com/processors.*

CROSSCORE Tools Support

Tel: 1-800-ANALOGD
Web: *www.analog.com/processors/tools*

Analog Devices is committed to providing high quality, timely, accurate, and free technical support and software upgrades.

Ordering Information

Please contact your local Analog Devices sales representative or distributor for pricing and ordering information for part number ADDS-BF533-EZLITE.

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