# EZ-KIT Lite for Analog Devices ADSP-BF537 Blackfin Processor

Key Features

- ADSP-BF537 Blackfin Processor

- Max core clock rate 600 MHz

- 64 MB (32M × 16) SDRAM

- 4 MB (2M × 16) flash memory

- SMSC LAN83C185 10/100 PHY with RJ45 connector

- CAN TJA1041 transceiver with two modular connectors

- AD1871 96 kHz stereo DAC with 3.5 mm jack connector

- AD1854 96 kHz stereo ADC with 3.5 mm jack connector

- RS-232 UART line driver/receiver

- National Instruments Educational Laboratory Virtual Instrumentation Suite (NI ELVIS) interface

- Advanced USB-based debugger interface

- JTAG ICE 14-pin header

- Evaluation suite of VisualDSP++ development tools

- Flash utility for writing application boot code and data to flash

- 6 general-purpose LEDs, 4 general-purpose push-buttons

- Expansion board interface cluster for evaluating and interfacing with the processor's peripheral interfaces

- Discrete IDC expansion ports for all processor peripherals

- 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
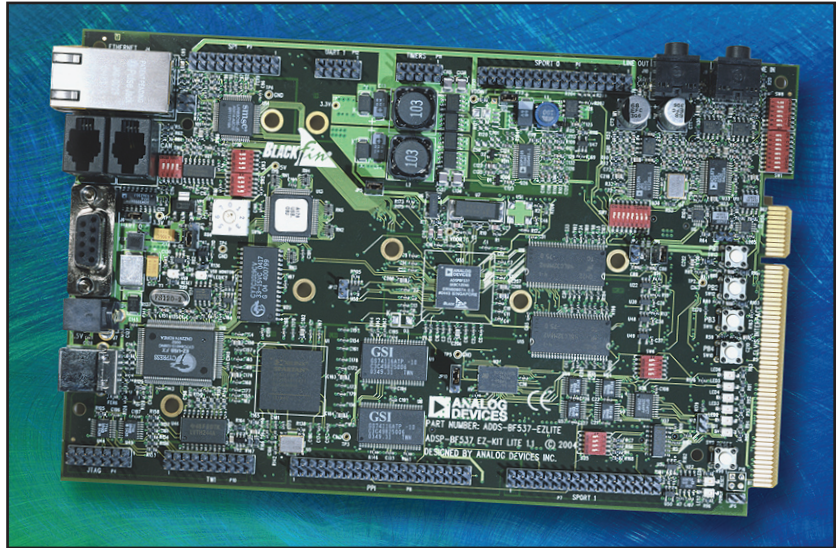
Overview

The ADSP-BF537 EZ-KIT Lite® provides developers with a cost-effective method for evaluation of the ADSP-BF537 Blackfin® Processor and its rich set of system peripherals, including the IEEE 802.3 10/100 Ethernet MAC and CAN® 2.0B controller. A TCP/IP stack with integrated device driver and example code is provided in VisualDSP++® release 4.0. This evaluation kit was designed with an emphasis on modularity and expandability. With this EZ-KIT Lite, users can learn more about Analog Devices ADSP-BF537 hardware and software development and quickly prototype applications.

The EZ-KIT Lite includes an ADSP-BF537 processor desktop evaluation board along with an evaluation suite of the VisualDSP++ development and debugging environment that is composed of a C/C++ compiler, assembler, and linker. The kit also contains sample processor application programs, CE-approved power supply, a USB cable, both straightthrough and crossover Ethernet cables, a 3.5 mm male/male stereo cable, and a pair of stereo headphones.

Additionally, the ADSP-BF537 EZ-KIT Lite contains the National Instruments Educational Laboratory Virtual Instrumentation Suite (NI ELVIS) interface. This interface will allow use of the oscilloscope, function generator, arbitrary waveform generator, dc voltage and current measurement modules, and digital I/O. NI ELVIS is a LabVIEW™-based design and prototype environment for university science and engineering laboratory curriculums. For more details, go to *www.ni.com*.

ANALOG DEVICES

The VisualDSP++ development and debugging environment, along with the advanced on-board USB-based debug agent interface that operates up to 12 Mbps, enables users to perform standard debugging functions (such as read and write memory, read and write registers, load and execute executables, set and clear breakpoints, and single-step assembly, C, and C++ source code). The evaluation versions of the included software tools are limited to use with the EZ-KIT Lite. For faster and unrestricted debugging, a family of JTAG emulators and full versions of VisualDSP++ are available separately from Analog Devices.

Analog Devices has EZ-Extender® products (sold separately) that plug into the expansion interface of the ADSP-BF537 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 USB2.0 interface and 10/100 Ethernet MAC. 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-BF537 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 the 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 high performance Blackfin and TigerSHARC® Processors, and from the low cost SHARC® Processors, to integrated mixed-signal DSPs that are ideal for an ever increasing spectrum of applications. Analog Devices' advances in design provide faster processing, more memory, lower power consumption, and simplified system integration. Analog Devices' products and technology provide a competitive edge, complete with expert technical support, comprehensive development tools, and The Collaborative™, an independent network of third-party developers. For more information about Analog Devices processors and DSPs, visit www.analog.com/processors.

CROSSCORE Tools Support

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

Ordering Information

Please contact your local ADI sales representative or distributor for pricing and ordering information for part number ADDS-BF537-EZLITE.

www.analog.com/processors/tools