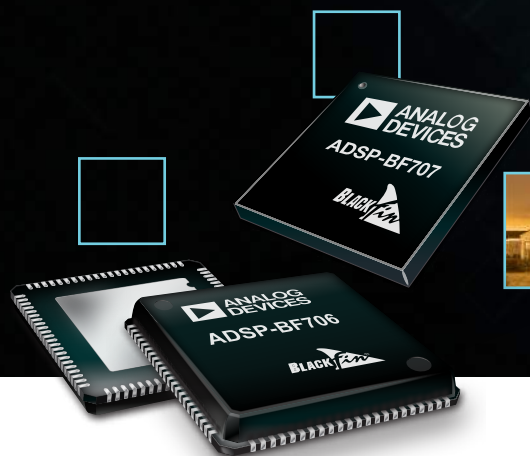


# Blackfin ADSP-BF70x

## Ultralow Power, Low Cost DSP Evaluation Platform

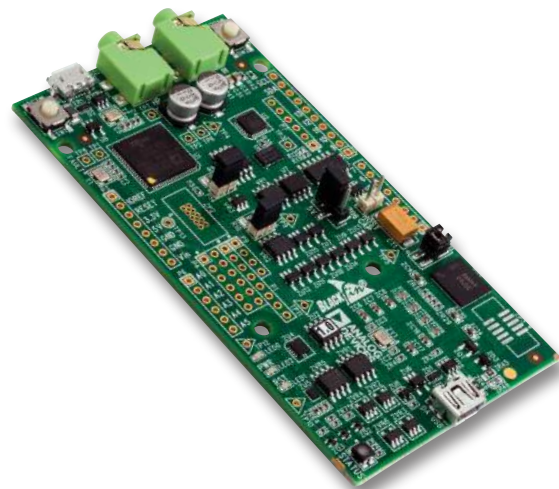
### ADSP-BF706 EZ-KIT Mini



#### Overview

Analog Devices has developed a low cost, low power DSP evaluation platform targeting an array of real-time applications. The ADSP-BF706 EZ-KIT Mini® leverages the latest entry within the industry-leading, low power Blackfin® processor family as well as ADI's optimized development tools and third party software deliverables—including innovative embedded audio design with Audio Weaver® from DSP Concepts. With on-board, high quality audio connectivity, multiple expansion options, and an integrated debug agent, the EZ-KIT Mini offers designers a complete small form factor, low cost starter platform for multiple applications.

The ADSP-BF706 Blackfin processor is a high performance DSP that delivers a class-leading 800 MMACS of processing power at less than 100 mW. With glueless connectivity options including USB and over 1 MB of internal SRAM, this reduces BOM cost and eliminates the need for external memory in many applications. Using the enhanced Blackfin+ core, the combination of performance, power efficiency, memory integration, sophisticated security, and great value, allows designers to incorporate advanced 16- and 32-bit processing into a wide range of new power sensitive use cases.

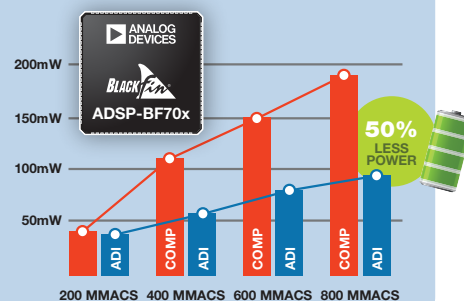


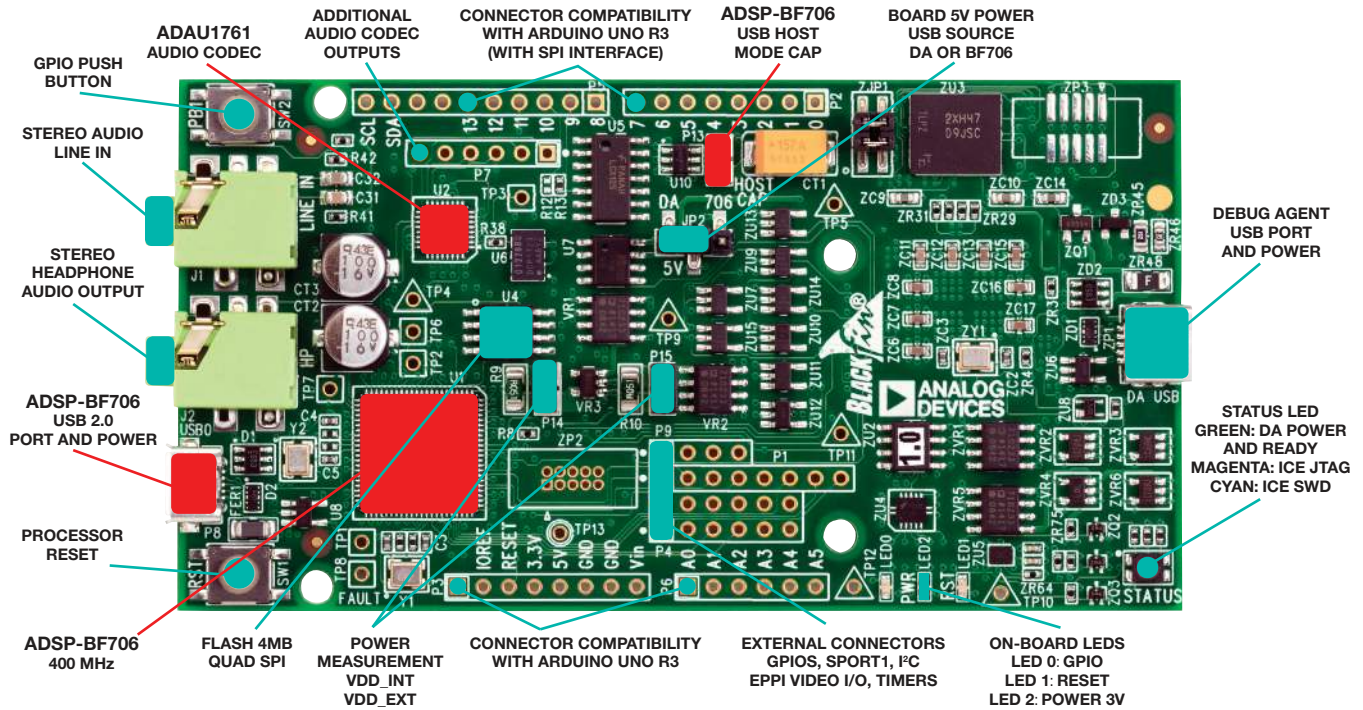
#### Target ADSP-BF70x applications include:

- Portable audio, DJ equipment, and effects
- Automotive audio and sensors
- Portable communications
- Military and aerospace
- Portable healthcare
- Intelligent lighting and occupancy detection\*
- Industrial imaging and biometrics\*

\* For an advanced imaging-based starter system, please refer to ADI's ADSP-BF707 BLIP Platform ([www.analog.com/BF70x](http://www.analog.com/BF70x))

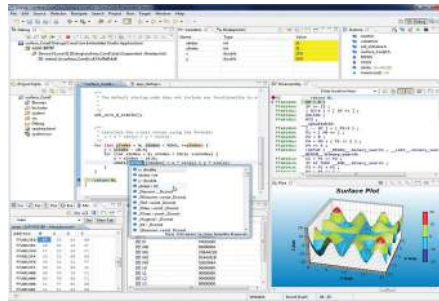
#### Industry's Performance Leading Ultralow Power DSP Solution



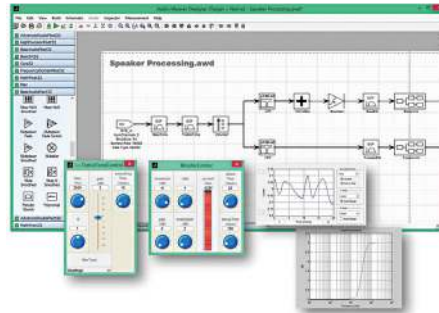


- ADSP-BF706 EZ-KIT Mini features:
  - ADSP-BF706 Blackfin Processor
    - 400 MHz/800 MMACs performance at <100 mW
    - 1160 kB on-chip SRAM (136 kB L1, 1 MB L2)
    - 88-lead LFCSP (QFN) package
  - Small form factor: 4 in × 2 in (10 cm × 5 cm)
  - 4 MB quad SPI flash
  - ADAU1761 SigmaDSP® low power stereo audio codec
    - Line-in and headphone jacks
  - Direct USB 2.0 HS PHY interface to ADSP-BF706
  - External connections for EPP1, SPORT, SPI, I<sup>2</sup>C, timer, and GPIOs
  - On-board debug agent (JTAG/SWD) via separate USB interface
  - Other features
    - USB bus powered
    - Push buttons and LEDs
    - Boot mode strapped to SPI master
    - Resistors for processor current measurement
    - Arduino Uno R3 connection compatibility
  - CrossCore® embedded studio software tools
    - Full featured development suite and board support package
    - Complete real-time debug capability included
    - Full featured one year evaluation license
  - Complete code examples and demos including:
    - Audio processing from DSP Concepts ([www.dspconcepts.com](http://www.dspconcepts.com))
    - Vision algorithms from EBSYS ([www.ebsys-tech.com](http://www.ebsys-tech.com))

### CrossCore Embedded Studio



### Embedded Audio Design with Audio Weaver



#### Features include:

- Drag and drop user interface
- Full featured audio module library
- Efficient code generation
- MIPs and memory profiling
- Real-time tuning and control via USB interface

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