



ADSP-BF512: Low Power Blackfin with Consumer Devices Connectivity

The ADSP-BF512 is the low cost entry point into the Blackfin Processor family. It offers an optimal balance between performance, peripheral integration, and price and is well suited for the most ...[More](#)

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[Data Sheet Rev PrF, 07/2009](#) (pdf 1857kB)

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Development Tools

VisualDSP++

Easy-to-use integrated software development and debugging environment (DDE)...

Blackfin Evaluation Kits

EZ-KIT Lite evaluation kits provide developers with a cost-effective network...

Starter Kits

Starter kits provide you with an EZ-KIT Lite evaluation kit and EZ-Extender..

USB Emulators

Rapid on-chip debugging allows developers to load code, set breakpoints, an...

Resources

[Benchmarks](#)
[Contact Support](#)
[DSP Knowledgebase](#)
[EngineerZone : DSP Support Forum](#)
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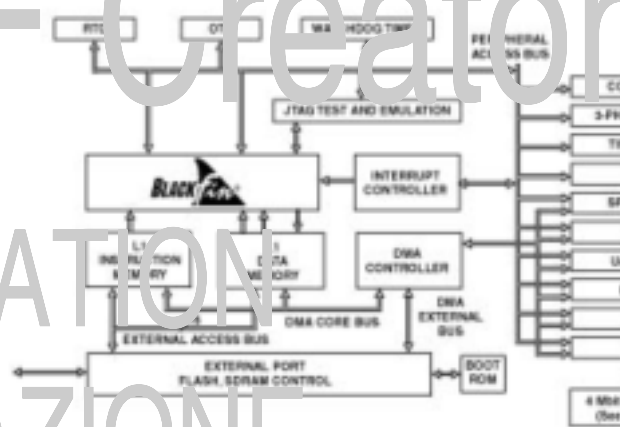
Roadmap
Software Modules

Features

Blackfin processor core with up to 400 MHz (800 MMACS) performance
 2 dual-channel, full-duplex synchronous serial ports supporting 8 stereo I²S channels
 12 peripheral DMA channels supporting one- and two-dimensional data transfers
[Lockbox™ Secure Technology](#): Hardware-enabled security for code and content protection

Memory controller connection to external SDRAM/ROM
 176-p, 0.5 mm (Industrial temperature range +85°C)
 168-ball, 0.8 mm CSP-BGA (Commercial temperature range 0°C to +70°C)

Diagrams



Functional Block Diagram for ADSP-BF512

Markets & Applications

Biometric Systems
 Consumer Audio
 Games/Learning Aids
 Industrial and Portable Test
 Portable Media

Specifications

Clock Speed (MHz) (max)	400 (MHz)	UARTs, Timers
RAM Memory (KBytes)	128	Watchdog Timer
External Memory Bus	16bit	Core Voltage (V)
Parallel Periph Interface	Yes	Core Voltage Req
PCI	No	Package
USB Device	No	

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