

DSP, Floating Point, 16 / 32bit, 400 MHz, LQFP, 176 Pins

Manufacturers	<a href="#">Analog Devices, Inc</a>
Package/Case	LQFP176
Product Type	Embedded Processors & Controllers
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for ADSP-BF531SBSTZ400 or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

## General Description

Analog Devices initial product family, the ADSP-BF531, ADSP-BF532, and ADSP-BF533, offer all the ease of use and architectural attributes of the Blackfin processor. These three processors are all completely pin compatible - differing solely with respect to their performance and on-chip memory - thus reducing risk and offering the ability to scale up or down depending upon the end application needs. All three processors offer low power consumption with scaleable performance from low-cost to very high performance.

The ADSP-BF531 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 cost-sensitive applications including portable test equipment, embedded modems, biometrics, and consumer audio.

### High Level of Integration

52Kbytes of on-chip L1 memory configured as:

32Kbytes of L1 instruction memory SRAM/Cache

16Kbytes of L1 data memory SRAM/Cache

4 Kbytes of L1 scratchpad SRAM

Parallel Peripheral Interface supporting ITU-R 656 video data formats

Two dual-channel, full-duplex synchronous serial ports supporting eight stereo I2S channels

12 DMA channels supporting one and two-dimensional data transfers

Memory controller providing glueless connection to multiple banks of external SDRAM, SRAM, Flash, or ROM.

Three timer/counters supporting PWM, pulsewidth, and event count modes

UART with support for IrDA®

SPI-compatible port

Event handler

Real-time clock

Watchdog timer

PLL capable of 1x to 63x frequency multiplication

160-ball (12mm x 12mm) Mini-BGA, 176-Lead (24mm x 24mm) LQFP, and 169-ball (19mm x 19mm) Pb-Free Sparse PBGA packages

Industrial temperature range

## Features

Performance to 400MHz/800MMACs enables multi-channel audio plus CIF video processing in multimedia applications

Enhanced Dynamic Power Management with on-chip core voltage regulation allows operation to 0.8V extending battery life in portable applications

Application-tuned peripherals provide glueless connectivity to general purpose converters in data acquisition applications

Multiple low cost, pin- and code-compatible derivatives enable software differentiation in cost-sensitive consumer applications

## Application

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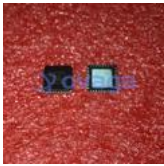
32Kbytes of L1 instruction memory SRAM/Cache

16Kbytes of L1 data memory SRAM/Cache

4 Kbytes of L1 scratchpad SRAM



## Related Products



### [ADUC7022BCPZ62](#)

Analog Devices, Inc  
LFCSP-40



### [ADUC7020BCPZ62](#)

Analog Devices, Inc  
LFCSP-40



### [ADUC841BSZ62-5](#)

Analog Devices, Inc  
QFP-52



### [ADUC841BSZ62-3](#)

Analog Devices, Inc  
QFP-52



### [ADUC831BSZ](#)

Analog Devices, Inc  
QFP-52



### [ADSP-BF527BBCZ-5A](#)

Analog Devices, Inc  
BGA-208



### [ADSP-21369BBPZ-2A](#)

Analog Devices, Inc  
SBGA-256



### [ADSP-BF561SBBCZ-5A](#)

Analog Devices, Inc  
CSPBGA-256