ANALOG DEVICES ADUC834BSZ 8Bit Microcontroller, MicroConverter with ADC, ADuC8xx, 12.58MHz, 62KB, 2KB, 52Pins, MQFP

Manufacturers	Analog Devices, Inc
Package/Case	MQFP-52
Product Type	Embedded Processors & Controllers
RoHS	Green
Lifecycle	

Images are for reference only

Please submit RFQ for ADUC834BSZ or Email to us: sales@ovaga.com We will contact you in 12 hours.   RFQ

General Description

The ADuC834 is a complete smart transducer front end, integrating two high resolution - ADCs, an 8-bit MCU, and program/data Flash/EE memory on a single chip.

The two independent ADCs (primary and auxiliary) include a temperature sensor and a PGA (allowing direct measurement of low level signals). The ADCs with on-chip digital filtering and programmable output data rates are intended for the measurement of wide dynamic range, low frequency signals, such as those in weigh scale, strain-gage, pressure transducer, or temperature measurement applications.

The device operates from a 32 kHz crystal with an on-chip PLL generating a high frequency clock of 12.58 MHz. This clock is routed through a programmable clock divider from which the MCU core clock operating frequency is generated. The microcontroller core is an 8052 and therefore 8051 instruction set compatible with 12 core clock periods per machine cycle.

62 Kbytes of nonvolatile Flash/EE program memory, 4 Kbytes of nonvolatile Flash/EE data memory, and 2304 bytes of data RAM are provided on-chip. The program memory can be configured as data memory to give up to 60 Kbytes of NV data memory in data logging applications.

On-chip factory firmware supports in-circuit serial download and debug modes (via UART), as well as single-pin emulation mode via the EA pin. The ADuC834 is supported by a QuickStart™ development system featuring low cost software and hardware development tools.

Features

High Resolution - ADCs

2 Independent ADCs (16-Bit and 24-Bit Resolution)

24-Bit No Missing Codes, Primary ADC

21-Bit rms (18.5-Bit p-p) Effective Resolution @ 20 Hz

Offset Drift 10 nV/C, Gain Drift 0.5 ppm/C

Memory

62 Kbytes On-Chip Flash/EE Program Memory

4 Kbytes On-Chip Flash/EE Data Memory

Flash/EE, 100 Year Retention, 100 Kcycles Endurance

3 Levels of Flash/EE Program Memory Security

In-Circuit Serial Download (No External Hardware)

High Speed User Download (5 Seconds)

2304 Bytes On-Chip Data RAM

8051-Based Core

8051 Compatible Instruction Set

32 kHz External Crystal

On-Chip Programmable PLL (12.58 MHz Max)

3 16-Bit Timer/Counter

26 Programmable I/O Lines

11 Interrupt Sources, Two Priority Levels

Dual Data Pointer, Extended 11-Bit Stack Pointer

See data sheet for additional features

Application

Intelligent sensors

Weigh scales

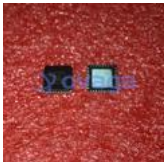Portable instrumentation, battery-powered systems

4–20 mA transmitters

Data logging

Precision system monitoring

Related Products

[ADUC7022BCPZ62](#)

Analog Devices, Inc

LFCSP-40

[ADUC7020BCPZ62](#)

Analog Devices, Inc

LFCSP-40

[ADUC841BSZ62-5](#)

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QFP-52

[ADUC841BSZ62-3](#)

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QFP-52

[ADUC831BSZ](#)

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QFP-52

[ADSP-BF527BBCZ-5A](#)

Analog Devices, Inc

BGA-208

ADSP-21369BBPZ-2A

Analog Devices, Inc

SBGA-256

ADSP-BF561SBBCZ-5A

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CSPBGA-256