ADUC7126BSTZ126

Data Sheet

16/32bit ARM7TDMI Microcontroller, 41.78MHz, 126 kB Flash, 80-Pin LQFP

Manufacturers	Analog Devices, Inc
Package/Case	LQFP-80
Product Type	Embedded Processors & Controllers
RoHS	Green
Lifecycle	

Images are for reference only

Please submit RFQ for ADUC7126BSTZ126 or Email to us: sales@ovaga.com We will contact you in 12 hours. RFQ

General Description

The devices operate from an on-chip oscillator and a PLL generating an internal high frequency clock of 41.78 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 ARM7TDMI®, 16-bit/32-bit RISC machine, which offers up to 41 MIPS peak performance. Thirty-two kilobytes of SRAM and 126 kB of nonvolatile Flash/EE memory are provided on-chip. The ARM7TDMI core views all memory and registers as a single linear array.

The ADuC7124 contains an advanced interrupt controller. The vectored interrupt controller (VIC) allows every interrupt to be assigned a priority level. It also supports nested interrupts to a maximum level of eight per IRQ and FIQ. When IRQ and FIQ interrupt sources are combined, a total of 16 nested interrupt levels are supported.On-chip factory firmware supports in-circuit download via the UART serial interface port or the I2C port, while nonintrusive emulation is also supported via the JTAG interface. These features are incorporated into a low cost QuickStart™ Development System supporting this MicroConverter® family.The part contains a 16-bit PWM with six output signals.For communication purposes, the part contains 2× I2C channels that can be individually configured for Master or Slave mode. An SPI interface supporting both master and slave modes is also provided. Thirdly, 2× UART channels are provided. Each UART contains a configurable 16-bit FIFO with the receive and transmit buffers.

The parts operate from 2.7 V to 3.6 V and are specified over an industrial temperature range of −40°C to +125°C. When operating at 41.78 MHz, the power dissipation is typically 120 mW. The ADuC7124 is available in either 64-lead LFCSP or 80-lead LFQFP packages.

Applications
Industrial control and automation systems

Smart sensors, precision instrumentation

Base station systems, optical networking

Patient monitoring

Features

Multichannel, 12-bit, 1 MSPS ADCUp to 16 ADC channels

Fully differential and single-ended modes

0 V to VREF analog input range

12-bit voltage output DACsUp to 4 DAC outputs available

On-chip voltage reference

On-chip temperature sensor (±3°C)

Voltage comparator

MICROCONTROLLER

ARM7TDMI core, 16-bit/32-bit RISC architecture

JTAG port supports code download and debug

CLOCKING OPTIONS

Trimmed on-chip oscillator (±3%)

External watch crystal

External clock source up to 44 MHz

See data sheet for additional features

Application

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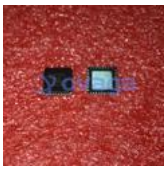
Patient monitoring

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

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QFP-52

ADSP-BF527BBCZ-5A

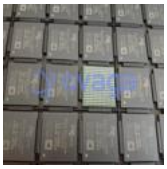
Analog Devices, Inc

BGA-208

[ADSP-21369BBPZ-2A]

Analog Devices, Inc

SBGA-256



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Analog Devices, Inc

CSPBGA-256