4 ADC, 2 DAC LOW POWER CODEC, AU
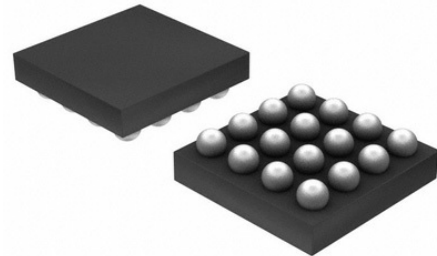
Manufacturers	Analog Devices, Inc
Package/Case	42-UFBGA, WLCSP
Product Type	Interface - CODECs
RoHS	
Lifecycle	

Images are for reference only

Please submit RFQ for ADAU1787BCBZRL or Email to us: sales@ovaga.com We will contact you in 12 hours.   RFQ

General Description

The ADAU1787 is a codec with four inputs and two outputs that incorporates two digital signal processors (DSPs). The path from the analog input to the DSP core to the analog output is optimized for low latency and is ideal for noise cancelling headsets. With the addition of just a few passive components, the ADAU1787 provides a complete headset solution.

Note that throughout this data sheet, multifunction pins, such as BCLK_0/MP1, are referred to either by the entire pin name or by a single function of the pin, for example, BCLK_0, when only that function is relevant.

Features

Programmable FastDSP audio processing engine

Up to 768 kHz sample rate

Biquad filters, limiters, volume controls, mixing

28-bit SigmaDSP audio processing core

Visually programmable using SigmaStudio

Up to 50 MIPS performance

Low latency, 24-bit ADCs and DACs

96 dB SNR (signal through PGA and ADC with A-weighted filter)

105 dB combined SNR (signal through DAC and headphone with A-weighted filter)

Serial port fSYNC frequency from 8 kHz to 192 kHz

5 μs group delay>

4 single-ended analog inputs, configurable as microphone or line inputs

8 digital microphone inputs

2 analog differential audio outputs, configurable as either line output or headphone driver

PLL supporting any input clock rate from 30 kHz to 27 MHz

Full-duplex, 4-channel ASRCs

2, 16-channel serial audio ports supporting I2S, left justified, or up to TDM16

8 interpolators and 8 decimators with flexible routing

Power supplies

Analog AVDD at 1.8 V typical

Digital I/O IOVDD at 1.1 V to 1.98 VDigital DVDD at 0.9 V typical

Low power (11.027 mW for typical stereo noise cancelling solution)

I2C and SPI control interfaces, self boot from I2C EEPROM

Flexible GPIO

42-ball, 0.35 mm pitch, 2.695 mm × 2.320 mm WLCSP

Application

Noise cancelling handsets, headsets, and headphones

Bluetooth ANC handsets, headsets, and headphones

Personal navigation devices

Digital still and video cameras

Musical instrument effect processors

Multimedia speaker systems

Smartphones

Related Products

ADV7181CBSTZ

Analog Devices, Inc

LQFP-64

AD8170AR

Analog Devices, Inc

SOP8

AD724JR

Analog Devices, Inc

SOIC-16

ADV7393BCPZ

Analog Devices, Inc

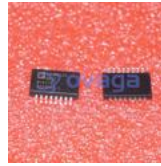LFCSP-VQ-40

ADV7391WBCPZ

Analog Devices, Inc

LFSCP-3

ADV7390BCPZ

Analog Devices, Inc

QFN32

ADV7341BSTZ

Analog Devices, Inc

LQFP-64

ADUM4160BRIZ

Analog Devices, Inc

SOIC-16