SRC4192IDB

Sample Rate Converter 28-Pin SSOP Tube

Manufacturer:	Texas Instruments, Inc
Package/Case:	SSOP28
Product Type:	Discrete Semiconductor Modules
RoHS:	RoHS Compliant/Lead free
Lifecycle:	Active

Images are for reference only

Inquiry

General Description

The SRC4192 and SRC4193 devices are asynchronous, sample-rate converters designed for professional and broadcast audio applications. The SRC4192 and SRC4193 devices combine a wide input-to-output sampling ratio with outstanding dynamic range and ultra-low distortion. Input and output serial ports support standard audio formats, as well as a Time Division Multiplexed (TDM) mode. Flexible audio interfaces allow the SRC4192 and SRC4193 devices to connect to a wide range of audio data converters, digital audio receivers and transmitters, and digital signal processors.

The SRC4192 device is a standalone, pin-programmed device, with control pins for mode, data format, mute, bypass, and low group-delay functions. The SRC4193 device is a software-controlled device featuring a serial peripheral interface (SPI) port, which is utilized to program all functions through the internal control registers.

The SRC4192 and SRC4193 devices can operate from a single 3.3-V power supply. A separate digital I/O supply (VIO) operates over the 1.65-V to 3.6-V supply range, allowing greater flexibility when interfacing to current and future generation signal processors and logic devices. Both devices are available in a 28-pin SSOP package.

Key Features

Automatic Sensing of the Input-to-Output Sampling Ratio

Wide Input-to-Output Sampling Range: 16:1 to 1:16

Supports Input and Output Sampling Rates Up to 212 kHz

Dynamic Range: 144 dB (–60-dbFS Input, BW = 20 Hz to fS/2, A-Weighted)

THD+N: –140 dB (0-dbFS Input, BW = 20 Hz to fS/2)

Attenuates Sampling and Reference Clock Jitter

High-Performance, Linear-Phase Digital Filtering with Stop Band Attenuation Greater than 140 dB

Flexible Audio Serial Ports:
Master or Slave-Mode Operation

Supports I2S, Left-Justified, Right-Justified, and TDM Data Formats

Supports 16, 18, 20, or 24-Bit Audio Data

TDM Mode Allows Daisy-Chaining of up to Eight Devices

Supports 24-, 20-, 18-, or 16-Bit Input and Output Data: All Output Data is Dithered from the Internal 28-Bit Data Path

Low Group Delay Option for Interpolation Filter

Direct Downsampling Option for Decimation Filter (SRC4193 Only)

SPI Port Provides Access to Internal Control Registers (SRC4193 Only)

Soft Mute Function

Bypass Mode

Programmable Digital Output Attenuation (SRC4193 Only); 256 Steps: 0 dB to –127.5 dB, 0.5-dB/step

Power Down Mode

Operates From a Single 3.3-V Power Supply

Small 28-Pin SSOP Package

Pin Compatible with the AD1896 (SRC4192 Only)

Recommended For You

SRC4382IPFBR

Texas Instruments, Inc

QFP

SRC4194IPAG

Texas Instruments, Inc

TQFP-64

SRC4382IPFB

Texas Instruments, Inc

TQFP-48

SRC4190IDBR

Texas Instruments, Inc

SSOP28

SRC4392IPFB

Texas Instruments, Inc

48-TQFP

SRC4392IPFBR

Texas Instruments, Inc

TQFP-48

SRC4190IDBRQ1

Texas Instruments, Inc

SSOP28

SRC4184IPAGT

Texas Instruments, Inc

64-TQFP

SRC4392IPFBRG4

Texas Instruments, Inc

TQFP48

SRC4192IDBR

Texas Instruments, Inc

SSOP28

SRC4184IPAGR

Texas Instruments, Inc

TQFP-64

SRC4194IPAGR

Texas Instruments, Inc

TQFP-64

SRC4184IPAG

Texas Instruments, Inc

QFP

SRC4194IPAGT

Texas Instruments, Inc

64-TQFP

SRC4192IDBG4

Texas Instruments, Inc

28-SSOP