



Data Sheet

Quad, Serial-Input 10-Bit DAC; Package: SOIC - Wide; No of Pins: 16; Temperature Range: Industrial

Manufacturers <u>Analog Devices, Inc</u>

Package/Case SOIC-16

Product Type Data Conversion ICs

RoHS Rohs

Lifecycle



Images are for reference only

Please submit RFQ for AD7399BRZ or Email to us: sales@ovaga.com We will contact you in 12 hours.

**RFO** 

## **General Description**

The AD7398/AD7399 family of quad, 12-bit/10-bit, voltage output digital-to-analog converters (DACs) is designed to operate from a single 3 V to 5 V supply or a dual  $\pm 5$  V supply. Built with the Analog Devices, Inc. robust CBCMOS process, these monolithic DACs offer the user low cost with ease-of-use in single or dual-supply systems.

The applied external reference, VREF, determines the full-scale output voltage. Valid VREF values include VSS  $\leq$  VREF  $\leq$  VDD that result in a wide selection of full-scale outputs. For multiplying applications, ac inputs can be as large as  $\pm 5$  VP.

A doubled-buffered serial-data interface offers high speed, 3-wire, SPI- and microcontroller-compatible inputs using serial data-in (SDI), clock (CLK), and a chip-select (CS). A common level-sensitive, load-DAC strobe (LDAC) input allows simultaneous update of all DAC outputs from previously loaded input registers. Additionally, an internal power-on reset forces the output voltage to zero at system turn on. An external asynchronous reset (RS) also forces all registers to the zero code state. A programmable power-shutdown feature reduces power dissipation on unused DACs.

Both parts are offered in the same pinout, enabling users to select the appropriate resolution for their application without redesigning the layout. For 8-bit resolution applications, see the pin-compatible AD7304 product.

The AD7398/AD7399 are specified over the extended industrial (-40°C to +125°C) temperature range. Parts are available in 16-lead, wide body SOIC and ultracompact, thin, 1.1 mm TSSOP packages.

## **Features**

AD7398 - 12-bit resolutionAD7399 - 10-bit resolution

Programmable power shutdown

Single (3 V to 5 V) or dual ( $\pm 5$  V) supply operation

3-wire, serial SPI®-compatible interface

Internal power-on reset

Double buffered registers for simultaneous multichannel DAC update

Four separate rail-to-rail reference inputs

Thin profile, TSSOP-16 package available

Low tempco: 1.5 ppm/°C

Qualified for automotive applications

## **Application**

Automotive output voltage span

Portable communications

Digitally controlled calibration

PC peripherals



## **Related Products**



ADAS3022BCPZ
Analog Devices, Inc
LFCSP-40



AD574AJNZ
Analog Devices, Inc
PDIP-28



ovaça S

AD7266BSUZ Analog Devices, Inc TQPF-32

AD7401YRWZ
Analog Devices, Inc
SOIC-16



AD7938BSUZ
Analog Devices, Inc
TQFP-32



Analog Devices, Inc TSSOP-24

AD7192BRUZ-REEL



AD7124-8BCPZ-RL7
Analog Devices, Inc
LFCSP-32



AD9680BCPZ-500
Analog Devices, Inc
LFCSP-64