



Data Sheet

Digital to Analog Converters - DAC Serial Input 14B/16B

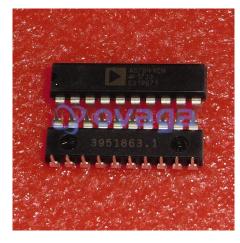
Manufacturers <u>Analog Devices, Inc</u>

Package/Case PDIP-20

Product Type Data Conversion ICs

RoHS Rohs

Lifecycle



Images are for reference only

Please submit RFQ for AD7849CNZ or Email to us: sales@ovaga.com We will contact you in 12 hours.

**RFO** 

## **General Description**

The AD7849 is a 14-bit/16-bit serial input multiplying DAC. The DAC architecture ensures excellent differential linearity performance, and monotonicity is guaranteed to 14 bits for the A grade and to 16 bits for all other grades over the specified temperature ranges. During power-up and power-down sequences (when the supply voltages are changing), the VOUT pin is clamped to 0 V via a low impedance path. To prevent the output of A3 being shorted to 0 V during this time, transmission gate G1 is also opened. These conditions are maintained until the power supplies stabilize and a valid word is written to the DAC register. At this time, G2 opens and G1 closes. Both transmission gates are also externally controllable via the Reset In (RST IN) control input. For instance, if the RST IN input is driven from a battery supervisor chip, then on power-off or during a brown out, the RST IN input will be driven low to open G1 and close G2. The DAC must be reloaded, with RST IN high, to reenable the output. Conversely, the on-chip voltage detector output (RST OUT) is also available to the user to control other parts of the system.

The AD7849 has a versatile serial interface structure and can be controlled over three lines to facilitate opto-isolator applications.

SDOUT is the output of the on-chip shift register and can be used in a daisy-chain fashion to program devices in the multichannel system. The DCEN (Daisy Chain Enable) input controls this function.

The BIN/COMP pin sets the DAC coding; with BIN/COMP set to 0, the coding is straight binary; and with it set to 1, the coding is 2s complement. This allows the user to reset the DAC to 0 V in both the unipolar and bipolar output ranges.

The part is available in a 20-pin DIP and 20-pin SOIC package.

## **Features**

14-Bit/16-Bit Multiplying DAC

Guaranteed Monotonicity

Output Control on Power-Up and Power-Down Internal or External Control

Versatile Serial Interface

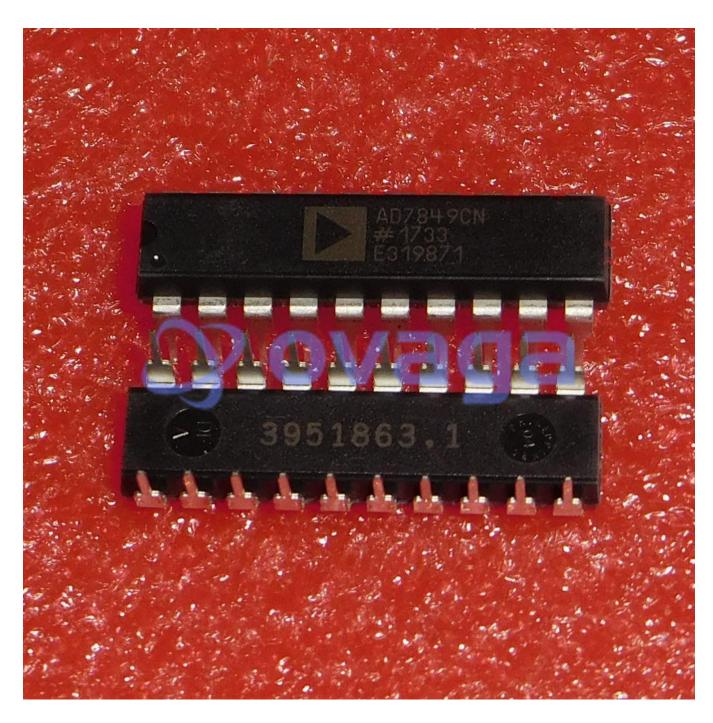
DAC Clears to 0 V in Both Unipolar and Bipolar Output Ranges

## **Application**

Industrial process controls

PC analog I/O boards

Instrumentation



**Related Products** 



ADAS3022BCPZ
Analog Devices, Inc
LFCSP-40



AD574AJNZ
Analog Devices, Inc
PDIP-28



AD7938BSUZ
Analog Devices, Inc
TQFP-32



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



AD7266BSUZ

Analog Devices, Inc
TQPF-32



AD7401YRWZ
Analog Devices, Inc
SOIC-16



AD7192BRUZ-REEL
Analog Devices, Inc
TSSOP-24



AD9680BCPZ-500
Analog Devices, Inc
LFCSP-64