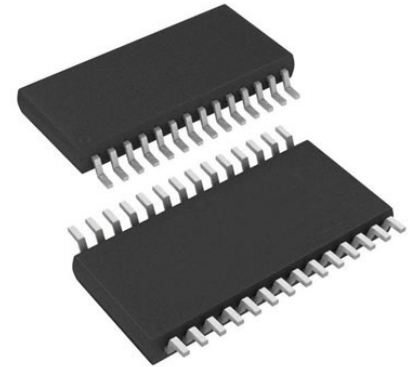


DAC 1-CH Segment 10-bit 28-Pin TSSOP Tube



Images are for reference only

[Inquiry](#)

Manufacturer: [Texas Instruments, Inc](#)

Package/Case: TSSOP28

Product Type: Data Conversion ICs

RoHS: RoHS Compliant/Lead free 

Lifecycle: Active

General Description

The DAC900 is a high-speed, Digital-to-Analog Converter (DAC) offering a 10-bit resolution option within the *SpeedPlus* family of high-performance converters. Featuring pin compatibility among family members, the DAC908, DAC902, and DAC904 provide a component selection option to an 8-, 12-, and 14-bit resolution, respectively. All models within this family of DACs support update rates in excess of 165MSPS with excellent dynamic performance, and are especially suited to fulfill the demands of a variety of applications.

The advanced segmentation architecture of the DAC900 is optimized to provide a high Spurious-Free Dynamic Range (SFDR) for single-tone, as well as for multi-tone signals essential when used for the transmit signal path of communication systems.

The DAC900 has a high impedance ($200k\Omega$) current output with a nominal range of 20mA and an output compliance of up to 1.25V. The differential outputs allow for both a differential or single-ended analog signal interface. The close matching of the current outputs ensures superior dynamic performance in the differential configuration, which can be implemented with a transformer.

Utilizing a small geometry CMOS process, the monolithic DAC900 can be operated on a wide, single-supply range of +2.7V to +5.5V. Its low power consumption allows for use in portable and battery-operated systems. Further optimization can be realized by lowering the output current with the adjustable full-scale option.

For noncontinuous operation of the DAC900, a power-down mode results in only 45mW of standby power.

The DAC900 comes with an integrated 1.24V bandgap reference and edge-triggered input latches, offering a complete converter solution. Both +3V and +5V CMOS logic families can be interfaced to the DAC900.

The reference structure of the DAC900 allows for additional flexibility by utilizing the on-chip reference, or applying an external reference. The full-scale output current can be adjusted over a span of 2mA to 20mA, with one external resistor, while maintaining the specified dynamic performance.

The DAC900 is available in SO-28 and TSSOP-28 packages.

Key Features

SINGLE +5V OR +3V OPERATION

HIGH SFDR: 5MHz Output at 100MSPS: 68dBc

LOW GLITCH: 3pV-s

LOW POWER: 170mW at +5V

INTERNAL REFERENCE:

APPLICATIONS

COMMUNICATION TRANSMIT CHANNELS

WAVEFORM GENERATION

MEDICAL/ULTRASOUND

HIGH-SPEED INSTRUMENTATION AND CONTROL

VIDEO, DIGITAL TV

Recommended For You

DAC6578SPW

Texas Instruments, Inc

TSSOP-16

DAC7802KU

Texas Instruments, Inc

SOP24

DAC122S085C1MM/NOB

Texas Instruments, Inc

MSOP10

DAC0800LCM

Texas Instruments, Inc

SOP16

DAC1220E

Texas Instruments, Inc

SSOP16

DAC7625U

Texas Instruments, Inc

SOP28

DAC38J84IAAV

Texas Instruments, Inc

BGA

DAC8043U

Texas Instruments, Inc

SOP8

DAC7734E

Texas Instruments, Inc

SSOP48

DAC712UB

Texas Instruments, Inc

SOP28

DAC7634E

Texas Instruments, Inc

SSOP48

DAC712UK

Texas Instruments, Inc

SOP28

DAC7614UB

Texas Instruments, Inc

SOP16

DAC108S085C1MI/NOB

Texas Instruments, Inc

TSSOP-16

DAC8164IAPW

Texas Instruments, Inc

TSSOP