

Digital to Analog Converters - DAC 18-Bit VOut +/-0.5 LSB INL

Manufacturers	<a href="#">Analog Devices, Inc</a>
Package/Case	TSSOP-20
Product Type	Data Conversion ICs
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for AD5781ARUZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

## General Description

The AD5781 is a single 18-bit, unbuffered voltage-output DAC that operates from a bipolar supply of up to 33 V. The AD5781 accepts a positive reference input in the range 5V to VDD – 2.5 V and a negative reference input in the range VSS + 2.5 V to 0 V. The AD5781 offers a relative accuracy specification of ±0.5 LSB max, and operation is guaranteed monotonic with a ±0.5 LSB DNL max specification.

The part uses a versatile 3-wire serial interface that operates at clock rates up to 35 MHz and that is compatible with standard SPI®, QSPI™, MICROWIRE™, and DSP interface standards. The part incorporates a power-on reset circuit that ensures the DAC output powers up to 0 V and in a known output impedance state and remains in this state until a valid write to the device takes place. The part provides an output clamp feature that places the output in a defined load state.

### Product Highlights

True 18-Bit Accuracy.

Wide Power Supply Range of Up to ±16.5 V.

–40°C to +125°C Operating Temperature Range.

Low 7.5 nV/√Hz Noise.

Low 0.05 ppm/°C Temperature Drift.

### Applications

Medical Instrumentation

Test and Measurement

Industrial Control

Scientific and Aerospace Instrumentation

Data Acquisition Systems

Digital Gain and Offset Adjustment

Power Supply Control

## Features

Single 18-bit DAC,  $\pm 0.5$  LSB INL

7.5nV/ $\sqrt{\text{Hz}}$  Noise Spectral Density

0.05 LSB Long Term Linearity Stability

1 $\mu\text{s}$  Settling Time

1.4 nV-sec glitch impulse

Operating temperature range: -40°C to 125°C

20-Lead TSSOP Package

Wide Power Supply range up to  $\pm 16.5\text{V}$

35 MHz Schmitt triggered Digital Interface

1.8 V compatible digital interface

AD5781-EP supports defense and aerospace applications (AQEC standard)

Download the(pdf)

Military temperature range (-55°C to +125°C)

Controlled manufacturing baseline

One assembly/test site

One fabrication site

Enhanced product change notification

Qualification data available on request

V62/12661 DSCC Drawing Number

## Application

Medical Instrumentation

Test and Measurement

Industrial Control

Scientific and Aerospace Instrumentation

Data Acquisition Systems

Digital Gain and Offset Adjustment

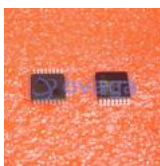
Power Supply Control

## Related Products



[ADAS3022BCPZ](#)

Analog Devices, Inc  
LFCSP-40



[AD7266BSUZ](#)

Analog Devices, Inc  
TQPF-32



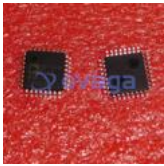
[AD574AJNZ](#)

Analog Devices, Inc  
PDIP-28



[AD7401YRWZ](#)

Analog Devices, Inc  
SOIC-16



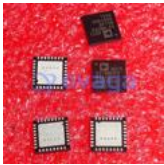
[AD7938BSUZ](#)

Analog Devices, Inc  
TQFP-32



[AD7192BRUZ-REEL](#)

Analog Devices, Inc  
TSSOP-24



[AD7124-8BCPZ-RL7](#)

Analog Devices, Inc  
LFCSP-32



[AD9680BCPZ-500](#)

Analog Devices, Inc  
LFCSP-64