

AD5761ARUZ

Data Sheet

Digital to Analogue Converter, 16 bit, SPI, 4.75V to 30V, TSSOP, 16 Pins

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

Package/Case TSSOP-16

Product Type Data Conversion ICs

RoHS

Lifecycle

Please submit RFQ for AD5761ARUZ or <a href="mailto:Em



Images are for reference only

RFO

General Description

The AD5761/AD5721 are single channel, 16-/12-bit serial input, voltage output, digital-to-analog converters (DACs). They operate from single supply voltages from ± 4.75 V to ± 30 V or dual supply voltages from ± 16.5 V to ± 16.5 VVDD. The integrated output amplifier and reference bufferprovide a very easy to use, universal solution.

The devices offer guaranteed monotonicity, integral nonlinearity(INL) of ± 2 LSB maximum, 35 nV/ $\sqrt{\text{Hz}}$ noise, and 7.5 μs settlingtime on selected ranges.

The AD5761/AD5721 use a serial interface that operates atclock rates of up to 50 MHz and are compatible with DSP andmicrocontroller interface standards. Double buffering allows the asynchronous updating of the DAC output. The inputcoding is user-selectable twos complement or straight binary. The asynchronous reset function resets all registers to their default state. The output range is user selectable, via the RA[2:0] bits in the control register.

The devices available in the 16-lead TSSOP and in the 16-lead LFCSP offer guaranteed specifications over the -40° C to $+125^{\circ}$ C industrial temperature range.

Features

8 software-programmable output ranges: 0 V to \pm 5 V, 0 V to \pm 10 V, 0 V to \pm 16 V, 0 V to \pm 20 V, \pm 3 V, \pm 5 V, \pm 10 V, \pm 2.5 V to \pm 7.5 V; 5% overrange

Total unadjusted error (TUE): 0.1% FSR maximum

16-bit resolution: ±2 LSB maximum INL

Guaranteed monotonicity: ±1 LSB maximum

Single channel, 16-bit DACs

Settling time: 7.5 µs typical

Integrated reference buffers

Low noise: $35 \text{ nV}/\sqrt{\text{Hz}}$

Low glitch: 1 nV-sec

1.8 V logic compatibility

Asynchronous updating via LDAC

Asynchronous RESET to zero scale/midscale

DSP/microcontroller-compatible serial interface

Robust 4 kV HBM ESD rating

Available in 16-lead TSSOP and 16-lead LFCSP

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

Related Products



ADAS3022BCPZ
Analog Devices, Inc
LFCSP-40

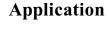


Analog Devices, Inc PDIP-28

AD574AJNZ



AD7938BSUZ
Analog Devices, Inc
TQFP-32

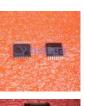


Industrial automation

Instrumentation, data acquisition

Open-/closed-loop servo control, process control

Programmable logic controllers



AD7266BSUZ

Analog Devices, Inc
TQPF-32



AD7401YRWZ
Analog Devices, Inc
SOIC-16



AD7192BRUZ-REEL
Analog Devices, Inc
TSSOP-24



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



Analog Devices, Inc LFCSP-64