

Digital to Analog Converters - DAC MPU-Compatible IC 12-BIT

Manufacturers	<a href="#">Analog Devices, Inc</a>
Package/Case	CDIP28
Product Type	Data Conversion ICs
RoHS	
Lifecycle	



Images are for reference only

Please submit RFQ for AD667SD/883B or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

## General Description

The AD667 is a complete voltage output 12-bit digital-to-analog converter including a high stability buried Zener voltage reference and double-buffered input latch on a single chip. The converter uses 12 precision high speed bipolar current steering switches and a laser trimmed thin-film resistor network to provide fast settling time and high accuracy.

Microprocessor compatibility is achieved by the on-chip double-buffered latch. The design of the input latch allows direct interface to 4-, 8-, 12-, or 16-bit buses. The 12 bits of data from the first rank of latches can then be transferred to the second rank, avoiding generation of spurious analog output values. The latch responds to strobe pulses as short as 100 ns, allowing use with the fastest available microprocessors.

The functional completeness and high performance in the AD667 results from a combination of advanced switch design, high speed bipolar manufacturing process, and the proven laser wafer-trimming (LWT) technology. The AD667 is trimmed at the wafer level and is specified to  $\pm 1/4$  LSB maximum linearity error (K, B grades) at +25°C and  $\pm 1/2$  LSB over the full operating temperature range.

The subsurface (buried) Zener diode on the chip provides a low noise voltage reference which has long-term stability and temperature drift characteristics comparable to the best discrete reference diodes. The laser trimming process which provides the excellent linearity, is also used to trim the absolute value of the reference as well as its temperature coefficient. The AD667 is thus well suited for wide temperature range performance with  $\pm 1/2$  LSB maximum linearity error and guaranteed monotonicity over the full temperature range. Typical full-scale gain TC is 5 ppm/°C.

The AD667 is available in five performance grades. The AD667J and K are specified for use over the 0°C to +70°C temperature range and are available in a 28-pin molded plastic DIP (N) or PLCC (P) package. The AD667S grade is specified for the -55°C to +125°C range and is available in the ceramic DIP (D) or LCC (E) package. The AD667A and B are specified for use over the -25°C to +85°C temperature range and are available in a 28-pin hermetically sealed ceramic DIP (D) package.

## Features

Complete 12-Bit D/A Function Double-Buffered Latch On Chip Output Amplifier High Stability Buried Zener Reference

Single Chip Construction

Monotonicity Guaranteed Over Temperature

Linearity Guaranteed Over Temperature: 1/2 LSB max

Settling Time: 3  $\mu$ s max to 0.01%

Guaranteed for Operation with  $\pm 12$  V or  $\pm 15$  V Supplies

Low Power: 300 mW including Reference

TTL/5 V CMOS Compatible Logic Inputs

Low Logic Input Currents

MIL-STD-883 Compliant Versions Available



## Related Products



### [ADAS3022BCPZ](#)

Analog Devices, Inc  
LFCSP-40



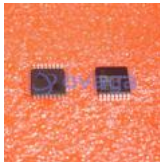
### [AD574AJNZ](#)

Analog Devices, Inc  
PDIP-28



### [AD7938BSUZ](#)

Analog Devices, Inc  
TQFP-32



### [AD7266BSUZ](#)

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### [AD7401YRWZ](#)

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