AD5666BRUZ-2

Data Sheet

Digital to Analogue Converter, Quad, 16 bit, 95 kSPS, Serial, SPI, 2.7V to 3.6V, 4.5V to 5.5V

Manufacturers	Analog Devices, Inc
Package/Case	TSSOP-14
Product Type	Data Conversion ICs
RoHS	Pb-free Halide free
Lifecycle	

Images are for reference only

Please submit RFQ for AD5666BRUZ-2 or Email to us: sales@ovaga.com We will contact you in 12 hours. RFQ

General Description

The AD5666 is a low power, quad, 16-bit, buffered voltage-output DAC. The part operates from a single 2.7 V to 5.5 V supply and is guaranteed monotonic by design.

The AD5666 has an on-chip reference with an internal gain of 2. The AD5666-1 has a 1.25 V 5 ppm/°C reference, giving a full-scale output of 2.5 V; the AD5666-2 has a 2.5 V 5 ppm/°C reference, giving a full-scale output of 5 V. The on-board reference is off at power-up, allowing the use of an external reference. The internal reference is turned on by writing to the DAC.

The part incorporates a power-on reset circuit that ensures that the DAC output powers up to 0 V (POR pin low) or to midscale (POR pin high) and remains powered up at this level until a valid write takes place. The part contains a power-down feature that reduces the current consumption of the device to 400 nA at 5 V and provides software-selectable output loads while in power-down mode for any or all DAC channels.

The outputs of all DACs can be updated simultaneously using the LDAC function, with the added functionality of user-select-able DAC channels to simultaneously update. There is also an asynchronous CLR that clears all DACs to a software-selectable code—0 V, midscale, or full scale.

The AD5666 utilizes a versatile 3-wire serial interface that operates at clock rates of up to 50 MHz and is compatible with standard SPI®, QSPI™, MICROWIRE™, and DSP interface standards. The on-chip precision output amplifier enables rail-to-rail output swing.

The AD5666-EP supports defense and aerospace applications (AQEC)

Product Highlights

Quad, 16-bit DAC.

On-chip 1.25 V/2.5 V, 5 ppm/°C reference.

Available in 14-lead TSSOP.

Selectable power-on reset to 0 V or midscale.

Power-down capability. When powered down, the DAC typically consumes 200 nA at 3 V and 400 nA at 5 V.

Features

Low power quad 16-bit DAC

14-lead TSSOP

On-chip 1.25 V/2.5 V, 5 ppm/°C reference

Power down to 400 nA at 5 V, 200 nA at 3 V

2.7 V to 5.5 V power supply

Guaranteed monotonic by design

Power-on reset to zero scale or midscale

3 power-down functions

See data sheet for additional features

AD5666-EP supports defense and aerospace applications (AQEC standard)

Download

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

V62/14626 DSCC Drawing Number

Application

Process control

Data acquisition systems

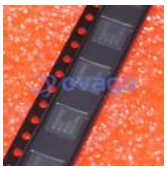
Portable battery-powered instruments

Digital gain and offset adjustment

Programmable voltage and current sources

Programmable attenuators

Related Products



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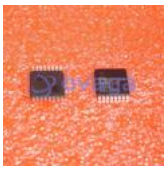
Analog Devices, Inc

LFCSP-40



[AD7266BSUZ]

Analog Devices, Inc

TQPF-32

[AD574AJNZ]

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PDIP-28

[AD7401YRWZ]

Analog Devices, Inc

SOIC-16

[AD7938BSUZ]

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TQFP-32

[AD7192BRUZ-REEL]

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TSSOP-24

[AD7124-8BCPZ-RL7]

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LFCSP-64