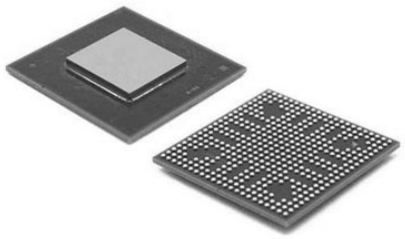
AD5780BCPZ

Data Sheet

Digital to Analog Converters - DAC 18-Bit +/-1 LSB INL VOut

Manufacturers	Analog Devices, Inc
Package/Case	LFCSP-24
Product Type	Data Conversion ICs
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for AD5780BCPZ or Email to us: sales@ovaga.com We will contact you in 12 hours. RFQ

General Description

The AD5780 is a true 18-bit, unbuffered voltage output digitalto-analogconverter (DAC) that operates from a bipolar supplyof up to 33 V. The AD5780 accepts a positive reference inputrange of 5 V to VDD − 2.5 V and a negative reference input rangeof VSS + 2.5 V to 0 V. Both reference inputs are buffered on chipand external buffers are not required. The AD5780 offers arelative accuracy specification of ±1 LSB maximum range, andoperation is guaranteed monotonic with a ±1 LSB differentialnonlinearity (DNL) maximum range specification.

The part uses a versatile 3-wire serial interface that operates atclock rates of up to 35 MHz and is compatible with standardserial peripheral interface (SPI), QSPI™, MICROWIRE™, andDSP interface standards. The part incorporates a power-onreset circuit that ensures that the DAC output powers up to 0 Vin a known output impedance state and remains in this stateuntil a valid write to the device takes place. The part providesan output clamp feature that places the output in a defined loadstate.

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 8 nV/√Hz noise.

Low ±0.018 ppm/°C gain error temperature coefficient.

Applications
Medical instrumentation

Test and measurement

Industrial control

Scientific and aerospace instrumentation

Data acquisition systems

Digital gain and offset adjustment

Power supply control

Features

True 18-bit voltage output DAC, ±1 LSB INL

8 nV/√Hz output noise spectral density

0.025 LSB long-term linearity error stability

2.5 µs output voltage settling time

3.5 nV-sec midscale glitch impulse

Integrated precision reference buffers

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

4 mm × 5 mm LFCSP package

Wide power supply range of up to ±16.5 V

35 MHz Schmitt triggered digital interface

1.8 V-compatible digital interface

Application

Medical instrumentation

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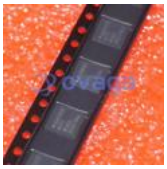
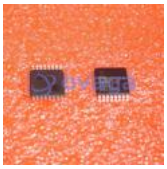
Related Products



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