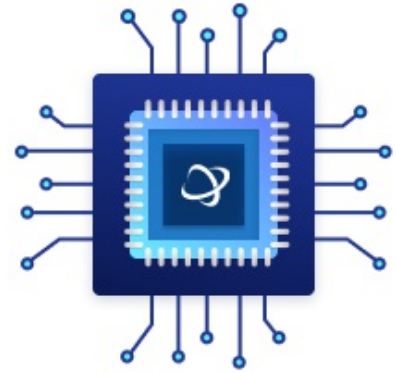


Digital to Analogue Converter, 12 bit, SPI, 2.7V to 5.5V, MSOP, 10 Pins

Manufacturers	Analog Devices, Inc
Package/Case	RM-10
Product Type	Data Conversion ICs
RoHS	
Lifecycle	



Images are for reference only

Please submit RFQ for AD5681RBRMZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The AD5683R/AD5682R/AD5681R/AD5683, members of the nanoDAC+® family, are low power, single-channel, 16-/14-/12-bit buffered voltage out digital-to-analog converters (DACs). The devices, except the AD5683, include an enabled by default internal 2.5 V reference, offering 2 ppm/°C drift. The output span can be programmed to be 0 V to VREF or 0 V to 2 × VREF. All devices operate from a single 2.7 V to 5.5 V supply and are guaranteed monotonic by design. The devices are available in a 2.00 mm × 2.00 mm, 8-lead LFCSP or a 10-lead MSOP.

The internal power-on reset circuit ensures that the DAC register is written to zero scale at power-up while the internal output buffer is configured in normal mode. The AD5683R/AD5682R/AD5681R/AD5683 contain a power-down mode that reduces the current consumption of the device to 2 μA (maximum) at 5 V and provides software selectable output loads while in power-down mode.

The AD5683R/AD5682R/AD5681R/AD5683 use a versatile 3-wire serial interface that operates at clock rates of up to 50 MHz. Some devices also include asynchronous RESET pin and VLOGIC pin options, allowing 1.8 V compatibility.

Product Highlights

High Relative Accuracy (INL). AD5683R/AD5683 (16-bit): ±2 LSB maximum.

Low Drift, 2.5 V On-Chip Reference. 2 ppm/°C typical temperature coefficient. 5 ppm/°C maximum temperature coefficient.

Two Package Options. 2.00 mm × 2.00 mm, 8-lead LFCSP. 10-lead MSOP.

Features

Ultrasmall package: 2 mm × 2 mm, 8-lead LFCSP

High relative accuracy (INL): ±2 LSB maximum at 16 bits

AD5683R/AD5682R/AD5681R

Low drift, 2.5 V reference: 2 ppm/°C typical

Selectable span output: 2.5 V or 5 V

Total unadjusted error (TUE): 0.06% of FSR maximum

Offset error: ±1.5 mV maximum

Gain error: ±0.05% of FSR maximum

Low glitch: 0.1 nV-sec

High drive capability: 20 mA

Low power: 1.2 mW at 3.3 V

Independent logic supply: 1.62 V logic compatible

Wide operating temperature range: -40°C to +105°C

Robust 4 kV HBM ESD protection

Application

Process controls

Data acquisition systems

Digital gain and offset adjustment

Programmable voltage sources

Related Products



[ADAS3022BCPZ](#)

Analog Devices, Inc
LFCSP-40



[AD574AJNZ](#)

Analog Devices, Inc
PDIP-28



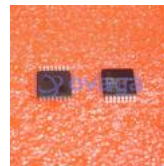
[AD7938BSUZ](#)

Analog Devices, Inc
TQFP-32



[AD7124-8BCPZ-RL7](#)

Analog Devices, Inc
LFCSP-32



[AD7266BSUZ](#)

Analog Devices, Inc
TQPF-32



[AD7401YRWZ](#)

Analog Devices, Inc
SOIC-16



[AD7192BRUZ-REEL](#)

Analog Devices, Inc
TSSOP-24



[AD9680BCPZ-500](#)

Analog Devices, Inc
LFCSP-64