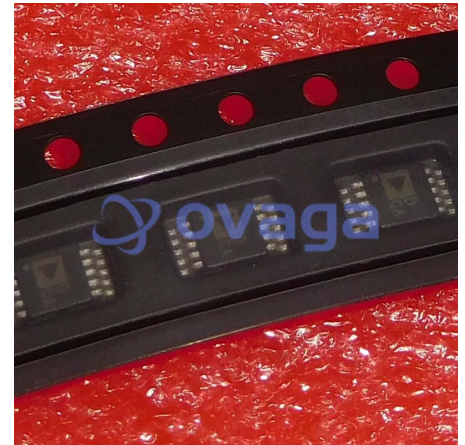


2.5 V to 5.5 V, 500 \hat{I} ¼A, Quad Voltage Output 8-/10-/12-Bit DACs in 10-Lead Packages

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



Images are for reference only

Please submit RFQ for AD5314ARMZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The AD5304/AD5314/AD5324 are quad 8-, 10-, and 12-bit buffered voltage output DACs in 10-lead MSOP and 10-lead LFCSP packages that operate from a single 2.5 V to 5.5 V supply, consuming 500 μ A at 3 V. Their on-chip output amplifiers allow rail-to-rail output swing to be achieved with a slew rate of 0.7 V/ μ s. A 3-wire serial interface is used; it operates at clock rates up to 30 MHz and is compatible with standard SPI, QSPI, MICROWIRE, and DSP interface standards.

The references for the four DACs are derived from one reference pin. The outputs of all DACs can be updated simultaneously using the software LDAC function. The parts incorporate a power-on reset circuit, and ensure that the DAC outputs power up to 0 V and remains there until a valid write takes place to the device. The parts contain a power-down feature that reduces the current consumption of the device to 200 nA @ 5 V (80 nA @ 3 V).

The low power consumption of these parts in normal operation makes them ideally suited to portable battery-operated equipment. The power consumption is 3 mW at 5 V, 1.5 mW at 3 V, reducing to 1 μ W in power-down mode.

Features

4 buffered 10-Bit DACs in 10-lead MSOP and 10-lead LFCSP

A, W Version: ± 4 LSB INL, B Version: ± 2.5 LSB INL

Low power operation: 500 μA @ 3 V, 600 μA @ 5 V

2.5 V to 5.5 V power supply

Guaranteed monotonic by design over all codes

Power-down to 80 nA @ 3 V, 200 nA @ 5 V

Double-buffered input logic

Output range: 0 V to VREF

Power-on reset to 0 V

Simultaneous update of outputs (LDAC function)

Low power-, SPI[®]-, QSPI[™]-, MICROWIRE[™]-, and DSP-compatible 3-wire serial interface

On-chip, rail-to-rail output buffer amplifiers

Temperature range -40°C to $+105^{\circ}\text{C}$

Qualified for automotive applications

Application

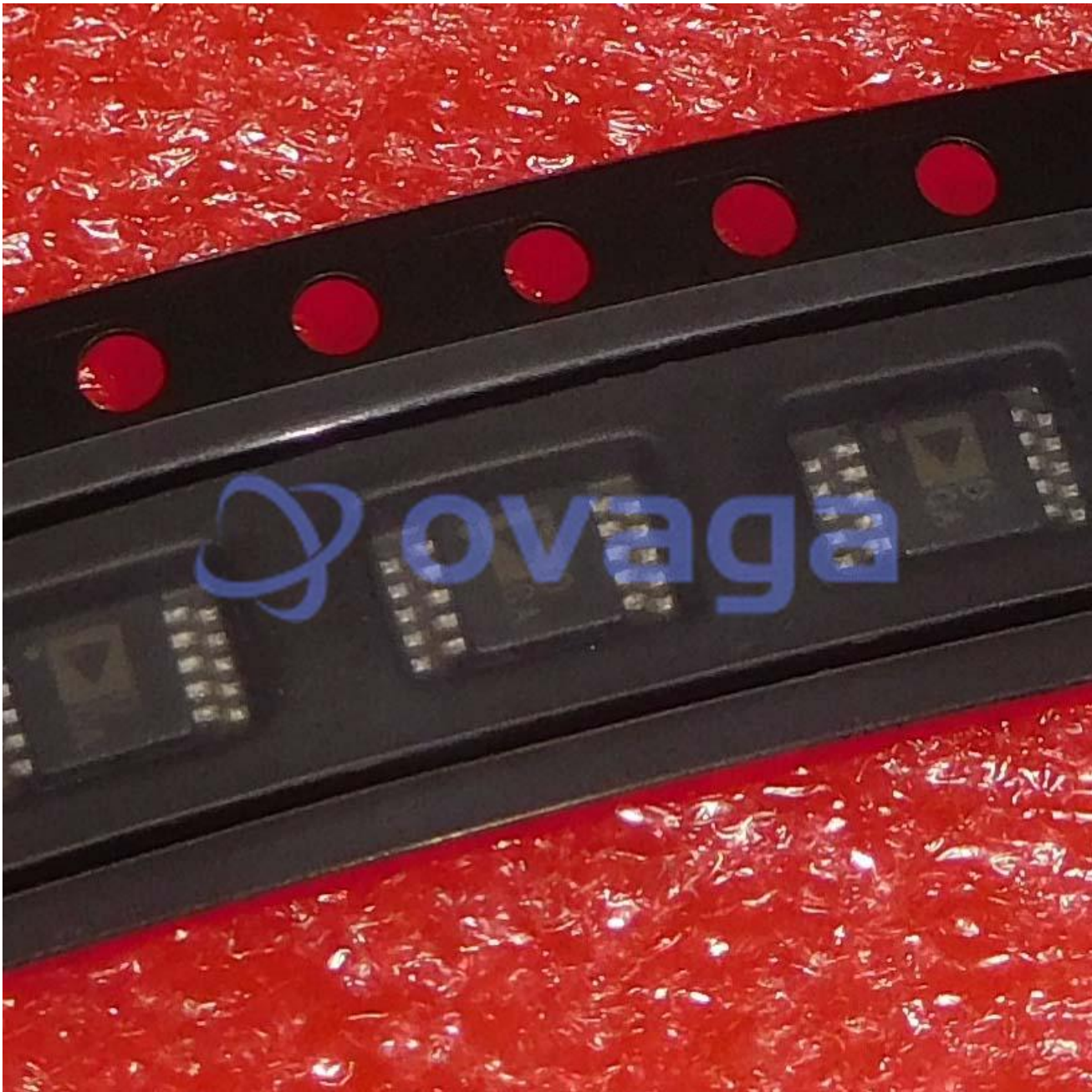
Portable battery-powered instruments

Digital gain and offset adjustment

Programmable voltage and current sources

Programmable attenuators

Industrial process controls



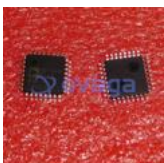
Related Products



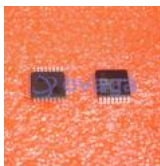
[ADAS3022BCPZ](#)
Analog Devices, Inc
LFCSP-40



[AD574AJNZ](#)
Analog Devices, Inc
PDIP-28



[AD7938BSUZ](#)
Analog Devices, Inc
TQFP-32



[AD7266BSUZ](#)
Analog Devices, Inc
TQPF-32



[AD7401YRWZ](#)
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SOIC-16



[AD7192BRUZ-REEL](#)
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TSSOP-24



[AD7124-8BCPZ-RL7](#)

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Analog Devices, Inc

LFCSP-64