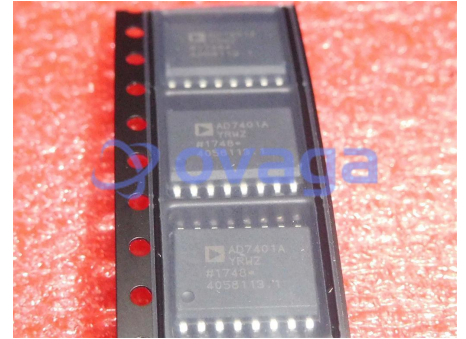


Isolated Sigma-Delta Modulator; Package: 16 ld SOIC - Wide; No of Pins: 16; Temperature Range: Industrial

Manufacturers	Analog Devices, Inc
Package/Case	SOIC-16
Product Type	Data Conversion ICs
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for AD7401AYRWZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The AD7401A is a second-order, sigma-delta (Σ - Δ) modulator that converts an analog input signal into a high speed, 1-bit datastream with on-chip digital isolation based on the Analog Devices, Inc., iCoupler® technology. The AD7401A operates from a 5 V power supply and accepts a pseudo-differential input signal of ± 250 mV (± 320 mV full scale). The analog input is continuously sampled by the analog modulator, eliminating the need for external sample-and-hold circuitry. The input information is contained in the output stream as a density of ones with a data rate of up to 20 MHz. The original information can be reconstructed with an appropriate digital filter. The serial I/O can use a 5 V or a 3.3 V supply (VDD2).

The serial interface is digitally isolated. High speed CMOS, combined with Analog Devices, Inc., iCoupler® technology, means the on-chip isolation provides outstanding performance characteristics, superior to alternatives such as optocoupler devices. The device contains an on-chip reference. The AD7401A is offered in a 16-lead SOIC and has an operating temperature range of -40°C to $+125^{\circ}\text{C}$.

Features

20 MHz maximum external clock rate

Second-order modulator

16 bits, no missing codes

1 $\mu\text{V}/^\circ\text{C}$ typical offset drift

On-board digital isolator

On-board reference

Low power operation: 17 mA typical at 5.5 V

16-lead SOIC package

Internal clock version: AD7400A

Safety and regulatory approvals

UL recognition

5000 V rms for 1 minute per UL 1577

CSA Component Acceptance Notice #5A

VDE Certificate of Conformity

DIN V VDE V 0884-10 (VDE V>

Qualified for Automotive Applications

Application

AC motor controls

Shunt current monitoring

Data acquisition systems

Analog-to-digital and opto-isolator replacements



Related Products



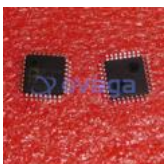
[ADAS3022BCPZ](#)

Analog Devices, Inc
LFCSP-40



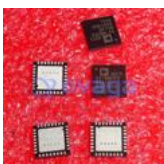
[AD574AJNZ](#)

Analog Devices, Inc
PDIP-28



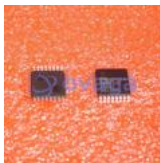
[AD7938BSUZ](#)

Analog Devices, Inc
TQFP-32



[AD7124-8BCPZ-RL7](#)

Analog Devices, Inc
LFCSP-32



[AD7266BSUZ](#)

Analog Devices, Inc
TQFP-32



[AD7401YRWZ](#)

Analog Devices, Inc
SOIC-16



[AD7192BRUZ-REEL](#)

Analog Devices, Inc
TSSOP-24



[AD9680BCPZ-500](#)

Analog Devices, Inc
LFCSP-64