

1-Channel Single ADC Pipelined 105Msps 14-bit Parallel 52-Pin TQFP EP Tray

Manufacturers	Analog Devices, Inc
Package/Case	TQFP-48
Product Type	Data Conversion ICs
RoHS	Pb-free Halide free
Lifecycle	



Images are for reference only

Please submit RFQ for AD6645ASVZ-105 or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The AD6645 is a high speed, high performance, monolithic 14-bit analog-to-digital converter (ADC). All necessary functions, including track-and-hold (T/H) and reference, are included on the chip to provide a complete conversion solution. The AD6645 provides CMOS-compatible digital outputs. It is the fourth generation in a wideband ADC family, preceded by the AD9042 (12-bit, 41 MSPS), the AD6640 (12-bit, 65 MSPS, IF sampling), and the AD6644 (14-bit, 40 MSPS/65 MSPS).

Designed for multichannel, multimode receivers, the AD6645 is part of the Analog Devices, Inc., SoftCell[®] transceiver chipset. The AD6645 maintains 100 dB multitone, spurious-free dynamic range (SFDR) through the second Nyquist band. This breakthrough performance eases the burden placed on multimode digital receivers (software radios) that are typically limited by the ADC. Noise performance is exceptional; typical signal-to-noise ratio (SNR) is 74.5 dB through the first Nyquist band.

The AD6645 is built on the Analog Devices extra fast complementary bipolar (XFCB) process and uses an innovative, multipass circuit architecture. Units are available in a 52-lead exposed pad (TQFP_EP) package specified from -40°C to +85°C at 80 MSPS and -10°C to +85°C at 105 MSPS.

Product Highlights

Applications

IF Sampling. The AD6645 maintains outstanding ac performance up to input frequencies of 200 MHz, suitable for multicarrier 3G wideband cellular IF sampling receivers.

Pin Compatibility. The ADC has the same footprint and pin layout as the AD6644 14-bit, 40 MSPS/65 MSPS ADC.

SFDR Performance and Oversampling. Multitone SFDR performance of 100 dBFS can reduce the requirements of high end RF components.

Features

IN

IN

200 MHz, up to 105 MSPS

IN

100 dBFS multitone SFDR

IF sampling to 200 MHz

Sampling jitter: 0.1 ps

1.5 W power dissipation

Differential analog inputs

Pin compatible to AD6644

Twos complement digital output format

3.3 V CMOS compatible

Data-ready for output latching

Application

Multichannel, multimode receivers

Base station infrastructures

AMPS, IS-136, CDMA, GSM, W-CDMA

Single channel digital receivers

Antenna array processing

Communications instrumentation

Radars, infrared imaging

Instrumentation





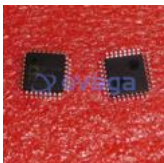
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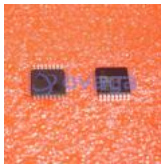
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