SBAS261 – APRIL 2003

12-Bit, 40MSPS Sampling, +3.3V ANALOG-TO-DIGITAL CONVERTER

FEATURES

- HIGH SNR: 70dB
- HIGH SFDR: 90dBFS
- LOW POWER: 180mW
- INTERNAL/EXTERNAL REFERENCE OPTION
- SINGLE-ENDED OR FULLY DIFFERENTIAL ANALOG INPUT
- PROGRAMMABLE INPUT RANGE
- LOW DNL: 0.5LSB
- SINGLE +3.3V SUPPLY OPERATION
- TQFP-48 AND QFN-48 PACKAGES

APPLICATIONS

- WIRELESS LOCAL LOOP
- COMMUNICATIONS
- MEDICAL IMAGING
- PORTABLE INSTRUMENTATION

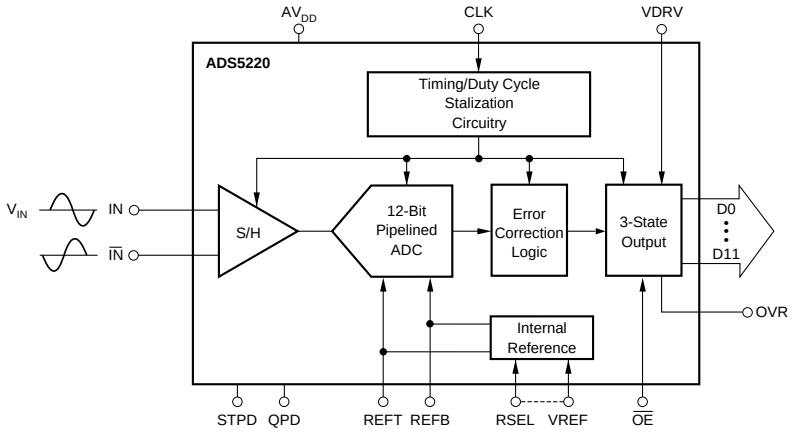
DESCRIPTION

The ADS5220 is a pipeline, CMOS Analog-to-Digital Converter (ADC) that operates from a single +3.3V power supply. This converter provides excellent performance with a single-ended input and can be operated with a differential input for added spurious performance. This high-performance converter includes a 12-bit quantizer, high bandwidth track-and-hold, and a high accuracy internal reference. It also allows for the user to disable the internal reference and utilize external references which provide excellent gain and offset matching when used in multi-channel applications or in applications where full-scale range adjustment is required.

The ADS5220 employs digital error correction techniques to provide excellent differential linearity for demanding imaging applications. Its low distortion and high SNR give the extra margin needed for medical imaging, communications, video, and test instrumentation. The ADS5220 offers power dissipation of 180mW and also provides two power-down modes.

The ADS5220 is specified at a maximum sampling frequency of 40MHz and a differential input range of 1V to 2V. The ADS5220 is available in a TQFP-48 and a QFN-48 package.

PRODUCT PREVIEW



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Mailing Address: Texas Instruments
Post Office Box 655303 Dallas, Texas 75265