MAX11160

16-Bit, 500ksps ADC with 5ppm/°C Internal Reference

ADC with Internal Reference in Industry-Standard 10-Pin Package

OVERVIEW

Description

The MAX11160 is a 16-bit, 500ksps SAR ADC offered in industry-standard, 10-pin µMAX and 3mm x 3mm TDFN packages. This ADC integrates a 5ppm/°C reference, saving the cost and space of an external reference.

Operating from a single 5V analog supply, the MAX11160 achieves excellent AC specifications of 92.5dB SINAD and -105dB THD over a 0 to 5V input range. This ADC communicates through an SPI-compatible serial interface at 2.5V, 3V, 3.3V, or 5V logic.

Key Features

- 16-Bit Resolution with No Missing Codes
- 500ksps Throughput Rate
- Low-Drift Internal Reference (5ppm/°C)
- Industry-Standard 10-Pin µMAX and 3mm x 3mm TDFN Packages
- SINAD: 92.5dB at 20kHz
- THD: -105dB at 20kHz
- Low Power Dissipation
    - 34mW at 500ksps
    - 1µA Shutdown Mode
- No Pipeline Delay/Latency

- Single 5V Analog Supply
- 2.3V to 5V Digital Supply
- SPI/QSPI™/MICROWIRE®/DSP-Compatible Serial Interface
- Pseudo-Differential Analog Input Range
- 0V to V_{REF} with V_{REF} Up to V_{DD}