



16-bit 1MSPS single-channel Analog-to-Digital Converter (ADC)

1 Main features:

- ◆ Conversion bits: 16 bits
- ◆ Throughput rate: 1 MSPS
- ◆ Low power consumption: 7mW(1MSPS, total power consumption)
- ◆ INL: ± 0.6 LSB (typical value)
- ◆ SNDR: 91.25dB@10kHz input
- ◆ THD: -110dB@10kHz input
- ◆ Pseudo differential input range: 0V to VREF (VREF between 2.5V and 5.5V)
- ◆ Pipeline-free delay
- ◆ Serial interface: SPI/QSPI/MICROWIRE/DSP compatible
- ◆ Package: 10-pin QFN package

2. Typical applications

- ◆ Battery powered equipment
- ◆ communication
- ◆ Automatic test equipment
- ◆ Data acquisition
- ◆ Medical instrument

3 Product Description

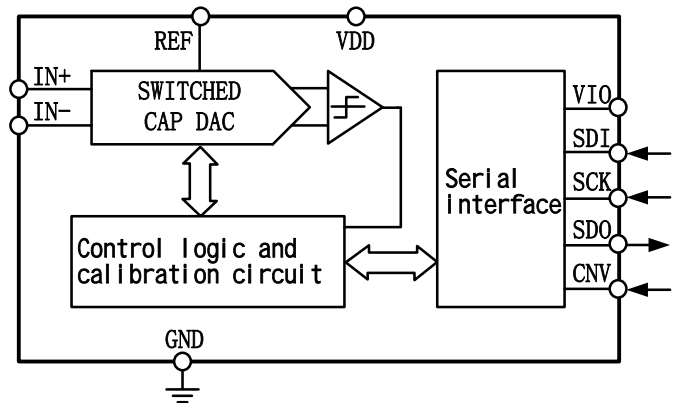
The chip is a 16-bit, successive approximation analog-to-digital converter (ADC) powered by a single power supply (VDD). It has a low-power, high-speed, 16-bit sampling ADC and a multi-function serial interface port. At the rising edge of the CNV, the device samples the analog input voltage difference between IN+ and IN-

Circumference from 0 V to REF. The reference voltage (REF

5 Compared with similar foreign products

	precision	Conversion rate	Data port	Power dissipation	SNDR	THD	Encapsulation form
AD7980 (ADI)	16-bit	1MSPS	Serial port	7mW (1MSPS)	91.25dB@10k Hz	-110dB@10kHz	QFN-10
HL7980	16-bit	1MSPS	Serial port	7mW (1MSPS)	91.25dB@10k Hz	-110dB@10kHz	QFN-10

) is provided externally and can be independent of the supply voltage (VDD). The power consumption and throughput rate vary linearly
 Department. The SPI-compatible serial interface is also capable of utilizing SDI inputs to combine several ADCs
 Daisy chain to a three-wire bus and provide an optional busy indication. When using independent power supply VIO, it is with 1.8V, 2.5V, 3V and 5V logic are compatible. The chip is compatible with the foreign product AD7980 pin and can be replaced. The functional structure block diagram of the chip is shown as follows:



4 Product Highlights

- ◆ Supports multiple ADCs Daisy chain connection
- ◆ Power consumption and throughput change linearly
- ◆ Differential and pseudo-differential conversions can be configured