



18-bit 100KSPS single-channel Analog-to-Digital Converter (ADC)

1 Main features:

- ◆ Convert bits: 18 bits
- ◆ Throughput rate: 100 KSPS
- ◆ Low power consumption: 20mW
- ◆ INL: $\pm 2.5\text{LSB}$ (Typical value)
- ◆ SNDR: 100dB@2kHz input
- ◆ THD: -110dB@2kHz input
- ◆ Pseudo differential input range: $-V_{\text{REF}}$ 至 V_{REF} ($V_{\text{REF}}=5\text{V}$)
- ◆ Pipeline-free delay
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- ◆ Encapsulation: LQFP48

2. Typical applications

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

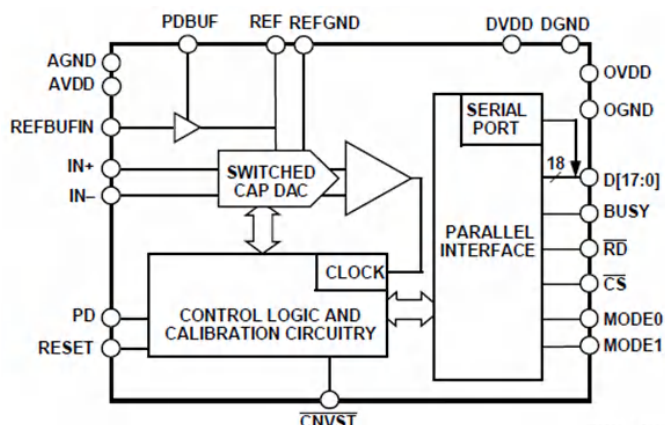
3 Product Description

The chip is an 18-bit, successive approximation analog-to-digital converter (ADC) powered by a single power supply. It has a low-power, high-speed, 18-bit sampling ADC and a multi-function serial interface port. At the CNV rising edge, the device simulates the transmission between IN+ and IN-

The input voltage difference is sampled from -REF to REF. Can be Selected

On - or off-chip benchmarks. When using a separate power supply VIO, it works with 3 V and 5 V logic compatible. This chip and foreign products AD7678 tube Foot compatible, can be replaced, the chip's functional structure block diagram is as follows

As shown in the figure:



4 Product Highlights

- ◆ Supports multiple ADCs Daisy chain connection
- ◆ Power consumption and throughput change linearly
- ◆ Difference conversion

5 Compared with similar foreign products

	precision	Conversion rate	Data port	Power dissipation	SNDR	THD	Encapsulation form
AD7678 (ADI)	18 位	100KSPS	Serial / parallel port	20mW	100dB@2 kHz	-110dB@2kHz	LQFP-48
HL7678	18 位	100KSPS	Serial / parallel port	20mW	100dB@2 kHz	-110dB@2kHz	LQFP-48