

### 12-Bit 50MS/s Pipelined ADC

#### FEATURES

- Low Power consumption (< 80mW @50MS/s)
- Very low leakage in power down (<5uA)
- INL of  $\pm 1.0$  LSB (Typical)
- DNL of  $\pm 0.5$ LSB (Typical)
- SNDR > 65dB @  $F_{in}=25$ MHz,  $F_s=50$ MHz
- SFDR > 68dB @  $F_{in}=25$ MHz,  $F_s=50$ MHz
- Differential FS Input of  $\pm 1.0$ V
- No Calibration needed

#### APPLICATIONS

High Speed, High resolution ADC applications for battery operated equipment like Digital Cameras and Video applications

**TECHNOLOGY:** 0.18u CMOS Technoloav

#### OVERVIEW

The ADC12-50 is a 12-Bit, 50MS/s pipelined Analog-to-Digital converter. The coverter has an on-chip Sample and Hold. With close to 11 Effective Number of Bits the converter shows excellent dynamic performance which makes it ideally suited for high performance image, multimedia and telecom applications. Its low power consumption and small footprint, makes it well suited for portable, battery operated devices. The converter operates from a single power supply of 1.8V. The full scale input range can be set between  $\pm 0.5$  and  $\pm 1.0$ V using an external reference.

#### FUNCTIONAL DIAGRAM

