

# QCADC35-13T

*10 bit, 500 Ksps Low Power SAR ADC with 16 input Multiplexer using TSMC 1.2/3.3V LVOD process.*

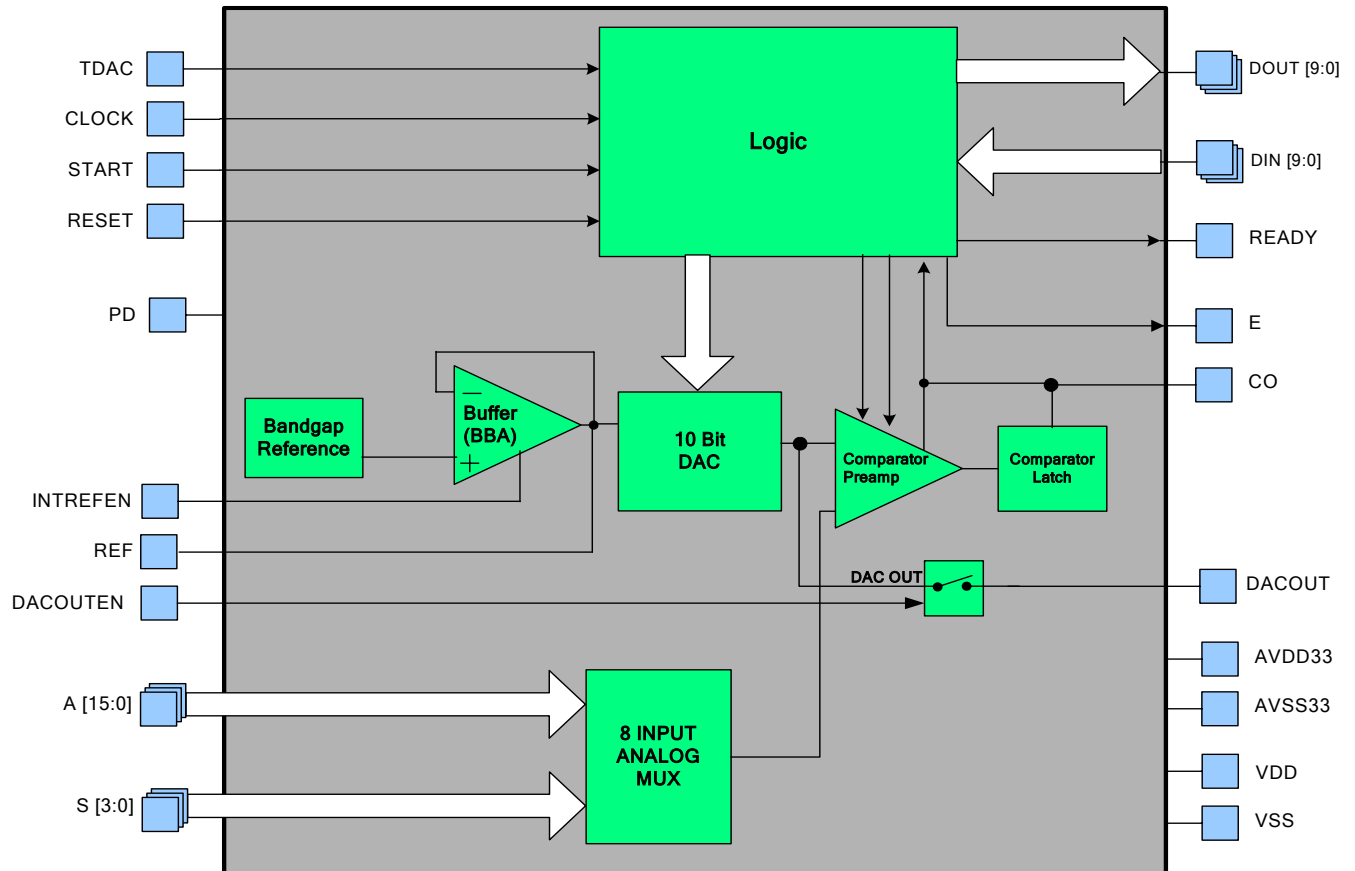


## General Description

The QCADC35-13T cell is a 10 bit, low power Analog to Digital converter capable of running up to a 500 Ksps conversion rate. The cell contains an internal Bandgap reference generator that creates an internal 1.2 volt reference which is used as the full scale voltage. An external voltage reference can also be used to determine the full scale voltage. A sixteen input analog multiplexer is included that allows sampling of multiple signals. The QCADC35-13T cell is useful for a variety of data signal conversion applications.

## Features

- TSMC 0.13um Logic Salicide (1.0v/3.3v, 1P7M +RDL) FSG LVOD (CL013LV)
- Cell uses 1P6M ( Metal 6 is used as shield )
- Size – 600.00 um x 600.00 um
- Sampling rates from 50 Ksps up to 500 Ksps
- Bias circuits internal to circuit
- Low power supply current
- Pin provided for power-down mode
- Contains ESD protection circuits on analog inputs
- Antenna diodes on all digital inputs
- Ports on metal 2, 3 and 4



**Figure 1. QCADC35-13T Block Diagram**