



# USB1080/1081

HIGH SPEED - BIPOLAR

8 & 9 BIT FLASH A/D CONVERTERS

## Features

- 8 Bit Resolution/9 Bit Typical Accuracy
- 25 MHz Sampling Rate
- 3-State LS-TTL Outputs with True and Complement Inputs
- Low Power Dissipation: 680 mW
- Single Clock Cycle Conversion
- Input Voltage Range: 1.0-5.0 Vp-p between +/- 5V
- Input Signal Bandwidth up to 10 MHz
- Internal Grey Code for Speed and Accuracy, Binary Outputs
- 24 Pin, 600 Mil Hybrid Package (several package options)
- Military & Industrial Temp Range

## Description

The USC1080 is an 8-bit high speed parallel flash A/D converter. The device employs an internal Grey code structure to eliminate large output errors on fast slewing input signals. It is fully TTL compatible, requiring a +5V, 12V supply and a wide tolerance negative supply of -3V to -6V. Three-state TTL outputs allow direct drive of a data bus or common I/O memory.

The USC1080 contains 256 parallel comparators across a precision input reference network. The comparator outputs are fed to latches and then to an encoder network, to produce an 8-bit data byte plus an overrange bit. The data is latched and converted to 3-state LS-TTL outputs.

Applications include video display and radar processing, high speed instrumentation and TV broadcast encoding.

## Versions

USC1080 8 Bit, 0 to 5V Input/10MHz Signal Bandwidth (S/H)

USC1081 9 Bit, -2V to 2V Input/2MHz Signal Bandwidth

## FUNCTIONAL DIAGRAM

