

**High Speed 8-Bit A-to-D with Track and Hold**

**Features**

- Completely Self-Contained On-Chip Track and Hold Microprocessor Interface Internal Clock Overrange Flag
- Fast Conversion: 1.36µs Max
- True 8-bit Accuracy over Temperature No Trims Required No Missing Codes
- Low Power Dissipation: 100mW Max
- Replaces ADC0820 and AD7820
- Single +5V Supply
- Improved Latch-up Resistance

**General Description**

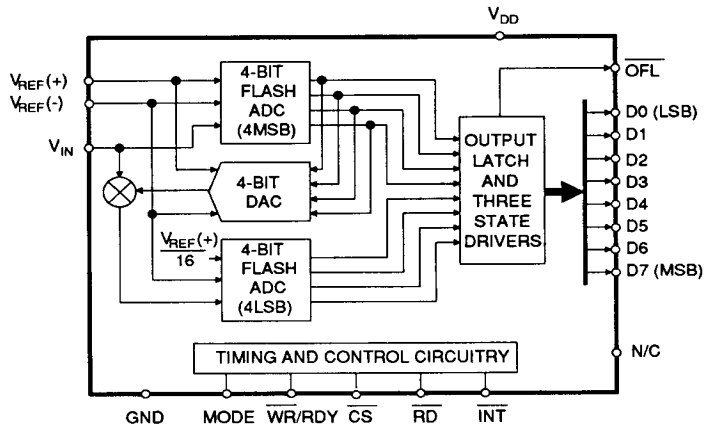
The CS7820 is a low-cost, easy to use, microprocessor compatible 8-bit analog-to-digital converter with on-chip track-and-hold function. Use of CMOS and half-flash techniques allow both high throughput rates (1.36µs max conversion time) and low power requirements (100mW max over the full Mil temperature range).

The input to the CS7820 is tracked and held by on-chip sampling circuitry, eliminating the need for an external track-and-hold amplifier for input signals slewing at less than 100mV/µs.

The CS7820 is designed to appear as a memory location or I/O port to a microprocessor without additional external interfacing logic. All of the data outputs use latched, three-state output buffers, allowing direct connection to a data bus or input port on a microprocessor system.

The CS7820 is pin compatible with the ADC0820 and AD7820.

**ORDERING INFORMATION:** See ADC Data Book



**Preliminary Product Information**

This document contains information for a new product. Crystal Semiconductor reserves the right to modify this product without notice.

Crystal Semiconductor Corporation  
P.O. Box 17847, Austin, TX 78760  
(512) 445-7222 FAX: 512 445 7581

JAN '89  
DS30F2  
2-28