

Complete Data Sheet available via web, Harris' home page: <http://www.semi.harris.com> or via Harris AnswerFAX, see Section 17

August 1997

8-Bit, Microprocessor-Compatible, A/D Converters

Features

- 80C48 and 80C80/85 Bus Compatible - No Interfacing Logic Required
- Conversion Time < 100 μ s
- Easy Interface to Most Microprocessors
- Will Operate in a "Stand Alone" Mode
- Differential Analog Voltage Inputs
- Works with Bandgap Voltage References
- TTL Compatible Inputs and Outputs
- On-Chip Clock Generator
- 0V to 5V Analog Voltage Input Range (Single +5V Supply)
- No Zero-Adjust Required

Description

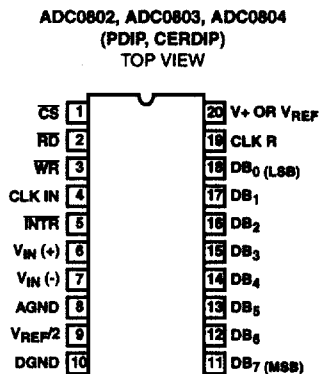
The ADC0802 family are CMOS 8-Bit, successive-approximation A/D converters which use a modified potentiometric ladder and are designed to operate with the 8080A control bus via three-state outputs. These converters appear to the processor as memory locations or I/O ports, and hence no interfacing logic is required.

The differential analog voltage input has good common-mode-rejection and permits offsetting the analog zero-input-voltage value. In addition, the voltage reference input can be adjusted to allow encoding any smaller analog voltage span to the full 8 bits of resolution.

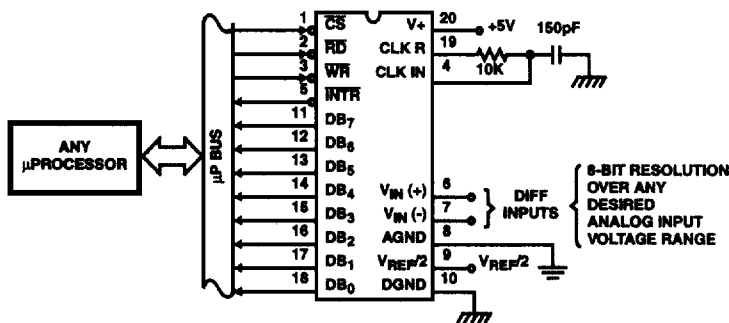
Ordering Information

PART NUMBER	ERROR	EXTERNAL CONDITIONS	TEMP. RANGE (°C)	PACKAGE	PKG. NO
ADC0802LCN	$\pm 1/2$ LSB	$V_{REF/2} = 2.500V_{DC}$ (No Adjustments)	0 to 70	20 Ld PDIP	E20.3
ADC0802LCD	$\pm 3/4$ LSB		-40 to 85	20 Ld CERDIP	F20.3
ADC0802LD	± 1 LSB		-55 to 125	20 Ld CERDIP	F20.3
ADC0803LCN	$\pm 1/2$ LSB	$V_{REF/2}$ Adjusted for Correct Full Scale Reading	0 to 70	20 Ld PDIP	E20.3
ADC0803LCD	$\pm 3/4$ LSB		-40 to 85	20 Ld CERDIP	F20.3
ADC0803LCWM	± 1 LSB		-40 to 85	20 Ld SOIC	M20.3
ADC0803LD	± 1 LSB		-55 to 125	20 Ld CERDIP	F20.3
ADC0804LCN	± 1 LSB		$V_{REF/2} = 2.500V_{DC}$ (No Adjustments)	0 to 70	20 Ld PDIP
ADC0804LCD	± 1 LSB	-40 to 85		20 Ld CERDIP	F20.3
ADC0804LCWM	± 1 LSB	-40 to 85		20 Ld SOIC	M20.3

Pinout



Typical Application Schematic



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A/D CONVERTERS
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