

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

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Precision 4<sup>1</sup>/<sub>2</sub> Digit, A/D Converter

## Features

- Typically Less Than 2 $\mu$ V<sub>p-p</sub> Noise (200.00mV Full Scale, ICL8068)
- Accuracy Guaranteed to  $\pm 1$  Count Over Entire  $\pm 20,000$  Counts (2.0000V Full Scale)
- Guaranteed Zero Reading for 0V Input
- True Polarity at Zero Count for Precise Null Detection
- Single Reference Voltage Required
- Over-Range and Under-Range Signals Available for Auto-Ranging Capability
- All Outputs TTL Compatible
- Medium Quality Reference, 40ppm (Typ) on Board
- Blinking Display Gives Visual Indication of Over Range
- Six Auxillary Inputs/Outputs are Available for Interfacing to UARTs, Microprocessors or Other Complex Circuitry
- 5pA Input Current (Typ) (8052A)

## Description

The ICL8052 or ICL8068/ICL71C03 chip pairs with their multiplexed BCD output and digit drivers are ideally suited for the visual display DVM/DPM market. The outstanding 4<sup>1</sup>/<sub>2</sub> digit accuracy, 200.00mV to 2.0000V full scale capability, auto-zero and auto-polarity combine with true ratiometric operation, almost ideal differential linearity and time-proven dual slope conversion. Use of these chip pairs eliminates clock feedthrough problems, and avoids the critical board layout usually required to minimize charge injection.

When only 2000 counts of resolution are required, the 71C03 can be wired for 3<sup>1</sup>/<sub>2</sub> digits and give up to 30 readings/sec., making it ideally suited for a wide variety of applications.

The ICL71C03 is an improved CMOS plug-in replacement for the ICL7103 and should be used in all new designs.

## Ordering Information

PART NUMBER	TEMP. RANGE (°C)	PACKAGE	PKG. NO.
ICL8052CPD	0 to 70	14 Ld PDIP	E14.3
ICL8052CDD	0 to 70	14 Ld Cerdip	F14.3
ICL8052ACPD	0 to 70	14 Ld PDIP	E14.3
ICL8052ACDD	0 to 70	14 Ld Cerdip	F14.3
ICL8068CDD	0 to 70	14 Ld Cerdip	F14.3
ICL8068ACDD	0 to 70	14 Ld Cerdip	F14.3
ICL8068ACJD	0 to 70	14 Ld Cerdip	F14.3
ICL71C03CPI	0 to 70	28 Ld PDIP	E28.6
ICL71C03ACPI	0 to 70	28 Ld PDIP	E28.6

## Pinouts

