

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

## 4<sup>1</sup>/<sub>2</sub> Digit LCD, Single-Chip A/D Converter

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### Features

- ±19,999 Count A/D Converter Accurate to ±4 Count
- 10µV Resolution on 200mV Scale
- 110dB CMRR
- Direct LCD Display Drive
- True Differential Input and Reference
- Low Power Consumption
- Decimal Point Drive Outputs
- Overrange and Underrange Outputs
- Low Battery Detection and Indication
- 10:1 Range Change Input

### Ordering Information

PART NUMBER	TEMP. RANGE (°C)	PACKAGE	PKG. NO.
ICL7129CPL	0 to 70	40 Ld PDIP	E40.6
ICL7129RCPL	0 to 70	40 Ld PDIP	E40.6
ICL7129CM44	0 to 70	44 Ld MQFP	Q44.10x10

NOTE: "R" indicates device with reversed leads.

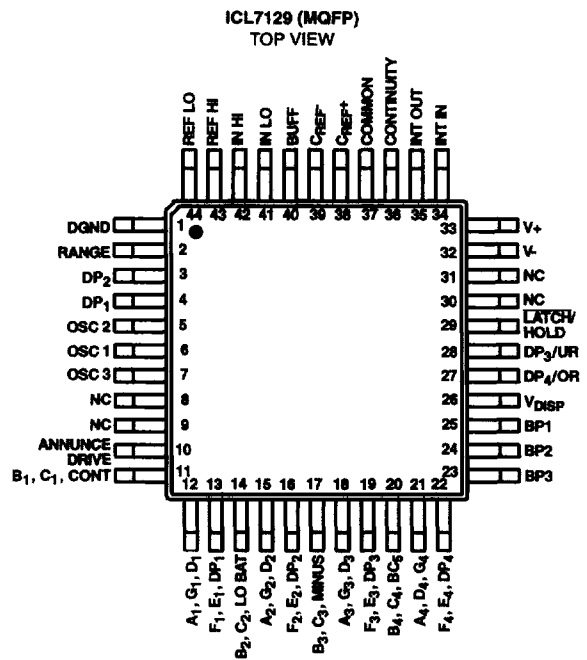
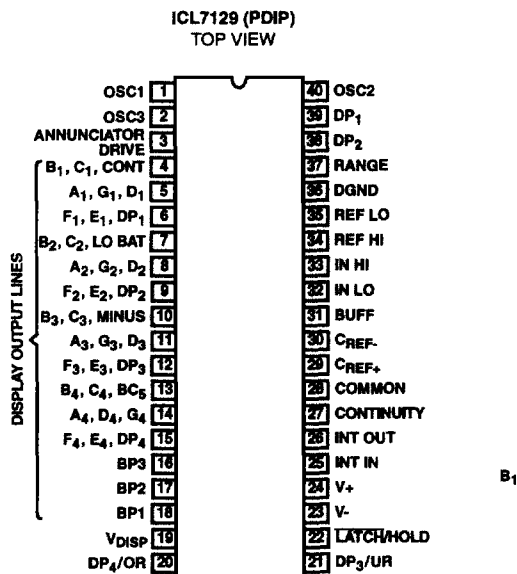
### Description

The Harris ICL7129 is a very high performance 4<sup>1</sup>/<sub>2</sub>-digit, analog-to-digital converter that directly drives a multiplexed liquid crystal display. This single chip CMOS integrated circuit requires only a few passive components and a reference to operate. It is ideal for high resolution hand-held digital multimeter applications.

The performance of the ICL7129 has not been equaled before in a single chip A/D converter. The successive integration technique used in the ICL7129 results in accuracy better than 0.005% of full scale and resolution down to 10µV/count.

The ICL7129, drawing only 1mA from a 9V battery, is well suited for battery powered instruments. Provision has been made for the detection and indication of a "LOW/BATTERY" condition. Autoranging instruments can be made with the ICL7129 which provides overrange and underrange outputs and 10:1 range changing input. The ICL7129 instantly checks for continuity, giving both a visual indication and a logic level output which can enable an external audible transducer. These features and the high performance of the ICL7129 make it an extremely versatile and accurate instrument-on-a-chip.

### Pinouts



3  
A/D CONVERTERS  
DISPLAY