

ICL7129

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

4¹/₂ 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 4¹/₂-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.

