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

3 1/2 Digit LCD/LED, Low Power Display, A/D Converters with Overrange Recovery

Features

- First Reading Overrange Recovery in One Conversion Period
- Guaranteed Zero Reading for 0V Input on All Scales
- True Polarity at Zero for Precise Null Detection
- 1pA Typical Input Current
- True Differential Input and Reference, Direct Display Drive
 - LCD ICL7136
 - LED ICL7137
- Low Noise - Less Than 15µV_{p-p}
- On Chip Clock and Reference
- No Additional Active Circuits Required
- Low Power - Less Than 1mW
- Surface Mount Package Available
- Drop-in Replacement for ICL7126, No Changes Needed

Ordering Information

PART NUMBER	TEMP. RANGE (°C)	PACKAGE	PKG. NO.
ICL7136CPL	0 to 70	40 Ld PDIP	E40.6
ICL7136RCPL	0 to 70	40 Ld PDIP (Note)	E40.6
ICL7136CM44	0 to 70	44 Ld MQFP	Q44.10x10
ICL7137CPL	0 to 70	40 Ld PDIP	E40.6
ICL7137RCPL	0 to 70	40 Ld PDIP (Note)	E40.6
ICL7137CM44	0 to 70	44 Ld MQFP	Q44.10x10

NOTE: "R" indicates device with reversed leads.

Description

The Harris ICL7136 and ICL7137 are high performance, low power 3 1/2 digit, A/D converters. Included are seven segment decoders, display drivers, a reference, and a clock. The ICL7136 is designed to interface with a liquid crystal display (LCD) and includes a multiplexed backplane drive; the ICL7137 will directly drive an instrument size, light emitting diode (LED) display.

The ICL7136 and ICL7137 bring together a combination of high accuracy, versatility, and true economy. It features auto-zero to less than 10µV, zero drift of less than 1µV/°C, input bias current of 10pA (Max), and rollover error of less than one count. True differential inputs and reference are useful in all systems, but give the designer an uncommon advantage when measuring load cells, strain gauges and other bridge type transducers. Finally, the true economy of single power supply operation (ICL7136), enables a high performance panel meter to be built with the addition of only 10 passive components and a display.

The ICL7136 and ICL7137 are improved versions of the ICL7126, eliminating the overrange hangover and hysteresis effects, and should be used in its place in all applications. It can also be used as a plug-in replacement for the ICL7106 in a wide variety of applications, changing only the passive components.

Pinouts

