



1.5Msps, 14-Bit ADC Simultaneously Samples 6 Differential Inputs

MILPITAS, CA – February 20, 2007 – Linear Technology Corporation introduces the LTC2351-14, a 1.5Msps low-power analog-to-digital converter (ADC) with six simultaneous sampling differential inputs. Operating from a single 3.3V supply, power dissipation is typically 16.5mW.

The LTC2351-14 features six individual sample-and-hold amplifiers, a multiplexer, and a single ADC, making this device the ideal choice for multiphase power measurement, multiphase motor control, data acquisition systems, and uninterrupted power supplies. Packaged in a 32-pin (5mm x 5mm) QFN, the LTC2351-14 allows the design of compact, battery-powered, and portable data acquisition systems.

When the LTC2351-14 is not converting, power dissipation can be further reduced to 4.5mW in Nap mode with the internal 2.5V reference remaining active, and to 12uW in Sleep mode, with all internal circuitry powered down. The internal 2.5V reference can be overdriven with an external reference, up to the analog supply voltage.

The LTC2351-14 uses three input-select lines to configure the number of differential inputs converted. Thus, higher speeds are possible, from one differential input at 1.5Msps to six differential inputs at 250ksps. The six conversion results are delivered sequentially to a high speed DSP serial port via a 3-wire interface. This ADC also features a separate digital output power supply pin and a bipolar/unipolar input line to select $\pm 1.25\text{V}$ bipolar or 0V to 2.5V unipolar input ranges.


For lower resolution applications, Linear Technology is also introducing the pin and code-compatible 12-bit LTC2351-12 ADC. Both the LTC2351-14 and LTC2351-12 are available in the commercial and industrial temperature ranges. Pricing begins at \$9.45 each for the LTC2351-14 and \$6.95 each for the LTC2351-12, in 1,000-piece quantities.

Photo Caption: 14-Bit, 6-Channel, 1.5Msps Simultaneous Sampling ADC**Summary of Features: LTC2351-14**

- 1.5Msps ADC with 6 Differential Simultaneously Sampling Inputs
- 250ksps Throughput Per Channel
- Low Power Dissipation:
 - Active Mode (16.5mW)
 - Nap Shutdown Mode (4.5mW)
 - Sleep Shutdown Mode (12uW)
- 3.3V Single Supply Operation
- 2.5V Internal Reference
- 75dB SINAD
- 0V to 2.5V Unipolar/ ± 1.25 V Bipolar Differential Input Range
- 3-Wire Serial Interface
- 83dB Common Mode Rejection Ratio at 100kHz
- 32-Pin (5mm x 5mm) QFN Package

About Linear Technology

Linear Technology Corporation, a manufacturer of high performance linear integrated circuits, was founded in 1981, became a public company in 1986 and joined the S&P 500 index of major public companies in 2000. Linear Technology products include high performance amplifiers, comparators, voltage references, monolithic filters, linear regulators, DC-DC converters, battery chargers, data converters, communications interface circuits, RF signal conditioning circuits, and many other analog functions. Applications for Linear Technology's high performance circuits include telecommunications, cellular telephones, networking products such as optical switches, notebook and desktop computers, computer peripherals, video/multimedia, industrial instrumentation, security monitoring devices, high-end consumer products such as digital cameras and MP3 players, complex medical devices, automotive electronics, factory automation, process control, and military and space systems. For more information, visit www.linear.com

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