

***LTC News for Immediate Release***

For more information, tel. 408-432-1900  
Doug Dickinson, Media Relations Mgr., ext. 2233  
John Hamburger, Dir., Mktg Comm., ext. 2419  
[www.linear.com](http://www.linear.com)

**Low-Power ADC Simultaneously Samples 6 Differential Inputs  
600ksps Serial ADC Operates from Single 3V Supply at 15mW**

MILPITAS, CA – April 6, 2006 – Linear Technology Corporation introduces the LTC1408, a low-power 14-bit 600ksps analog-to-digital converter (ADC) with six simultaneous sampling differential inputs. This 3-wire serial ADC operates from a single 3V supply, with power dissipation typically 15mW. The LTC1408 is available in a 32-pin (5mm x 5mm) QFN package. With less than 1/10<sup>th</sup> the power consumption and 1/5<sup>th</sup> the package size of the nearest competitor, the LTC1408 allows the design of compact, battery-powered, and portable data acquisition systems. The six simultaneously sampled differential inputs make this device the ideal choice for multiphase power measurement, multiphase motor control, data acquisition systems, and uninterruptable power supplies.

When the LTC1408 is not converting, power dissipation can be further reduced to 3.3mW in Nap mode with the internal 2.5V reference remaining active, and to 6uW in Sleep mode, with all internal circuitry powered down. The internal reference can also be overdriven with an external reference, up to the analog supply voltage.

The LTC1408 uses three input-select lines to configure the number of differential inputs converted. Thus, higher speeds are possible, from one differential input at 600ksps to six differential inputs at 100ksps. 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 pin to select  $\pm 1.25\text{V}$  bipolar or 0V to 2.5V unipolar input ranges.

The LTC1408 is available in the commercial and industrial temperature ranges. Pricing begins at \$8.95 in 1,000-piece quantities.

## Summary of Features: LTC1408

- 600ksps Sampling ADC with 6 Simultaneous Differential Inputs
- 100ksps Throughput Per Channel
- Low Power Dissipation:
  - - Active Mode (15mW)
  - - NAP Shutdown Mode (3.3mW)
  - - SLEEP Shutdown Mode (6uW)
- 3V Single Supply Operation
- 76dB SINAD
- 0V to 2.5V Unipolar/ $\pm 1.25$ V Bipolar Differential Input Range
- 2.5V Internal Reference, Can Be Overdriven with External Reference
- 3-Wire Serial Interface
- 83dB Common Mode Rejection Ratio at 100kHz
- Tiny 32-Pin (5mm x 5mm) QFN Package

## Company Background

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](http://www.linear.com)

Contact:

Doug Dickinson, Media Relations Manager

**Linear Technology Corporation**

1630 McCarthy Boulevard


Milpitas, CA 95035-7417

[ddickinson@linear.com](mailto:ddickinson@linear.com)

408-432-1900

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