LTC News for Immediate Release
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Fully Differential 16-bit ADC Driver Guarantees Operation Down to 2.375V

MILPITAS, CA – July 12, 2005 – Linear Technology Corporation announces the LT1994, the latest fully differential amplifier for driving high-resolution analog-to-digital converters. With guaranteed operation down to 2.375V and rail-to-rail outputs, it is the industry's only differential amplifier that can directly drive 2.5V and 3V SAR ADCs without the need of a negative supply. Achieving –94dBc harmonic distortion at 1MHz and an extremely low voltage noise of 3nV/√Hz, the LT1994 provides the widest dynamic range on the lowest supply voltages.

"The trend toward lower voltage, single supply high performance analog-to-digital converters has created the need for differential amplifiers that can operate on a common supply rail without compromising performance," said Erik Soule, general manager of Linear Technology's signal conditioning product line, "the LT1994 addresses this need, providing customers with a true single supply solution for driving 16-bit ADCs."

Ideally suited for driving 14-bit to 16-bit ADCs such as the LTC1403A-1 and LTC1867L, the LT1994 is an excellent choice for general-purpose differential signal amplification, level shifting, single-ended to differential conversion and differential line driver/receiver applications in industrial, instrumentation and medical applications.

In addition to low noise and low distortion characteristics, the LT1994 is capable of sourcing and sinking up to 85mA. It draws approximately 14mA supply current and features a shutdown pin that reduces consumption to 300uA. The LT1994 is specified for operation from 2.375V to 12.6V. Available in commercial and industrial temperature grades, it is

offered in the MSOP-8 and DFN-8 packages. Pricing starts at $1.65 each in 1,000-piece quantities.

Summary of Features: LT1994

- Fully Differential Input/Output
- Wide Supply Range: 2.375V to 12.6V
- Rail-to-Rail Output Swing
- Low Noise: 3nV/√Hz
- Low Distortion: -94dBc (2Vp-p, 1MHz)
- Adjustable Output Common Mode Voltage
- GBW: 70MHz
- Slew Rate: 65V/us
- High Output Current: 85mA
- Supply Current: 14mA Typ
- Low Power Shutdown
- 8-pin MSOP or 3 X 3 DFN Packages

COMPANY BACKGROUND: Linear Technology Corporation was founded in 1981 as a manufacturer of high performance linear integrated circuits. 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.

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