

LTC News for Immediate Release

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**16-bit, 130Msps ADC Delivers 100dBc SFDR for High Performance
Receivers & Instrumentation**

**Fastest 16-Bit ADC Enables Leading Edge Development for Applications Demanding the
Highest Dynamic Range Specifications**

MILPITAS, CA – September 6, 2005 – A new 16-bit, 130Msps ADC (Analog-to-Digital Converter) by Linear Technology Corporation extends the company's leadership in high speed (ADCs) for the most demanding wideband, low noise, signal acquisition applications. The LTC2208 ADC addresses the key requirements for maximizing performance of high sensitivity receivers and data acquisition systems. The device's exceptional spurious free dynamic range (SFDR) performance of 100dBc, combined with 78dB signal to noise ratio (SNR), enable it to resolve low level signals in the presence of large interferers and blockers. The LTC2208 is the fastest 16-bit, high performance ADC on the market today.

The LTC2208 family innovates ADC technology for digital receivers by incorporating two unique features that simplify receiver design and improve system performance. The first is an internal transparent dither circuit that improves the ADC's spurious free dynamic range (SFDR) response well beyond 100dBc for low level input signals. The second feature is a digital output randomizer that dramatically reduces unwanted tones caused by digital feedback. The flexible digital outputs can be run as CMOS or LVDS.

The LTC2208 also features a programmable gain amplifier (PGA) front end that eases the ADC driver output power requirements when driving the lower input range of 1.5 Vp-p. This improves the distortion performance and power consumption of the driver with minimal impact on ADC noise performance.

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The LTC2208 packages an extensive feature set in a 9mm x 9mm QFN package delivering low power consumption at 1250mW without the need for heat sinking. Most importantly, both the power consumption and total solution size with integrated bypass capacitance are less than half that of the nearest competitor. Designed for ease of use, it requires only a single 3.3V supply for operation and comes with a clock duty cycle stabilizer for maintaining the ADC performance over varying duty cycles. The LTC2208 can accept high frequency, wide dynamic range signals, offering a wide analog input bandwidth of 700MHz.

The LTC2208 family includes speed grades of 130Msps, 105Msps, 80Msps, 65Msps, 40Msps, 25Msps and 10Msps all with superior SFDR and SNR performance. In addition to the 16-bit parts, 14-bit versions of this family will also be available. All devices are supported with demo boards for quick device evaluation. Samples and demo boards for the LTC2208 are available today, and production quantities in October for both commercial and industrial temperature grades and are competitively priced at \$65 each in 1,000-piece quantities.

The following table provides the entire LTC2208 product family. All parts can be ordered in optional lead free packages for RoHS compliance.


Part Number	Resolution	Speed	Power	Availability	Price (1k)
LTC2208	16-bit	130Msps	1250mW	Now	\$65.00
LTC2207	16-bit	105Msps	850mW	Oct	\$56.67
LTC2206	16-bit	80Msps	640mW	Oct	\$48.33
LTC2205	16-bit	65Msps	450mW	Oct	\$43.33
LTC2204	16-bit	40Msps	350mW	Oct	\$35.00
LTC2203	16-bit	25Msps	220mW	Oct	\$30.00
LTC2202	16-bit	10Msps	150mW	Oct	\$25.00
LTC2208-14	14-bit	130Msps	1250mW	Nov	\$55.00
LTC2207-14	14-bit	105Msps	850mW	Nov	\$45.00
LTC2206-14	14-bit	80Msps	640mW	Nov	\$33.00
LTC2205-14	14-bit	65Msps	450mW	Nov	\$28.00

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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READER SERVICE: Call toll-free 1-800-4-LINEAR (for literature only), or go to the company's web site: <http://www.linear.com>

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