LTC News for Immediate Release
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105Msps High Resolution, Low Power Dual ADCs Provide Migration Path for Software Defined Radios

MILPITAS, CA – December 1, 2005 – Linear Technology announces the LTC2284, a 14-bit 105Msps dual high speed ADC that delivers a flat SNR response of 72.2dB up to 70MHz, as well as SFDR of 88dB at baseband. The LTC2284 is the latest in a pin-compatible family of dual ADCs recognized for their low power, small solution size and excellent crosstalk specifications. These features, bundled with their high dynamic range performance, make these devices ideal for portable communications equipment and the latest generation of software defined radios.

The 10-bit LTC2280 and 12-bit LTC2282 105Msps dual ADCs accompany the LTC2284. Featuring a wide bandwidth sampling rate of 105Msps, these three dual ADCs expand an already extensive 3V family of 10-, 12- and 14-bit parts ranging from 10Msps up to 105Msps. Pin-compatibility offers designers more flexibility during product development and provides a fast and cost-effective upgrade path for existing designs. All three 105Msps ADCs have low power consumption of just 270mW per channel and very low crosstalk between channels of -110dB.

The LTC2284 low power family is packaged in a small 9mm x 9mm QFN package. The integrated bypass capacitance further reduces the overall solution size. The part provides the flexibility to choose between two input spans. The ADCs are optimized for undersampling of signals up to 140MHz and have a wide analog input bandwidth of 575MHz. For downconversion signal chains, Linear Technology recommends the LT5516 direct conversion quadrature demodulator and LT1993 low distortion, low noise ADC driver.

All three devices are supported with demo boards for quick device evaluation, which can be purchased online. The LTC2284, LTC2282 and LTC2280 are available today in production quantities in both commercial and industrial temperature grades and are competitively priced at $61.50, $34.50 and $11.25, respectively in 1,000-piece quantities.

In addition to the low power dual ADCs, Linear Technology offer an equivalent family of high performance single channel ADCs ranging up to 14-bit 125Msps, LTC2255. Nu Horizons offers a Virtual Lab tool at http://www.techonline.com/community/38647, where the Linear

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Technology LTC2249 14-bit, 80Msps single channel ADC can be evaluated interfaced to a Xilinx Spartan III FPGA.

The following provides an overview of the entire LTC2284 dual ADC product family. All parts can be ordered in optional lead-free packages for RoHS compliance. A table of the entire low power high speed product family can be found at: http://www.linear.com/designtools/hsadcs.jsp.

Part Number	Resolution	Speed	Power/Ch.	Price (1k)
LTC2284	**14-bit**	**105Msps**	**270mW**	**$61.50**
LTC2299	14-bit	80Msps	222mW	$37.50
LTC2298	14-bit	65Msps	205mW	$35.03
LTC2297	14-bit	40Msps	120mW	$27.38
LTC2296	14-bit	25Msps	75mW	$18.75
LTC2295	14-bit	10Msps	60mW	$17.00
LTC2282	**12-bit**	**105Msps**	**270mW**	$34.50
LTC2294	12-bit	80Msps	211mW	$25.05
LTC2293	12-bit	65Msps	205mW	$18.12
LTC2292	12-bit	40Msps	120mW	$11.88
LTC2291	12-bit	25Msps	75mW	$11.25
LTC2290	12-bit	10Msps	60mW	$11.25
LTC2280	**10-bit**	**105Msps**	**270mW**	$11.25
LTC2289	10-bit	80Msps	211mW	$10.05
LTC2288	10-bit	65Msps	205mW	$7.50
LTC2287	10-bit	40Msps	120mW	$7.20
LTC2286	10-bit	25Msps	75mW	$5.25

Summary of Features: LTC2284

- Sample Rate: 105Msps
- 10-bit, 12-bit, 14-bit Resolution
- 110dB Channel Isolation at 100MHz
- Wide Analog Input Bandwidth of 575MHz
- Single 3V Supply
- Low Power Dissipation: 540mW
- Flexible Input: 1Vp-p to 2Vp-p Range
- Optional Clock Duty Cycle Stabilizer
- 64-Pin, 9mm x 9mm QFN Package

About Linear Technology Corporation

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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