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Single/Dual, 14-Bit 250Msps ADC Family Provides High SFDR Undersampling Performance

MILPITAS, CA – March 7, 2011 – Linear Technology Corporation introduces a family of dual and single high IF sampling 14-bit, 170Msps, 210Msps and 250Msps analog-to-digital converters (ADCs) that maintain good SFDR performance at input frequencies up to 900MHz. The [LTC2152-14](#) and [LTC2157-14](#) are single and dual channel simultaneous sampling ADCs, respectively, offering double data rate (DDR) LVDS digital outputs. These ADCs are specifically designed to meet the needs of today's communications systems, where high undersampling capability reduces costs by eliminating downconversion stages.

Operating from a single 1.8V supply, the dual LTC2157-14 consumes 303mW per channel at 250Msps and offers signal to noise ratio (SNR) performance of 70dB and SFDR of 90dB at baseband with an easy-to-drive 1.5Vp-p input range. Pin-compatible speed grade options include 170Msps and 210Msps in 14-bit and 12-bit resolutions. Analog full power bandwidth of 1.25GHz and ultralow jitter of 0.15ps_{RMS} enables undersampling of IF frequencies with excellent noise performance.

Available in compact 9mm x 9mm (dual) and 6mm x 6mm (single) QFN packages, the ADCs are offered in commercial or industrial temperature grades. Demonstration boards and samples are immediately available. The 14-bit dual 250Msps LTC2157-14 is priced at \$131.57 each in 1,000-piece quantities. The complete product family can be found at:

www.linear.com/HSADC


Photo Caption: SFDR Performance vs Input Frequency

Summary of Features: LTC2152/LTC2157

- 14-bit/12-Bit, 170/210/250Msps Single/Dual ADCs
- 70dB SNR, 90dB SFDR (14-Bits)
- 605mW (303mW per Channel) at 250Msps
- 1.8V Single Supply Operation
- DDR LVDS Outputs
- Easy-to-Drive 1.5Vp-p Input Range
- 1.25GHz Full Power Bandwidth S/H
- Optional Clock Duty Cycle Stabilizer
- Low Power Sleep & Nap Modes
- Serial SPI Port for Configuration
- Easy Evaluation Using PScope™ Tool

About Linear Technology

Linear Technology Corporation, a member of the S&P 500, has been designing, manufacturing and marketing a broad line of high performance analog integrated circuits for major companies worldwide for three decades. The Company's products provide an essential bridge between our analog world and the digital electronics in communications, networking, industrial, automotive, computer, medical, instrumentation, consumer, and military and aerospace systems. Linear Technology produces power management, data conversion, signal conditioning, RF and interface ICs, and μ Module® subsystems.

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