

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

**Wide Dynamic Range Log Amplifier Enhances
Sensitivity of RF Power Measurements**

MILPITAS, CA – August 25, 2005 - A new high performance log detector from Linear Technology has superior sensitivity, allowing more accurate measurement of lower levels of RF and IF signals. The LT5537 has a wide operating frequency range from near DC to 1GHz. It features a measurement dynamic range of 90dB, enabling wide operating range for receivers in such applications as Automatic Gain Control (AGC) loops. Additionally the device offers exceptional accuracy over temperature, making it suitable for wireless basestations, access points, subscriber radios, and RF instrumentation subject to a wide range of environmental conditions.

The LT5537 incorporates a cascading chain of limiting amplifiers to provide a constant, linear 20mV/dB logarithmic detection function. Additionally, the device incorporates on-chip compensation circuitry to yield an accurate and stable output under varying temperature environments. The device can measure signals within an error of +/-1dB over the worst-case temperature extremes. Moreover, the device has superior sensitivity, capable of detecting RF signal levels as low as -82dBm, significantly better than comparably priced competitive parts. On the high side, the device can measure up to +12dBm input levels.

The LT5537 operates from a single supply voltage ranging from 2.7V to 5.25V. Typical operating current is 13.5mA. The device can be shut down by applying an external 0V into an ENBL pin. When disabled, the chip typically draws 500uA quiescent current to conserve power. The LT5537 is offered in an 8-lead 3mm x 2mm surface mount DFN package. The device requires fewer external components than alternative solutions, providing a compact, cost effective solution. It is priced at \$2.95 each in 1,000-piece quantities and is available from stock.

(more...)

Summary of Features: LT5537

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|-----------------------------|-----------------------|
| • Frequency Range | Low Frequency to 1GHz |
| • Dynamic Range | 90 dB |
| • Accurate Over Temperature | +/-1dB |
| • Sensitivity | - 82dBm |
| • Small Form Factor | 3mm x 2mm DFN 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

Contact:

Doug Dickinson, Media Relations Manager

Linear Technology Corporation

1630 McCarthy Boulevard


Milpitas, CA 95035-7417

ddickinson@linear.com

408-432-1900

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