

LTC News for Immediate Release

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High Accuracy 3GHz Log RF Detector Has 60dB Dynamic Range

MILPITAS, CA – August 31, 2004 – Linear Technology Corporation today introduces a new high performance logarithmic type RF detector, the LT5534 that can accurately detect RF signals up to 3GHz. It is designed for cellular basestation receivers and transmitters, subscriber radios, instrumentation applications, and other high performance transceivers, enabling accurate RF power control and RSSI measurement. The LT5534 has a log-linear transfer characteristic with a total dynamic range of 60dB. Its output is directly proportional to the logarithm of the average RF voltage input. The device has exceptional temperature stability. At 900MHz, the LT5534 provides repeatable measurement of RF power within +/- 1dB over a typical 50dB dynamic range, while spanning the temperature extremes of -40° C to 85° C. It has excellent sensitivity, detecting signals as small as -63dBm.

The LT5534 operates over a wide RF input frequency range, from 50MHz to 3GHz. Additionally, its output buffer has a 30MHz bandwidth that can track fast RF signal level transitions. It is capable of detecting full-scale RF changes with 38 ns delay. Internally, the chip contains temperature compensation circuitry that provides exceptionally stable and accurate measurements over the full range of temperature extremes.

The LT5534 operates from a single 2.7V to 5.25V supply, drawing a typical quiescent current of 7mA. The device is the first product offering this level of performance in a tiny, 6 lead 2mm x 2mm surface mount SC-70 package. The price in 1,000 piece quantities is \$4.50. The product is available from stock.

(more...)

Key Product Features:

- Wide Detection Frequency Range: 50MHz to 3GHz
- 60dB Log Linear Dynamic Range
- Exceptional Stability Over Temperature
- Low Power Consumption
- Small 2mm X 2mm Package

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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