



High Linearity Downconverting Mixer Covers 4-6GHz RF Frequency Range

MILPITAS, CA – March 28, 2012 – Linear Technology announces the [LTC5544](#), a 4GHz to 6GHz high dynamic range downconverting mixer. The LTC5544 mixer offers high linearity with 25.9dBm IIP3 (Input Third-Order Intercept), high conversion gain of 7.4dB owing to its integrated IF amplifier, and a noise figure of 11.3dB. These performance characteristics enable excellent dynamic range performance for both main receivers and digital pre-distortion receivers. Moreover, the LTC5544's RF input can withstand strong interference signals without significantly degrading its noise figure, thus preserving receiver sensitivity and enhancing robustness. The LTC5544 operates on a single 3.3V supply without compromising performance, while keeping power consumption to a minimum.

The LTC5544's 6GHz reach is ideally suited for wireless systems such as point-to-point broadband microwave links, 5GHz license-free band WiMAX radios, satellite receivers, radar systems, avionics, public safety radios and RF test systems.

The LTC5544 incorporates an on-chip integrated high gain IF amplifier capable of supporting IF frequencies up to 1GHz. Also integrated are an LO buffer along with two RF balun transformers. They enable the RF and LO inputs to operate single-ended and with 50Ω matching. The LO input requires only +2dBm drive level. These features simplify design and require fewer external components, resulting in a smaller solution size.


The LTC5544 operates on a single 3.3V supply, drawing 194mA of current. The LTC5544 has a power-down feature with 0.6μs turn-on and turn-off time, supporting Burst Mode[®] operation or TDD (time division duplexed) systems. When disabled, the device consumes a maximum of 500μA. The LTC5544 is offered in a 16-lead, 4mm x 4mm plastic QFN package and is available immediately from stock. Pricing starts at \$8.50 each in 1,000 pieces quantities. For more information, visit www.linear.com/product/LTC5544

Photo Caption: 6GHz High Linearity Downconverting Mixer**Summary of Features: LTC5544**

Parameters	LTC5544
Operating Frequency	4 – 6 GHz
Input IP3	25.9 dBm
Conversion Gain	7.4 dB
Noise Figure (NF)	11.3 dB
NF @ 5dBm Blocking	16.9dB
Power Consumption	640 mW

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, μ Module[®] subsystems, and wireless sensor network products. For more information, visit www.linear.com

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Press Contacts:**North America / Worldwide**

John Hamburger, Director Marketing
Communications
jhamburger@linear.com
Tel: 408-432-1900 ext 2419

Doug Dickinson, Media Relations Manager
ddickinson@linear.com
Tel: 408-432-1900 ext 2233

UK & Nordic

Alan Timmins
alan@ezwire.com
Tel: +44-1-252-629937