



**600mA ( $I_{SW}$ ), 2.2MHz Synchronous Boost Regulator with Output Disconnect and LDO in a 3mm x 3mm QFN**

MILPITAS, CA – February 14, 2008 – Linear Technology Corporation announces the LTC3537, a 2.2MHz, current mode synchronous boost DC/DC converter with integrated output disconnects plus an LDO. The LTC3537's boost converter's internal 600mA switches can deliver output voltages as high as 5.25V from an input voltage range of 0.68V at start-up (0.5V when running) to 5V, making it ideal for Li-Ion/Polymer or single/multicell alkaline/NiMH applications. The LTC3537 can deliver up to 100mA of continuous output current (at 3.3V) from a single alkaline cell or 300mA from a dual cell input. Synchronous rectification enables efficiencies of up to 94% while a 2.2MHz switching frequency minimizes the total solution footprint.

The second channel, a 100mA LDO, has an input range of 1.8V to 5.5V and can deliver outputs as low as 0.6V. It can be driven by either the input voltage source or the boost converter's output, providing design flexibility. The LDO channel's 100mV dropout voltage and 24db ripple rejection (@ $f_{SW}$ ) offer a compact and low noise secondary output.

With both channels in operation; the Burst Mode<sup>®</sup> operation or the Boost Channel lowers quiescent current to only 30uA, providing extended battery run-time in handheld applications. For lower noise operation, the Burst Mode feature can be disabled. Other features include Power Good indicators for both channels, a low battery comparator and thermal overload protection. The combination of its high switching frequency and 3mm x 3mm QFN package provides a very compact solution for dual rail handheld applications.

LTC3537EUD is available from stock in a 16-lead 3mm x 3mm QFN package. 1,000-piece pricing starts at \$2.40 each.

**Photo Caption:** 600mA, 2.2MHz Synchronous Step-Up with Output Disconnect

## Summary of Features: LTC3537

### High Efficiency Step-Up DC/DC Converter

- $V_{IN}$ : 0.68V to 5V,  $V_{OUT}$ : 1.5V to 5.25V
- $I_{OUT}$ : 100mA at 3.3V,  $V_{IN} > 0.8V$
- 2.2 MHz Fixed Frequency Operation
- Synchronous Rectifier with Output Disconnect
- Burst Mode Operation (Pin Selectable)

### Linear LDO Regulator


- $V_{IN}$ : 1.8V to 5.5V,  $V_{OUT}$ : 0.6V to 5.5V
- $I_{OUT}$ : 100mA
- 100mV Dropout Voltage at 50mA
- 24dB Ripple Rejection at  $f_{SW}$

### Combined

- Power Good Indicators
- Low-Battery Comparator
- $I_Q = 30\mu A$
- Low Profile 3mm x 3mm x 0.75mm Package

## About Linear Technology

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, uModule™ products, 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](http://www.linear.com).

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