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## **Triple Synchronous Step-Down DC/DC Converter Delivers Independent 800mA Outputs from a 3mm x 3mm QFN**


MILPITAS, CA – February 5, 2008 – Linear Technology announces the LTC3545, a triple channel, high efficiency, 2.25 MHz, synchronous buck regulator that delivers up to 800mA of output current from each channel from a 3mm x 3mm QFN package. Using a constant frequency, current mode architecture, the LTC3545 operates from an input voltage range of 2.25V to 5.5V, making it ideal for single cell Li-Ion/polymer, or multicell alkaline/NiCad/NiMH applications. It can generate output voltages as low as 0.6V, enabling it to power the latest generation of low voltage DSPs and microcontrollers. The LTC3545's 2.25MHz switching frequency enables the utilization of tiny, low cost ceramic capacitors and inductors less than 1mm in height. This, combined with a 3mm x 3mm QFN package, provides a very compact triple output solution for handheld applications.

The LTC3545's internal synchronous switches offer efficiencies as high as 95% while Burst Mode<sup>®</sup> operation minimizes quiescent current to only 58uA in no load conditions. For applications demanding the lowest possible noise, the LTC3545 can run in a pulse skipping mode to minimize output ripple. The LTC3545 offers Power Good indicators on two of its channels and is synchronizable to an external clock. The LTC3545-1 offers Power Good indicators on all three channels, but must always use Burst Mode operation. Both versions of the LTC3545 utilize low dropout 100% duty cycle operation to extend battery run-time. Each channel has independent enable pins, offering design flexibility.

The LTC3545EUD and LTC3545EUD-1 are both available from stock in 16-lead 3mm x 3mm QFN packages. Pricing starts at \$3.10 each in 1,000-piece quantities for both versions.


**Photo Caption:** Compact Triple 800mA per Channel Synchronous Step-Down DC/DC Converter

**Summary of Features: LTC3545/-1**

- Three 800mA Outputs
- High Efficiency: Up to 95%
- 2.25V to 5.5V Input Voltage Range
- Low Ripple (<20mVP-P) Burst Mode Operation,  $I_Q = 58\mu A$
- 2.25MHz Constant Frequency Operation 
- Synchronizable to External 1MHz to 3MHz Clock
- Power Good Indicators Ease Supply Sequencing
- 0.6V Reference Allows Low Output Voltages
- Current Mode Operation/Excellent Transient Response
- Low Profile 16-Lead 3mm x 3mm QFN 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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