

LTC News for Immediate Release

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**No R_{SENSE}^{TM} , Low EMI, Synchronous
DC/DC Controller in a 3mm x 3mm DFN**

MILPITAS, CA – August 16, 2005 – Linear Technology Corporation announces the LTC3809, a synchronous step-down controller with spread spectrum modulation in a 3mm x 3mm DFN-10 and MSOP-10. The device's constant frequency operation and current mode architecture with MOSFET V_{DS} sensing eliminates the need for a current sense resistor while delivering efficiencies as high as 95%. The LTC3809's input voltage range of 2.75V to 9.8V makes it ideal for single or dual Li-Ion or multi-cell iMH/NiCd/Alkaline applications as well as standard 3.3V and 5V inputs. The LTC3809 can be configured with Burst Mode[®] operation to operate with only 100uA of quiescent current.

For noise sensitive applications, Burst Mode operation can be inhibited with the SYNC/MODE pin to reduce noise and RF interference. The LTC3809 can also be externally synchronized or adjusted from 250kHz to 750kHz using its on-chip Phase Locked Loop. To further reduce EMI, the LTC3809 incorporates a user selectable spread spectrum frequency modulation technique. Other features include internal soft-start circuitry, a Power Good output voltage monitor, auxiliary winding regulation and output over-voltage protection.

The LTC3809EDD and LTC3809EMS8E are both available from stock in 3mm x 3mm DFN-10 and MSOP-10 packages, respectively. Pricing starts at \$2.50 each in 1,000-piece quantities.

(more...)

Summary of Features: LTC3809

- No Current Sense Resistor Required
- Selectable Spread Spectrum Frequency Modulation for Low Noise Operation
- Constant Frequency Current Mode Operation for Excellent Line and Load Transient Response
- True PLL for Frequency Locking or Adjustment (Frequency Range: 250kHz to 750kHz)
- Wide V_{IN} Range: 2.75V to 9.8V
- Wide V_{OUT} Range: 0.6V to V_{IN}
- 0.6V $\pm 1.5\%$ Reference
- Low Dropout Operation: 100% Duty Cycle
- Selectable Burst Mode/Pulse Skipping/Forced Continuous Operation
- Internal Soft-Start Circuitry
- Power Good Output Voltage Monitor
- Micropower Shutdown: $I_Q = 9\mu A$
- Tiny Thermally Enhanced Leadless (3mm x 3mm) DFN and 10-lead MSOP Packages

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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