

LTC News for Immediate Release

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**Low EMI, Low Noise DC/DC Controller with
On-Chip Spread Spectrum Modulation**

MILPITAS, CA – April 6, 2005 – Linear Technology Corporation introduces the LTC3808, a step-down synchronous DC/DC controller with integrated spread spectrum frequency modulation for systems requiring very low EMI and low noise power supply. The LTC3808 minimizes the need for EMI shields and filters by randomly varying the switching frequency from 460kHz to 635kHz, reducing the peak radiated and conducted noise of the DC/DC controller alternatively by more than 20dB when operating the LTC3808 at a constant switching frequency. The device provides two options: user-selectable 300kHz, 550kHz or 750kHz operating frequency or 250kHz to 750kHz phase-lock loop (PLL) operation. The LTC3808 is ideal for use in applications such as navigation systems, wireless LAN, data acquisition boards and industrial/military radio devices.

The LTC3808 converts input voltages of 2.75V to 9.8V to output voltages as low as 0.6V up to V_{IN} . The LTC3808 drives external complementary power MOSFETs with synchronous operation for high efficiency DC-to-DC conversion. The controller can deliver as much as 5A to the load while operating at 90% efficiency.

Although the LTC3808 features a current mode architecture, it improves efficiency and reduces system cost by eliminating the need for a sense resistor by sensing the voltage across the external MOSFETs. Another feature of the LTC3808 is its output voltage tracking for controlled supply ramps or the sequencing of multiple supplies. With low input voltage operation, low dropout and low supply current, the device is ideal for wireless battery powered devices.

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The LTC3808 is offered in two packages, a low profile (0.75mm) 4mm x 3mm DFN and a 16-lead SSOP. The device is rated for operation from -40°C to 85°C. Pricing starts at \$2.60 each for 1,000-piece quantities.

Summary of Features: LTC3808

- Spread Spectrum Modulation for Low EMI Operation
- PLL and Adjustable Fixed Frequency Operation
- Programmable Output Voltage Tracking
- Sense Resistor is Optional
- 0.6V \pm 1.5% Reference
- Internal Soft-Start

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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