

LTC News for Immediate Release

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**Dual Step-Down Synchronous DC/DC Controller
Suppresses EMI at its Source**

MILPITAS, CA – September 14, 2004 – Linear Technology Corporation introduces the LTC3736-1, a dual output 2-phase step-down synchronous DC/DC controller with integrated spread spectrum frequency modulation for very low EMI and noise emission. The LTC3736-1 minimizes the need for EMI shields and filters by randomly varying the switching frequency from 450kHz to 580kHz, significantly reducing the peak radiated and conducted noise on both the input and output of the DC/DC controller.

The LTC3736-1 addresses EMI issues in applications such as navigation systems, wireless LAN, data acquisition boards and industrial/military radio devices. The LTC3736-1 converts input voltages from 2.75V to 9.8V to output voltages as low as 0.6V up to V_{IN} . Each output can deliver as much as 6A to the load while operating at 90% efficiency.

The LTC3736-1 has two output channels and each drives external complementary power MOSFETs. Synchronous operation allows high efficiency operation. Although the LTC3736-1 features a current mode architecture, it improves efficiency and reduces system cost by eliminating the need for two sense resistors by sensing the voltage across the external MOSFETs. Another feature of the LTC3736-1 is its output voltage tracking for controlled supply ramps or sequencing of two supplies. With low input voltage operation, low dropout and low supply current, the device is ideal for wireless battery powered devices.

The LTC3736-1 is offered in two packages, a 4mmx4mm QFN and a 24-lead SSOP. The IC is rated for operation from -40°C to 85°C. Pricing starts at \$4.40 for 1,000-piece quantities.

(more...)

Summary of Features: LTC3736-1

- Spread Spectrum Operation Reduces EMI
- Output Voltage Tracking
- Dual, 2-Phase Operation for Low Input Ripple and Lower Input Capacitors
- Wide Input Voltage Range from 2.75V to 9.8V
- Precision 0.6V $\pm 1.5\%$ Voltage Reference
- Tiny, Low Profile QFN & Narrow SSOP 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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