60V DC/DC Controller Allows Frequency Adjustment to Optimize Efficiency and Size

MILPITAS, CA- April 11, 2006- Linear Technology Corporation introduces the LT3844, a 4V to 60V input range DC/DC controller with adjustable 100kHz to 500kHz switching frequency, which allows the power supply to be optimized for size and efficiency. At faster switching frequencies users can implement a smaller inductor and capacitors, and at slower frequencies they can optimize efficiency. For noise sensitive application, the LT3844 can be synchronized to an external clock from 100kHz to 600kHz. A versatile controller, the LT3844 can be used in several DC/DC topologies such as step-down, step-up, inverting and SEPIC (buck-boost). In addition, the output voltage can be adjusted over a wide range from 1.23V to 36V. Applications include automotive and heavy equipment systems with high voltage supplies, avionics and industrial power supplies.

The LT3844 is a current mode controller and drives an N-channel MOSFET. It maintains high efficiency at light loads with its Burst Mode® operation and 120uA quiescent current. Current mode operation provides fast line and load transient response as well as cycle-by-cycle over current protection. Additional system and IC protection features include short-circuit protection, adjustable soft-start, thermal shutdown and precision undervoltage lockout.
The LT3844 is offered in a 16-pin thermally enhanced TSSOP and is rated for -40°C to 125°C junction temperature operation. 1,000-piece pricing starts at $3.10 each.

**Photo Caption:** 60V 100kHz – 600kHz DC/DC Controller

**Summary of Features: LT3844**

- High Voltage Operation: Up to 60V
- Output Voltage Adjustable up to 36V
- 100kHz to 500kHz Adjustable Constant Frequency Operation
- Synchronization up to 600kHz
- Cycle-by-Cycle Current Limit Protection

**Company Background**

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, 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

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