

LTC News for Immediate Release

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**10V Synchronous Step-Up DC/DC Converter with Output Disconnect is
Ideal for Battery Back-up Applications**

MILPITAS, CA – May 17, 2004 – Linear Technology Corporation announces the LTC3459, a 10V synchronous boost DC/DC converter with onboard output disconnect and inrush current limiting packaged in a ThinSOT™. It operates from an input voltage of 1.5V to 5.5V, making it ideal for single cell Li-Ion, or multi-cell NiMH, alkaline applications, as well as more general-purpose fixed rail systems. It is well suited for “keep-alive” battery back-up systems that are required to deliver milliamps of current to rails as high as 9V when the main battery is being replaced. With a 5V input voltage, the LTC3459 can generate 8V at 30mA. Additional features including output disconnect, inrush current limiting and short circuit protection make it an excellent choice for back-up applications that require the main battery to be physically removed. The LTC3459 Burst Mode® operation uses only 10uA of quiescent current, maximizing battery run time. A constant off-time (COT) architecture enables the use of tiny low cost capacitors and inductor. The LTC3459’s ThinSOT package allows a compact solution footprint and profile (<1mm).

Although the LTC3459 is primarily intended for boost applications, it maintains regulation of V_{OUT} even when it is below V_{IN} (step-down configuration) at a slightly reduced efficiency. The LTC3459 offers Burst Mode operation with a fixed peak current, providing high conversion efficiency over a wide range of load currents. During start-up, inductor current is controlled, preventing the inrush surge current found in many boost converters. In shutdown, the output is disconnected from the input and quiescent current is reduced to <1uA. The LTC3459 is the ideal solution for applications that require up to 30mA of output current at voltages up to 10V with high efficiency and a very compact footprint. Pricing for the LTC3459 starts at \$1.95 each in 1,000-piece quantities.

(more...)

Summary of Features: LTC3459

- Small Solution Size
- >85% Efficiency Over Wide Load Range
- VIN Range: 1.5V to 5.5V
- 5V at 30mA from 3.3V Input
- 3.3V at 20mA from 2 AA Cell Input
- Burst Mode Operation
- Inrush Current Limiting
- Output Disconnect in Shutdown
- Ultralow Quiescent (10uA) and Shutdown (<1uA) Currents
- Low Profile (1mm) SOT-23 Package

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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