

LTC News for Immediate Release

For more information, tel. 408-432-1900
Doug Dickinson, Media Relations Mgr., ext. 2233
John Hamburger, Dir., Mktg Comm., ext. 2419
www.linear.com

**Standalone Monolithic Li-Ion Battery Charger
Delivers up to 2A in Compact 16mm² Package**

MILPITAS, CA – April 26, 2006 – Linear Technology Corporation introduces the LTC4001, a 2A capable, high efficiency switchmode battery charger for single-cell 4.2V Li-Ion/Li-Polymer batteries that minimizes heat dissipation without compromising board space. Standalone operation eliminates the need for an external microprocessor for charge termination. For safety and autonomous charge control, the LTC4001 includes features such as automatic shutdown, battery preconditioning, a thermistor input for temperature-qualified charging, remote sensing, end-of-charge indication and a programmable charge termination timer. The device is intended for 5V wall adapter input power and is suited for applications including handheld medical devices, handheld computers, charging docks and cradles, digital cameras and smart phones. It may also be used with current limited wall adapters for even further reduction in power dissipation.

The LTC4001's synchronously rectified, buck switching topology enables efficiencies as high as 90% @1.5A. Final float voltage accuracy is specified at $\pm 1\%$ with charge current accuracy of $\pm 10\%$. The LTC4001's high operating frequency of 1.5MHz and current mode architecture allow the use of small inductors and capacitors, minimizing noise and filtering needs. The LTC4001 automatically enters sleep mode, dropping the battery drain current to 5uA and increasing battery run time.

The LTC4001 is housed in a compact 16-lead, low-profile (0.75mm) 4mm x 4mm QFN package. It is guaranteed for operation from -40°C to 85°C . Pricing starts at \$2.20 each in 1,000-piece quantities.

(more...)

Summary of Features: LTC4001

- High Efficiency Current Mode PWM Switching Battery Charger
- Charge Current up to 2A
- 1.5MHz Switching Frequency Enables Small External Components
- Synchronous Rectification: High Efficiency up to 90%
- Input Supply Voltage Range: 4.0V to 5.5V
- Compatible with Current Limited Wall Adapters Down to 2.7V Input Voltage
- $\pm 1\%$ Charge Voltage Accuracy
- $\pm 10\%$ Charge Current Accuracy
- Automatic Recharge
- Programmable Charge Termination Timer
- Remote Sensing at Battery Terminals
- Compact, Low-Profile (0.75mm) 4mm x 4mm QFN-16 Package

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

Contact:

Doug Dickinson, Media Relations Manager

Linear Technology Corporation

1630 McCarthy Boulevard


Milpitas, CA 95035-7417

ddickinson@linear.com

408-432-1900

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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