

LTC News for Immediate Release

For more information, tel. 408-432-1900
Doug Dickinson, Media Relations Mgr., ext. 2233
www.linear.com

**1A Li-Ion Battery Charger and
100mA Linear Regulator in 9mm² Package**

MILPITAS, CA – November 15, 2004 – Linear Technology Corporation announces the LTC4063, a small standalone single-cell Li-Ion linear battery charger that also provides a regulated output voltage for system supply. The integrated low dropout (LDO) linear regulator can deliver up to 100mA and is adjustable from 1.2V to 4.2V. The LDO is powered from the battery and regulates the output voltage without interruption when the input supply (wall adapter or USB) is removed. The battery charger operates without the need for a microcontroller and can deliver up to 1A to a single-cell Li-Ion battery from an input voltage range of 4.3V to 8V. Moreover, the device's SmartStart™ feature prolongs battery life by minimizing the number of unnecessary charge cycles. To optimize thermal performance, the LTC4063 is housed in a low thermal resistance 3mm x 3mm DFN package and has a patented thermal regulation circuit for protection against overheating. The LTC4063's compact battery charger and voltage regulator solution is ideal for applications in PDAs, portable MP3 players, digital cameras and portable test/medical equipment.

The LTC4063 has a preset charge voltage of 4.2V with $\pm 0.5\%$ accuracy. It requires no external MOSFET, blocking diode or sense resistor. Charge current is adjustable with a resistor. With the LTC4063, the user has three choices of termination; program the timer, program the current, or rely on an external means such as a DSP or micro-controller. An output signal pin indicates the charge status. Moreover, the SmartStart is a recharge feature that monitors the battery voltage after the battery is fully charged and only starts recharging when the voltage drops below 4.1V, delaying the recharge cycle. This method is especially

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useful in prolonging battery life in end-devices that have to operate while attached to an input supply source.

The LTC4063 is offered in a 10-lead 3mm x 3mm DFN package and is rated for operation from -40°C to 85°C. 1,000-piece quantity price starts at \$2.10.

Summary of Features: LTC4063

- Charge Current Programmable up to 1A
- Integrated 100mA Adjustable Low Dropout Linear Regulator
- Charges 1-Cell Li-Ion Batteries from USB Port
- Thermal Regulation Maximizes Charging Rate Without the Risk of Overheating
- User Programmable Termination: Time, Current, External Signal
- SmartStart Prolongs Battery Life

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.

For more information, contact:

Doug Dickinson, Media Relations Manager

Linear Technology Corporation

1630 McCarthy Boulevard

Milpitas, CA 95035-7417

408-432-1900