

LTC News for Immediate Release

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**Standalone 950mA Li-Ion Battery Chargers
Automatically Select Between USB and AC Adapter Inputs**

MILPITAS, CA – August 23, 2005 – Linear Technology Corporation introduces the LTC4076 and LTC4077 standalone dual-input linear battery chargers. These devices charge single-cell Li-Ion batteries from wall adapter or USB power sources. The LTC4076 and LTC4077 use a constant-current/constant-voltage algorithm for charging, with charge current programmable up to 950mA from a wall adapter supply, or programmable up to 650mA from a USB supply while automatically sensing the presence of voltage at each input. The LTC4076 features programmable C/x charge current termination, while the LTC4077 offers fixed C/10 termination. The LTC4076 features a choice of fixed C or C/5 USB charge current for low-power USB operation (via the HPWR pin) and the LTC4077 offers programmable C or C/x low-power USB charge current (via the HPWR pin). Applications include PDAs, MP3 players, digital cameras, lightweight portable medical and test equipment and large color screen cell phones.

The LTC4076 and LTC4077 feature final float voltage accuracy of $\pm 0.6\%$ and are equipped with a patented thermal regulation scheme that maximizes the charging rate without the risk of overheating. The devices are extremely flexible with the following features programmable via a single resistor: wall adapter supply charge current, USB supply charge current and charge termination currents. As standalone chargers, they also feature trickle charge for battery pre-conditioning, undervoltage lockout, automatic recharge, a charge status indicator and “power present” status outputs to indicate the presence of wall adapter or USB power.

The LTC4076 and LTC4077 are offered in a low profile (0.75mm) 10-lead 3mm x 3mm DFN package. The total solution footprint is less than 25mm² since no external MOSFET, sense resistors or blocking diodes are required. To preserve battery energy, the

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LTC4076 and LTC4077 draw <6uA from the battery terminal in standby and <2uA in shutdown mode.

The LTC4076 and LTC4077 are rated for operation from -40°C to 85°C. 1,000-piece pricing begins at \$1.88 each.

Summary of Features: LTC4076 & LTC4077

- Charges Single Cell Li-Ion Batteries from Wall Adapter & USB Inputs
- Automatic Input Power Detection & Selection
- Standalone Charger in Low-Profile (0.75mm) 3mm x 3mm DFN Package
- Programmable Charge Current up to 950mA from Wall Adapter Input via Resistor
- Programmable USB Charge Current up to 650mA via Resistor
- Programmable C/x Charge Current Termination (LTC4076)
- Fixed C or C/5 USB Charge Current for Low-Power USB Operation (LTC4076)
- Fixed C/10 Charge Current Termination (LTC4077)
- Programmable C or C/x USB Charge Current for Low-Power USB Operation (LTC4077)
- Thermal Regulation Maximizes Charge Rate without Risk of Overheating
- No MOSFET, Sense Resistor or Blocking Diode Required

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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