

LTC News for Immediate Release

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**950mA Li-Ion Battery Chargers Automatically
Select Between USB or AC Adapter**

MILPITAS, CA – May 9, 2005 – Linear Technology Corporation introduces the LTC4075 and LTC4075X, standalone dual-input linear battery chargers that efficiently manage charging single-cell Li-Ion batteries from two separate power sources: a wall adapter and USB. Using a constant-current/constant-voltage algorithm, the chargers can deliver up to 950mA of charge current from a wall adapter supply, or up to 500mA of charge current from a USB supply while automatically sensing the presence of voltage at each input. The final float voltage accuracy is $\pm 0.6\%$ in either case. The LTC4075X disables the trickle charge function, benefiting systems requiring more charge current during low battery conditions. Applications include PDAs, MP3 players, lightweight portable medical and test equipment and large color screen cell phones.

The LTC4075/X is equipped with a patented thermal regulation scheme, which maximizes the charging rate without the risk of overheating. The device is extremely flexible as each of the following is programmable via a single resistor: wall adapter supply charge current, USB supply charge current and charge termination current. As a standalone charger, it also features 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 LTC4075/X is offered in a low profile (0.75mm) 10-lead 3mm x 3mm DFN package. The total solution footprint is less than 25mm^2 since no external MOSFET, sense resistor or blocking diode are required. To preserve battery energy, the LTC4075 draws $<6\mu\text{A}$ from the battery terminal in standby and $<2\mu\text{A}$ in shutdown mode.

The LTC4075/X is rated for operation from -40°C to 85°C . 1,000-piece pricing for the LTC4075/XEDD begins at \$1.88 each.

(more...)

Summary of Features: LTC4075

- Charges Single Cell Li-Ion Batteries from Wall Adapter & USB Inputs
- Automatic Input Power Detection & Selection
- Programmable Charge Current up to 950mA from Wall Adapter Input
- Standalone Charger in Low-Profile (0.75mm) 10-Lead 3mm x 3mm DFN Package
- 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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