

***LTC News for Immediate Release***

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**36V Low Loss PowerPath™ Controller Drives Large PFETs**

MILPITAS, CA – August 17, 2005– Linear Technology Corporation introduces the LTC4414, a robust “ideal diode” PowerPath controller for driving large PFETs with substantial gate capacitance. The LTC4414 permits low-loss OR-ing of multiple input DC power sources. Its 20mV forward voltage is at least 10x lower than that of a Schottky diode. As a result, the device increases efficiency by an order of magnitude, due to much lower power loss and less self-heating, in systems requiring automatic switching or load sharing between power sources. The LTC4414 is guaranteed to meet performance specifications over a wide range of user conditions including an ambient temperature range of -40°C to 125°C and operating voltage range of 3V to 36V. The LTC4414 also provides reverse battery, overcurrent and MOSFET protection circuitry in a small MSOP package. In addition, the device offers a digital control input and an open-drain status output pin to simplify interfacing to a microcontroller. Applications include systems that typically take power from multiple input sources, including high current power path switches, uninterruptible power supplies, backup battery systems, logic-controlled power switches and automotive and industrial systems.

Multiple LTC4414 devices can be used to enable switchover between multiple batteries or charging of multiple batteries from a single charger. The LTC4414 status pin (STAT) can be used to control a second P-channel MOSFET power switch so that both Schottky diodes are eliminated from the diode-OR circuit. The IC’s ultra low 30uA quiescent current is independent of the load current. In addition, the LTC4414 utilizes a strong gate drive for gate turn-on and turn-off times of 600us and 20us, respectively.

(more...)

The LTC4414 is offered in an 8-lead MSOP package. The 1,000-piece price starts at \$1.85 each.

### Summary of Features: LTC4414

- Designed Specifically to Drive Large  $Q_G$  PFETs
- Very Low Power Loss Replacement for Power Supply ORing Diodes
- 3.5V to 36V Voltage Range
- -40°C to +125°C Operating Temperature Range
- Minimal External Components (Single Input & Output Capacitors)
- Automatic Switching or Load Sharing Between DC Power Sources
- Low Quiescent Current (30uA)
- Reverse Battery Protection
- MOSFET Gate Protection Clamp
- Status Output (STAT pin) Conducting Input Source
- On/Off & Status Control (CTL) for Manual or Microcontroller Interface
- Space-Saving 8-Lead MSOP 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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