

***LTC News for Immediate Release***

For more information, tel. 408-432-1900  
Doug Dickinson, Media Relations Mgr., ext. 2233  
[www.linear.com](http://www.linear.com)

**Dual Ideal Diodes Deliver 2.6A, Occupy only 9mm<sup>2</sup>**

MILPITAS, CA – December 7, 2004 – Linear Technology Corporation introduces the LTC4413, a two-channel ideal diode designed to reduce heat, voltage drop and board space as well as preserve battery life. The device is ideal for applications requiring an ideal diode OR function for load sharing or automatic switchover between two input power sources. Equipped with several intelligent circuits, the LTC4413 has control access to each ideal diode - allowing for adjustment of the switchover voltage - and indicates whether the selected ideal diode is conducting. It also offers current limit and thermal protection as well as slow turn-off to protect against voltage spikes. A thermally enhanced 3mm x 3mm DFN package permits each channel to deliver up to 2.6A from an input supply ranging from 2.5V to 5.5V. With a low forward voltage of 80mV at 500mA and 210mV at 2A, and only 1uA of leakage current, the LTC4413 provides great improvement over discrete diode OR solutions. The LTC4413 is designed for use in handheld products, systems with a USB interface or backup battery.

The LTC4413 contains two 100mOhm P-channel MOSFETs. Quiescent current is less than 40uA for output currents up to 1A. If either of the output voltages exceeds their respective input voltages, that MOSFET is turned off and less than 1uA of reverse current will flow from OUT to IN. Maximum forward current in each MOSFET is limited to a constant 2.6A and internal thermal limiting circuits protect the part during fault conditions. A 9uA open-drain STAT pin indicates conduction status of the selected channel and can also be used to drive an external P-channel MOSFET to control a third alternate power source.

(more...)


The LTC4413 is rated for operation from -40°C to 85°C and is housed in a 10-lead 3mm x 3mm DFN. 1,000-piece pricing starts at \$2.15 each.

### Summary of Features: LTC4413

- 2-Channel Ideal Diode ORing or Load Sharing
- Low Loss Replacement for ORing Diodes
- Low Forward ON Resistance of 100mOhm at 3.6V
- Low Reverse Leakage Current
- Small Regulated Forward Voltage of 28mV

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.

READER SERVICE: Call toll-free 1-800-4-LINEAR (for literature only), or go to the company's web site: <http://www.linear.com>

**Note:** LT, LTC, and  are registered trademarks of Linear Technology Corp.