MILPITAS, CA – March 11, 2009 – Linear Technology Corporation announces the LTC3529, a 1.5MHz, current mode synchronous boost DC/DC converter with automatic overload fault detection. The device’s USB OTG - specific protection circuit includes a fault flag that can be programmed to either latchoff or restart after a timeout duration when the bus is overloaded. The LTC3529’s internal 1.5A switches can deliver up to 500mA of output current to a fixed 5V output from a single-cell Li-Ion battery. An input voltage range of 1.8V to 5.25V makes the LTC3529 ideal for Li-Ion/Polymer or multicell alkaline/NiCd/NiMH applications. Synchronous rectification enables efficiencies of up to 95%, providing extended battery run-time in handheld applications. The combination of a 2mm x 3mm DFN-8 package and a constant switching frequency of 1.5MHz minimize both inductor and capacitor sizes, providing a tiny solution footprint required in handheld applications.

The LTC3529 uses internal switches with an $R_{\text{DS(ON)}}$ of only 90mOhm (N-channel) and 120mOhm (P-channel) to deliver efficiencies as high as 95%. The output disconnect feature allows the output to be completely disconnected in shutdown and also limits the inrush of current during start-up, minimizing surge currents seen by the input supply. The LTC3529 will also regulate the output when the input voltage exceeds the output voltage. Additional features include anti-ringing control, short-circuit protection, soft-start and thermal protection.

LTC3529EDCB is available from stock in an 8-lead DFN package. 1,000-piece pricing starts at $2.05 each. For more information, visit www.linear.com.
Photo Caption: 1.5A, 1.5MHz Synchronous Boost Regulator Offers Output Disconnect & Automatic Fault Protection

Summary of Features: LTC3529

- Compact Solution for 5V USB On-The-Go VBUS Power
- 5V at 500mA from Single Li-Ion Cell
- Automatic Fault Detection
- High Efficiency: Up to 95%
- \( V_{IN} \) Range: 1.8V to 5.25V
- Fixed 5V Output
- Short Circuit Protection
- 1.5MHz Low Noise, Fixed Frequency PWM
- Inrush Current Limiting & Internal Soft-Start
- Output Disconnect
- <1μA Quiescent Current in Shutdown
- \( V_{IN} \) > \( V_{OUT} \) Operation
- 8-Lead, 2mm × 3mm DFN Package

About Linear Technology

Linear Technology Corporation, a manufacturer of high performance linear integrated circuits, was founded in 1981, became a public company in 1986 and joined the S&P 500 index of major public companies in 2000. 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, uModule™ products, 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.

LT, LTC, LTM, Burst Mode and \( \mathcal{L} \) are registered trademarks and uModule is a trademark of Linear Technology Corp. All other trademarks are the property of their respective owners.

Press Contacts:

John Hamburger, Director Marketing Communications
jhamburger@linear.com
Tel: 408-432-1900 ext 2419

Doug Dickinson, Media Relations Manager
ddickinson@linear.com
Tel: 408-432-1900 ext 2233