

LTC News for Immediate Release

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**750mA, 1.2MHz Synchronous Boost Regulator Offers Output Disconnect &
Reverse Battery Protection in a 3mm x 3mm DFN**

MILPITAS, CA – March 15, 2006 – Linear Technology Corporation announces the LTC3499/B, a 1.2MHz, current mode, synchronous boost DC/DC converter with true output disconnect, inrush current limiting and reverse battery protection. Its internal switches provide a 750mA current limit (min) and can deliver output voltages as high as 6V from an input voltage range of 1.8V to 5.5V, making it ideal for single cell Li-Ion and two or three dual cell alkaline/NiCd/NiMH applications. The LTC3499/B delivers up to 175mA of continuous output current (at 5V) from dual alkaline cells. Synchronous rectification enables efficiencies of up to 94% while Burst Mode[®] operation lowers quiescent current to only 20uA, providing maximum battery run-time in handheld applications. For applications that require the lowest noise possible, the LTC3499B features continuous switching at light loads. The combination of a DFN or MSOP package and a constant switching frequency of 750kHz minimize both inductor and capacitor sizes, providing a tiny solution footprint required in handheld applications.

The LTC3499/B uses internal switches with an $R_{DS(ON)}$ of only 0.45 Ohm (N-Channel) and 0.58 Ohm (P-Channel) to deliver efficiencies as high as 94%. Reverse battery protection protects both the IC and the load when battery polarity is reversed, while the true output disconnect feature allows the output to be completely discharged in shutdown. This also limits the inrush of current during start-up, minimizing surge currents seen by the input supply. Additional features include over-voltage protection, programmable soft-start, and thermal protection. For boost applications, requiring up to 175mA of output current, where reverse battery protection, a small solution size and low maximum battery run-time are defining factors, the LTC3499/B delivers an ideal solution.

LTC3499EDD and LTC3499EMS8 are available from stock in 8-lead DFN or MSOP packages, respectively. Both have 1,000-piece pricing starting at \$2.15 each. The “B” versions, LTC3499BEDD and LTC3499BEMS8, are also available from stock in 8-lead DFN or MSOP packages, respectively. 1,000-piece pricing starts at \$2.15 each.

Photo Caption: 750mA, 1.2MHz Synchronous Boost Regulator with Reverse Battery Protection

Summary of Features: LTC3499/B

- Reverse-Battery Protection for DC/DC Converter and Load
- High Efficiency: Up to 94%
- Generates 5V at 175mA from a 1.8V Input
- Operates from 1.8V to 5.5V Input Supply
- 2V to 6V Adjustable Output Voltage
- Inrush Current Controlled During Start-Up
- Output Disconnect in Shutdown
- Low Noise 1.2MHz PWM Operation
- Tiny External Components
- Automatic Burst Mode Operation (LTC3499)
- Continuous Switching at Light Loads (LTC3499/B)
- Overvoltage Protection
- 8-Lead (3mm x 3mm x 0.75mm) DFN and MSOP Packages

Company Background

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, 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. For more information, visit www.linear.com

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<http://www.linear.com>

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