



Dual 800mA & 400mA (I_{SW}), 2.2MHz Synchronous Boost Regulator with Output Disconnect in a 3mm x 3mm QFN

MILPITAS, CA – January 14, 2008 – Linear Technology Corporation announces the LTC3527/-1 dual output 2.2MHz, current mode, synchronous boost DC/DC converters with integrated output disconnect. Their internal 800mA and 400mA switches can deliver output voltages as high as 5.25V from an input voltage of 0.70V (0.5V when running), up to 5V, making them ideal for Li-Ion/Polymer or single-multicell alkaline/NiMH applications. The LTC3527/-1 can deliver up to 200mA and 100mA of continuous output current (at 3.3V) from a single alkaline cell or 400mA and 200mA from dual cells. Synchronous rectification enables efficiencies of up to 94% while Burst Mode operation lowers quiescent current to only 12uA, providing extended battery run-time in handheld applications. Selectable 1.2MHz or 2.2MHz operation provides a choice between the highest efficiency or smallest solution footprint. The combination of a 3mm x 3mm QFN-16 package and high switching frequency minimize both inductor and capacitor sizes, providing a tiny solution footprint required in handheld applications.

The LTC3527/-1's have the ability to regulate output voltage even when V_{IN} exceeds V_{OUT} , further extending battery run time. The output disconnect feature allows the outputs to be completely open in shutdown, whereas the LTC3527-1 actively discharges V_{OUT1} and V_{OUT2} when entering shutdown. Additionally, inrush current limiting minimizes input surge currents during start-up. Additional features include anti-ringing control, short-circuit protection and thermal protection. The LTC3527/-1 deliver an ideal solution for boost applications requiring dual boost channels with up to 400mA of output current and where a small solution size and high battery run-time are key factors.

LTC3527EUD and LTC3527EUD-1 are both available from stock in 16-lead QFN packages. 1,000-piece pricing starts at \$2.95 each.


Photo Caption: Dual 800mA/400mA Synchronous Boost Regulator

Summary of Features: LTC3527/-1:

- Dual 800mA/400mA, 2.2MHz Synchronous Boost Regulators with Output Disconnect
- Delivers 3.3V at 200mA/100mA from one Alkaline/ NiMH Cell, or 3.3V at 400mA/200mA from Two Cells
- Minimum V_{IN} Start-Up Voltage: 700mV
- 0.5V to 5V V_{IN} Range after Start-Up
- 1.6V to 5.25V V_{OUT} Range
- Output Disconnect in Shutdown
- $V_{IN} > V_{OUT}$ Operation
- 1.2MHz or 2.2MHz Operation
- 12uA Quiescent Current in Burst Mode® Operation
- Inrush Current Limiting and Soft-Start
- Logic-Controlled Shutdown ($< 1\mu A$)
- Quick V_{OUT} Discharge (LTC3527-1)
- 16-Lead, 0.75mm x 3mm x 3mm QFN 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. For more information, visit www.linear.com.

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