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Dual 550mA, 1MHz Synchronous Boost Regulator with Output Disconnect & Soft-Start in a 3mm x 3mm DFN

MILPITAS, CA – February 19, 2009 – Linear Technology Corporation announces the LTC3535, a dual-channel 1MHz, current mode synchronous boost DC/DC converter with integrated output disconnect and soft-start. The LTC3535's internal 550mA switches deliver output voltages as high as 5.25V from an input voltage range of 0.7V start-up, 0.5V when running to 5V, making it ideal for single- or multicell alkaline/NiMH as well as Li-Ion/Polymer applications. Each of the LTC3535's channels has its own power input and is completely independent, offering maximum design flexibility. For example, one channel can deliver up to 50mA of continuous output current at 3.3V while the other channel delivers up to 100mA at 1.8V to power a microcontroller from a single alkaline cell. The 1MHz switching frequency minimizes external component sizes while providing up to 94% efficiency. Combined with a compact 3mm x 3mm DFN-12 package, the LTC3535 dual channel boost provides the tiny and efficient solution footprint required in handheld applications.

Burst Mode[®] operation lowers quiescent current to only 18uA (both channels), providing extended battery run time in handheld applications. The LTC3535 is an ideal part for handheld dual boost applications in which small solution size and maximum battery run time are defining factors.


LTC3535EDD is available from stock in 12-lead 3mm x 3mm DFN package. 1,000-piece pricing starts at \$2.95 each. For more information, visit www.linear.com.

Summary of Features: LTC3535

- Two Independent Step-Up Converters
- Each Channel Delivers 3.3V at 100mA from a Single Alkaline/NiMH Cell or 3.3V at 200mA from Two Cells
- Minimum V_{IN} Start-Up Voltage: 680mV
- 1.5V to 5.25V V_{OUT} Range
- Up to 94% Efficiency
- Output Disconnect
- 1MHz Fixed Frequency Operation
- $V_{IN} > V_{OUT}$ Operation
- Integrated Soft-Start
- Current Mode Control with Internal Compensation
- Burst Mode[®] Operation with 9uA I_Q Each Channel
- Internal Synchronous Rectifier
- Logic Controlled Shutdown ($I_Q < 1\mu A$)
- Anti-Ring Control
- Low Profile (3mm x 3mm x 0.75mm) 12-Lead 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.

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