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No R_{SENSE} 60V Boost Controller Operates over a -40°C to 150°C Junction Temperature Range

MILPITAS, CA – April 6, 2011 – Linear Technology Corporation announces the H-grade version of the [LTC3872](#), a small footprint 550kHz fixed frequency step-up DC/DC controller that is specified over a -40°C to 150°C junction temperature range. The LTC3872 accepts a 2.5V to 9.8V input voltage range and can produce an output voltage as high as 60V without needing a sense resistor. By using a sense resistor, the output voltage is limited only by the external components. Capable of driving large N-channel MOSFETs, the LTC3872 can produce high peak output currents. When powered with a 5V bias voltage, the switch can go up to 60V, making it well suited for automotive, heavy equipment and industrial control applications.

The LTC3872 current-mode architecture provides cycle-by-cycle current limiting and excellent transient response. Pulse skipping operation at light loads reduces the quiescent current to 250uA which helps extend the run-time in the battery-powered applications during standby mode. Additional features include an internal soft start, adjustable current limit, precision undervoltage lockout and tight $\pm 1.6\%$ reference voltage accuracy over the full -40°C to 150°C operating temperature range.

The LTC3872H is offered in a thermally enhanced 2mm x 3mm DFN-8 package and 8-lead ThinSOT™ package. 1,000-piece pricing starts at \$2.35 each. For more information, visit www.linear.com/product/LTC3872


Photo Caption: -40°C to 150°C Operating Temperature Boost Controller

Summary of Features: LTC3872H

- V_{OUT} up to 60V without Sense Resistor
- V_{IN} Range: 2.75V to 9.8V
- Constant Frequency 550kHz Operation
- Adjustable Current Limit
- Pulse Skipping at Light Load
- Internal Soft-Start & Optional External Soft-Start
- ±1.6% Reference Voltage Accuracy
- Current-Mode Control
- Thermally Enhanced 2mm x 3mm DFN-8 & ThinSOT™ Packages

About Linear Technology

Linear Technology Corporation, a member of the S&P 500, has been designing, manufacturing and marketing a broad line of high performance analog integrated circuits for major companies worldwide for three decades. The Company's products provide an essential bridge between our analog world and the digital electronics in communications, networking, industrial, automotive, computer, medical, instrumentation, consumer, and military and aerospace systems. Linear Technology produces power management, data conversion, signal conditioning, RF and interface ICs, and µModule® subsystems.

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