

LTC News for Immediate Release

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**60V_{IN}, 3A Step-Down Switching Regulator
with 100uA Quiescent Current**

MILPITAS, CA – December 13, 2004 – Linear Technology Corporation announces the LT3434EFE, a high voltage, Burst Mode[®] step-down switching regulator that maintains quiescent current under 100uA. The LT3434 operates within a V_{IN} range of 3.3V to 60V, making it ideal for load dump and cold-crank conditions found in automotive applications. Its 3A internal switch can deliver up to 2.75A of continuous output current at voltages as low as 1.25V. The LT3434 is Linear Technology's first 3A, high voltage switching regulator to offer Burst Mode operation. Its ultra-low quiescent current makes it well suited for automotive applications, which utilize "always-on" systems, which can impact battery charge life. The combination of its thermally enhanced TSSOP package and a 200kHz switching frequency keeps external inductors and capacitors small and provides a very compact, thermally efficient solution footprint.

The LT3434 utilizes a high efficiency 3A, 0.1Ohm switch, with all necessary oscillator, control and logic circuitry integrated into a single chip. Special design techniques and a new high voltage process enable high efficiency over a wide input voltage range and its current mode topology enables fast transient response and excellent loop stability. Efficiency is also optimized over a wide output current range by employing Burst Mode operation at low currents, utilizing the output to bias internal circuitry and using a supply boost capacitor to fully saturate the power switch.

The LT3434 is offered in both E-grade and I-grade options. The E-grade allows operation from -40°C to 125°C and is assured by design. The I-grade is tested and guaranteed to operate over this full operating junction temperature range.

The LT3434 is priced at \$5.25 each in 1,000-piece quantities. The LT3434IFE starts at \$6.05 each in 1,000-piece quantities.

(more...)

Summary of Features: LT3434EFE

- Wide Input Voltage Range: 3.3V to 60V
- 3A Peak Switch Current
- Burst Mode Operation: $I_Q=100\mu A$, $I_{SD}<1\mu A$
- Constant 200kHz Switching Frequency
- Power Good Flag with Programmable Threshold
- Load Dump Protection
- Peak Switch Current Maintained over Full Duty Cycle
- Saturating Switch Design: 0.1Ohm
- 1.25V Feedback Reference Voltage
- TSSOP-16E Thermally Enhanced Package

COMPANY BACKGROUND: Linear Technology Corporation was founded in 1981 as a manufacturer of high performance linear integrated circuits. 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.

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READER SERVICE: Call toll-free 1-800-4-LINEAR (for literature only).

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