

LTC News for Immediate Release

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**60V, 500kHz Step-Down DC/DC Converter with
Quiescent Current of Only 100uA**

MILPITAS, CA – September 20, 2004 – Linear Technology Corporation announces the LT1977, a high voltage, 500kHz step-down switching regulator with Burst Mode[®] operation to keep quiescent current under 100uA. The LT1977 operates within a V_{IN} range of 3.3V to 60V, making it compatible with load dump or cold-crank conditions in automotive applications. Its 1.5A internal switch can deliver up to 1.25A of continuous output current at voltages as low as 1.25V.

The LT1977 is the latest addition to Linear Technology's growing family of high voltage switching regulators featuring Burst Mode operation. Its ultra-low quiescent current is well suited for applications such as automotive power systems, which demand always-on capability and optimum battery life. The combination of its thermally enhanced TSSOP package and 500kHz switching frequency keeps external inductors and capacitors small, ensuring a very compact footprint and optimum thermal management.

The LT1977 utilizes a high efficiency 60V, 1.5A 0.2 Ohm switch with the associated control and logic circuitry integrated into a single die. Proprietary design techniques and a new high voltage process enable high efficiency over a wide input voltage range, while its current mode topology enables fast transient response and excellent loop stability. Efficiency is optimized over a wide output current range by employing Burst Mode operation at low currents, utilizing the output to bias the internal circuitry and a supply boost capacitor to fully saturate the power switch. Additional features include a power good flag with programmable threshold and time-out, as well as soft-start capability and thermal shutdown.

(more...)

The LT1977EFE pricing starts at \$4.00 each in 1,000-piece quantities. The LT1977IFE, which is tested and guaranteed to operate from a -40°C to 125°C operating junction temperature, is priced at \$4.60 each in 1,000-piece quantities. Both versions are available from stock.

Summary of Features: LT1977

- Wide Input Voltage Range: 3.3V to 60V
- 1.5A Peak Switch Current
- Burst Mode Operation: $I_Q=100\mu A$, $I_{SD}<1\mu A$
- Constant 500kHz Switching Frequency
- Power Good Flag with Programmable Threshold
- Load Dump Protection
- Peak Switch Current Maintained over Full Duty Cycle
- 1.25V Feedback Reference Voltage
- Thermally Enhanced TSSOP-16 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), or go to the company's web site: **<http://www.linear.com>**

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