

LTC News for Immediate Release

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Micropower Linear Regulator Withstands Up To 80V Input

MILPITAS, CA – February 18, 2003 – Linear Technology announces the LT3010, a high voltage micropower, low dropout regulator that can deliver up to 50mA of continuous output current. The LT3010 operates at input voltages from 3V to 80V, delivering output voltages as low as 1.25V. Its 80V input voltage capability makes it ideal for automotive applications, 48V telecomm backup supplies and industrial control applications. Low quiescent current of 30uA (operating) and 1uA (in shutdown), also make it an excellent choice for battery-powered “keep alive” systems that require optimum run time.

Output noise is minimized at only 100uV_{RMS} over a 10Hz to 100kHz bandwidth making it ideal for noise sensitive applications. For high voltage applications that require large input-to-output voltage differentials, the LT3010 offers a very compact solution. Its thermally enhanced MSOP-8 package offers thermal resistance equivalent to much larger conventional packages.

The LT3010 is able to operate with very small, low cost, ceramic output capacitors. It is stable with a 1uF output capacitor while most older devices require between 10uF and 100uF to maintain stability. These tiny external capacitors can be used without the necessary addition of series resistance as is common with many other regulators. Internal circuitry includes reverse-battery protection, current limiting, thermal limiting, and reverse current protection.

The LTC3010 is available with an adjustable output, or as a fixed 5V output. All versions are available from stock in a 8-lead thermally enhanced MSOP package. Pricing starts at \$1.55 each for 1,000-piece quantities.

(more...)

Summary of Features: LT3010

- 3V to 80V Input Voltage Range
- 50mA Output Current
- Low Dropout Voltage: 270mV
- Very Low Quiescent Current: Only 30uA
- Adjustable or Fixed 5V Output
- Stable with 1uF Ceramic Capacitors
- Reverse Battery Protection
- Low Shutdown Current <1uA
- Thermally Enhanced MSOP-8E Package

COMPANY BACKGROUND: Linear Technology Corporation was founded in 1981 as a manufacturer of high performance linear integrated circuits. Linear Technology products include operational, instrumentation and audio amplifiers; voltage regulators, power management devices, DC-DC converters and voltage references; comparators; monolithic filters; communications interface circuits; one-chip data acquisition sub-systems; pulse-width modulators and sample-and-hold devices; and high frequency devices.

Applications for Linear Technology's high performance circuits include wireless and broadband telecommunications infrastructure, cellular telephones, networking products and satellite systems, notebook and desk top computers, computer peripherals, video/multimedia, industrial and medical instrumentation, automotive electronics, factory automation, process control, military and space systems, and high-end consumer products including digital cameras, MP3 players and other electronic products.

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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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