

LTC News for Immediate Release

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**3A, 3.5MHz, 42V Converter Serves as Boost,
Buck-Boost or Buck High Current LED Driver**

MILPITAS, CA – May 31, 2005 – Linear Technology Corporation announces the LT3477, a current mode, fixed frequency DC/DC converter with dual rail-to-rail current sense amplifiers and an internal 3A, 42V switch. The LT3477 operates from an input voltage range of 2.5V to 25V, making it suitable for a wide variety of applications. It combines a traditional voltage feedback loop and two unique current feedback loops to operate as a constant current and a constant voltage source that is ideal for driving high current LEDs. Both inputs of the error amplifier are available to the user, allowing the LT3477 to be used as either a boost converter, SEPIC or an inverter. It can also be configured as a buck-boost mode or buck-mode LED driver, enabling it to operate in a wide array of applications, even those with fluctuating voltage inputs such as an automotive battery. In addition, its switching frequency can be programmed with a single resistor between 200kHz and 3.5MHz, enabling the designer to minimize external component sizes and avoid “noise critical” frequency bands in the system. A tiny low profile inductor and ceramic capacitors keep solution footprints very compact while minimizing solution cost.

The LT3477’s low V_{CESAT} Switch, 0.3V at 2.5A, operates at efficiencies of up to 91%. It features a programmable soft-start function to limit inductor current during start-up and inrush current protection to protect the LT3477 during shorts and line transients. The low profile (0.75mm) 4mm x 4mm QFN-20 package provides excellent thermal performance in a small footprint. The LT3477 is also available in a thermally enhanced 20-pin TSSOP package.

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The 4mm x 4mm QFN-20 version, the LT3477EUF, and the TSSOP-16E version, the LT3477EFE, are available from stock. Pricing for the LT3477EUF starts at \$3.15 each and \$3.30 each for the LT3477EFE in 1,000-piece quantities.

Summary of Features: LT3477

- Dual 100mV ($\pm 2.5\%$) Rail-to-Rail Current Sense Amplifiers
- Wide Input Voltage Range: 2.5V to 25V
- 3A, 42V Internal Switch
- High Efficiency Power Conversion: Up to 91%
- Drives LEDs in Buck-Mode, Buck-Boost Mode or Boost Mode
- Frequency Set by External Resistor: 200kHz to 3.5MHz
- Programmable Soft-Start
- Low VCESAT Switch: 0.3V at 2.5A
- Capable of Positive and Negative Output Voltages (Boost, Inverting, SEPIC, Flyback)
- Available in Thermally Enhanced 20-Lead (4mm x 4mm) QFN and 20-Lead TSSOP Packages

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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