

LTC News for Immediate Release

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**Inductorless Multi-Mode High Current LED Charge Pump
Delivers 1A of Current with Over 90% Efficiency**

MILPITAS, CA – December 1, 2004 – Linear Technology Corporation announces the LTC3216, a fractional charge pump, high current white LED driver that delivers up to 1A of LED current. Its high efficiency multi-mode architecture automatically switches between 1X, 1.5X or 2X boost modes by monitoring the voltage across the LED current source and switching modes only when I_{LED} dropout is detected. This enables the LTC3216 to maximize efficiency (up to 92%) throughout the entire Li-Ion operating range. A 900kHz switching frequency and a low external parts count (two flying capacitors, two programming resistors and two bypass capacitors at V_{IN} and CPO) provide a tiny footprint ideally suited for video and flash applications in camera phone and other portable lighting applications.

The LTC3216 employs built-in soft-start circuitry which prevents excessive inrush current during start-up. Independent high and low current settings for flash and torch/video modes respectively are programmed by two external resistors. Shutdown mode and current output levels are selected via two logic inputs. An ultralow dropout current source maintains accurate LED current as the input voltage approaches the LED forward voltage. The LTC3216 is available in a low profile (0.75mm), 3mm x 4mm 12-lead DFN package.

The LTC3216EDE is available from stock in a DFN-12 package. Pricing starts at \$2.00 each for 1,000-piece quantities.

(more...)

Summary of Features: LTC3216

- High Efficiency Operation: 1X, 1.5X or 2X Boost Modes with Automatic Mode Switching
- Ultralow Dropout I_{LED} Current Control
- Output Current up to 1A
- Low Noise Constant Frequency Operation
- Independent Low Current/High Current
- Programming and Enable Pins
- Tiny Application Circuit (All Components <1mm Profile)
- 3mm x 4mm 12-Lead DFN 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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