



Triple Output LED Driver Drives Up to 24 x 500mA LEDs & Offers 3,000:1 True Color PWM Dimming

MILPITAS, CA – May 24, 2007 – Linear Technology Corporation announces the LT3496, a 2MHz DC/DC converter designed to operate as a three-channel constant current LED driver. Each of the LT3496's three channels can drive up to eight 500mA LEDs in series, enabling it to drive up to 24 x 500mA LEDs at efficiencies up to 96%. All three channels are operated by an independent True Color PWM™ signal, enabling each to be dimmed independently to ratios as high as 3,000:1. A fixed frequency, current mode architecture ensures stable operation over a wide range of supply and output voltages. A frequency adjust pin enables the user to program the frequency between 330kHz and 2.1MHz to optimize efficiency while minimizing external component size. The LT3496's thermally enhanced 4mm x 5mm QFN package provides a highly compact solution footprint for 50W LED applications.

The LT3496 senses output current at the high side of the LED, enabling buck, buck-boost or boost configurations. With an external sense resistor, the user programs the output current range of each channel. Each of the three independent driver channels utilizes an internal 750mA, 45V NPN switch and has a built in gate driver for PMOS disconnect. Other features include open LED protection and thermal limiting.

The LT3496EUFD is available from stock in a thermally enhanced 28-lead 4mm x 5mm QFN package. 1,000-piece pricing starts at \$3.50 each and it is available from stock.

The LT3496IUFD is tested and guaranteed to operate from a -40°C to 125°C operating junction temperature, is priced at \$4.20 in 1,000-piece quantities and is available from stock.

Photo Caption: Triple LED Driver with 3,000 True Color Dimming

Summary of Features: LT3496

- True Color PWM Dimming Delivers up to 3000:1 Dimming Ratio
- Built-In Gate Driver for PMOS LED Disconnect
- Three Independent Driver Channels with 700mA, 45V Internal Switches
- Operates in Buck, Boost, Buck-Boost Modes
- CTRL Pin Accurately Sets LED Current Sense Threshold Over a Range of 10mV to 100mV
- Low Quiescent Current: 6mA in Active Mode
- <10uA in Shutdown Mode
- Adjustable Switching Frequency: 300kHz to 2.1MHz
- Open LED Protection
- Wide Input Voltage Range: 3V to 40V
- Surface Mount Components
- 28-Lead (4mm x 5mm) QFN Package

About Linear Technology

Linear Technology Corporation, a manufacturer of high performance linear integrated circuits, was founded in 1981, became a public company in 1986 and joined the S&P 500 index of major public companies in 2000. 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. For more information, visit www.linear.com

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