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Triple Output LED Driver Drives Up to 24 x 500mA LEDs & Offers a 150°C Maximum Junction Temperature

MILPITAS, CA – July 13, 2010 – Linear Technology announces the H-grade version of the [LT3496](#). The LT3496 is a 2MHz DC/DC converter designed to operate as a three-channel constant current LED driver. Each of the device'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%. The H-grade version operates up to a junction temperature of 150°C, compared to the E- and I-grade versions' 125°C maximum junction temperature. All electrical specifications are identical for the E-, I- and H-grade versions. The H-grade parts are tested and guaranteed to the maximum junction temperature of 150°C. They are ideal for automotive and industrial applications which are subjected to high ambient temperatures.

The LT3496 senses output current at the high side of the LED, enabling buck, buck-boost or boost configurations. Each channel is 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 LT3496HUF is available from stock in a 4mm x 5mm QFN-28 package. Pricing starts at \$4.45 each for 1,000 piece quantities. For more information, visit www.linear.com/pr/3496.


Photo Caption: Triple LED Driver with 3,000 True Color Dimming Offers a 150°C Maximum Junction Temperature

Summary of Features: LT3496H

- Maximum Junction Temperature of 150°C
- 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, uModule® products, 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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