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0A to 1A uModule LED Driver & Current Source Integrates All Circuitry & Protects LEDs

MILPITAS, CA – February 17, 2009 – Linear Technology Corporation introduces the LTM8040, the first of a new family of DC/DC uModule™ LED drivers that contains all the circuitry, including the inductor, in a compact 9mm x 15mm x 4.32mm surface mount package. Driving an LED string with the LTM8040 is as simple as adding the input capacitor and connecting the LED string. The LTM8040 can drive from 0A to 1A through a string of LEDs with $\pm 2\%$ accuracy at full load current. The device protects against an accidental open LED string with its output voltage clamp circuitry and against short-circuit incidents with a frequency foldback scheme. The LTM8040 has applications in 2-cell Li-Ion battery packs, rectified 12VAC and industrial 24V for LCD backlighting, portable lighting, and wide area lighting.

The LTM8040 can convert an input voltage range of 4V to 36V to a lower voltage ranging from 2.5V to 13V, suitable for driving a wide variety of color and white LEDs with different voltage-drops (V_D). The device also features both analog and True Color PWM™ dimming, allowing a 400:1 constant color dimming range. The LED current amplitude can be linearly controlled from 0A to 1A with a single resistor. The default switching frequency is 500kHz, which can be adjusted with a resistor for up to 2MHz operation.

The LTM8040 is housed in a 9mm x 15mm x 4.32mm land grid array (LGA) package and is offered in two temperature grades of 0°C to 125°C and -40°C to 125°C (internal package temperature). 1,000-piece pricing starts at \$7.45. For more information, visit www.linear.com.


Photo Caption: uModule LED Driver Protects LEDs

Summary of Features: LTM8040

- Complete 1A Step-Down Switching LED Driver & Current Source Circuit in a Single Package
- 4V to 36V Operating Input Range
- Precision LED Current Control from 0A to 1A
- Open LED & Short-Circuit Protection
- Less than 2uA Shut-Down Current
- Small Footprint, Low Profile 9mm x 15mm x 4.32mm LGA

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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Press Contacts:

John Hamburger, Director Marketing Communications
jhamburger@linear.com
Tel: 408-432-1900 ext 2419

Doug Dickinson, Media Relations Manager
ddickinson@linear.com
Tel: 408-432-1900 ext 2233