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## **36V 2.2MHz Buck LED Driver Powers 500mA LEDs from a 2mm x 3mm DFN**

MILPITAS, CA – June 16, 2008 – Linear Technology announces the LT3592, a 36V step-down DC/DC converter designed to operate as a constant current LED driver. Its internal 36V, 900mA switch enables it to drive up to six 500mA white LED in a single string from a 36V input for industrial and LED signage applications. It can also drive two 500mA LEDs from a 12V lead acid battery input for automotive applications. Series connection of the LEDs provides identical LED currents, resulting in uniform brightness and eliminating the need for ballast resistors. The LT3592's switching frequency can be adjusted from 400kHz to 2.2MHz via a single resistor. This enables designers to set the switching frequency above critical frequency bands such as AM radio while minimizing external component size. Offered in a 2mm x 3mm DFN-10 or MSOP-10 package, the LT3592 provides a very compact 500mA LED driving solution.

LED current levels of either 10% or 100% of the programmed value are selectable by driving the LT3592's BRIGHT pin. The LT3592 utilizes a fixed frequency, high side sense, current mode architecture which provides fast transient response and cycle-by-cycle current limiting. Other features include: shorted and open LED protection, single wire LED capability and thermal shutdown.

The LT3592EDDB and LT3592EMSE are both available from stock in 2mm x 3mm DFN-10 or MSOP-10E packages, respectively, priced starting at \$1.65 each and \$1.75, respectively, in 1,000-piece quantities. For applications requiring a wider temperature range, I-grade versions, namely the LT3592IDDB and LT3592IMSE, are also available from stock. 1, 000-piece pricing starts at \$1.90 each and \$2.01, respectively.


**Photo Caption:** 36V, 500mA Buck Mode LED Driver in 2mm x 3mm DFN Package

### Summary of Features: LT3592

- Wide Input Voltage Range: Operation from 3.6V to 36V
- Resistor Adjustable 400kHz to 2.2MHz Switching Frequency
- Shorted & Open LED Protected
- Internal Switch Current Sense Resistor
- External Resistor Programs LED Current, Pin Selects 10:1 Ratio
- 50mA/500mA LED Current Settings
- Small Thermally Enhanced 10-Lead DFN (2mm x 3mm) & MSOP-10 Packages

### 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. For more information, visit [www.linear.com](http://www.linear.com).

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