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100V Input DC/DC Controller Generates Positive or Negative Regulated Output

MILPITAS, CA – August 4, 2009 – Linear Technology Corporation announces the LT3758, a high input voltage DC/DC controller for boost, flyback, SEPIC and inverting power supply applications, capable of generating either positive or negative regulated output voltages. The LT3758 has two voltage feedback error amplifiers and reference voltages. One set is for positive output voltages, the other is for negative output voltages, both off a single feedback pin, making the LT3758 a highly versatile DC/DC controller for many types of power supply designs.

The LT3758 operates from a wide input voltage range from 5.5V to 100V, which is ideal for surviving high input voltage transients. This device can achieve efficiencies up to 96% and is well suited for harsh industrial, automotive, medical and telecom applications. With a programmable fixed or synchronizable operating frequency from 100kHz to 1MHz, designers can choose a wide range of inductors and capacitors to optimize size, performance and cost. The fixed frequency, current-mode control results in stable operation over a wide range of supply and output voltages, along with all ceramic capacitor designs, enabling a smaller solution size.

The LT3758 drives an external N-channel MOSFET from an internally regulated 7.2V supply. Programmable soft-start enables control of the output voltage turn-on time. In addition, the LT3758 features a programmable input undervoltage lockout with hysteresis, along with output overvoltage and overcurrent protection.

The LT3758 is offered in thermally enhanced MSOP-10 and 3mm x 3mm DFN-10 packages, both with extended and industrial temperature ranges from -40°C to 125°C. The 1000-piece price starts at \$2.35 each. For more information, visit www.linear.com.


Photo Caption: High Voltage Boost, Flyback, SEPIC & Inverting Controller

Summary of Features: LT3758

- For Boost, Flyback, SEPIC & Inverting Applications
- Wide Input Operating Voltage: 5.5V to 100V
- Positive or Negative Output Voltage Setting with a Single Feedback Pin
- Selectable Fixed 100kHz to 1MHz Operating Frequency
- Synchronizable to an External Clock
- Programmable Soft Start
- Integrated Low-Side Driver
- True Current Mode Control
- Internal 7.2V Low Dropout Voltage Regulator
- Low Shutdown Current < 1uA
- Output Overvoltage & Overcurrent Protection
- Programmable Input Undervoltage Lockout with Hysteresis

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:

North America / Worldwide

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

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

UK & Nordic

Alan Timmins
alan@ezwire.com
Tel: +44-1-252-629937