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25V, 2.2A(I_{OUT}), 2.8MHz Step-Down DC/DC Converter in 3mm x 3mm DFN

MILPITAS, CA – October 17, 2007 – Linear Technology Corporation announces the LT1938, a 2.2A, 25V step-down switching regulator packaged in a 3mm x 3mm DFN. The LT1938 operates within a V_{IN} range of 3.6V to 25V, making it ideal for 12V and unregulated wall transformer inputs. Its 3.1A internal switch can deliver up to 2.2A of continuous output current at voltages as low as 1.265V. Switching frequency is user programmable from 300kHz to 2.8MHz, enabling the designer to optimize efficiency while avoiding critical noise-sensitive frequency bands. Its 3mm x 3mm DFN-10 package and high switching frequency, which keeps external capacitors and inductor small, provides a very compact, thermally efficient footprint.

The LT1938 utilizes a high efficiency 3.1A, 0.18 Ohm switch, with the necessary boost diode, oscillator, control and logic circuitry integrated into a single die. Special design techniques enable high efficiency over a wide input voltage range while its current mode topology enables fast transient response and excellent loop stability. Other features include, a power good flag and soft-start capability.

The LT1938EDD pricing starts at \$2.75 each and is available from stock.


Photo Caption: 25V, 2.2A Step-Down DC/DC Converter

Summary of Features: LT1938

- Wide Input Voltage Range: 3.6V to 25V
- 2.2A Maximum Output Current
- Adjustable Switching Frequency: 300kHz to 2.8MHz
- Low Shutdown Current: I_Q < 1uA
- Integrated Boost Diode
- Power Good Flag
- Saturating Switch Design: 0.18 Ohm On-Resistance
- 1.265V Feedback Reference Voltage
- Output Voltage: 1.265V to 20V
- Soft-Start Capability
- Small 10-Pin Thermally Enhanced (3mm x 3mm) DFN 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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