



36V, 2A(I_{OUT}), 500kHz Step-Down DC/DC Converter in 3mm x 3mm DFN

MILPITAS, CA – January 22, 2008 – Linear Technology Corporation announces the LT1912, a 2A, 36V step-down switching regulator packaged in a 3mm x 3mm DFN (or MSOP-10E). The LT1912's 3.6V to 36V input voltage range makes it ideal for load dump and cold-crank conditions found in automotive applications. Its 3.2A internal switch can deliver up to 2A of continuous output current to voltages as low as 0.79V. Switching frequency is user-programmable from 200kHz to 500kHz, optimizing efficiency while keeping external components small. The combination of its 3mm x 3mm DFN-10 package (or thermally enhanced MSOP-10E) and tiny externals provide a very compact, thermally efficient footprint.

The LT1912 utilizes a high efficiency 3.2A, 0.25Ohm switch, with the necessary boost diode, oscillator, control and logic circuitry integrated on-chip. Special design techniques and a new high voltage process enable high efficiency over a wide input voltage range while the LT1912's current mode topology enables fast transient response and excellent loop stability. Other features include external synchronization (from 250kHz to 500kHz), a power good flag and soft-start capability.


The LT1912EDD and LT1912EMSE are priced starting at \$2.95 each and \$3.05 each, respectively, for 1,000-piece quantities. The LT1912IDD and LT1912IMSE, tested and guaranteed to operate from a -40°C to 125°C operating junction temperature, are priced at \$3.54 and \$3.66 each, respectively in 1,000-piece quantities. All versions are available from stock.

Photo Caption: 36V, 2A (I_{OUT}) Step-Down DC/DC Converter**Summary of Features: LT1912**

- Wide Input Range: Operation From 3.6V to 36V
- 2A Maximum Output Current
- Adjustable Switching Frequency: 200kHz to 500kHz
- Low Shutdown Current: $I_{SD} < 1\mu A$
- Integrated Boost Diode
- Synchronizable Between 250kHz to 500kHz
- Saturating Switch Design: 0.25ohm On-Resistance
- 0.790V Feedback Reference Voltage
- Output Voltage: 0.79V to 20V
- Soft-Start Capability
- Small 10-Pin Thermally Enhanced MSOP & 3mm x 3mm DFN 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.

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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