

LTC News for Immediate Release

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**Synchronous Step-Down DC/DC Converter
Delivers up to 300mA in Just 4mm²**

MILPITAS, CA – January 20, 2006 – Linear Technology announces the LTC3410, a high efficiency, 2.25 MHz, synchronous buck regulator that can deliver up to 300mA of continuous output current from an SC70 package. Using a constant frequency and current mode architecture, the LTC3410 operates from an input voltage range of 2.5V to 5.5V making it ideal for single cell Li-Ion, or multi-cell alkaline/NiCd/NiMH applications. It can generate output voltages as low as 0.8V, allowing it to power the latest generation of low voltage DSPs and microcontrollers. Its 2.25MHz switching frequency enables the utilization of tiny, low cost ceramic capacitors and inductors less than 1mm profile, providing a very compact solution footprint for handheld applications.

The LTC3410 uses internal switches with an $R_{DS(ON)}$ of only 0.55 ohm (N-Channel) and 0.75 ohm (P-Channel) to deliver efficiencies as high as 96%. It also utilizes low dropout 100% duty cycle operation to allow output voltages equal to V_{IN} , further extending battery run-time. The LTC3410 utilizes Automatic Burst Mode[®] operation to offer only 26uA no load quiescent. For noise-sensitive applications, the LTC3410B provides a lower noise pulse-skipping mode, yet still needs only 200uA of quiescent current. Both parts maintain shutdown current of less than 1uA further maximizing battery runtime. Furthermore, both the LTC3410 and LTC3410B are stable with ceramic capacitors, achieving very low output voltage ripple. Other features include $\pm 2\%$ output voltage accuracy and over-temperature protection.

The LTC3410ESC6 and the LTC3410BESC6 are both available from stock in 6-Lead SC70 packages. Pricing starts at \$1.50 each for the LTC3410 and LTC3410B in 1,000-piece quantities.

(more...)

Summary of Features: LTC3410/B

- High Efficiency: Up to 96%
- Very Low Quiescent Current: Only 26uA (200uA for "B" Version)
- Low Output Voltage Ripple
- 2.5V to 5.5V Input Voltage Range
- 2.25MHz Constant Frequency Operation
- Low Dropout Operation: 100% Duty Cycle
- Stable with Ceramic Capacitors
- 0.8V Reference Allows Low Output Voltages
- Shutdown Mode Draws < 1uA Supply Current
- $\pm 2\%$ Output Voltage Accuracy
- Current Mode Operation for Excellent Line & Load Transient Response
- Over temperature Protected
- Available in Low Profile SC70 Package

About Linear Technology Corporation

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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