

LTC News for Immediate Release

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**4MHz, Synchronous Step-Down Regulator
Delivers 8A in Less than 350mm²**

MILPITAS, CA – March 17, 2005 – Linear Technology Corporation announces the LTC3418, a high efficiency, 4MHz, synchronous buck regulator using a constant frequency, current mode architecture. It can deliver up to 8A of continuous output current at voltages as low as 0.8V from a 5mm x 7mm QFN package. It operates from an input voltage of 2.25V to 5.5V, making it ideal for both single cell Li-Ion, or NiMH applications, as well as more general purpose 2.5V to 5V fixed rail systems. Its switching frequency of 4 MHz allows the utilization of tiny low cost capacitors and inductors with less than 1.5mm profile. High frequency operation also keeps switching noise out of critical wireless and xDSL frequency ranges, making it ideal for xDSL modem, cellular base station, and automotive applications.

The LTC3418 uses internal switches with an $R_{DS(ON)}$ of only 0.035 Ohm to deliver efficiencies as high as 95%, while also utilizing low dropout 100% duty cycle operation to allow output voltages equal to V_{IN} . It has an onboard tracking input, to provide easy power sequencing. No load quiescent current is only 380uA, and less than 1uA in shutdown, making it ideal for applications such as automotive power systems that require low standby currents. For noise sensitive applications, the SYNC/MODE pin can also be configured to skip pulses or provide forced continuous operation to reduce noise and RF interference. Additional features include a Power Good voltage monitor, external frequency synchronization capability, and thermal protection. The LTC3418 provides the optimum solution for applications requiring 8A of output current, and where a small solution size and high efficiency are the defining factors.

The LTC3418 is available from stock in a 38-lead, 5mm x 7mm QFN package. Pricing starts at \$6.75 each in 1,000-piece quantities.

(more...)

Summary of Features: LTC3418

- High Efficiency: Up to 95%
- I_{OUT} Up to 8A
- V_{IN} Range of 2.25V to 5.5V
- V_{OUT} Range of 0.8V- V_{IN}
- Tracking Input to Provide Easy Supply Sequencing
- Programmable Constant Frequency Operation: 300kHz to 4MHz
- $\pm 1\%$ Output Voltage Accuracy
- Low Dropout Operation: 100% Duty Cycle
- Power Good Output Voltage Monitor
- Over-temperature Protection
- 5mm x 7mm QFN-38 Package

COMPANY BACKGROUND: Linear Technology Corporation was founded in 1981 as a manufacturer of high performance linear integrated circuits. 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.

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READER SERVICE: Call toll-free 1-800-4-LINEAR (for literature only), or go to the company's web site: **<http://www.linear.com>**

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