

LTC News for Immediate Release

For more information, tel. 408-432-1900
Doug Dickinson, Media Relations Mgr., ext. 2233
John Hamburger, Dir., Mktg Comm., ext. 2419
www.linear.com

**4MHz, Synchronous Step-Down Regulator Delivers
3A from a 4mm x 4mm QFN**

MILPITAS, CA – November 30, 2005 – Linear Technology announces the LTC3412A, a high efficiency, 4MHz, synchronous buck regulator using a constant frequency, current mode architecture. It can deliver up to 3A of continuous output current at voltages as low as 0.8V from a 4mm x 4mm QFN (or a thermally enhanced TSSOP-16) 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 fixed rail systems. Its 4MHz switching frequency 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 modems, cellular base stations and automotive applications.

The LTC3412A uses internal switches with $R_{DS(ON)}$ s of only 0.065 Ohm and 0.077 Ohm to deliver efficiencies as high as 95%. It also utilizes low dropout 100% duty cycle operation to allow output voltages equal to V_{IN} . No load quiescent current is only 64uA, and less than 1uA in shutdown, making it ideal for applications such as automotive power systems that require ultra-low supply currents. For optimum efficiency at light loads, the LTC3412A utilizes selectable Burst Mode[®] operation to reduce gate charge losses. The current at which the Burst Mode operation initiates is user programmable, enabling the designer to optimize light load efficiency. If the application is noise sensitive, the SYNC/MODE pin can also be configured to provide forced continuous operation to reduce noise and RF interference. Additional features include a Power Good voltage monitor, external synchronization capability, and thermal protection. The LTC3412A is an ideal, for applications requiring 3A of output current, and where a small solution size and low supply current are critical.

The LTC3412A is available from stock in a QFN-16, or a 16-lead thermally enhanced TSSOP package. Pricing starts at \$4.10 each in 1,000-piece quantities.

(more...)

Summary of Features: LTC3412A

- High Efficiency: Up to 95%
- 3A Output Current
- Low Quiescent Current: 64uA
- Low RDS(ON) Internal Switch: 77m Ohm
- 2.25V to 5.5V Input Voltage Range
- Programmable Frequency: 300KHz to 4MHz
- $\pm 2\%$ Output Voltage Accuracy
- 0.8V Reference Allows Low Output Voltage
- Selectable Forced Continuous/Burst Mode Operation with Adjustable Burst Clamp
- Synchronizable Switching Frequency
- Low Dropout Operation: 100% Duty Cycle
- Power Good Output Voltage Monitor
- Overtemperature Protected
- Available in 16-Lead Exposed Pad TSSOP & QFN-16 Packages

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

Contact:
Doug Dickinson, Media Relations Manager

Linear Technology Corporation

1630 McCarthy Boulevard
Milpitas, CA 95035-7417

ddickinson@linear.com

408-432-1900

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

Note: LT, LTC, Burst Mode, and  are registered trademarks of Linear Technology Corp