

LTC News for Immediate Release

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**Dual Synchronous Step-Down DC/DC Converter Delivers
1.4A and 800mA from a 5mm x 3mm DFN**

MILPITAS, CA – November 29, 2005– Linear Technology announces the LTC3417, a dual output, high efficiency, 4 MHz, synchronous buck regulator that delivers up to 1.4A of continuous output current from one channel and up to 800mA from the second. Using a constant frequency and current mode architecture, the LTC3417 operates from an input voltage range of 2.25V to 5.5V, making it ideal for single cell Li-Ion, multi-cell Alkaline or NiMH applications. It can generate two independent output voltages as low as 0.6V, enabling it to power the latest generation of low voltage DSPs and microcontrollers. Its switching frequency of up to 4 MHz allows the utilization of tiny, low cost ceramic capacitors and inductors less than 2 mm in height. The combination of dual outputs, current mode architecture, tiny externals and a 5mm x 3mm DFN (or TSSOP-20E) package make the LTC3417 a very compact solution for a variety of applications.

The LTC3417 uses internal switches with an $R_{DS(ON)}$ of only 0.088 Ohm and 0.160 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} , further extending battery run-time. With Burst Mode[®] operation enabled, no load quiescent current is only 125uA (both channels), and <1uA in shutdown ensuring optimal battery life. If the application is noise sensitive, the user can disable Burst Mode, replacing it with a lower noise pulse-skipping mode. A phase mode pin enables the second channel to operate in-phase or 180 degrees out-of-phase with respect to channel 1. Out-of-phase operation produces lower RMS current at V_{IN} , thus lower RMS derating on the input capacitor. Other features include a power good output, internal soft-start and short-circuit protection.

The LTC3417EDHC is available from stock in a DFN-16 package, and the LTC3417EFE is available in a thermally enhanced TSSOP package. The LTC3417EDHC starts at \$3.35, for the LTC3417EFE \$3.55 each, both in 1,000-piece quantities.

(more...)

Summary of Features: LTC3417

- High Efficiency: Up to 95%
- 1.4A/800mA Output Current
- Programmable Frequency Operation: 1.5MHz or Adjustable From 0.6MHz to 4MHz
- Low RDS(ON) Internal Switches
- VIN: 2.25V to 5.5V
- Current Mode Operation for Excellent Line and Load Transient Response
- 125µA Quiescent Current
- Ultralow Shutdown Current: IQ < 1µA
- Low Dropout Operation: 100% Duty Cycle
- Power Good Output
- Phase Pin Selects 2nd Channel Phase Relationship with Respect to 1st Channel
- Available in Small Thermally Enhanced (5mm x 3mm) DFN and 20-Lead Thermally Enhance TSSOP 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

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<http://www.linear.com>

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