4A, 2MHz Dual Phase Boost Converter
Delivers 2 Amps in 3mm x 3mm DFN

MILPITAS, CA – October 6, 2004 – Linear Technology Corporation announces the LTC3428, a 2-phase, current mode boost converter capable of supplying 2A at 5V from a 3.3V input in a 3mm x 3mm DFN package. Its input voltage range of 1.6V to 4.5V is ideal for Li-Ion and multicell Alkaline/NiMH applications. External parts count and size are minimized by a 1MHz per phase switching frequency and a 2-phase design. Two phase operation significantly reduces peak inductor currents and capacitor ripple current, doubling the effective switching frequency and minimizing both inductor and capacitor size. External compensation allows the feedback loop response to be optimized for a particular application.

Two 93milliOhm, 2A N-channel MOSFET switches allow the LTC3428 to deliver high efficiency from input voltages as low as 1.6V. The device also features an active low shutdown pin to reduce supply current to below 1uA, internal soft-start, antiringing control and thermal shutdown. The LTC3428 is available in a low profile (0.75mm) 10-lead (3mm x 3mm) DFN package. The LTC3428EDD is available from stock in a (3mm x 3mm) DFN package. Pricing starts at $3.50 each for 1,000-piece quantities.
Summary of Features: LTC3428

- High Efficiency: Up to 92%
- 2-Phase Control Reduces Output Voltage Ripple
- 5V at 2A from 3.3V Input
- 3.3V at 1.5A from 1.8V Input
- 1.6V to 5.25V Adjustable Output Voltage
- 1.6V to 4.5V Input Range
- Internal Soft-Start Operation
- Low Shutdown Current: <1uA
- Uses Small Surface Mount Components
- 10-Pin 3mm x 3mm DFN 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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