

LTC News for Immediate Release

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**Dual 2-Phase, No R_{SENSE}^{TM} , Synchronous Controller with
Output Tracking**

MILPITAS, CA – November 22, 2005 – Linear Technology announces the LTC3736-2, a 2-phase dual synchronous step-down switching regulator controller with output tracking that drives a wide range of external power MOSFETs. Its 2.75V to 9.8V input range enables it to operate from a wide range of inputs, from single cell Li-Ion, multicell NiCd/NiMH, as well as fixed 5V inputs. It can deliver outputs as low as 0.6V. The LTC3736-2's constant frequency current mode architecture with MOSFET V_{DS} sensing eliminates the need for sense resistors while improving efficiency. By operating the two controllers out of phase, both power loss and noise due to the ESR of the input capacitance are minimized.

The LTC3736-2's switching frequency can be programmed up to 750kHz, allowing the use of small surface mount inductors and capacitors. For noise sensitive applications, the LTC3736-2 switching frequency can be externally synchronized from 250kHz to 850kHz utilizing a phase locked loop (PLL). Pulse skipping operation provides high efficiency at light loads while 100% duty cycle capability provides low dropout operation, extending operating time in battery-powered systems. Other features include an internal soft-start, Power Good Output voltage monitor and overvoltage protection.

The LTC3736EUF-2 is available from stock in a 4mm x 4mm QFN-24 package. Pricing starts at \$3.90 each for 1,000-piece quantities.

(more...)

Summary of Features: LTC3736-2

- No Current Sense Resistors Required
- Out-of-Phase Controllers Reduce Required Input Capacitance
- Output Tracking Function
- Wide VIN Range: 2.75V to 9.8V
- 0.6V \pm 1% Voltage Reference
- High Current Limit
- Constant Frequency Current Mode Operation
- Low Dropout Operation: 100% Duty Cycle
- True PLL for Frequency Locking or Adjustment
- Selectable Pulse Skipping/Forced Continuous Operation
- Auxiliary Winding Regulation
- Internal Soft-Start Circuitry
- Power Good Output Voltage Monitor
- Output Overvoltage Protection
- Micropower Shutdown: I_Q = 9 μ A
- Tiny Low Profile (4mm x 4mm) QFN 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 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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