

***LTC News for Immediate Release***

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**60V Current Mode Synchronous Step-Down Controller has  
On-board Start-up Regulator**

MILPITAS, CA – April 4, 2005 – Linear Technology Corporation introduces the LT3800, a current mode, high voltage step-down controller with excellent line and load regulation, along with fast transient response that operates without requiring an auxiliary DC/DC regulator for startup. An integrated regulator provides IC power directly from input supply. The LT3800 operates from 4V to 60V supplies and regulates output voltages ranging from 1.23V to 36V at load currents up to 10A. By driving N-channel MOSFETs synchronously with maximum gate-source “ON” voltage, this controller operates at 94% efficiency while converting 60V input to 12V at 36W output. Moreover, the LT3800 incorporates Burst Mode® operation, which reduces no load quiescent current to less than 100uA, a feature required in automotive maintenance power supplies. The LT3800 has applications in 12V and 42V automotive, 48V telecom supplies, avionic and industrial control systems.

The LT3800 operates at a 200kHz fixed frequency. The device employs a reverse-current inhibit feature to increase efficiency during light loads. This feature disables the synchronous switch if inductor current approaches zero. Another feature of the LT3800 is its adaptive nonoverlap control. Nonoverlap control maintains a constant dead time, preventing shoot-through switch currents, independent of the type, size or operating conditions of the external mosfet switches.

The LT3800 is offered in a 16-pin thermally enhanced TSSOP and is rated for operation from -40°C to 125°C. 1,000-piece pricing starts at \$3.10.

(more...)

## Summary of Features: LT3800

- Wide 4V to 60V Input Voltage Range
- Output Voltages up to 36V
- Adaptive Nonoverlap Circuitry Prevents Switch Shoot-Through
- Reverse Inductor Current Inhibit for Discontinuous Operation Improves Efficiency with Light Loads
- 100uA No Load Quiescent Current
- 200kHz Operating Frequency

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>

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