

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

**Wide Input Voltage (4V-60V), Step-Down Controller
Draws Only 40uA**

MILPITAS, CA – July 11, 2006 – Linear Technology Corporation introduces the LTC3824, a 4V to 60V input range, 100% duty cycle, low I_Q , adjustable switching frequency DC/DC current mode controller. This controller is ideal for automotive applications where the 4V minimum input voltage supports cold cranking and the 60V maximum input voltage survives inductive load dumps, without the need for external clamping circuits. The LTC3824 can be configured for Burst Mode[®] operation which significantly improves light load efficiency especially during system standby, where the quiescent current is reduced to 40uA. Typical shutdown current is 25uA.

The LTC3824 provides step-down solutions for applications that cover a broad range of inputs, from battery powered instruments to automotive applications. The LTC3824 drives an external P-channel MOSFET and can operate at 100% duty cycle for the lowest possible dropout voltage, allowing V_{OUT} to approach V_{IN} . Its current mode architecture provides fast line and load transient response as well as cycle-by-cycle overcurrent protection. Additional features include short-circuit protection, adjustable soft-start and overvoltage protection. The LTC3824 can be programmed to a fixed frequency from 100kHz to 600kHz or for noise sensitive requirements, can be synchronized to an external clock over the same range. In addition, the output voltage can be adjusted over a wide range from 0.8V to V_{IN} .

The LTC3824 is offered in a 10-pin thermally enhanced MSOP package. The operating temperature for the LTC3824EMSE is -40°C to 85°C and for the LTC3824IMSE is -40°C to 125°C. 1,000-piece price starts at \$1.95 each.

Photo Caption: 4V–60V 40uA, 100% Duty Cycle DC/DC Controller

Summary of Features: LTC3824

- 100% Duty Cycle for Low Dropout Voltage & to Extend Battery Life
- Wide V_{IN} Range (4V to 60V)
- Low I_Q - 40uA No Load Current for Always On Systems
- Defeatable Burst Mode Operation for Low Noise Requirements
- Current Mode Control
- 100kHz to 600kHz Adjustable Constant Frequency Operation
- Synchronizable up to 600kHz

About Linear Technology

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

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