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## **High Voltage, Low Quiescent Current Synchronous Step-Down DC/DC Controller Operates from -55°C to 125°C**

MILPITAS, CA – February 2, 2010 – Linear Technology Corporation announces a new high reliability (MP) grade version of the LT3845, a 4V to 60V input voltage range, low quiescent current synchronous step-down DC/DC controller. Its Burst Mode<sup>®</sup> operation keeps quiescent current under 120uA in no load standby conditions, useful for extending run time in battery-powered applications. The device's powerful onboard N-channel MOSFET gate drivers provide output current up to 20 amps at efficiencies as high as 95%, making it ideal for 12V and 24V automotive systems, industrial controls, heavy equipment, avionics and military systems.

The LT3845 can produce an output voltage from 1.23V to 36V. The switching frequency is programmable from 100kHz to 500kHz or can be synchronized to an external clock up to 600kHz. Current mode control provides fast line and load transient response, as well as cycle-by-cycle overcurrent protection. The onboard regulator provides IC power directly from the input supply without the need for a separate bias voltage. Other features include short-circuit protection, adjustable soft-start, thermal shutdown and precision input undervoltage lockout. The LT3845 employs adaptive nonoverlap control, which maintains a constant dead time, preventing shoot-through switch currents, independent of the type, size or operating conditions of the external MOSFET switches.

The LT3845MP operates and is 100% tested over a junction temperature range of -55°C to 125°C, compared to the I grade version's -40°C to 125°C operating temperature range. It is offered in 16-lead thermally enhanced TSSOP package. 1,000-piece price starts at \$10.65 each. For more information, visit [www.linear.com](http://www.linear.com).


## **Photo Caption: 60V Synchronous Step-Down DC/DC Controller**

### **Summary of Features: LT3845**

- Wide 4V to 60V Input Voltage Range
- Low 120uA Quiescent Current Extends Battery Run Time
- Output Voltages from 1.23V to 36V
- Up to 95% Efficiency
- Onboard N-Channel MOSFET Gate Drivers
- Integrated Onboard Regulator for IC Bias Voltage
- Current Mode Control
- Programmable Fixed Frequency from 100kHz to 500kHz
- Synchronizable up to 600kHz
- Adjustable Soft Start
- Adaptive Nonoverlap Circuitry Prevents Switch Shoot-Through

### **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, uModule<sup>®</sup> products, 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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