



Dual Output Synchronous DC/DC Controller Draws only 30uA in Automotive Systems

MILPITAS, CA – July 19, 2007 – Linear Technology Corporation introduces the LTC3826/-1, an ultralow quiescent current, 2-phase dual output synchronous step-down DC/DC controller. The LTC3826/-1 draws only 30uA when one output is active and only 50uA when both outputs are active, making it ideal for automotive applications, such as navigation systems, where one or both supplies remain active while the engine is off. With both outputs shut down, the LTC3826/-1 draws a mere 4uA. The LTC3826/-1's input supply range of 4V to 36V is wide enough both to protect against high input voltage transients and to continue operation during automotive cold crank. The LTC3826/-1 features a tight +/-1% reference voltage tolerance over the operating temperature range of -40°C to 85°C and can provide output voltages from 0.8V up to 10V, suitable for powering audio systems, analog tuners, and CD/DVD players in automobiles. Each output can deliver up to 20A of current at efficiencies as high as 95%.

The LTC3826/-1's constant frequency, current mode architecture provides excellent line and load regulation, and its 2-phase operation reduces input capacitance requirements. The LTC3826/-1 smoothly ramps each output voltage during startup using separate adjustable soft-start and tracking pins. It operates at a selectable frequency between 250kHz and 550kHz, and can be synchronized to an external clock from 140kHz to 650kHz using its phased-locked loop (PLL). In addition, the user can select from Burst Mode Operation, pulse skipping and continuous operation at light loads. There are two versions offered: the LTC3826 is the fully featured part with additional functions that include a clock out, phase modulation, two separate power good signals and a current limit foldback disable capability.

The LTC3826 is offered in 32-lead 5mm x 5mm QFN package, whereas the LTC3826-1 is housed in the 28-pin SSOP. Pricing for both parts in 1,000-piece quantities starts at \$5.38 each.

Photo Caption: Ultralow I_Q Dual Output Controller

Summary of Features: LTC3826/-1

- Ultralow Quiescent Current of 30uA with One Output Active & 50uA with Both Outputs Active
- Synchronous Constant Frequency Current Mode Operation
- Wide Input Voltage Range from 4V to 36V
- Selectable Burst Mode Operation, Pulse Skipping or Continuous Operation
- $\pm 1\%$ Voltage Reference Accuracy Over -40°C to 85°C
- Wide Output Voltage Range from 0.8V to 10V
- Adjustable or Phase-Lockable Operating Frequency
- Adjustable Soft-start/Tracking Input
- Output Overvoltage & Overcurrent Protection
- 4uA Shutdown Current

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

LT, LTC, LTM and  are registered trademarks of Linear Technology Corp.

Press Contacts:

John Hamburger, Director Marketing Communications
jhamburger@linear.com
Tel: 408-432-1900 ext 2419

Doug Dickinson, Media Relations Manager
ddickinson@linear.com
Tel: 408-432-1900 ext 2233