



Low Start-up Current Wide V_{IN} Range Current Mode Boost/Flyback/SEPIC DC/DC Controller

MILPITAS, CA – April 25, 2007 – Linear Technology Corporation introduces the LTC3873, a current mode, PWM controller that reduces the size and complexity of Flyback, Boost and SEPIC power supplies. This device contains all the features necessary to design high efficiency single-ended isolated and non-isolated flyback converters rated up to 25 watts for telecommunications, networking equipment, Power-over-Ethernet (POE), automotive, consumer and general housekeeping power supplies. The LTC3873 is ideal for wide input voltage range applications where the input can vary from 9V to 75V during start-up, it will sustain operation from 4V to 75V after start-up. This enables users to have one power supply for 48V, 24V and 12V nominal input systems.

The LTC3873-5 is a product version with a 3.9V under-voltage lockout, which allows converters to operate and start from a 5V input source up to 75V. This makes the part ideal for boost conversion from a 5V input source to 12V, 24V, 48V and higher output voltages.

A current sense resistor is optional and the current limit threshold is programmable, allowing the use of a wide variety of external MOSFETs for different topologies. The LTC3873/-5 can regulate output voltages as low as 0.8V and has an integrated soft-start function that limits inrush current, reducing output voltage overshoot. The operating frequency is fixed at 200kHz and constant frequency operation is maintained down to light loads, resulting in less low frequency noise generation over a wide range of load currents. With its ultra-low 50uA start-up current, the IC allows the use of a high-value input resistor and a low-value capacitor for low power dissipation and quick power supply start-up. With a standby quiescent current of only 300uA, the LTC3873 is an excellent choice for automotive applications.

The LTC3873 is offered in an 8-lead 2mm x 3mm DFN and 8-lead TSOT-23 packages and has an operating temperature range from -40°C to 85°C . The 1,000-piece price starts at \$1.25.


Photo Caption: Boost/Flyback/SEPIC DC/DC Controller

Summary of Features: LTC3873/-5

- 50uA Start up Current
- V_{IN} and V_{OUT} Limited Only by External Components
- Adjustable Current Limit
- Internal or External Soft Start
- Current Mode Control
- 200kHz Constant Frequency Operation
- Optional Current Sense Resistor

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

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