



Triple Output, 3-Phase Current Mode Step-Down Controller

MILPITAS, CA – January 9, 2007 – Linear Technology Corporation introduces the LTC3773, a triple output, 3-phase current mode synchronous step-down switching regulator controller with output voltage up/down tracking. This controller provides a complete power management solution for FPGA, DSP and other multi-supply applications.

The LTC3773 is composed of three independent synchronous buck regulator controllers. On-chip high-side and low-side synchronous rectifier drivers are integrated to drive N-channel MOSFETs from input voltages of 4V to 36V. The input ripple current is minimized by operating each controller 120 degrees out of phase, allowing a smaller input capacitor and inductor resulting in reduced power supply cost. The LTC3773 automatically adjusts from PWM mode to Burst Mode[®] operation to maintain high efficiency under light load conditions. In addition, two or all of the three outputs can be paralleled for higher current requirements.

This controller meets all the FPGA & DSP start-up profile requirements, including monotonic voltage ramp and minimum voltage rail rise time. Furthermore, the LTC3773 allows for coincident or ratiometric tracking. Independent Enables for each output allow sequencing to minimize demand on the power supply at start-up. Soft-start on each supply limits inrush current during start-up. All three supply voltages are offered in user-programmable options for maximum flexibility.

The LTC3773 is offered in a 36-Lead SSOP or a 38-Lead 5mm x 7mm QFN package and has an operating temperature range from -40°C to 85°C. The 1,000-piece price starts at \$3.95.


Photo Caption: 3-Phase DC/DC Controller

Summary of Features: LTC3773

- Triple Output, 3-Phase Operation
- Power Up/Down Tracking
- Highly Efficient at Light Loads with Burst Mode Operation
- Current Mode Control
- 200kHz to 600kHz PLL Fixed Frequency Operation
- Synchronizable up to 750kHz
- 1% Reference Accuracy

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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