



4A, 2.3V-5V DC/DC uModule™ Regulator Has Low 2.3mm Profile & Tiny 1.3cm² Footprint

MILPITAS, CA – June 18, 2007 – Linear Technology Corporation introduces a new DC/DC uModule regulator that operates from lower voltage input supplies and occupies only 1.35cm² of board area. The LTM4604 is the latest device in the LTM4600 family, and is a complete 4A regulator system with onboard controller, power switches, inductor and bypass capacitors enclosed and protected in an 9mm x 15mm LGA package. This DC/DC uModule regulator has a profile (height) of only 2.3mm and weighs a mere 0.86g. The device operates from an input supply range of 2.35V to 5.5V, regulates an output voltage from 0.8V to 5V, and achieves 93% efficiency when converting a 3.3V input to 2.5V output at up to 4A.

With a profile of only 2.3mm, the LTM4604 is specifically designed as a compact point-of-load DC/DC solution for applications requiring ultra-thin packaging such as RAID systems and single-board computers using PCI or PCI Express. Moreover, the compact size, low profile and light weight allow the LTM4604 to be mounted on the back side of a printed circuit board, freeing space on the top side for FPGAs, ASICs, memory and other ICs.

The LTM4604 is a complete, compact and high reliability DC/DC point-of-load solution for systems that need to step-down input supply rails such as 5V, 3.3V, 2.5V or Li-Ion battery with precise regulation and excellent thermal performance. The device features a current mode architecture for fast transient response, short-circuit protection and excellent line and load regulation. In addition, it offers output voltage tracking for controlled ramp-up/ramp-down and supply sequencing. Also included are a power-good output signal to indicate whether the output voltage is in or out of regulation and protection circuitry for short-circuit and overtemperature conditions.

The LTM4604 is rated for operation from -40°C to 85°C. The LTM4604 is RoHS compliant and like all Linear Technology DC/DC uModule regulators, can be assembled with a

standard surface mount reflow process with Pb-based or Pb-free solder paste, 1,000-piece pricing is \$8.95 each.

For a complete review of Linear Technology's uModule DC/DC regulator products, including the previously released 6A to 12A, 4.5V to 28V devices, visit www.linear.com/micromodule

Photo Caption: 2.3V_{IN} – 5.5V_{IN}, 4A uModule DC/DC Regulator

Summary of Features: LTM4604

- Complete Low Voltage DC/DC Power Supply System
- Tiny and Thin 9mm x 15mm x 2.3mm LGA
- 2.35V to 5.5V Input Voltage Range
- 0.8V to 5V Output
- 4A DC, 5A Peak Output Current
- Output Voltage Tracking

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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