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12A DC/DC High Reliability uModule Regulator with PLL & Tracking Operates from -55°C to 125°C

MILPITAS, CA – March 25, 2008 – Linear Technology Corporation introduces the LTM4601AHVMPV, a complete and encapsulated 12A switching uModule™ (micromodule) DC/DC regulator system featuring phase-lock loop and output tracking, designed for rugged military and avionics applications. The LTM4601AHVMPV is fully tested over the temperature range of -55°C to 125°C. This device is offered in a 15mm x 15mm x 2.8mm military plastic LGA (Land Grid Array) package and weighs only 1.7g. This compact LGA package has been qualified for high power DC/DC solutions because of its lower thermal impedance when compared to a similar size BGA (Ball Grid Array) packages. Comprised entirely of Linear Technology silicon and supported by our rigorous in-house testing, the LTM4601AHVMPV brings component-level reliability and industry-leading performance to demanding high reliability applications.

The LTM4601AHVMPV is a synchronous switchmode DC/DC step-down regulator with built-in inductor, supporting power components and compensation circuitry. The device operates from an input supply range of 4.5V to 28V and regulates an output voltage from 0.6V to 5V. This DC/DC uModule regulator can deliver 12A continuous load current (14A peak) or can be paralleled for current sharing up to 48A. It achieves efficiencies as high as 92%. A DC/DC uModule regulator such as the LTM4601AHVMPV simplifies power supply design and construction, requiring only input and output bulk capacitors and a resistor to set the output voltage.

The LTM4601AHVMPV DC/DC uModule regulator, LGA package allows for surface mount assembly and can be handled and assembled similar to any surface mount IC. Moreover, its low profile design permits the device to be soldered onto the back side of a printed circuit board, freeing valuable board space for sophisticated digital ICs. The LTM4601AHVMPV is self-protected against output overvoltage and short circuit conditions. 1,000-piece pricing starts at \$40.25 each.

For a complete review of Linear Technology's uModule DC/DC regulator systems visit
www.linear.com/micromodule

Photo Caption: High Reliability Plastic DC/DC uModule Regulator

Summary of Features: LTM4601AHVMPV

- Complete 12A DC/DC Power Supply System; Parallel up to 48A
- Tiny & Thin 15mmx 15mm x 2.8mm High Reliability Plastic LGA Package
- Tested over the -55°C to 125°C Operating Temperature Range
- Guaranteed Start-up at -55°C
- 4.5V to 28V Input Voltage Range; 0.6V to 5V Output

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™ 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. For more information, visit www.linear.com.

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