



News Release | www.linear.com

High Input Voltage DC/DC Controller for Step-Down, Step-Up, Inverting & SEPIC Topologies Operates from -55°C to 125°C

MILPITAS, CA – October 13, 2008 – Linear Technology Corporation announces a new high reliability (MP) grade version of the LT3724, a 60V (65V_(MAX)) low quiescent current (100uA) switching regulator DC/DC controller used in step-down, step-up, inverting and SEPIC topologies. The LT3724MP operates, and is 100% tested, over a junction temperature range of -55°C to 125°C, compared to the “I” grade version’s -40°C to 125°C operating temperature range. A power supply incorporating the LT3724 can convert a 4V to 60V input supply to a regulated output ranging from 1.23V to 36V in applications such as industrial, 12V and 42V automotive, heavy equipment, avionics and telecom power systems.

The LT3724 has a powerful on-board gate driver capable of slewing large N-channel MOSFETs quickly. It operates at a constant 200kHz switching frequency and safely powers a pre-biased load by not allowing negative currents to flow in the output inductor. Current mode control provides fast transient response, stable operation over a wide range of voltages, load currents, temperatures and capacitor values. Furthermore, the LT3724 has a high voltage on-board regulator to develop the IC bias voltage that can be back driven to increase efficiency. The operating efficiency when used as a step-down converter can be as high as 93%. Additional features include precision undervoltage lockout, 10µA shutdown current, programmable soft-start to control the turn-on time, a ±1.3% reference voltage accuracy over temp and thermal shutdown.

The LT3724MP is available from stock in a thermally enhanced 16-pin TSSOP with prices starting at \$5.94 each for 1,000 piece quantities.


Photo Caption: High Reliability, Multi-Topology DC/DC Controller

Summary of Features: LT3724MP

- V_{IN} Range from 4V to 60V
- Output Voltages to 36V
- Military Plastic Grade Operating Temp Range of -55°C to +125°C
- Step-up, Step-down, Inverting & SEPIC Topologies
- On Board Regulator for Internal Bias Voltage
- Strong On-Board N-Channel MOSFET Driver
- 100uA Quiescent Current
- 10uA Shutdown Current
- 200kHz fixed Operating Frequency
- Current Mode Control
- Programmable Soft-Start
- Thermal Shutdown
- Programmable Undervoltage Lockout
- $\pm 1.3\%$ Reference Voltage Accuracy over -55°C to +125°C

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.

LT, LTC, LTM and  are registered trademarks and uModule is a trademark of Linear Technology Corp. All other trademarks are the property of their respective owners.

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