



36V, 4A Synchronous Step-Down Regulator Now Offered in High Temperature “H” Grade & High Reliability “MP” Grade

MILPITAS, CA – October 12, 2011 – Linear Technology announces the high temperature (H-grade) and High Reliability (MP-grade) versions of the [LT3690](#). This 36V input capable, synchronous step-down switching regulator can deliver up to 4A of continuous output current at efficiencies as high as 93%. The LT3690 operates within a V_{IN} range of 3.9V to 36V, and offers transient protection to 60V, making it well suited for load dump and cold-crank conditions found in automotive applications. The LT3690’s Burst Mode[®] operation requires only 70 μ A of quiescent current, ideal for applications such as automotive or telecom systems, which demand always-on operation and optimum battery life. Switching frequency is user-programmable from 170kHz to 1.5MHz, enabling the designer to optimize efficiency while avoiding critical noise-sensitive frequency bands. The combination of its 4mm x 6mm QFN-26 package and high switching frequency keeps external inductors and capacitors small, providing a compact, thermally efficient footprint.

The H-grade version operates from -40°C to a junction temperature of 150°C, and is guaranteed and tested throughout this temperature range. Similarly, the MP-grade version operates from -55°C to a junction temperature of 150°C, and is guaranteed and tested throughout this temperature range. Electrical specifications for the H-grade and the MP-grade are identical to the E and I grades. They are ideal for automotive, industrial and military applications, which are subject to high ambient temperatures.

Both the LT3690HUFE and the LT3690MPUFE are available in 26-lead 4mm x 6mm QFN packages. Pricing starts at \$5.70 and \$14.70 each, respectively, for 1,000-piece quantities and are available from stock. For more information visit, www.linear.com/product/LT3690


Photo Caption: 36V, 4A (I_{OUT}), Synchronous Step-Down Switching Regulator

Summary of Features: LT3690HUFE & LT3690MPUFE

- High Temperature & Reliability Versions of 36V, 4A Synchronous Monolithic Step-Down Regulators
- Wide Input Range: Operation from 3.9V to 36V, Overvoltage Lockout Protects Circuits Through 60V Transients
- 4A Continuous Maximum Output Current
- Integrated 30mOhm N-Channel Synchronous Switch
- 70 μ A I_Q at 12V_{IN} to 3.3V_{OUT}
- Low Ripple Burst Mode[®] Operation Allows Output Ripple <15mV_{P-P}
- Programmable Input Undervoltage Lockout
- 0.8V Feedback Reference Voltage
- Output Voltage 0.8V to 20V
- Programmable & Synchronizable Oscillator (170kHz to 1.5MHz)
- Soft-Start-up & Output Voltage Tracking
- Short-Circuit Robust
- Power Good Flag
- Small Thermally Enhanced 4mm x 6mm QFN Package
- -55°C to 150°C Temperature Range-MP Grade
- -40°C to 150°C Temperature Range-H Grade

About Linear Technology

Linear Technology Corporation, a member of the S&P 500, has been designing, manufacturing and marketing a broad line of high performance analog integrated circuits for major companies worldwide for three decades. The Company's products provide an essential bridge between our analog world and the digital electronics in communications, networking, industrial, automotive, computer, medical, instrumentation, consumer, and military and aerospace systems. Linear Technology produces power management, data conversion, signal conditioning, RF and interface ICs, and μ Module[®] subsystems.

LT, LTC, LTM, μ Module, Burst Mode and  are registered trademarks of Linear Technology Corp. All other trademarks are the property of their respective owners.

Press Contacts:

North America / Worldwide

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

UK & Nordic

Alan Timmins
alan@ezwire.com
Tel: +44-1-252-629937