



## **15V, 2.25MHz Synchronous Dual 600mA Step-Down Regulator in a 3mm x 3mm QFN**

MILPITAS, CA – August 28, 2013 – The [LTC3607](#) is a high efficiency, 2.25MHz synchronous dual output buck regulator that incorporates a peak current mode architecture. It can deliver up to 600mA of continuous output current from each channel at output voltages as low as 0.6V from a 3mm x 3mm QFN or a thermally enhanced MSOP-16 package. The LTC3607 accommodates an input voltage range of 4.5V to 15V, making it suitable for dual cell Li-Ion applications as well as 5V and 12V intermediate bus systems. Its constant switching frequency of 2.25MHz is synchronizable and enables the use of tiny, low cost capacitors and inductors.

Each channel of the LTC3607 uses internal switches to deliver efficiencies as high as 96%. Its peak current mode architecture offers excellent line and load transient response. The two channels run 180 degrees out of phase, minimizing the size of input capacitance. Burst Mode<sup>®</sup> operation maximizes light load efficiency, requiring only 55µA at no load, making it well suited for applications demanding maximum battery run time and excellent light load transient response. For applications that require the lowest possible noise, the LTC3607 can be configured to run in pulse-skipping mode, reducing noise and potential RF interference. Additional features include power good voltage monitors, internal compensation, independent soft-start capability for each channel and short-circuit protection.

The LTC3607EUD is available in a 3mm x 3mm QFN-16 and in a leaded version, the LTC3607EMSE in a thermally enhanced MSOP-16 package. Pricing starts at \$2.35 and \$2.45 each, respectively in 1,000-piece quantities. Industrial grade versions, the LTC3607IUD and LTC3607IMSE, are guaranteed to operate over the -40°C to 125°C operating junction temperature range and are priced at \$2.59 and \$2.70 each, respectively, in 1,000-piece quantities. All versions are available from stock. For more information, visit [www.linear.com/product/LTC3607](http://www.linear.com/product/LTC3607)


## **Photo Caption:** 15V, Dual 600mA Monolithic Synchronous Step-Down Regulator

### **Summary of Features: LTC3607**

- High Efficiency: Up to 96%
- Low Quiescent Current: 55µA Total
- 2.25MHz Constant Frequency Operation
- Low Dropout Operation: 100% Duty Cycle
- Low-Ripple <30mV<sub>P-P</sub> Burst Mode® Operation
- Peak Current-Mode Control Architecture for Excellent Line & Load Transient Response
- Wide Voltage Input Range 4.5V to 15V
- 600mA/Channel Rated Output Current
- 0.6V Reference Allows Low Output Voltages
- ± 1.5% Output Voltage Accuracy
- Ultralow Shutdown Current: I<sub>Q</sub> < 1µA
- Internal Compensation
- Power Good Outputs
- Frequency Synchronization (1MHz to 4MHz)
- Independent Internal Soft-Start for Each Channel
- Small 16-Lead Thermally Enhanced Thin QFN (3mm × 3mm) & MSE Packages

### **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 over 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, µModule® subsystems, and wireless sensor network products. For more information, visit [www.linear.com](http://www.linear.com)

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