



News Release | www.linear.com

100mA Synchronous Buck Converter Features 150V Input Capability & Just 12 μ A Quiescent Current

MILPITAS, CA –May 13, 2013 – Linear Technology announces the LTC3639, a 150V input-capable synchronous buck converter that delivers up to 100mA of continuous output current. It operates from an input voltage range of 4.5V to 150V, eliminating the need for an external transient suspension device. The LTC3639 utilizes internal synchronous rectification and a programmable peak current-mode design to optimize efficiency over a broad range of output currents. It delivers efficiencies as high as 92% and requires only 12 μ A of quiescent current, maximizing battery run time and eliminating thermal issues. A user-programmable output current limit can set output current from 10mA to 100mA thereby minimizing the need to oversize external components and protecting high impedance sources. The LTC3639 can be programmed with fixed output voltages of 1.8V, 3.3V or 5V or a resistor divider can be used to program outputs from 0.8V to V_{IN} . The LTC3639's thermally enhanced MSOP package offers the additional pin spacing required for high voltage inputs. The combination of its MSOP package with only three tiny externals provides a highly compact solution footprint for a broad range of applications.

The LTC3639's internal high side and synchronous power switches, drawing only 12 μ A at no load while maintaining output voltage regulation, make it ideal for always-on battery-powered applications. Due to the inherent stability of the converter, no external compensation is required, simplifying the design and minimizing the solution footprint. Additional features include a precise 0.8V \pm 1% feedback voltage reference, internal or external soft-start and a feedback comparator output which enables multiple LTC3639s to be connected in parallel for higher current applications.

Pricing for the LTC3639EMSE starts at \$3.65 each. An industrial temperature grade version, the LTC3639IMSE is guaranteed to operate from -40°C to 125°C operating junction temperature, priced at \$4.02 each. An automotive temperature grade, the LTC3639HMSE is guaranteed to operate over a -40°C to 150°C operating junction temperature range priced at \$4.27 each. Finally, a high reliability military plastic version, the LTC3639MPMSE, is tested

and guaranteed to operate from -55°C to 150°C operating junction temperature, priced at \$10.84 each. All pricing is in 1,000 piece quantities and all versions are available from stock.


Photo Caption: 150V, 100mA Synchronous Buck Converter with Adjustable Output Current Limit

Summary of Features: LTC3639

- Wide Operating Input Voltage Range: 4V to 150V
- Wide Output Range: 0.8V_{IN} to V_{IN}
- Synchronous Operation for Highest Efficiency
- Low Quiescent Current: 12µA
- Internal High Side and Low Side Power MOSFETs
- No Compensation Required
- Adjustable 10mA to 100mA Maximum Output Current
- 0.8V ±1% Feedback Voltage Reference
- Precise RUN Pin Threshold
- Internal or External Soft-Start
- Programmable 1.8V, 3.3V, 5V or Adjustable Output
- Internally Compensated Few External Components Required
- Programmable Input Overvoltage Lockout
- Thermally Enhanced High Voltage MSOP Package

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, µModule[®] subsystems, and wireless sensor network products. For more information, visit www.linear.com

 , LT, LTC, LTM, Linear Technology, the Linear logo and µModule 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