



100V Isolated Monolithic Flyback Regulator Needs No Optocoupler

MILPITAS, CA – December 6, 2010 – Linear Technology Corporation announces the [LT3511](#), a high voltage isolated monolithic flyback switching regulator that significantly simplifies the design of an isolated DC/DC converter. No optocoupler, third winding or signal transformer are required for feedback since the output voltage is sensed from the primary-side flyback signal. The LT3511 operates over a 4.5V to 100V input voltage range, has a 240mA, 150V power switch and delivers up to 2.5 Watts of output power, making it well suited for a wide variety of telecom, datacom, automotive, industrial and medical applications.

The LT3511 operates in a boundary mode, a current-mode control switching scheme, resulting in +/-5% typical regulation over the full line, load and temperature range. Boundary mode, also known as critical conduction mode or CCM, permits the use of a smaller transformer compared to equivalent continuous conduction mode designs. The output voltage is easily set by two external resistors and the transformer turns ratio. Several transformers identified in the data sheet can be used for numerous applications. The high level of integration results in a simple, clean, tightly regulated application solution to the traditional challenge of isolated power delivery.

Additional features include an onboard low dropout regulator for IC power, undervoltage lockout and output voltage temperature compensation.

The LT3511 is available in a small MSOP-16 package with 4 pins removed for additional high voltage pin spacing. In addition to the extended and industrial versions that operate over a junction temperature range from -40°C to 125°C, a high temperature automotive grade is available that operates from -40°C to 150°C. Pricing starts at \$2.95 each in 1000-piece quantities. For more information, visit www.linear.com/3511.

Photo Caption: 100V Isolated Monolithic Flyback Regulator

Summary of Features: LT3511

- V_{IN} Range from 4.5V to 100V
- Onboard 240mA, 150V Integrated Power Switch
- No Optocoupler, Transformer or Third Winding Required for Feedback
- Current-Mode Control
- Boundary-Mode Operation
- V_{OUT} Set with Two External Resistors
- Off-the-Shelf Transformers
- Programmable Under Voltage Lockout
- Output Voltage Temperature Compensation

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.

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