



## **100V Isolated Flyback DC/DC Controller Operates up to 150°C**

MILPITAS, CA – November 3, 2010 – Linear Technology Corporation announces the [LT3748H](#), a high input voltage isolated flyback DC/DC controller with guaranteed operation for junction temperatures as high as 150°C. This device significantly simplifies the design of an isolated DC/DC converter since there is no requirement for an opto-isolator, third winding or signal transformer for feedback, as the output voltage is sensed from the primary-side flyback signal. The LT3748 operates over a 5V to 100V input voltage range and drives an external N-channel power MOSFET, making it well suited for a wide variety of automotive, industrial, telecom and datacom applications.

The LT3748 operates in a boundary mode, current-mode control switching scheme, resulting in +/-5% typical regulation over the full line, load and temperature range. Boundary mode also 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 off-the-shelf transformers identified in the data sheet can be used for numerous applications. The high level of integration and the use of boundary mode operation results in a simple, clean application solution to the traditional challenge of isolated power delivery.

Additional features include an onboard low drop regulator for IC power, programmable soft start, undervoltage lockout, adjustable current limit and output voltage temperature compensation.


The LT3748H is available in a small MSOP-16 package with 4 pins removed for additional high voltage pin spacing. The 1,000 piece price starts at \$3.71 each. For more information, visit [www.linear.com/3748](http://www.linear.com/3748).

**Photo Caption: 100V Isolated Flyback Operates up to 150°C****Summary of Features: LT3748H**

- -40°C to 150°C Guaranteed Junction Temperature Operation
- $V_{IN}$  Range from 5V to 100V
- No Opto-isolator, Transformer or Third Winding Required for Feedback
- Drives External N-Channel Power MOSFET
- Current-Mode Control
- Boundary Mode Operation
- $V_{OUT}$  Set with Two External Resistors
- Off-the-Shelf Transformers
- Programmable Soft-Start
- Programmable Undervoltage Lockout
- Output Voltage Temperature Compensation

**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<sup>®</sup> 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.

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