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Isolated Monolithic Flyback Regulator Simplifies Design & Eliminates Optocoupler

MILPITAS, CA – August 2, 2010 – Linear Technology Corporation announces the [LT3575](#), an isolated monolithic flyback switching regulator that significantly simplifies the design of an isolated DC/DC converter. No opto-isolator, third winding or signal transformer are required for feedback since the output voltage is sensed from the primary-side flyback signal. The LT3575 operates over a 3V to 40V input voltage range, has a 2.5A power switch and delivers up to 14 Watts of output power, making it well suited for a wide variety of industrial, medical, telecom, datacom and automotive applications.

The LT3575 operates in boundary mode, which is a variable frequency current-mode control switching scheme, typically resulting in +/-5% 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 traditionally tough problem of isolated power delivery.

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

The LT3575 is available in a small thermally enhanced TSSOP-16 package and is offered in an extended and industrial operating junction temperature range from -40°C to 125°C. Pricing starts at \$3.50 each in 1000-piece quantities. For more information, visit www.linear.com/3575.


Photo Caption: Isolated Monolithic Flyback Converter

Summary of Features: LT3575

- V_{IN} Range from 3V to 40V
- Onboard 2.5A, 60V Integrated Power Switch
- No Transformer, Third Winding or Opto-Isolator Required for Feedback
- Current-Mode Control
- Boundary-Mode Operation
- V_{OUT} Set with Two External Resistors
- Off-the-Shelf Transformers
- Programmable Soft-Start
- Programmable Under Voltage Lockout
- Output Voltage Temperature Compensation
- Adjustable Current Limit

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[®] 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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