



## **Six Channel 3500V<sub>RMS</sub> $\mu$ Module Isolator Simplifies Protection and Expansion of SPI/Digital or I<sup>2</sup>C Systems**

MILPITAS, CA – July 31, 2013 – Linear Technology Corporation introduces the [LTM2892](#), a 6-channel SPI/digital or I<sup>2</sup>C  $\mu$ Module<sup>®</sup> (micromodule) isolator for 3.3V to 5V systems. Ground potentials can vary widely in systems, potentially exceeding common mode operating limits, which can interrupt communications, destroy components, and even create hazardous conditions. The LTM2892 breaks ground loops by communicating across a galvanic isolation barrier that blocks DC current for potential differences of up to 3,500V<sub>RMS</sub> providing safe, uninterrupted operation. The LTM2892 requires no external components, providing a small, simple  $\mu$ Module solution for isolated data communications.

The LTM2892 is available in two communications interface versions. The LTM2892-I is I<sup>2</sup>C compatible at up to 400kHz with bidirectional serial data (SDA) plus clock (SCL) and three additional isolated CMOS logic signals that operate at up to 10MHz. The LTM2892-S offers six CMOS digital isolator channels that can be used for general I/O or configured for SPI compliant operation. The six channels include three forward and three reverse directions paths that can all operate at up to 10MHz. When configured for SPI communications, the maximum clock rate is 8MHz for unidirectional communication or 4MHz for round-trip bidirectional operation. All versions include a logic supply pin that provides direct interfacing with low voltage microcontrollers down to 1.62V (SPI) or 3V (I<sup>2</sup>C) and an ON pin that enables the LTM2892 to be shut down using less than 10 $\mu$ A. Additional features include uninterrupted communications for common-mode transients greater than 50kV/ $\mu$ s and rugged  $\pm$ 15kV ESD HBM across the isolation barrier.

The LTM2892 is offered in a 9mm x 6.25mm surface mount BGA package; all integrated circuits and passive components are housed in this RoHS-compliant  $\mu$ Module package. Pricing starts at \$5.95 each in 1,000 piece quantities. Please visit [www.linear.com/product/LTM2892](http://www.linear.com/product/LTM2892) for more information.


## Photo Caption: Isolated SPI/Digital or I<sup>2</sup>C Interface

### Summary of Features: LTM2892

- Six-Channel Logic Isolator: 3,500V<sub>RMS</sub>
- 3V to 5.5V Supply Operation, Both Sides of Isolated Interface
- No External Components Required
- SPI (LTM2892-S) or I<sup>2</sup>C (LTM2892-I) Options
- High Common-Mode Transient Immunity: 50kV/ $\mu$ s
- High Speed Operation:
  - o 10MHz Digital Isolation
  - o 8MHz/4MHz SPI Isolation
  - o 400kHz I<sup>2</sup>C Isolation
- 1.62V to 5.5V Logic Supply for Flexible Digital Interfacing
- $\pm$ 15kV ESD HBM Across the Isolation Barrier
- Common Mode Working Voltage: 850V<sub>PEAK</sub>
- Low Current Shutdown Mode (<10 $\mu$ A)
- Small 9mm x 6.25mm x 2.91mm BGA 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 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,  $\mu$ Module<sup>®</sup> subsystems, and wireless sensor network products. For more information, visit [www.linear.com](http://www.linear.com)

 , LT, LTC, LTM, Linear Technology, the Linear logo and  $\mu$ Module 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](mailto:jhamburger@linear.com)  
Tel: 408-432-1900 ext 2419

##### UK & Nordic

Alan Timmins  
[alan@ezwire.com](mailto:alan@ezwire.com)  
Tel: +44-1-252-629937

Doug Dickinson, Media Relations Manager  
[ddickinson@linear.com](mailto:ddickinson@linear.com)  
Tel: 408-432-1900 ext 2233