



## **Inverting, Boost or Buck-Boost $\mu$ Module Converter Delivers up to 700mA with Only Four Small Passive Components**

MILPITAS, CA – February 5, 2013 – Linear Technology Corporation introduces the [LTM8045](#), a 2.8V-18V input, multi-topology DC/DC  $\mu$ Module<sup>®</sup> (micromodule) converter, with onboard inductor, power switch and DC/DC controller delivering up to 700mA output current. With the addition of only two resistors and two capacitors, the LTM8045 can be configured to regulate either a positive output voltage (SEPIC topology) between 2.5V and 15V or a negative output voltage (inverting topology) between -2.5V and -15V. The LTM8045 is designed for point-of-load regulation in communications, imaging and handheld test equipment.

In the SEPIC configuration, the LTM8045's input voltage can be above, below or equal to the regulated output voltage. If configured as a negative output inverter, no level shifting circuitry is required by the logic level control pins. Under a -5V, 500mA load, the LTM8045 achieves 80% efficiency from a positive 12V input supply. The operating frequency range is 200kHz to 2MHz, adjustable via an external resistor and can be synchronized to an external clock within the same frequency range.

The LTM8045 is packaged in a 6.25mm x 11.25mm x 4.92mm BGA and operation is guaranteed over the -40°C to +125°C and -55°C to +125°C internal temperature range. Pricing starts at \$6.97 each for 1,000 piece quantities. The LTM8045 is available for immediate delivery from stock. For more information, visit [www.linear.com/product/LTM8045](http://www.linear.com/product/LTM8045).


**Photo Caption:** All in One Inverting, Boost or Buck-Boost  $\mu$ Module Converter Delivers up to 700mA

### Summary of Features: LTM8045

- Inverting OR SEPIC (Single-Ended Primary Inductor Converter) Operation
- Only Four External Components Complete Solution
- Wide Input Voltage Range: 2.8V to 18V
- Up to 700mA Output Current at  $V_{IN} = 12V$ ,  $V_{OUT} = 2.5V$  or  $-2.5V$
- Up to 375mA Output Current at  $V_{IN} = 12V$ ,  $V_{OUT} = 15V$  or  $-15V$
- 2.5V to 15V (SEPIC) or  $-2.5V$  to  $-15V$  (Inverting) Output Voltage
- Selectable Switching Frequency: 200kHz to 2MHz
- Compact 6.25mm x 11.25mm x 4.92mm 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 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 and 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

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

##### UK & Nordic

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