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## **250mA Wide $V_{IN}$ Range Buck-Boost Charge Pump Offers Low Conducted and Radiated Noise**

MILPITAS, CA – March 19, 2013 – Linear Technology Corporation announces the [LTC3245](#), a versatile 250mA high voltage buck-boost charge pump. The LTC3245 uses switched capacitor fractional conversion to maintain regulation over a wide range of input voltage from 2.7V to 38V and produces a regulated output of 3.3V, 5V or adjustable (2.5V to 5V). Internal circuitry automatically selects the conversion ratio (2:1, 1:1 or 1:2) to optimize efficiency as input voltage and load conditions vary. Low operating current (18 $\mu$ A with no load, 4 $\mu$ A in shutdown) and low external device count (three small ceramic capacitors and no inductors) make the LTC3245 ideally suited for low power, space constrained automotive/industrial applications such as automotive ECU/CAN transceiver supplies, industrial housekeeping supplies and efficient low power 12V to 5V conversion.

The LTC3245's unique constant frequency architecture with reduced switching edge rates provides lower conducted and radiated noise compared to conventional switching regulators. The device has pin selectable Burst Mode operation which allows the user to trade off low output ripple for better efficiency/lower quiescent current. Other IC features include low external parts count with ceramic capacitor stability, soft-start circuitry to prevent excessive current flow during startup, plus short circuit and thermal protection.

The LTC3245 is available in a low-profile (0.75mm) 3mm x 4mm 12-lead DFN with backside thermal pad and a 12-lead MSOP package with backside thermal pad. E- and I-grade operating junction temperature is -40°C to +125°C, while H-grade is -40°C to +150°C.

1000-piece pricing for the E grade starts at \$2.80 each, and devices are available from stock. For more information, visit [www.linear.com/product/LTC3245](http://www.linear.com/product/LTC3245).


**Photo Caption:** Low Noise High Voltage Buck-Boost Charge Pump

### Summary of Features: LTC3245

- 2.7V to 38V  $V_{IN}$  Range
- $I_Q = 18\mu A$  Operating;  $4\mu A$  in Shutdown
- 12V to 5V Efficiency = 81%
- Multimode Operation (2:1, 1:1, 1:2) with Automatic Mode Switching
- Low Noise, Constant Frequency Operation
- $I_{OUT} = 250mA$  (Maximum)
- Pin Selectable Burst Mode® Operation
- $V_{OUT}$ : Fixed 3.3V, 5V or Adjustable
- Over-Temperature and Short-Circuit Protection
- Operating Junction Temperature: 150°C Maximum
- Thermally Enhanced 12-Pin MSOP and Low Profile 12-Pin (3mm × 4mm) DFN Packages

### 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® subsystems, and wireless sensor network products. For more information, visit [www.linear.com](http://www.linear.com)

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