



Low Noise Bias Generator in 2mm x 2mm DFN

MILPITAS, CA – March 4, 2014 – Linear Technology Corporation announces the [LT3048](#), a step-up DC/DC converter with an integrated LDO output that delivers a low noise, low ripple 15V bias supply. The LT3048-15 delivers up to 40mA of continuous output current at 15V with output ripple and noise less than 500 μ V_{PK-PK} and 0.1% load regulation. The device operates from an input voltage range of 2.7V to 4.8V, making it suitable for single-cell Li-Ion batteries or 3.3V logic rails. Its constant switching frequency of 2.2MHz enables the use of tiny externals. Combined with a 2mm x 2mm DFN package and an integrated Schottky diode, the LT3048-15 offers a simple, compact solution footprint for low noise biasing applications.

The LT3048-15's internal high efficiency switch and 2.2MHz constant frequency operation delivers a low ripple output to the LDO, delivering 15V with ultralow output ripple and noise of less than 500 μ V_{PK-PK}. Its current-mode control enables fast transient response without the need for complex external compensation. To further enhance system reliability, the LT3048-15 offers short-circuit and thermal protection as well as load disconnect in shutdown.


The LT3048EDC-15 is available in a 2mm x 2mm DFN-8 package, priced at \$1.65 each for 1,000 piece quantities. An industrial temperature (-40°C to 125°C) version, the LT3048IDC-15, is priced at \$1.82 each for 1,000 piece quantities. Both versions are available from stock. For more information, visit www.linear.com/product/LT3048

Photo Caption: Tiny Low Noise Boost Generator for Biasing Applications**Summary of Features: LT3048-15**

- Generates Low Noise Bias Voltage from Single-Cell Li-Ion Battery
- Output Current: Up to 40mA
- Low Output Ripple & Noise: $<500\mu\text{V}_{\text{p-p}}$
- Boost Regulator
- 2.2MHz Operation
- 300mA Power Switch
- Integrated Schottky Diode
- Low Dropout Linear Regulator
- Low Noise: $<120\mu\text{VRMS}$ (10Hz to 100kHz)
- 0.1% Load Regulation
- Short-Circuit & Thermal Protection
- Load Disconnect in Shutdown
- Available in 2mm \times 2mm DFN 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, $\mu\text{Module}^{\circledR}$ subsystems, and wireless sensor network products. For more information, visit www.linear.com

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