

1A, 1.5MHz, 65V Boost/Inverter DC/DC Converter

MILPITAS, CA – September 15, 2014 – Linear Technology Corporation announces the LT8580, a current mode, fixed frequency step-up DC/DC converter with an internal 1A, 65V switch. It operates from an input voltage range of 2.55V to 40V, making it suitable for applications with input sources ranging from a single-cell Li-Ion to automotive inputs. The LT8580 can be configured as either a boost, SEPIC or an inverting converter. Its switching frequency can be programmed, via a single resistor or synchronized to an external clock, between 200kHz and 1.5MHz, minimizing external component sizes. The combination of a 3mm x 3mm DFN package (or MSOP-8E) and tiny externals ensures a very compact footprint while reducing solution cost.

The LT8580's low V_{CESAT} switch, 0.4V at 0.75A, delivers efficiencies of up to 86%. Undervoltage lockout (UVLO) is user adjustable for optimal system performance. A single feedback resistor sets the output voltage, minimizing external components. Other features include external synchronization capability, internal soft-start and thermal shutdown protection.

The LT8580EDD is available in a 3mm x 3mm DFN-8 package and the LT8580EMS8E is offered in a thermally enhanced MSOP-8 package. Pricing starts at \$2.35 each for 1,000 piece quantities. Industrial temperature (-40°C to 125°C) versions, the LT8580IDD and the LT8580IMS8E are also available, priced starting at \$2.59 each for 1,000 piece quantities. Finally, high temperature (-40°C to 150°C) versions, the LT8580HDD and the LT8580HMS8E, are available, priced starting at \$2.84 each for 1,000 piece quantities.

All versions are available from stock. For more information, visit www.linear.com/product/LT8580

Photo Caption: 1A, 65V Boost DC/DC Converter

Summary of Features: LT8580

- 1A, 65V Power Switch
- Adjustable Switching Frequency
- Single Feedback Resistor Sets V_{OUT}
- Synchronizable to External Clock
- High Gain SHDN Pin Accepts Slowly Varying Input Signals
- Wide Input Voltage Range: 2.55V to 40V
- Low V_{CESAT} Switch: 400mV at 0.75A (Typical)
- Integrated Soft-Start Function
- Easily Configurable as a Boost, SEPIC, or Inverting Converter
- User Configurable Undervoltage Lockout (UVLO)
- Pin Compatible with LT3580
- Tiny Thermally Enhanced 8-Lead 3mm × 3mm DFN and 8-Lead MSOP Packages

The USA list pricing shown is for budgetary use only. International prices may differ due to local duties, taxes, fees and exchange rates.

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, µModule® subsystems, and wireless sensor network products. For more information, visit www.linear.com

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