



## **40V, 500mA( $I_{OUT}$ ), 2.2MHz Step-Down DC/DC Converter in a Tiny 2mm x 2mm DFN**

MILPITAS, CA – May 22, 2007 – Linear Technology Corporation announces the LT3502/A, a 500mA ( $I_{OUT}$ ), 40V step-down switching regulator packaged in a 2mm x 2mm DFN. The LT3502/A's 3.4V to 40V input voltage range makes it ideal for harsh environment & automotive load dump and cold-crank conditions. The device can deliver up to 500mA of continuous output current to voltages as low as 0.8V. Switching frequency is either 1.1MHz (standard version) or 2.2MHz ("A" version), enabling the user to optimize efficiency while avoiding critical noise-sensitive frequency bands. The combination of its 2mm x 2mm DFN-8 package and high switching frequency keeps the external capacitors and inductor small, providing a very compact, thermally efficient footprint.

The LT3502/A utilizes a high efficiency 900mA, 300mV<sub>CESAT</sub> switch, with the necessary boost diode, oscillator, control and logic circuitry integrated on-chip. Special design techniques enable high efficiency over a wide input voltage range & the LT3502/A's current mode topology enables fast transient response and excellent loop stability. Other features include internal compensation, soft-start and short circuit protection.

The LT3502EDC and LT3502AEDC are both available in a 2mm x 2mm DFN 8 package from stock. They are both priced starting at \$1.95 each for 1,000-piece quantities. The LT3502IDC and LT3502AIDC are tested and guaranteed to operate from a -40°C to 125°C operating junction temperature. Both devices are priced at \$2.34 in 1,000-piece quantities and are available from stock.

**Photo Caption:** 40V, 500mA(I<sub>OUT</sub>), 2.2MHz Step-Down DC/DC Converter in 2mm x 2mm DFN

### Summary of Features: LT3502/A

- 3.4V to 40V Input
- 500mA Output Current
- Switching Frequency: 2.2MHz (LT3502A), 1.1MHz (LT3502)
- 800mV Feedback Voltage
- Short-Circuit Robust
- Soft-Start
- Low Shutdown Current: <1UA
- Internally Compensated
- Internal Boost Diode
- Thermally Enhanced 2mm x 2mm 8-Lead DFN

### About Linear Technology

Linear Technology Corporation, a manufacturer of high performance linear integrated circuits, was founded in 1981, became a public company in 1986 and joined the S&P 500 index of major public companies in 2000. Linear Technology products include high performance amplifiers, comparators, voltage references, monolithic filters, linear regulators, DC-DC converters, battery chargers, data converters, communications interface circuits, RF signal conditioning circuits, and many other analog functions. Applications for Linear Technology's high performance circuits include telecommunications, cellular telephones, networking products such as optical switches, notebook and desktop computers, computer peripherals, video/multimedia, industrial instrumentation, security monitoring devices, high-end consumer products such as digital cameras and MP3 players, complex medical devices, automotive electronics, factory automation, process control, and military and space systems. For more information, visit [www.linear.com](http://www.linear.com)

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