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## **2.2MHz, 1A ( $I_{OUT}$ ) 20V Step-Down DC/DC Converter in 2mm x 3mm DFN Package**

MILPITAS, CA – November 20, 2006 – Linear Technology announces the LT3503, a current mode PWM step-down DC/DC converter with an internal 1.45A power switch, packaged in a tiny 6-lead 2mm x 3mm DFN package. Its wide input range of 3.6V to 20V makes the LT3503 ideal for regulating power from a wide variety of sources, including unregulated wall transformers, fixed 5V and 12V rails and lead acid batteries. Its 2.2MHz switching frequency enables the use of tiny, low cost inductors and ceramic capacitors, resulting in low, predictable output ripple.

The LT3503's low  $V_{CESAT}$  (400mV @1A) internal switch offers efficiencies of up to 88%, maximizing battery run-time. An on-chip 0.78V reference enables sub 1V output voltages while internal compensation minimizes the solution footprint. Internal cycle-by-cycle current limit provides protection against shorted outputs while soft-start eliminates input current surge during start-up. The low current (<2uA) shutdown provides maximum run time in battery-powered systems.

The LT3503EDCB is available from stock in a thermally enhanced 2mm x 3mm DFN-6 package. Pricing starts at \$2.25 each for 1,000-piece quantities.




**Photo Caption:** 20V, 2.2MHz, 1A ( $I_{OUT}$ ) Buck Switching Regulator in 2mm x 3mm DFN

### Summary of Features: LT3503

- Wide Input Range: 3.6V to 20V
- 5V at 1A from 7.2V to 18V Input
- 3.3V at 1A from 5.5V to 12V Input
- Fixed Frequency Operation: 2.2MHz
- Output Adjustable Down to 780mV
- Short-Circuit Robust
- Uses Tiny Capacitors and Inductors
- Soft-Start
- Internally Compensated
- Low Shutdown Current: <2uA
- LOW  $V_{CESAT}$  Switch: 400mV at 1A
- Thermally Enhanced, 2mm x 3mm 6-Pin DFN Low Profile Package

### 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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