



## **Synchronous Step-Down DC/DC Converter Delivers up to 500mA with Pin Selectable 1.28V/1.87 Outputs**

MILPITAS, CA – February 26, 2007 – Linear Technology announces the LTC3563, a high efficiency, 2.25 MHz, synchronous buck regulator that can deliver up to 500mA of continuous output current from a 2mm x 2mm DFN package. Its output voltage is pin-selectable to either 1.28V or 1.87V, making it ideal for the latest generation of Agere cellphone baseband chipsets. Using a constant frequency and current mode architecture, the LTC3563 operates from an input voltage range of 2.5V to 5.5V, compatible with single cell Li-Ion, or multi-cell alkaline/NiCad/NiMH applications. Its 2.25MHz switching frequency enables the utilization of tiny, low cost ceramic capacitors and inductors less than 1mm in height, providing a very compact solution footprint for handheld applications.

The LTC3563 uses internal switches with an  $R_{DS(ON)}$  of only 0.35 Ohm (N-Channel) and 0.50 Ohm (P-Channel) to deliver efficiencies as high as 96%. It also utilizes low dropout 100% duty cycle operation to allow output voltages equal to  $V_{IN}$ , further extending battery run time. The LTC3563 utilizes low ripple ( $<20mV_{PK-PK}$ ) Burst Mode<sup>®</sup> operation, drawing only 26uA of no load quiescent current. Shutdown current is less than 1uA further maximizing battery run time. Other features include  $\pm 2\%$  output voltage accuracy, internal soft-start and over-temperature protection.

The LTC3563EDC is available in a 2mm x 2mm DFN-6 package and is available from stock. Pricing starts at \$1.60 each in 1,000-piece quantities.

**Photo Caption:** 500mA Synchronous Step-Down with Pin Selectable 1.28V/1.87 Outputs

### Summary of Features: LTC3563

- Pin-Selectable Output Voltage: 1.28V/1.87V
- Low Ripple (<20mVp-p) Burst Mode Operation:  $I_Q = 26\mu A$
- 2.5V to 5.5V Input Voltage Range
- High Efficiency: Up to 96%
- 2.25MHz Constant Frequency Operation
- Low Dropout Operation: 100% Duty Cycle
- No Schottky Diode Required
- Internal Soft-Start Limits Inrush Current
- Shutdown Mode Draws <1 $\mu A$  Supply Current
- Current Mode Operation for Excellent Line & Load Transient Response
- Overtemperature Protected
- Available in 2mm x 2mm 6-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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