

***LTC News for Immediate Release***

For more information, tel. 408-432-1900  
Doug Dickinson, Media Relations Mgr., ext. 2233  
John Hamburger, Dir., Mktg Comm., ext. 2419  
[www.linear.com](http://www.linear.com)

**500mA Low Noise, High Efficiency Dual Mode  
Charge Pumps in 3mm x 3mm DFN Package**

MILPITAS, CA – May 30, 2006 – Linear Technology Corporation announces the LTC3203-1/B/B-1 mode-selectable, high efficiency 500mA step-up charge pumps, offered in a compact 3mm x 3mm DFN package. Featuring low-noise constant-frequency (1MHz) operation and a wide input voltage range of 2.7V to 5.5V, the LTC3203B provides an adjustable output voltage, while the LTC3203-1 and LTC3203B-1 have user-selectable fixed output voltage options of 4.5V or 5V to power LEDs or logic circuitry. The chips also have two user-selectable conversion modes (1:1.5 and 1:2) to optimize the charge pump's efficiency, suitable for use in high current LED backlighting and camera light supplies for cell phones and PDAs, USB-powered devices, and for general 3.3V or Li-Ion to 5V conversion.

The LTC3203-1 features automatic Burst Mode<sup>®</sup> operation at light load to achieve a low supply current of 120uA. The LTC3203B and LTC3203B-1's patented constant-frequency architecture ensures both low input and output ripple at all loads to minimize switching noise, and both are ideal for applications sensitive to variable-frequency operation. Other features of the LTC3203-1/B/B-1 include automatic soft start circuitry to prevent excessive inrush current during startup, load disconnect from the input during shutdown, plus short-circuit and thermal shutdown protection.

The LTC3203-1/B/B-1's high switching frequency enables the use of tiny external ceramic capacitors, saving size and cost. Low external parts count (two flying capacitors and two bypass capacitors at  $V_{IN}$  and  $V_{OUT}$ ) and the low profile DFN package achieves an extremely compact solution for space-constrained applications.

The LTC3203EDD-1, LTC3203BEDD and LTC3203BEDD-1 are available in the low-profile 10-lead DFN (3mm x 3mm x 0.75mm) package. 1,000-piece pricing starts at \$2.00 each.

## **Photo Caption: 500mA High Efficiency Step-Up Charge Pumps**

### **Summary of Features: LTC3203/B/-1**

- Selectable Dual Mode Operation for Optimized Efficiency: 1:1.5 or 1:2
- High Output Current: up to 500mA
- Low Noise Constant Frequency (1MHz) Operation
- No Inductor
- Wide Input Voltage Range: 2.7V to 5.5V
- LTC3203B: Adjustable Output Voltage and Constant Frequency Operation at All Loads
- LTC3203B-1: User-Selectable Fixed Output Voltages 4.5V or 5V and Constant Frequency Operation at All Loads
- LTC3203-1: Automatic Burst Mode Operation with  $I_Q \sim 120\mu A$  and User-Selectable Fixed Output Voltages 4.5V or 5V
- Constant Frequency Operation at All Loads (LTC3203B/LTC3203B-1)
- Soft-Start Limits Inrush Current at Turn-On
- Short-Circuit/Thermal Protection
- Shutdown Disconnects Load from Input
- Shutdown Current  $< 1\mu A$
- Low-Profile (3mm x 3mm x 0.75mm) DFN-10 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)

Contact:

Doug Dickinson, Media Relations Manager

**Linear Technology Corporation**

1630 McCarthy Boulevard


Milpitas, CA 95035-7417

[ddickinson@linear.com](mailto:ddickinson@linear.com)

408-432-1900

READER SERVICE: Call toll-free 1-800-4-LINEAR (for literature only), or go to the company's web site:

<http://www.linear.com>

**Note:** LT, LTC, LTM, Burst Mode and  are registered trademarks of Linear Technology Corp.