

***LTC News for Immediate Release***

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**500mA VLDO™ Operates Down to 0.2V from 0.9V Input**

MILPITAS, CA – April 7, 2005 – Linear Technology Corporation announces the LT3021, the power industry's first 500mA VLDO (very low dropout regulator), featuring input voltage capability down to 0.9V and adjustable output voltage down to 0.2V. The LT3021's low input voltage enables operation across the entire voltage range of both single cell alkaline and NiMH batteries (1.4V to 0.9V). This low  $V_{IN}$  capability is also important for emerging applications using a 1.5V main rail that require output voltages from 1.25V to 0.5V to drive low voltage microprocessor and microcontroller cores. The LT3021 maintains its 160mV dropout voltage up to 500mA of operating current, making it ideal for applications requiring a low  $V_{IN}$  to  $V_{OUT}$  differential. Additionally, it offers micropower operation with only 120uA of quiescent current and less than 3uA in shutdown, maximizing run time in handheld applications.

The LT3021 regulator optimizes stability and transient response with low ESR, ceramic output capacitors as small as 3.3uF. Other LT3021 features include 0.05% line regulation and 0.2% load regulation. Internal protection circuitry includes reverse-battery protection, current limiting, thermal limiting with hysteresis, and reverse-current protection. The LT3021 regulator is available in a low profile (0.75mm) 16-lead DFN 5mm x 5mm package with exposed pad, and an 8-lead SOIC package, both offering compact solution footprints.

Both LT3021EDH (16-lead DFN) and the LT3021ES8 (SOIC-8) are available from stock. 1,000-piece pricing starts at \$2.25 each.

(more...)

## Summary of Features: LT3021

- $V_{IN}$  Range: 0.9V to 10V
- $V_{OUT}$  Range: 0.2V to 9.5V (adjustable)
- Dropout Voltage: 160mV
- Output Current: 500mA
- Stable with Low ESR, Ceramic Output Capacitors (3.3uF Minimum)
- 0.2% Load Regulation from 0mA to 500mA
- Quiescent Current: 120uA  $I_{SD} < 3uA$
- Current Limit Protection
- Reverse-Battery Protection, No Reverse Current
- 16-Lead DFN (5mm x 5mm x 0.75mm) Package
- 8-Lead SOIC Package

COMPANY BACKGROUND: Linear Technology Corporation was founded in 1981 as a manufacturer of high performance linear integrated circuits. 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.

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