



News Release | www.linear.com

Adjustable TFT Bias Power Supply for TFT-LCDs & LED Driver in a 4x4mm QFN

MILPITAS, CA – March 20, 2008 – Linear Technology announces the LTC3524, an integrated BIAS and white LED power converter solution for small to medium sized (3" to 7") thin film transistor (TFT) liquid crystal display (LCD) panels. The device operates from an input voltage range of 2.5V to 6V, enabling it to accommodate multicell alkaline/NiMH batteries as well as single cell Li-Ion. Each low noise output of the TFT converter is fully adjustable enabling it to power a wide array of LCD panels. The LTC3524 can generate up to 25mA at 6V for the AV_{DD} channel, and up to 2mA at 20V and -20V for the respective V_{GH} and V_{GL} bias requirements with controlled power-up/power-down sequencing.

As the primary boost converter uses a synchronous rectification topology, the LTC3524 can deliver up to 90% efficiencies for the LCD biasing. The dual channel LED driver can power up to 10 white LEDs (5 per channel) while its True Color PWM™ Dimming offers up to 200:1 dimming ratios. Each LED channel is independent and offers open-LED protection. Total quiescent current is only 200uA, providing maximum battery life and its 1.5MHz switching frequency, combined with its 4mm x 4mm QFN package enables a tiny, low profile footprint.

The LTC3524EUF is available from stock in a 4mm x 4mm QFN package. Pricing starts at \$2.25 for 1,000-piece quantities.


Photo Caption: Adjustable TFT Bias Supply with LED for LCD Displays

Summary of Features: LTC3524

- Generates Three Adjustable, Low Noise Rails for Small/Medium TFT Displays
- Drives Up to Ten White LEDs
- LED Dimming and Open-Circuit Protection
- Controlled Power-Up/Power-Down Sequencing
- 1.5MHz Fixed Frequency, Low Noise Operation
- V_{IN} Range 2.5V to 6V, V_{OUT} Range 3V to 6V
- TFT Supply Efficiency Up to 90%
- LED Supply Efficiency Up to 78%
- Two Independently Enabled LED Strings
- 200 to 1 True Color PWM Dimming
- Tiny External Solution
- 24-Lead QFN Package (4mm × 4mm × 0.75mm)

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, uModule™ products, 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.

LT, LTC, LTM and  are registered trademarks and uModule and True Color PWM are trademarks of Linear Technology Corp.

Press Contacts:

John Hamburger, Director Marketing Communications
jhamburger@linear.com
Tel: 408-432-1900 ext 2419

Doug Dickinson, Media Relations Manager
ddickinson@linear.com
Tel: 408-432-1900 ext 2233