

LTC News for Immediate Release

For more information, tel. 408-432-1900
Jeff Gruetter, Product Mktg. Eng., ext. 2759
Doug Dickinson, Media Relations Mgr., ext. 2233
www.linear.com

Dual DC/DC Converter with USB Power Manager & Li-Ion Battery Charger Provides a Complete Power Management Solution in a 4mm x 4mm Package

MILPITAS, CA – April 21, 2004 – Linear Technology Corporation announces the LTC3455, a complete power management solution for handheld applications. The LTC3455 contains two synchronous step-down DC/DC converters, USB power controller, full-featured Li-Ion battery charger, Hot Swap[™] output, low-battery indicator and numerous internal protection features. The LTC3455 provides a small, simple, and highly efficient solution for obtaining power from three different power sources: single cell Li-Ion battery, USB port and wall adapter. Current drawn from the USB bus is accurately limited under all conditions to comply with USB specifications. Whenever USB power or a wall adapter is present, the battery charger is enabled and all internal power for the device is automatically drawn from the appropriate external source. Its 4mm x 4mm QFN package ensures a tiny solution footprint for space-constrained handheld applications.

Unlike alternative products, the LTC3455 utilizes a PowerPath[™] controller to enable a seamless transition between Li-Ion battery, USB, and 5V wall adapter power sources. This eliminates the significant power losses that are found in conventional designs. Accurate current limiting (500mA/100mA) ensures that the USB power path is not overloaded. Each synchronous step-down DC/DC converter offers up to 95% efficiency to maximize battery run-time. As many handheld systems require onboard SDIO and memory card ports, the LTC3455 has 150mA Hot Swap output in order to accommodate these requirements. Burst Mode[®] operation reduces supply current to only 100uA to maximize light load efficiency, but it can be disabled via an external pin if very low switching noise is required. Finally, the LTC3455 offers true output disconnect in shutdown, leaving all outputs discharged to ground enhancing system reliability.

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The LTC3455 is available from stock in a 4mm x 4mm x 0.75mm QFN-24 package. Pricing starts at \$3.95 each for 1,000-piece quantities.

Summary of Features: LTC3455

- Seamless Transition Between Input Power Sources: Li-Ion Battery, USB, and 5V Wall Adapter
- Accurate Current Limiting (500mA/100mA)
- Dual High Efficiency DC/DC Converters: Up to 96%
- Full-Featured Li-Ion Charger
- Hot Swap Output for SDIO and Memory Cards
- Pin Selectable Burst Mode Operation: $I_Q < 100\mu A$
- True Output Disconnect: All Outputs Discharged to Ground During Shutdown
- Available in 4mm x 4mm x 0.75mm QFN-24 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.

For more information, contact:

Doug Dickinson, Media Relations Manager


Linear Technology Corporation

1630 McCarthy Boulevard

Milpitas, CA 95035-7417

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>**

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