



60V I²C Battery Monitor Measures State of Charge Parameters with 1% Accuracy

MILPITAS, CA – January 30, 2017 – Linear Technology Corporation introduces the [LTC2944](#) multicell battery monitor, which makes direct measurements of 3.6V to 60V battery stacks. Absolutely no level shifting circuitry on the supply and measurement pins is required to interface with multicell voltages, so total current consumption is minimized and measurement accuracy is preserved. The LTC2944 is a true high voltage battery monitor that measures charge, voltage, current and temperature to 1% accuracy, the essential parameters required to accurately assess battery state of charge (SoC).

The LTC2944 is ideal for multicell applications, including electric vehicles, ebikes/motorcycles/scooters, wheelchairs, golf carts and battery backup systems. Battery current is measured by monitoring the voltage across an external, high side sense resistor and integrating this information to infer charge. A bidirectional analog integrator accommodates either current polarity (battery charge or discharge), and a programmable prescaler supports a wide range of battery capacities. Charge, voltage, current and temperature information are communicated to the host system over an I²C/SMBus-compatible 2-wire interface that is also used to configure the battery monitor. The host can program high and low thresholds for all measured parameters, which if tripped, signal an alert using either the SMBus alert protocol or by setting a register flag.

The LTC2944 is offered in commercial and industrial versions, supporting operating temperature ranges from 0°C to 70°C and –40°C to 85°C, respectively. The LTC2944 is available today in a small RoHS-compliant, 8-pin 3mm x 3mm DFN package. Pricing starts at \$2.85 each in 1,000-piece quantities. Please visit www.linear.com/product/LTC2944 for more product selection and information.

Photo Caption: 60V Battery Monitor for Multicell Battery Systems


Summary of Features: LTC2944

- Measures Accumulated Battery Charge & Discharge
- 3.6V to 60V Operating Range for Multicell Applications
- 14-Bit ADC Measures Voltage, Current & Temperature
- 1% Charge, Voltage & Current Accuracy
- ±50mV Sense Voltage Range
- High Side Sense
- I²C/SMBus Interface
- Configurable Alert Output/Charge Complete Input
- Quiescent Current <150µA
- Small 8-Pin 3mm x 3mm DFN package

Pricing shown is for budgetary use only and may differ due to local duties, taxes, fees and exchange rates.

About Linear Technology

Linear Technology Corporation, a member of the S&P 500, has been designing, manufacturing and marketing a broad line of high performance analog integrated circuits for major companies worldwide for over three decades. The Company's products provide an essential bridge between our analog world and the digital electronics in communications, networking, industrial, automotive, computer, medical, instrumentation, consumer, and military and aerospace systems. Linear Technology produces power management, data conversion, signal conditioning, RF and interface ICs, µModule[®] subsystems and wireless sensor network products. For more information, visit www.linear.com

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