ZMDI announces industry’s smallest intelligent battery sensor IC

Dresden, Germany, November 8, 2011 -- ZMD AG is proud to announce the ZSSC1856, a new Intelligent Battery Sensor IC for fuel saving start/stop systems and other solutions for measuring State of health (SOH), State of charge (SOC) or State of function (SOF) of a vehicle’s battery. The first member of a new Battery Power Management product line from ZMDI, the ZSSC1856 comes in a QFN32 5x5 package of only 0.85mm height.

“The ZSSC1856 Intelligent Battery Sensor marks ZMDI’s entry into the Battery Power Management Market,” said Frank Schulze, Business Line Manager Automotive, ZMDI. “We now offer our customers a cost effective sensing solution for energy efficient and fuel saving start/stop vehicles and µHEV with the industry’s smallest foot print.”

The ZSSC1856 is based on a robust POR concept to meet harsh automotive environment requirements and has built-in self-test and diagnostic functions. A calibrated onchip temperature sensor eliminates the need for calibration of external components. During sleep mode, the ZSSC1856 periodically monitors the discharge of the battery. Measurement cycles and different wakeup conditions like current, voltage or temperature thresholds are user controlled.

The internal 18bit Sigma/Delta ADC with on-chip voltage reference features two input channels. One channel is for measuring IBAT via the voltage drop at the external shunt resistor. The second channel is used to measure VBAT and the temperature. An ARM® core, a highly reliable 96kB flash/EE memory with ECC and 8kB SRAM, is available to execute customer specific software for calculating the battery states. The device communication interface supports LIN 1.3, 2.0 and 2.1

specifications.

Designed for low power consumption, the ZSSC1856 uses less than 100A in sleep mode, in normal mode it operates with 10 to 20mA. The battery sensor IC can be supplied with voltages from 4.2 to 18V and is directly connected to the vehicle's battery. The ZSSC1856 is AECQ100 qualified and specified for temperatures from 40 to +125°C. The part will be priced at 3.84 EUR (5.40 USD) for low volume. An evaluation kit, application notes and samples are available.

www.zmdi.com [1]

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