

Smart battery sensor with CAN interface

The MM9Z1_638 integrated circuit provides four voltage measurements via internally-calibrated resistor dividers or external dividers.



NXP has developed the MM9Z1_638 battery monitoring chip (Photo: Fotolia)

The IC implementing a CAN interfaces is intended for battery monitoring applications. It features a battery voltage measurement with one 16-bit second-order Sigma-Delta analog/ digital converter. The converter input is connected to the output of a multiplexer allowing selection of voltage sense with an internal resistor divider or a direct voltage sense. The voltage and current converters are synchronized. There is also a third 16-bit Sigma-Delta analog/ digital converter for temperature measurements. Its input is linked to the output of a multiplexer, which allows selecting the internal temperature sensor or the external sensors via the direct voltage sense.

Each of the three A/D converters has its set of registers for offset and gain compensations. The user can access and use these to enhance system performance, taking into account external components. The "Smart battery sensor with CAN interface" article provides some more details on the chip by NXP.

Download the complete article in PDF format [here](#) or the [full magazine](#).

[hz](#)