Avnet Abacus partners with Cymbet to showcase new energy harvesting applications

ECN Europe

Avnet Abacus [1] will be showcasing a variety of energy harvesting technologies at the inaugural Elektronik Energy Harvesting Congress, which is to be held in Munich, Germany, on 4th and 5th July, 2012.

The distributor will be hosting a series of demonstrations based on Cymbet EnerChip energy harvesting (EH) evaluation kits, which have been developed for a wide range of applications. The demonstrations will highlight technologies such as flexible photovoltaic cells; vibration-based energy harvesting using a piezoelectric transducer; and a real-time-clock power backup solution that uses solid-state batteries.

[2]For solar or photovoltaic energy conversion, the CBC-EVAL-10 kit is a practical and low-cost realization of an EH-based power system that can provide many years of service without any need for battery maintenance. The kit employs the EnerChip CBC3150 Smart Solid State Battery, which has been configured to operate in an energy harvesting mode and combines a small solar panel, power management circuit, energy storage, regulated output voltage, and I/O pins for connection to commercially available microcontroller (MCU) and radio boards from Texas Instrumnets, MicroChip, Silicon Labs and others.

The second kit, the CBC-EVAL-09, is a universal energy harvesting evaluation kit that combines any one of multiple transducers, including thermoelectric, piezoelectric and alternate energy harvesting generators, with the EnerChipTM EP CBC915-ACA Energy Processor and the EnerChip CBC51100 100uAh solid-state

battery module. The battery module implements two 50µAh EnerChip solid-state batteries connected in parallel, and supplied with a solar cell for initial evaluation kit testing. The EVAL-09 also interfaces to many low power wireless demo kits.

The third demonstration is a real-time-clock (RTC) based power backup application, which is based on the Cymbet CBC-EVAL-06 evaluation kit. The kit combines an EnerChip CBC3112 'UPS in a Chip' with the Microcrystal RTC RV-2123, which at just 0.65cm2 is the world's smallest integrated RTC power backup module.

Alan Jermyn, VP European Marketing, Avnet Abacus said, "These evaluation kits from Cymbet fully harness the energy storage capabilities of the EnerChip solid-state batteries, delivering innovative and easy-to-use development options for a myriad of energy harvesting solutions."

EnerChip smart solid-state batteries last the lifetime of the product, have the smallest footprint of any energy storage device, and can be placed anywhere on a board using surface mount assembly and reflow solder. EnerChips enable designers to remove cumbersome battery holders and battery access doors from their products. All the Cymbet evaluation kits are in stock at Avnet Abacus.

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