Starter Kit for mobile embedded applications includes smart battery module



congatec AG announced the

Qseven Mobility Kit, a complete starter package for the rapid prototyping of battery-powered embedded systems. Qseven embedded computer modules are positioned for virtually any low-power or ultra mobile embedded PC application owing to their compact size and minimum power consumption. In addition to a compact Qseven carrier board and a 7" LVDS single touch display with LED backlight, the starter kit includes a battery manager and smart battery module. With the supplied cable set, it is possible to build a compact mobile demonstrator in just a few minutes.

According to the company, its small form factor of 95 mm x145 mm and wide range of interfaces make the Qseven carrier board easy to integrate. In addition to six USB ports and an Ethernet port, LVDS and DVI display interfaces are provided. The 19 VDC power supply – the common standard for notebook PCs – means that universal power supplies can be used. The carrier board offers additional standard interfaces such as a Mini PCI Express slot for WLAN extensions and a high-definition audio interface. Mass storage is provided by a solid state disk integrated on the Qseven CPU module plus SATA and SD card interfaces on the carrier board.

Due to the 5-V power supply of the Qseven module, the battery system can be implemented using small, dual-cell smart batteries. The entire charging circuit is a separate, add-on module allowing flexible integration into a housing design. The capability to use two batteries simultaneously is supplied as a standard feature of the Smart Battery Management Module (SBM3). The batteries can be of different size, which for example means that the mobile system continues to run if the main battery needs replacing. This can be a distinct advantage, especially for ultramobile devices that require 24/7 operation with hardly any time for recharging.

For ACPI-capable operating systems, communication with the SBM3 battery system is implemented as standard. This enables the user to control the power

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management easily through the operating system.

As an option, the Smart Battery Management Module SBM3 included in the Qseven Mobility Starter Kit can be integrated directly with a custom-specific carrier board. For this purpose, congatec provides an integration kit that includes all schematics, the source files for the microcontroller program and complete development documentation.

Congatec, www.congatec.com [1]

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