Intelligent wearable vital signs sensor module developed

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Toshiba Corporation today announced that it has developed an intelligent vital signs sensor module, Smart healthcare Intelligent Monitor Engine & Ecosystem; Silmee, that simultaneously senses information on key vital signs: Electric Cardio Gram, pulse, body temperature and movements, and that can deliver the data to smartphones and tablet PCs with wireless technology. Toshiba has fabricated a prototype of the sensor module that is small enough to wear, and will present and demonstrate it at the International Symposium on Medical ICT 2013, to be held at Meiji University, Tokyo, Japan on March 7.

Current healthcare cloud and services make use of already developed individual healthcare devices, such as sphygmomanometers or clinical thermometers. Such services face major challenges in achieving market penetration because the equipment is too big and handling a number of

pieces of equipment it too complex.

The recently developed Silmee includes a Pseudo-SoC analog front end, a 32bit ARM processor chip and a dual mode Bluetooth bare chip in a 14.5mm × 14.5mm small package. Simply adding a few devices to the module, such as an antenna, battery and sensor heads, achieves a completely wearable vital signs sensor system. Among the chips included in the module, the flexible and compact Pseudo-SoC analog front end is a very effective approach to implementing vital signs sensors, and extends recent rapid progress in vital sign sensor technologies.

Toshiba will demonstrate a very compact prototype implementation of Silmee: a 25mm × 60mm and 10 gram patch-type able to monitor all vital signs. Toshiba will contribute to the promotion of smart personal healthcare services by deploying the module and prototype terminal in a wide variety of smart healthcare service development and field trials.

Provided by Toshiba Corporation