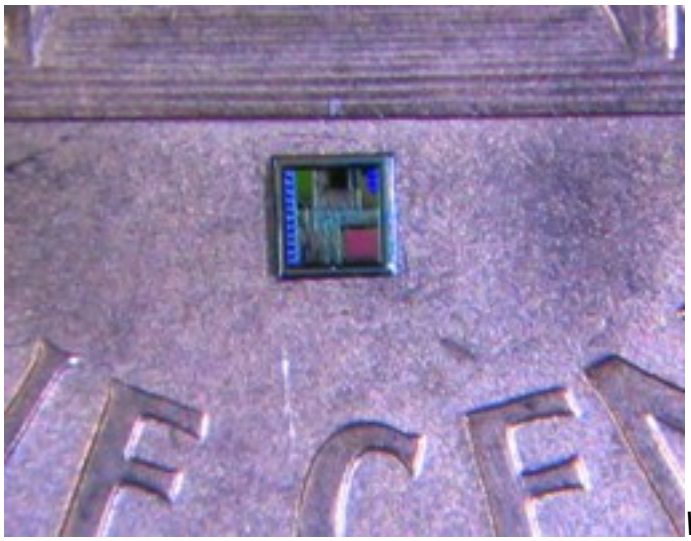
Chip Uses Novel Sleep Mode to Set Low-Power Record



We don't need to belabor how important it is to save energy. From the costs involved in production and distribution to the limited energy budget provided by storage devices, the ability to use less power benefits both fixed and portable device applications. This advance from the University of Michigan emphasizes the energy savings that we can realize from reducing the power that is currently (no pun intended) wasted in devices on standby.

A low-power microchip developed at the University of Michigan [1] uses 30,000 times less power in sleep mode and 10 times less in active mode than comparable chips now on the market.The Phoenix Processor, which sets a low-power record, is intended for use in cutting-edge sensor-based devices such as medical implants, environment monitors or surveillance equipment.
The chip consumes just 30 picowatts during sleep mode. A picowatt is one-trillionth of a watt. Theoretically, the energy stored in a watch battery would be enough to run the Phoenix for 263 years.Scott Hanson, a doctoral student in the U-M Department of Electrical Engineering and Computer Science, will present the design June 20 at the Institute of Electrical and Electronics Engineers' Symposium on VLSI Circuits. Hanson jointly leads this project with Mingoo Seok, a doctoral student in the same department.

University of Michigan
http://www.ns.umich.edu [2]

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