Texas Instruments' Ultra-Low-Power MSP430 Design Wins Technology Innovation Award

August 4 2004

Recognizing leadership and increasing commitment to the microcontroller industry, Texas Instruments Incorporated (TI) (NYSE: TXN) has been named a 2004 Technology Innovation Award winner in the World Microcontroller Market for its MSP430 ultra-low power technology. In selecting TI, Frost and Sullivan called the MSP430 family of ultra-low-power 16-bit RISC mixed-signal processors the ultimate solution for battery-powered measurement applications. The award will be presented to TI at the MSP430 Advanced Technical Conference (ATC) in Dallas Nov. 9, 2004.

The Technology Innovation Award is presented to the company that has demonstrated technological superiority within its industry, distinguishing it as a success in making noteworthy product performance contributions. The award recognizes TI's MSP430 ultra-low power technology as truly ground-breaking and first of its kind in the market.

"Binding the code effective architecture with Signal-Chain-on-Chip and unique inherent low-power design has enabled Texas Instruments to develop the MSP430 microcontroller to stand apart from the rest of the products in the market," said Ramanan Rajagopalan, research analyst, Frost & Sullivan. "Combining the strength of Texas Instruments in embedded analog circuits and low power technology, MSP430 has proven to be the cost-effective solution for a wide spectrum of applications including utility metering, handheld meter, security systems

and gas meters."

Award-Winning Technology

The MSP430 family includes a flexible clock system with five low-power modes, enabling unmatched ultra-low power performance. The family features a typical standby current consumption as low as 0.8uA with a real-time clock function active. Total power consumption is 10 times lower than competitive devices due to the fast instruction execution and MSP430´s ability to start-up from standby in less than six microseconds with a fully synchronized high-speed system clock.

The MSP430's ultra-low power technology and high performance analog capability offer a true signal-chain-on-chip (SCoC) solution to customers, which includes 12-bit analog-to-digital converters (ADC), digital-to-analog converters (DAC) and direct memory access (DMA). Designers are now able to cater to smaller applications at a fraction of the code size, with the MSP430's modern design that makes for more effective processing and is smaller and more code-efficient than other 8- and 16-bit microcontrollers.

Citation: Texas Instruments' Ultra-Low-Power MSP430 Design Wins Technology Innovation Award (2004, August 4) retrieved 25 April 2024 from https://phys.org/news/2004-08-texas-instruments-ultra-low-power-msp430-technology.html

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.