New analog front end extends battery life of portable ECG equipment

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DALLAS, Nov. 28, 2012 /PRNewswire/ -- Texas Instruments Incorporated (TI) (NASDAQ: TXN [1]) expanded its award-winning ADS1298 analog-front-end (AFE) family today with the industry's most power-efficient 24-bit, 3-channel AFE for biopotential measurement applications, such as portable, battery-powered electrocardiogram (ECG) solutions, Holter monitors and wireless patient monitoring equipment. The ADS1293 is also the first device in the family that can support one to five leads with a single AFE to significantly reduce the size, power consumption and overall cost of scalable medical instrumentation systems. Each channel of the ADS1293 can be independently programmed for a specific sample rate and bandwidth, allowing customers to optimize the configuration for performance and power. For information or to order samples, visit www.ti.com/ads1293-pr [2].

In addition to the ADS1293, the company unveiled WEBENCH® Medical AFE Designer [3], the latest addition to TI's growing family of WEBENCH design tools. WEBENCH Medical AFE Designer simplifies and speeds system design with the ADS1293, enabling customers to design and configure the AFE online. They can then download configuration data to the ADS1293 evaluation module [4] (EVM), reducing design time from weeks or months to a matter of minutes.

Key features and benefits of the ADS1293 [5]

- Lowest power-consumption to extend battery life:
    - Consumes only 300 uW per channel, 85-percent less than alternative integrated solutions.
    - Includes simultaneous digital ECG and pace signals on each channel; this eliminates the need for a dedicated pace channel, which
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