Ultra Low-Power Devices Enhance Portable Technology

STMicroelectronics, a global semiconductor leader serving customers across the spectrum of electronics applications, has leveraged its advanced design and manufacturing capabilities to create a new generation of accurate low-power components enabling greatly improved energy efficiency and faster operation of equipment such as gas sensors, medical devices, safety systems and industrial controls.

The TS881 is the first in ST's new generation of comparators compatible with supply voltages as low as 1.1V over a wide temperature range, enabling longer operating times with smaller batteries. Suitable for use in front-end detection and measurement circuitry, the TS881 is also faster than competing devices, allowing a significant reduction in equipment response times.

Leveraging ST's innovations in analog design, with very low operating current of 210nA (typical at 25°C), the TS881 draws less than half the current of competing devices. Moreover the push-pull output circuitry reduces power consumption to the absolute minimum when driving any capacitive or resistive load.

The TS881 will be joined in 2013 by dual and quad variants containing two and four comparators in a single package. This new generation of devices extends ST's industry-leading portfolio of comparators, which includes the TS3011, announced in 2011, delivering the market's fastest response time of 8ns with very low current consumption.

Major features of TS881:

- Typical operating current: 210nA (@ 25°C)
- Typical propagation delay: 2µs
- Temperature range: - 40°C to + 125°C
- Operating voltage range: 1.1V to 5V (1.1V operation guaranteed over full temperature range)
- ESD tolerance: 8kV HBM (Human Body Model)
- Rail-to-rail input
- Push-pull output

STMicroelectronics
www.st.com [1]

Source URL (retrieved on *06/19/2013 - 9:37am*):
http://www.mdtmag.com/product-releases/2012/12/ultra-low-power-devices-enhance-portable-technology?qt-recent_content=0

Links:
[1] http://www.st.com