Digital 3-Axis Gyroscope Touts Tininess

STMicroelectronics, a global semiconductor leader serving customers across the spectrum of electronics applications and the leading supplier of MEMS (Micro-Electro-Mechanical Systems) for consumer and portable applications[1], has expanded its motion-sensing portfolio with the addition of what is presented as the market's smallest three-axis digital-output gyroscope. The L3G3200D enables advanced motion sensing in ever-shrinking form factors of next-generation mobile phones, tablets and other smart consumer devices, by reducing the package size by almost half over current-generation sensors.

Leveraging a well-consolidated single-sensing structure, the new 3 x 3.5 x 1 mm gyroscope exhibits excellent robustness and immunity to mechanical stress, along with outstanding temperature stability to deliver high-performance motion measurement along all three orthogonal axes[2].

Addressing power constraints in battery-operated portable devices, ST's new gyroscope includes power-down and sleep modes, and an embedded FIFO (first-in first-out) memory block for smarter power management. It can operate with any supply voltage over the range of 2.4 to 3.6V with selectable full-scale ranges of ±250/500/2000 dps.

The L3G3200D gyroscope provides a 16-bit data output on the interrupt and data-ready lines and it integrates low- and high-pass filters with user-selectable bandwidth. The device operates over an extended temperature range from -40°C to +85°C and includes a temperature sensor with an 8-bit data output.

Samples of ST's L3G3200D gyroscope are available now. Unit pricing is $2.53 in

quantities of 1,000 pieces. Further pricing options are available for larger quantities. For more information on ST's complete MEMS portfolio see www.st.com/mems [1]

[1]

IHS iSuppli: H1 2011 Consumer and Mobile MEMS Market Tracker, August 2011

[2] There are three main types of angular motion: **yaw** is rotation around the vertical axis; **roll** is rotation around the front-to-back axis and **pitch** is the rotation around the side-to-side axis.

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