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## **STMicroelectronics Steps Up the Pressure: Delivers World's Smallest Pressure Sensor, Dust-Free and Water-Resistant by Design**

*At 0.76mm thin, pressure sensor is also the only one in a fully molded package, enabling higher-accuracy measurements*

**Geneva, November 11, 2014 -- STMicroelectronics (NYSE: STM)**, a global semiconductor leader serving customers across the spectrum of electronics applications, the world's top MEMS (Micro-Electro-Mechanical Systems) manufacturer and the leading supplier of MEMS for consumer and mobile<sup>1</sup> as well as automotive applications<sup>2</sup>, has extended its portfolio of environmental sensors with a new MEMS pressure sensor that breaks new ground in combining high accuracy and robustness with ultra-small physical size; the [LPS22HB](#) is the world's smallest pressure sensor.

Pressure sensors are increasingly being used in smartphones, tablets and wearable technology such as sports watches, smart watches, and fitness bands, enabling accurate floor detection and enhanced location-based services, allowing more accurate dead-reckoning calculations, and opening the door to new smartphone apps such as weather analyzers and health and sports monitors. For this reason, market analyst IHS estimates that the global market for pressure sensors for consumer electronic applications will reach almost a billion units<sup>3</sup> by 2018.

The LPS22HB is not only the world's smallest pressure sensor, but also the only one offered in a fully molded package that provides the best thermal and mechanical robustness (high shock survivability > 20,000 g) while boosting the performance and offering the best trade-off between current consumption and noise. This is because it is built using ST's new MEMS technology called "Bastille" that allows the use of fully molded HLGA (Holed Land Grid Array) packages, resulting in the smallest footprint

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<sup>1</sup> Source: IHS Consumer and Mobile MEMS Market Tracker H1 2014

<sup>2</sup> Source: IHS Market Tracker Automotive MEMS H1 2014

<sup>3</sup> IHS MEMS and Sensors Market Tracker, Consumer and Mobile H1 2014

measuring just 2x2 mm and reaching thinness below 0.8mm. Already proven in ST's LPS25HB 2.5 x 2.5mm pressure sensor, this revolutionary technology eliminates the need for a metallic or plastic cap, as well as any additional mechanical grid for isolation, as it is dust-free and water-resistant by design.

“Leveraging our proprietary industry-leading MEMS technology, our advanced packaging expertise, and our ASIC design skills, ST has created in the LPS22HB a unique pressure sensor housed in a fully molded package with a volume of only 3mm<sup>3</sup>,” said Francesco Italia, General Manager, High-End Sensor and Analog Division, STMicroelectronics. “Once again, we are raising the bar in sensors, enabling our customers to offer even more value to their own customers.”

Key technical features of the new pressure sensor include enhanced temperature compensation that allows apps to perform consistently in changing environments, an absolute pressure range from 260 to 1260 hPa that covers all possible user altitudes (from the deepest mines to the top of Mount Everest), low power consumption less than 5µA, and pressure noise lower than 1Pa RMS.

Samples of the [LPS22HB](#) are available now for OEMs, with volume production scheduled for Q3 2015. Subsequent distribution price will be \$1.40 for 1000 pieces.

### **About STMicroelectronics**

ST is a global leader in the semiconductor market serving customers across the spectrum of sense and power and automotive products and embedded processing solutions. From energy management and savings to trust and data security, from healthcare and wellness to smart consumer devices, in the home, car and office, at work and at play, ST is found everywhere microelectronics make a positive and innovative contribution to people's life. By getting more from technology to get more from life, ST stands for life.augmented.

In 2013, the Company's net revenues were \$8.08 billion. Further information on ST can be found at [www.st.com](http://www.st.com).

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