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Press release

P4161D

STMicroelectronics Makes IoT Sensing Accessible with IoT Plug and Play, Ready to Connect to Microsoft Azure

- *Multiple user modes make SensorTile.box adaptable and flexible*
- *Suitable for prototyping or as a module in commercial products*
- *Certified for out-of-the-box connection to Microsoft Azure IoT Central on Microsoft Azure*

Geneva, May 7, 2019 – STMicroelectronics (NYSE: STM), a global semiconductor leader serving customers across the spectrum of electronics applications, is launching SensorTile.box to help everyone from young people to expert designers discover the power of IoT and quickly understand how they can easily collect and send sensor information to the cloud.

The flexible IoT Plug and Play module connects easily with Bluetooth® Low Energy to a smartphone, allowing users to watch the sensors function as a pedometer, asset tracker, environmental monitor, or as other instruments. For more experienced designers, SensorTile.box provides developer and expert modes that help build sophisticated applications using a graphical wizard or by writing custom embedded code.

Attracted by its ease of use and relevance to all users across its full range of customers from consumers and beginners to IoT professionals, SensorTile.box will be showcased as a new demonstration platform for Azure IoT Central, which simplifies connecting smart devices to the cloud for data capture and analysis.

Andrea Onetti, General Manager of ST's MEMS Sensor Division said, "*SensorTile.box is uniquely flexible. It can be configured for users of any skill level to support learning, prototyping, or even as a module within a commercial end-product. Now IoT Plug and Play certified and compatible with IoT Central, it connects out-of-the-box with Azure IoT to further extend opportunities for learning and new-product development.*"

Tony Shakib, Principal Group PM Manager, Microsoft IoT Business Acceleration at Microsoft Corp. added, "*SensorTile.box will be showcased as a demonstration platform for Azure IoT Central, which aims to help everyone understand the benefits of IoT and the cloud and show them how easy it is to connect.*"

SensorTile.box contains ST MEMS devices for motion, context, and environmental sensing housed in a robust 57mm x 38mm x 20mm IP54 plastic container, and is expected to be available from the beginning of June from www.st.com/sensortilebox or from ST's distributors.

The commercial module and associated services are provided by FAE Technology, an authorized ST Partner company. Please visit fae.technology/sensortilebox for further information.

Additional technical information:

SensorTile.box serves a wide range of sensing, tracking, and monitoring use cases and is delivered ready to use with a 500mAh lithium battery and 8GB microSD card already fitted. The on-board sensors leverage ST's broad portfolio of proven high-performance MEMS[1] devices and are managed using an ultra-low-power STM32L4R9* microcontroller. They include:

- STTS751 high-accuracy temperature sensor
- LSM6DSOX low-power 6-axis inertial measurement unit (IMU) with Machine Learning Core (MLC)
- LIS3DHH and LIS2DW12 3-axis accelerometers
- LIS2MDL magnetometer
- LPS22HH pressure sensor/altimeter
- MP23ABS1 analog microphone
- HTS221 humidity sensor

In addition to pedometer, asset-tracking, and environmental-monitoring applications, beginners can also explore vibration monitoring, data recording, inclinometer/level-sensing, digital compass, and baby-monitoring applications.

Extra flexibility in developer mode lets users activate or shut down individual sensors to optimize power consumption, leverage sensor fusion by combining data from multiple sensors to improve overall accuracy, and individually calibrate sensors after final assembly using dedicated internal routines. In addition, the LSM6DSOX machine-learning core and AI extensions to the STM32Cube development ecosystem allow advanced users to run neural networks for sophisticated pattern recognition such as activity tracking and audio-scene classification.

Professional users can also develop powerful applications quickly and efficiently within the STM32 Open Development Environment (STM32 ODE), leveraging the STM32CubeMX configurator and code generator, and the STLink-V3 programmer and debugger.

You can also read our blogpost at https://blog.st.com/sensortile-box-sensor/

[1] MEMS: Micro Electro-Mechanical Systems

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ST is a global semiconductor leader delivering intelligent and energy-efficient products and solutions that power the electronics at the heart of everyday life. ST's products are found everywhere today, and together with our customers, we are enabling smarter driving and smarter factories, cities and homes, along with the next generation of mobile and Internet of Things devices.

By getting more from technology to get more from life, ST stands for life.augmented.

In 2018, the Company's net revenues were $9.66 billion, serving more than 100,000 customers worldwide. Further information can be found at www.st.com.

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