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STMicroelectronics and Jorjin Introduce Ultra-Low-Power Sigfox IoT Modules with Dual RF Connectivity

- *Sigfox-compatible modules from Jorjin integrate ST's BLE system-on-chip and sub-1GHz RF transceiver to achieve cost efficiency, high performance, and ultra-low power*
- *Fully programmable modules work as independent IoT nodes with worldwide coverage of Sigfox long-range, low-power wireless networks*

Geneva, Switzerland, and Taipei, Taiwan, April 26, 2018 --

STMicroelectronics (NYSE:STM), a global semiconductor leader serving customers across the spectrum of electronics applications, and Jorjin Technologies Inc., a Taipei, Taiwan based company established in 1997 to design and supply modules worldwide, today announced the certification of the dual-radio modules that combine Sigfox™ wireless-network technology with Bluetooth low energy (BLE).

Jorjin's WS211x Sigfox/BLE modules benefit from the market-leading performance and energy efficiency of ST's BlueNRG-1 BLE System-on-Chip (SoC) and the S2-LP sub-1GHz RF transceiver. These advantages have enabled Jorjin's modules to deliver cutting-edge connectivity and great battery lifetime, targeting coin-cell -operated or energy-harvesting IoT applications.

Fully programmable devices, Jorjin's new Sigfox modules exploit the ultra-low power Arm® Cortex®-M0 technology embedded in ST's BLE SoC to act as independent IoT connectivity nodes. The combination of BLE with Sigfox' low-power wide-area network (LPWAN) provides key benefits to IoT systems, such as firmware update over-the-air, which is not possible with conventional 'Sigfox-only' modules. Other benefits of having an IoT device connected both remotely through the Sigfox network and locally through BLE include the possibility to modify device settings during installation or maintenance, or to trace assets, which often change their position inside an area covered with BLE beacon stations.

“We are excited to achieve certification for our first Sigfox-compatible modules,” said Jorjin Technologies chairman Tom Liang. “STMicroelectronics and Sigfox teams’ support has been very helpful and we are looking forward to keeping expanding our collaboration with both partners.”

“The successful certification marks a significant milestone in our cooperation with Jorjin, delivering high-performance, ultra-low-power dual-radio Sigfox modules,” said Maria Rosa Borghi, Low Power RF BU Senior Director, Analog, MEMS and Sensors Group, STMicroelectronics. “Designers now get a cutting-edge solution for building high-mobility products with versatile connectivity and low power budget across all IoT segments.”

“We are glad to welcome Jorjin to our ever-expanding ecosystem and to partner once again with ST for the acceleration of the adoption of the IoT among the different verticals. The certification of the Jorjin module will allow us to boost the production of Sigfox-enabled devices answering a growing demand from our clients,” said Raouti Chehah, Sigfox Chief Adoption Officer.

The evaluation board for the WS211x modules uses the Arduino interface to ease customer development and is compatible with ST’s Arduino shield boards featuring MEMS motion sensors, environmental sensors, or Time-of-Flight (ToF) ranging sensors. An SDK is available from Jorjin enabling customers to develop applications using WS211x modules with ST’s sensor shield boards, as well as an AT command list facilitating customers test of the modules’ BLE and Sigfox functions.

Notes to Editors:

Jorjin’s new modules are available now and exist in two versions: the WS2118-00 has been certified for Sigfox regions RCZ1 (Europe, Middle East, South Africa) and RCZ3 (Japan), while the WS2119-A0 has been certified for regions RCZ2 (USA, Mexico, Brazil) and RCZ4 (Australia, New Zealand, Taiwan, Hong Kong, Singapore, Argentina).

About Jorjin

Since its establishment in Taipei in 1997, Jorjin's original core competency is the development and manufacturing of miniature modules in the domains of Wireless Connectivity, Central Processing, Imaging and other Sensing technologies. The company has also evolved to deliver comprehensive packages of associated firmware and regulatory certifications to shorten the product time-to-market of its worldwide customers. During the last few years, thanks to its expertise in miniaturization and to steady investments in R&D, Jorjin expanded its activities to the emerging markets of IOT and Wearable, with a distinct interest for AR/MR smartglasses. See www.jorjin.com.

About STMicroelectronics

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 2017, the Company's net revenues were \$8.35 billion, serving more than 100,000 customers worldwide. Further information can be found at www.st.com.

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