Jorjin Develops All New IoT Modules Compliant with Global Sigfox Protocols and Bi-Directional BLE

- *Jorjin launches global 'monarch-compatible' (RC1 – RC6) Sigfox modules, powered by STMicroelectronics BlueNRG-2 Bluetooth low energy system-on-chip and S2-LP Sub-1GHz ultra-low-power RF transceiver.*
- *The modules are suitable for remote monitoring and industrial asset tracking, geo-localization, smart metering and IoT products requiring seamless sensor-to-Cloud global connectivity.*

【**Taiwan, October 23rd , 2018**】——Jorjin, the leading module designer and supplier in Taiwan, today announced the launch of next-generation, RC1-RC6 global 'monarch-compatible' Sigfox and BLE modules.

Since the launch of the first generation Sigfox certified modules (WS2118-00 & WS2119-A0) in May, 2018, Jorjin has continued to develop modules, now introducing the WS2116 series, a new module family offering global 'monarch-compatible' Sigfox compliance and BLE, for dual-radio functionality. The WS2116 series of modules targets at LPWAN (Low-power Wide Area Network) applications and auto-switches across different regional frequency bands. The new module solution is applicable and beneficial for moving IoT devices such as asset tracking in logistics and deployments of fleet of IoT devices at globe scale, for environment monitoring, data analysis, and other electronic applications.

Jorjin's new module portfolio is powered by the highly-efficient dual-radio solution from ST based on S2-LP ultra-low-power long-range LPWAN transceiver and the BlueNRG-2 Bluetooth low energy SoC (system-on-chip). The chipset combination offers optimal RF performances, sleep mode, longer battery lifetime, generous flash memory up to 256KB and 24KB of

ultra-low-leakage SRAM and a featured set of I/O peripherals. The BlueNRG-2 device, powered by a highly-efficient Arm® Cortex®-M0 processor, also supports Bluetooth SIG-certified Mesh capability, offering a wider flexibility and extended communication range.

Bluetooth low energy connectivity enables Jorjin's new modules to outperform multiple significant functions in the IoT infrastructure. For example, the firmware could be updated through FOTA (Firmware-Over-the-Air) channel using a smartphone or tablet to perform the upgrade procedure, enhancing Sigfox LPWAN connectivity.

Engineered specifically for IoT applications, the dual-radio Sigfox and BLE modules can remotely and seamlessly send notification messages to the global cloud, as no additional local gateway is required. It allows for local configuration or monitoring of the device through a smartphone App.

For system developers, the WS211X series from Jorjin adopts Arduino programming interface to shorten the development time, and allow connects to MEMS, environmental, or optical sensors from ST. The SDK is now available for WS211X series and ST sensors. Jorjin also offers AT commands for clients to test the functionality of Sigfox and BLE.

The new modules from Jorjin target the smart meters, asset trackers and sensors. To demonstrate its efforts, Jorjin will attend Sigfox Connect during Oct 24 – 25 in Berlin, Germany to showcase global 'monarch-compatible' Sigfox and BLE modules, applicable in meters and sensors. Jorjin is dedicated in delivering high-quality, highly customizable services for ODM/OEM client. To further penetrate the IoT ecosystem, Jorjin has formed partnerships with solution leaders across software, hardware and cloud domains.

 "Sigfox has been widely adopted across the globe in IoT deployments. Customers will no longer be bounded by locations for data analysis. In fact, the multi-purpose low power modules will be the future to initiate various vertical

applications. Jorjin will then continue to develop LPWAN modules and that's why we co-developed Sigfox and BLE modules with STMicroelectronics and Sigfox to expand more applications", **said Tom Liang, Chairman and CEO of Jorjin.**

"ST's product offering enables a new era in remote monitoring and industrial asset management. We have recently introduced the market's first Sigfox Monarch reference design based on the S2-LP ultra-low-power long-range sub-1 GHz RF transceiver and BlueNRG-2 Bluetooth low energy SoC, along with our proven dual-radio Software Development Kit. The early adoption by Jorjin's new module portfolio highlights the readiness of ST's reference solution for the Sigfox Monarch technology," **said Marco Veneri, Low-Power RF Marketing Manager, STMicroelectronics.** "The Jorjin module portfolio will greatly simplify the adoption of the Sigfox Global networking and BLE connectivity to easily create a universe of smarter Sensor-to-Cloud applications".

"This competitive and optimized module developed by Jorjin, which combined the Sigfox Monarch unique feature with a short range Bluetooth connectivity, is going to accelerate the adoption of the Sigfox technology and its amazing value proposition of a seamless global network. The demand of the ODM and the OEM for global products and global mobility in markets like Metering, Logistic and Supply chain, requires Jorjin's high-quality and highly customizable services." **said Raouti Chehih, Chief Adoption Officer at Sigfox.**

<u>Notes:</u>

1. Jorjin's WS2116 series of modules with global 'monarch-compatible' Sigfox and BLE dual-functionality is currently in EVT stage, and the mass production is anticipated in Q1, 2019. The module is compliant with RC1 – RC6, with newly added bands in Korea and India.

2. WS2118-00 supports RC1 and RC3 (Europe, Middle East, South Africa and Japan), and WS2119-A0 supports RC2 and RC4 (Australia, New

Zealand, Asia and America). Both have been certified by Sigfox and leading nations and already in mass production stage.

About Jorjin

Founded in 1997, Jorjin Technologies is a provider of modular processing, sensing and wireless connectivity solutions which enable our customers to bring innovate products to market in the shortest possible time and at competitive cost. Our customers are in a wide range of markets including wearable consumer electronics, automotive infotainment, cloud connected devices and industrial mobile computing.

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