



WS2116-A0



WS2118-00



WS2119-A0

# BLE + Sigfox Dual Mode Module

WS211X Series for Asset Tracking  
& Smart Sensing

The WS211X series is Sigfox-certified dual mode (sub-1GHz and Bluetooth® low energy) ultra-low power wireless MCU modules. First generation is built with ST BlueNRG-1 BLE system on chip (SoC) and S2-LP transceiver, while the latest global roaming 'monarch' module WS2116 series is embedded with ST BlueNRG-2. These modules are cost-effective, high performance, and with low active RF and MCU current consumption. The low-power mode current consumption could provide excellent battery lifetime and allow for operation on small coin cell batteries and in energy-harvesting applications. Designers could choose between modules that support Sigfox RC1/3 and RC2/4 or global roaming 'monarch' (Sigfox RC1 to RC6) module.

## BLE + Sigfox Dual Mode Module

	WS2118-00	WS2119-A0	WS2116-A0
Region	Sigfox RC 1/3	Sigfox RC 2/4	Sigfox RC1 to 6
Frequency	868/923 MHz	902/920 MHz	865/923 MHz
Output Power	BLE Up to +8dBm Sub1G Up to +16dBm	BLE Up to +8dBm Sub1G Up to +24dBm	
Chipset	ST BlueNRG-1 + S2-LP		ST BlueNRG-2 + S2-LP
Certification	CE	FC	FC CE
Sigfox Verified	PASSED		
Dimension (W x H x D) mm	22.0 x 24.0 x 2.8 mm		22.0 x 22.0 x 2.8 mm
Operating Temperature	-40°C ~ 85°C (-40°F ~ 185°F)		
Interface	UART x 1, I2C x 1, SPI x 1		

## Sigfox & BLE Solution Features

### Sigfox

- Connectivity everywhere
- Low power consumption
- Competitive cost hardware
- Competitive cost network fees

### Bluetooth® low energy

- Indoor location
- Firmware OTA
- BLE Mesh
- Connected with mobile
- Device settings
- Smart beacon

## Jorjin Sigfox Evaluation Board

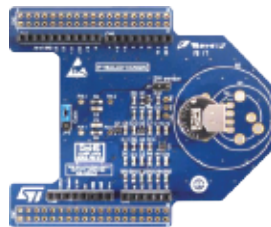
- Arduino interface
- Wide range of application scenarios: sensor data, remote control, and debug message management through USB virtual COM
- AT command ready
- 1 year free Sigfox test account

## Software & hardware-ready with ST sensor board

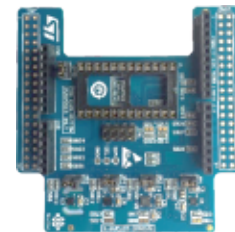
### Start your IoT experience right away



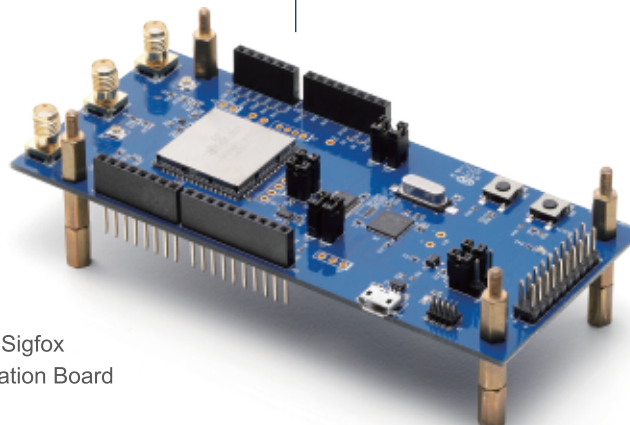
ST X-NUCLEO-53L1A1  
(ToF)



P-NUCLEO-IKA02A1  
(CO)



ST X-NUCLEO-IKS01A3  
(Sensors)



Jorjin Sigfox  
Evaluation Board

