

# BRKLSM100A

## Breakout board LoRaWan & Sigfox

### LSM100A Based



This LoRaWan and Sigfox module development and quick start board, based on the Seong Ji WLSM100A module, will allow you to integrate and use LoRaWan and/or Sigfox LPWAN networks in the design of your IOT project.

Conversion to LoRa mode or Sigfox mode is done using simple AT commands

The LSM100A module is a compact, low-power two-way radio module optimized for use in the 863 MHz ~ 928 MHz ISM bands using LoRa(TM) and Sigfox modulation technology.

This module supports LoRa(TM) & Sigfox communication protocols and can be converted to LoRa mode or Sigfox mode using simple AT commands.

The WLSM100A is an ultra-long-range, high-performance module.

The modules are pre-certified LoRaWan and Sigfox guaranteeing its compatibility for communication on these LPWAN networks.

The card integrates all the passive components necessary for wireless communication.

#### **Specifications:**

- LSM100A based
- LoRa & Sigfox
- 868Mhz
- Embedded software library
- Host CPU STM32WLE5CC
- Voltage : 1.8V ~ 3.6V
- Size : 14 x18 mm
- UART Interface
- AT Commandes
- API Version via SDK

#### **Available Kit (RC1):**

- BRKLSM100A board
- 868Mhz 1/2 wave antenna
- UFL to SMA 100mm cable
- 2x Male Pin Connector

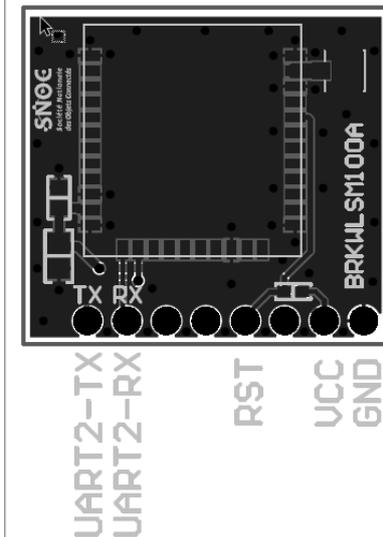
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#### Pin Description:



Name	Type	Description
UART2-TX	O	UART Transmit
UART2-RX	I/PU	UART Receive
RST	I/PU	Optional Reset Pin
VCC	P	Power Supply
GND	P	Ground

#### Communication Commands:

The module is controlled with serial AT commands sent on TX/RX pins. Below is the communication specification and AT commands to use: Serial communication: 9600 bauds, 8bits, 1 stop bit, no parity

Communication Test:	AT
Change mode Lora <-> Sigfox:	AT+MODE=mode <mode>:[ 0: SigFox, 1: LoRa]
Get Sigfox ID from module:	AT\$ID
Get Sigfox PAC from module:	AT\$PAC
Send Sigfox message:	AT\$SF=payload,opt_responsewaited,opt_txflag <payload>: [ 12 bytes maximum in ASCII format ] <opt_responsewaited>: [ 0: no response waited ] [ 1: response waited ] <opt_txflag txflag>: [ 0: one Tx frame sent ] [ 1: three Tx frames sent ]
Get LoRa Key:	AT+APPEUI=? AT+NWKKEY=? AT+APPKEY=? AT+...=?
Send LoRa message:	AT+SEND=port:ack:data <Port >:[ 1 ~ 199 ] <Ack >:[ 0: unconfirmed, 1: confirmed]