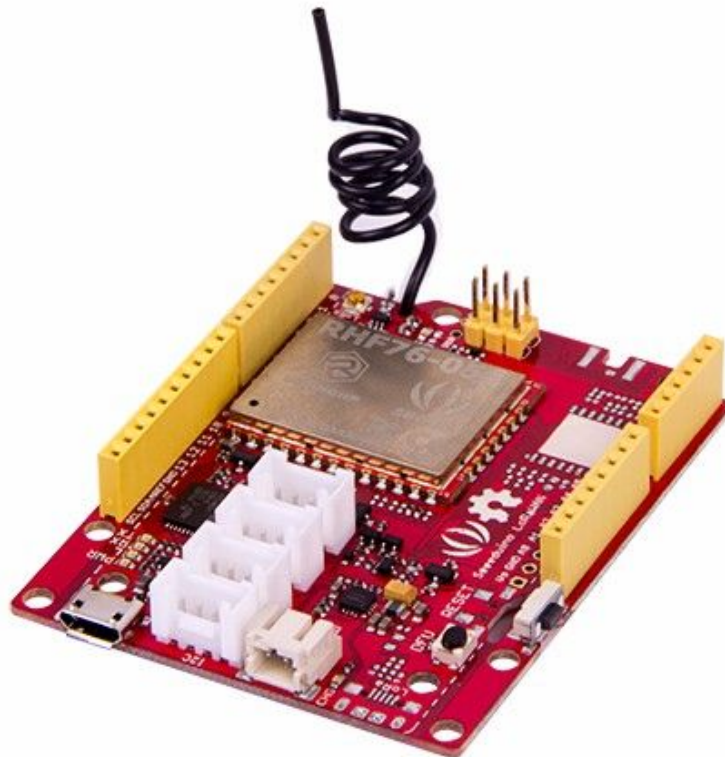


# Seeeduino LoRaWAN

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LoRaWAN Class A/C Ultra long range communication Ultra low power consumption  
Arduino programming (based on Arduino Zero bootloader) Embedded with lithium battery management chip 4 Grove connectors onboard

## PRODUCT DETAILS

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Seeeduino LoRaWAN is an Arduino development board with LoRaWan protocol embedded, through which you can get started quickly to experience LoRa's advantage in the field of IoT.

Based on communication module RHF76-052AM, Seeeduino LoRaWAN is compatible with LoRaWAN Class A/C and supports a variety of communication frequencies. The 4 onboard standard grove connectors allow Seeeduino LoRaWan to connect with hundreds of grove sensors and actuators for Seeeduino conveniently, as a result, users are able to be more focus on the application itself without worrying about the compatibility issue between different modules.

In addition, the board has embedded an integrated lithium battery management chip that allows the board to be charged by USB interface. In low consumption mode, a full charged lithium battery can power the board for several months. By using Seeeduino LoRaWAN. You can build an IoT application very quickly.

**Note:**

Please update the firmware when the first time to use it. Please always plug 3.7V Lipo battery in case USB power supply is not sufficient.

**Features**

- LoRaWAN Class A/C
- Ultra long range communication
- Ultra low power consumption
- Minimum current (3.7V lipo battery) - 2mA
- Minimum current (3.7V lipo battery & remove PWR LED) - 80 uA

**Arduino/Processor**

- ATSAM21G18 @ 48MHz with 3.3V logic/power
- Arduino compatible (based on Arduino Zero bootloader)
- Embedded with lithium battery management chip and status indicator led
- 20 GPIOs
- 4 on-board Grove connectors
- 18 x PWM pins
- 6 x analog inputs
- 1 x analog output (AO)
- 3.3V regulator with 200mA output
- Reset button

**LoRaWAN/RHF76-052**

- 1.45uA sleep current in WOR mode (Spec of the modules, not the board)

- High link budget of 160dB. -140dBm sensitivity and 19dBm Output power.
- Dual band, 434/470MHz and 868/915MHz
- 19dBm@434MHz/470MHz
- 14dBm@868MHz/915MHz
- Support LoRaWAN protocol, Class A/C
- Ultra long range communication
- Ultra low power consumption
- Firmware upgrade
- Small size: 23mm X 28mm with 33 pin SMT package

#### Technical details

Dimensions	140mm x75mm x29mm
Weight	G.W 41g
Battery	Exclude
Microcontroller	ATSAMD21G18, 32-Bit ARM Cortex M0+
Operating Voltage	3.3V
Digital I/O Pins	20
PWM Pins	All but pins 2 and 7
UART	2 (Native and Programming)
Analog Input Pins	6, 12-bit ADC channels
Analog Output Pins	1, 10-bit DAC
External Interrupts	All pins except pin 4
DC Current per I/O Pin	7 mA
Flash Memory	256 KB
SRAM	32 KB
EEPROM	None
Clock Speed	48 MHz

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Lenght	68 mm
Width	53 mm
Weight	19.6g(without GPS), 19.9(with GPS)

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#### Part List

Seeeduino LoRaWAN	1
Antenna	1

#### **ECCN/HTS**

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HSCODE	8517709000
USHSCODE	8517700000
UPC	841454119005