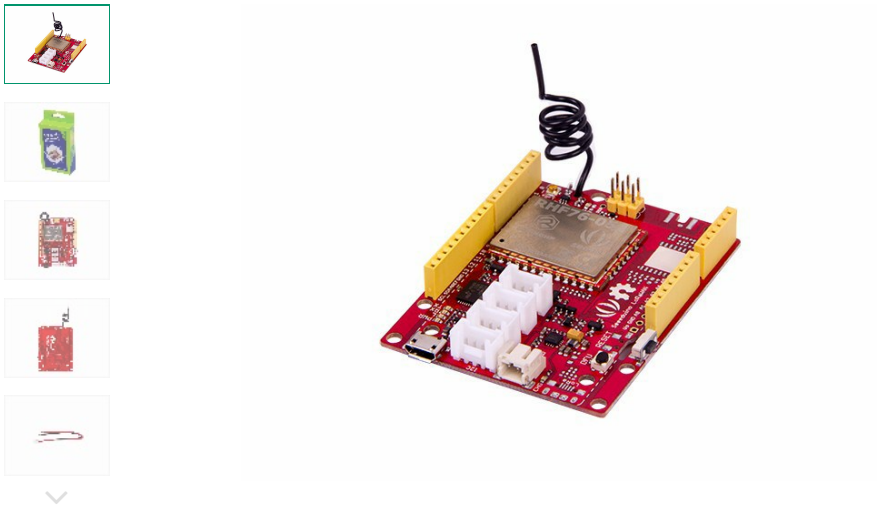

Seeeduino LoRaWAN

SKU 102010128

IN STOCK 36 Available

1 ADD TO CART

Description
Best-sellers
Technical Details
Questions and Answers
View History

Description

Seeeduino LoRaWAN is an Arduino development board with LoRaWan protocol embeded, 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 embeded an integrated lithium battery management chip that allows the board to be charged by USB interface. In low consumption mold, a full charged lithium battery can power the board for several months. By using Seeeduino LoRaWAN. You can build an IoT application very quickly.

We also offer another version with GPS module embeded, clickhere to find the Seeeduino LoRaWAN **W/GPS**.

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

- ATSAMD21G18 @ 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 (A0)
- 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

Specifications

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

Documents

- For libraries and documents, please visit our Wiki page.
- For technical discussion, please come to our Forum.
- For projects that you would like to share with the community, please visit Recipe.

Best-sellers


Seeeduino LoRaWAN W/GPS


LoRa/LoRaWAN Gateway -...

LoPy


LoRa Antenna Kit

Technical Details

Dimensions	140mm x 75mm x 29mm
Weight	G.W 41g
Battery	Exclude

Questions and Answers

Have a question about this? Ask people who own it.

1

What's the minimum power consumption this board can accomplish?

VladimirAkopyan on Dec 24,2016

Reply | upvote (1)

Hello, when both of MCU and LoRa go into sleep mode with 3.7V lipo battery, the current is 2mA, if you want lower, you can remove pwr led, then you can get about 650uA.If you get more query please feel free to contact techsupport@seeed.cc.Thanks.Seeed Techsupport Team.

ae on Dec 27,2016 10:06 AM

Reply | upvote (1)

@ae Ok, that's low enough to be viable for solar work. What is consuming the leftover power? My Arch GPRS v2 consumes the same amount.

VladimirAkopyan on Dec 28,2016 07:25 AM

Reply | upvote (0)

@ae Ok, that's low enough to be viable for solar work. What is consuming the leftover power? My Arch GPRS v2 consumes the same amount.

VladimirAkopyan on Dec 28,2016 07:25 AM

Reply | upvote (0)

@ae Ok, that's low enough to be viable for solar work. What is consuming the leftover power? My Arch GPRS v2 consumes the same amount.

VladimirAkopyan on Dec 28,2016 07:25 AM

Reply | upvote (0)

2

Looks good. Why no solar guys?

VladimirAkopyan on Dec 24,2016

Reply | upvote (2)

Hello, sounds a good idea and we will think about in the next version.Thanks.Seeed Techsupport Team.

ae on Dec 27,2016 10:07 AM

Reply | upvote (1)

@ae I really think you should have solar on all low-power boards. I am using GPRS Arch V2 in a serious project, as it's power consumption is low enough for solar charging to be viable, and I was hoping to use this board, or it's successor.

VladimirAkopyan on Dec 28,2016 07:23 AM

Reply | upvote (0)

@VladimirAkopyan Thanks for you suggestion, we will think about it.Thanks.

ae on Dec 31,2016 17:03 PM

Reply | upvote (0)

0

Is this board compatible with PN532 NFC grove board in I2C mode ?

laurent.nel on May 04,2017

Reply | upvote (0)

My auto-answer: I have tested with PN532 seeeduino libraries and it works perfectly well !

laurent.nel on May 05,2017 02:25 AM

Reply | upvote (0)

@laurent.nel Txs Laurent, can you please tell me something about the big number of warnings (incompatible architecture) putting together these two boards ? Have you solved the problem ?

raffaciava on May 10,2017 19:33 PM

Reply | upvote (0)

0

Hi. Is-it possible to use pin 0&1 (serial) to connect a device and use lora at the same time ? Because Serial1 seems to be hardwired to pin 0&1.

laurent.nel on Jun 14,2017

Reply | upvote (0)

Hello, you can't use 0/1 when you use lora at the same time.Loovee

ae on Jun 15,2017 09:27 AM

Reply | upvote (0)

0

Is it possible tu use /AU915 frequencies ?

johncaipa on Jun 12,2017

Reply | upvote (0)

YES. There's api to set the rate. Thanks.

ae on Jun 12,2017 16:48 PM

Reply | upvote (0)

0

Hi. Is-it possible tu use european frequencies (868 Mhz) ?

laurent.nel on Apr 25,2017

Reply | upvote (0)

Yes, there's API to set the freq.Thanks.

ae on Apr 26,2017 09:13 AM

Reply | upvote (0)

0

What is the maximum distance between 2 Seeeduino LoRaWAN ?

jack.ratieuville on Mar 30,2017

Reply | upvote (0)

Hello, ≥5KM at open wild.Thanks.

ae on Apr 14,2017 13:54 PM

Reply | upvote (0)

View History


Non-invasive AC Current S...


Seeeduino Mega


Seeeduino Ethernet


Seeeduino Lite