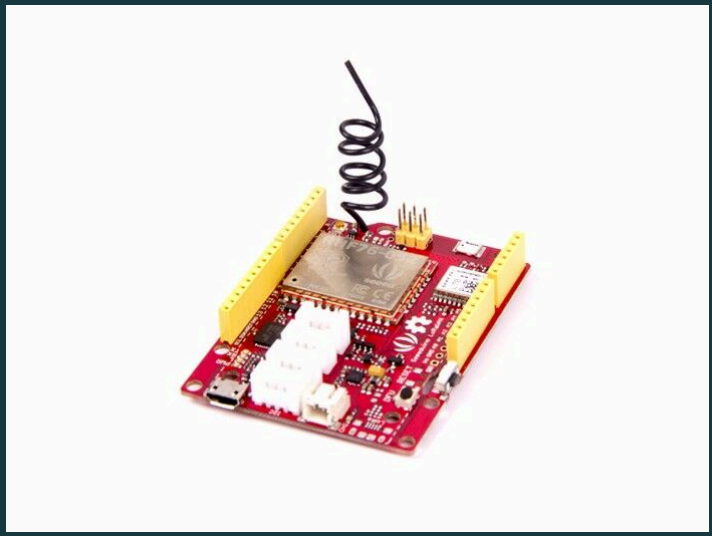
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INDUSTRIAL PRODUCT DATASHEET

# Seeeduino RHF76-052AM W/GPS Dev Board

Seeeduino RHF76-052AM W/GPS Dev Board combines Arduino compatibility, embedded GPS, Long Range Class A/C communication, and ultra-low power battery management for rapid IoT development.

| SKU | UPDATED | PRICE |
| --- | --- | --- |
| 102010129 | 2026-10-09 07:56:33 | $49.00(Excl. VAT) |



# Overview



The Seeeduino RHF76-052AM W/GPS Dev Board is an Arduino-compatible development board with embedded Long Range (LoRa) Class A/C communication and GPS, based on the RHF76-052AM module. It features an ATSAMD21G18 processor, 4 Grove connectors, 20 GPIOs, dual-band support, and an integrated lithium battery management chip for ultra-low power IoT prototyping.

# Key Features

Seeeduino RHF76-052AM Dev Board W/GPS is an Arduino development board with Long Range protocol and GPS function embeded, through which you can get started quickly to experience Long Range advantage in the field of IoT.

Based on communication module RHF76-052AM, Seeeduino RHF76-052AM Dev Board is compatible with Long Range Class A/C and supports a variety of communication frequencies. The 4 onboard standard grove connectors allow SeeeduinoRHF76-052AM Dev Board 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 RHF76-052AM Dev Board W/GPS, you can build an IoT application very quickly.

We also offer another version that without the embedded GPS module, please click **here** to find the Seeeduino RHF76-052AM Dev Board.

**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**

- Long Range Class A/C
- Ultra long range of communication
- GPS 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

**Long Range/RHF76-052**

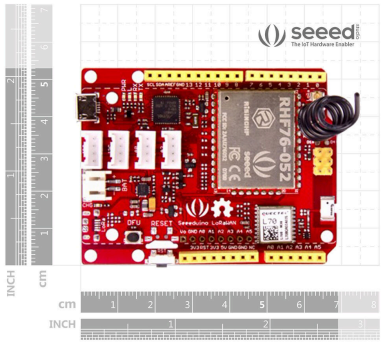
- 1.45uA sleep current in WOR mode (Spec of the modules, not the board)
- High link budget of 160dB. -140dBm sensitivity and 19dBm Output power.
- Dual band, 434/470MHz and 868/915MHz
- 19dBm@434MHz/470MHz
- 14dBm@868MHz/915MHz
- Support Long Range protocol, Class A/C
- Ultra long range communication
- Ultra low power consumption
- Firmware upgrade
- Small size: 23mm X 28mm with 33 pin SMT package

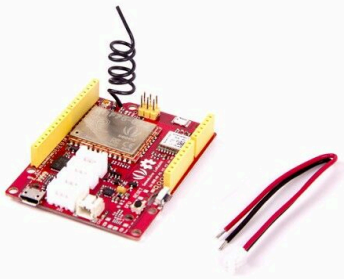
**Specifications**

# Product Gallery

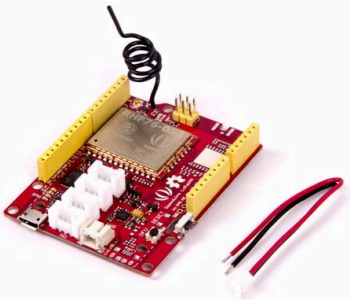








## Specification

| Item | Value |
|---|---|
| Microcontroller | ATSAMD21G18, 32-Bit ARM Cortex M0+ |
| Operating Voltage | 3.3V |

| Item | Value |
|---|---|
| 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) |

## Part List

| | |
|---|---|
| Seeeduino LoRaWAN W/GPS | 1 |
| Antenna | 1 |

## Compliance & Logistics




| | |
|---|---|
| HSCODE | 8517709000 |
| USHSCODE | 8517710000 |
| UPC | 841454119012 |
| EUHSCODE | 8517180000 |
| COO | CHINA |

# Resource Links

- https://www.seeedstudio.com/Seeeduino-LoRaWAN-W-GPS-p-2781.html

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