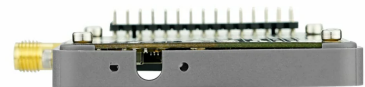
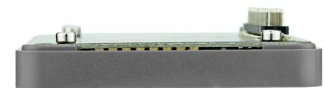
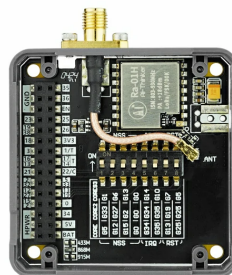


# Module LoRa868 v1.1

SKU:M029-V11



## Description

**Module LoRa868 v1.1** is a LoRa communication module (operating frequency 868MHz) in the M5Stack stackable module series, using the **Ra-01H module** (chip SX1276) solution. The module comes with a **built-in SMA antenna** and additionally provides two patch MCX antenna pad interfaces, allowing users to freely switch between different types of antennas according to their needs. Furthermore, the module is equipped with a **DIP switch**, enabling users to flexibly switch between different communication pins, **allowing multiple modules to be stacked and used simultaneously**, providing more customization possibilities and flexibility. It is suitable for remote monitoring, smart cities, home and industrial automation, Internet of Things (IoT) devices, and other fields.

## | Features

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- Serial communication protocol: SPI
- Ra-01H module
- DIP switch for IO switching
- Supports multiple stacking
- Operating frequency: 803~930 MHz
- Supports FSK, GFSK, MSK, GMSK, LoRa™, and OOK modulation modes
- Receiver sensitivity: as low as -140 dBm
- Programmable bit rate up to 300Kbps
- External antenna interface
- Built-in DIP switch for pin switching
- Development platforms: Arduino, Micropython, UIFlow(Blockly)

## | Includes

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- 1 x Module LoRa868 v1.1
- 1 x External SMA antenna

## | Applications

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- Remote monitoring
- Smart cities
- Home and industrial automation
- Internet of Things (IoT) devices

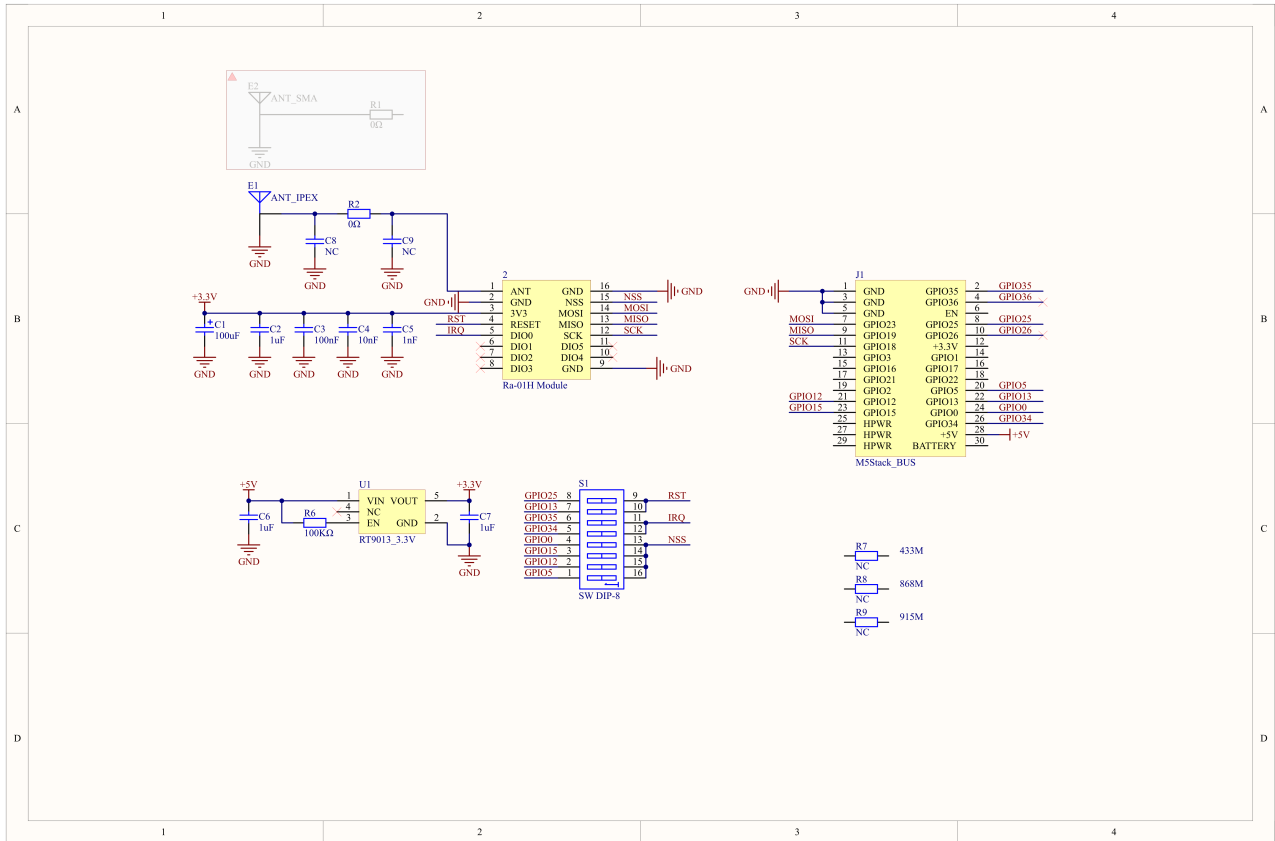
## | Specifications

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Specification	Parameter
Frequency range	803~930MHz
Communication interface	SPI
Programmable bit rate	Up to 300kbps
Antenna	Rubber antenna @2.5dBi
Standby current	DC 5V/1.74mA
Operating current	DC 5V/19.98mA
Operating temperature	0-40°C
Product dimensions	54.0 x 63.6 x 13.1mm
Package dimensions	92.0 x 63.0 x 25.0mm
Product weight	16.1g
Package weight	44.6g

## Schematics

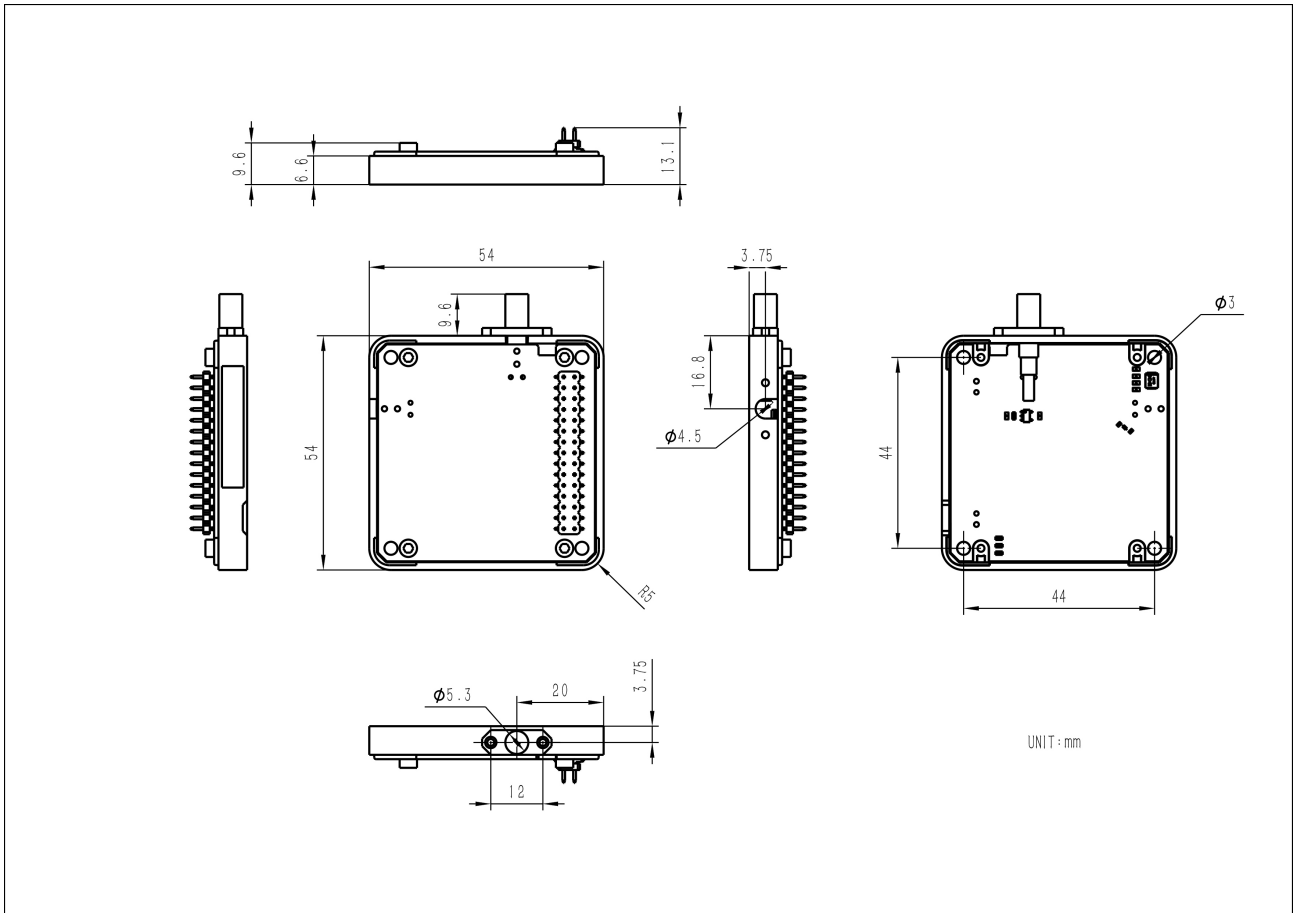
- [Module LoRa868 v1.1 Schematics PDF](#)



## PinMap

RA-01H	MOSI	MISO	SCK	RST	IRQ	NSS
Core (Basic)	G23	G19	G18	G25/G13	G35/G34	G0/G15/G12/G5
Core2	G23	G38	G18	G25/G19	G35/G34	G0/G2/G27/G33
CoreS3	G37	G35	G36	G5/G17	G10/G14	G0/G13/G6/G1

## Model Size



## Datasheets

- [RA-01H](#)
- [SX127X](#)

## Softwares

### Arduino

- [Module LoRa868 v1.1 Arduino Library](#)
- [Module LoRa868 v1.1 Arduino Demo\(LoRaSender\)](#)
- [Module LoRa868 v1.1 Arduino Demo\(LoRaReceiver\)](#)
- [Module LoRa868 v1.1 Arduino Demo\(LoRaSetSpread\)](#)
- [Module LoRa868 v1.1 Arduino Demo\(LoRaDuplex\)](#)

### UiFlow1

- [Module LoRa868 v1.1 UiFlow1 Docs](#)

## Video

- Module LoRa868 v1.1 Product Introduction and Function Demo

[M029-V11 LoRa868 V1.1 Module 视频.mp4](#)

## | Version Change

Release Date	Product Changes	Notes
/	Initial release of LoRa868 (SKU:M029)	/
2024.04.19	LoRa868_V1.1 (SKU:M029_V11)	Added a DIP switch compared to the previous version, allowing switching between different communication pins, suitable for M5Core, M5Core2, M5CoreS3 hosts, and also supports multiple stacking

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