

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, adopting the **Ra-01H module** (chip SX1276) solution. The module is equipped with an **external SMA antenna** by default, and additionally reserved with two SMT MCX antenna solder pad interfaces, allowing users to switch freely between different types of antennas based on their needs.

In addition, the module is equipped with a **DIP switch**, enabling flexible switching of communication pins, allowing **multiple stacks to be used simultaneously**, offering more customization and flexibility. It is suitable for remote monitoring, smart city, home and industrial automation, IoT devices, and other fields.

Features

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

Includes

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

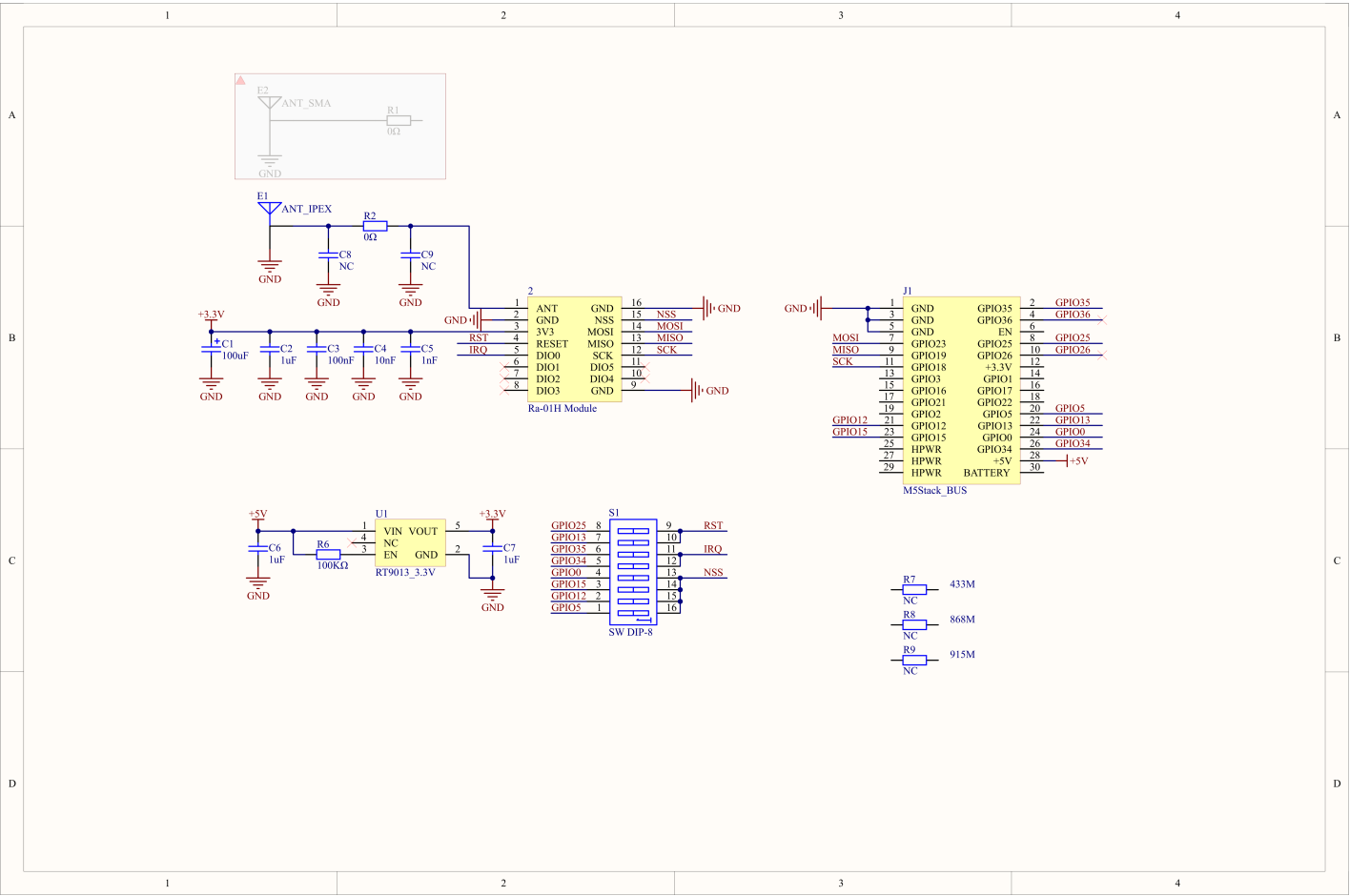
Applications

- Remote monitoring
- Smart city
- Home and industrial automation
- IoT devices

Specifications

Specification	Parameter
Spectrum Range	803 ~ 930MHz
Communication	SPI
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 Size	54.0 x 54.0 x 13.1mm
Product Weight	22.8g
Package Size	95.0 x 66.0 x 26.0mm
Gross Weight	41.9g

Schematics



PinMap

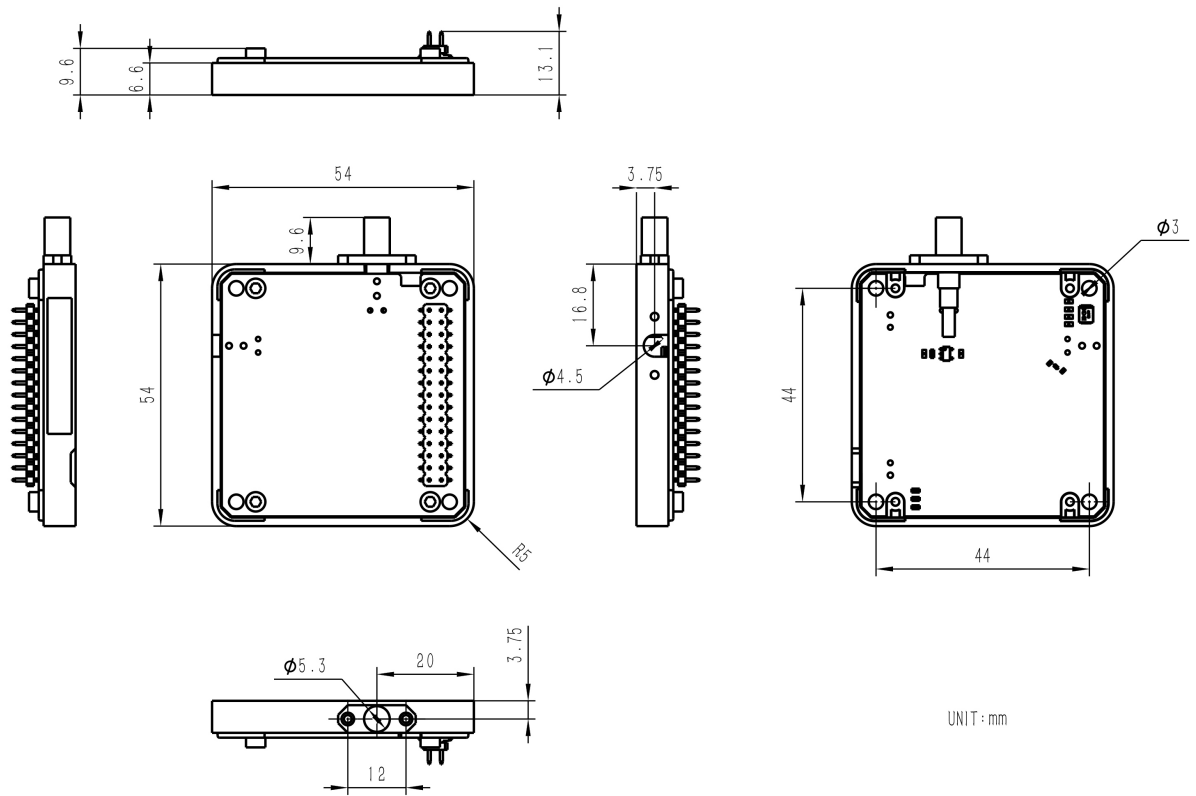
M5-Bus

DIP Switch

The pins marked **SW** on the M5-Bus below can be switched via DIP switches to adapt to different host devices.

PIN	LEFT	RIGHT	PIN
GND	1	2	IRQ (SW)
GND	3	4	
GND	5	6	
MOSI	7	8	RST (SW)
MISO	9	10	
SCK	11	12	
	13	14	
	15	16	
	17	18	
	19	20	CS (SW)
CS (SW)	21	22	RST (SW)
CS (SW)	23	24	CS (SW)
	25	26	IRQ (SW)
	27	28	5V
	29	30	

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	Change Description	Note
/	First release LoRa868 (SKU:M029)	/
2024.04.19	LoRa868_V1.1 (SKU:M029_V11)	Compared with the previous version, a DIP switch was added to switch different communication pins, suitable for Basic/Core2/CoreS3 hosts, and can also be used in multiple stacks