

Module LoRa433 v1.1

SKU:M005-V11



Description

Module LoRa433 v1.1 is a LoRa communication module (operating at 433MHz) in the M5Stack stackable module series, using the **Ra-02 module** (chip SX1278) solution. The module comes with a **built-in SMA antenna** and also provides two additional patch MCX pad interfaces, allowing users to switch between different types of antennas as needed. Additionally, the module features a **DIP switch** for flexible switching of communication pins, **enabling multiple stacked modules to be used simultaneously**, offering more customization possibilities and flexibility. It is suitable for applications such as remote monitoring, smart cities, home and industrial automation, and IoT devices.

| Features

- Serial communication protocol: SPI
- Operating frequency: 410MHz~525MHz
- 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

- 1 x Module LoRa433 v1.1
- 1 x External SMA antenna

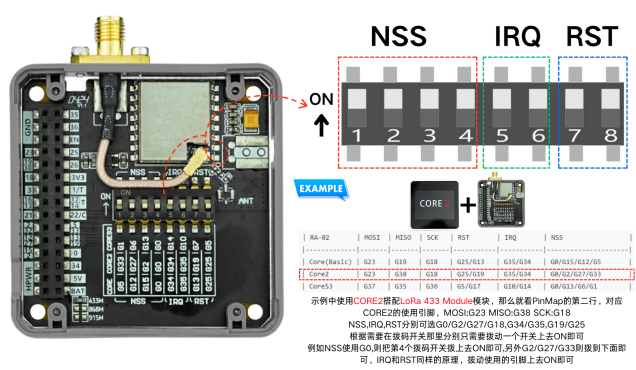
| Applications

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

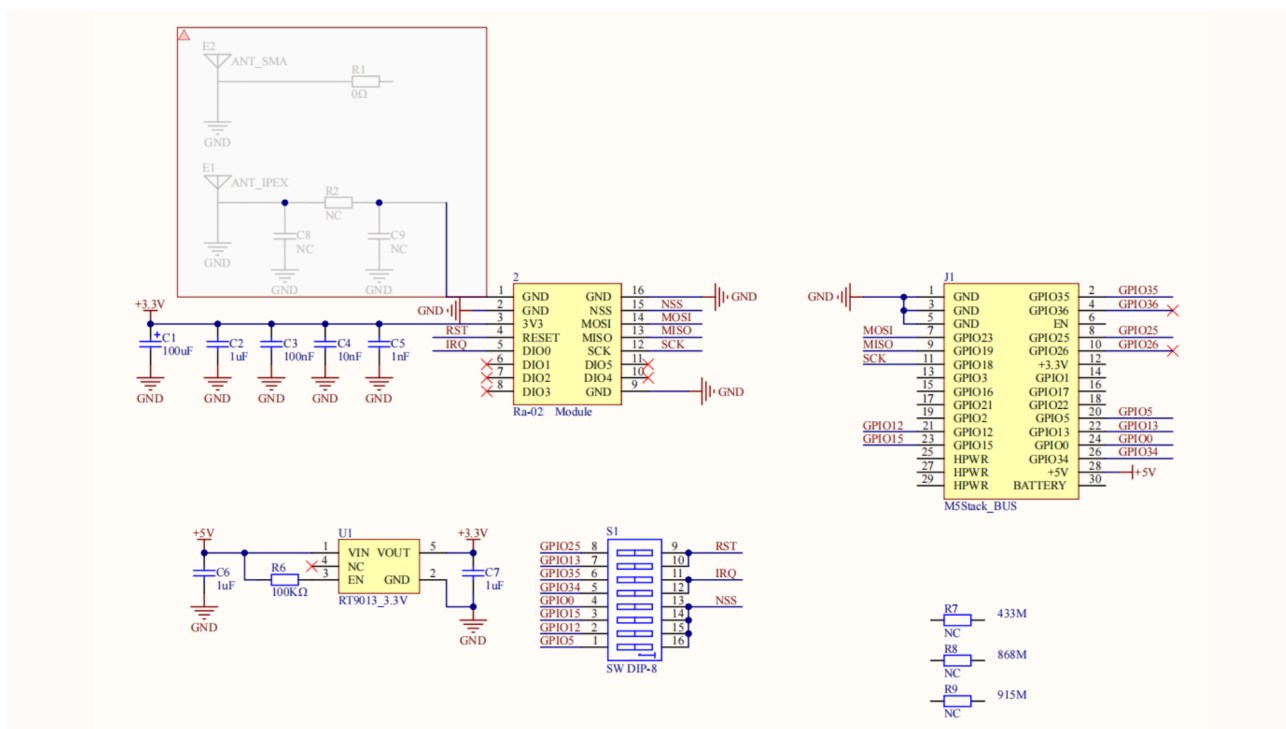
| Specifications

Specification	Parameter
Frequency range	410MHz~525MHz
Communication interface	SPI
Programmable bit rate	Up to 300kbps
Antenna	Rubber duck antenna @2.5dBi, total length 110mm, SMA inner pin
Operating temperature	0-40℃
Product dimensions	54 x 54 x 13.1mm
Package dimensions	92 x 63 x 25mm
Product weight	16.1g
Package weight	44.6g

Learn



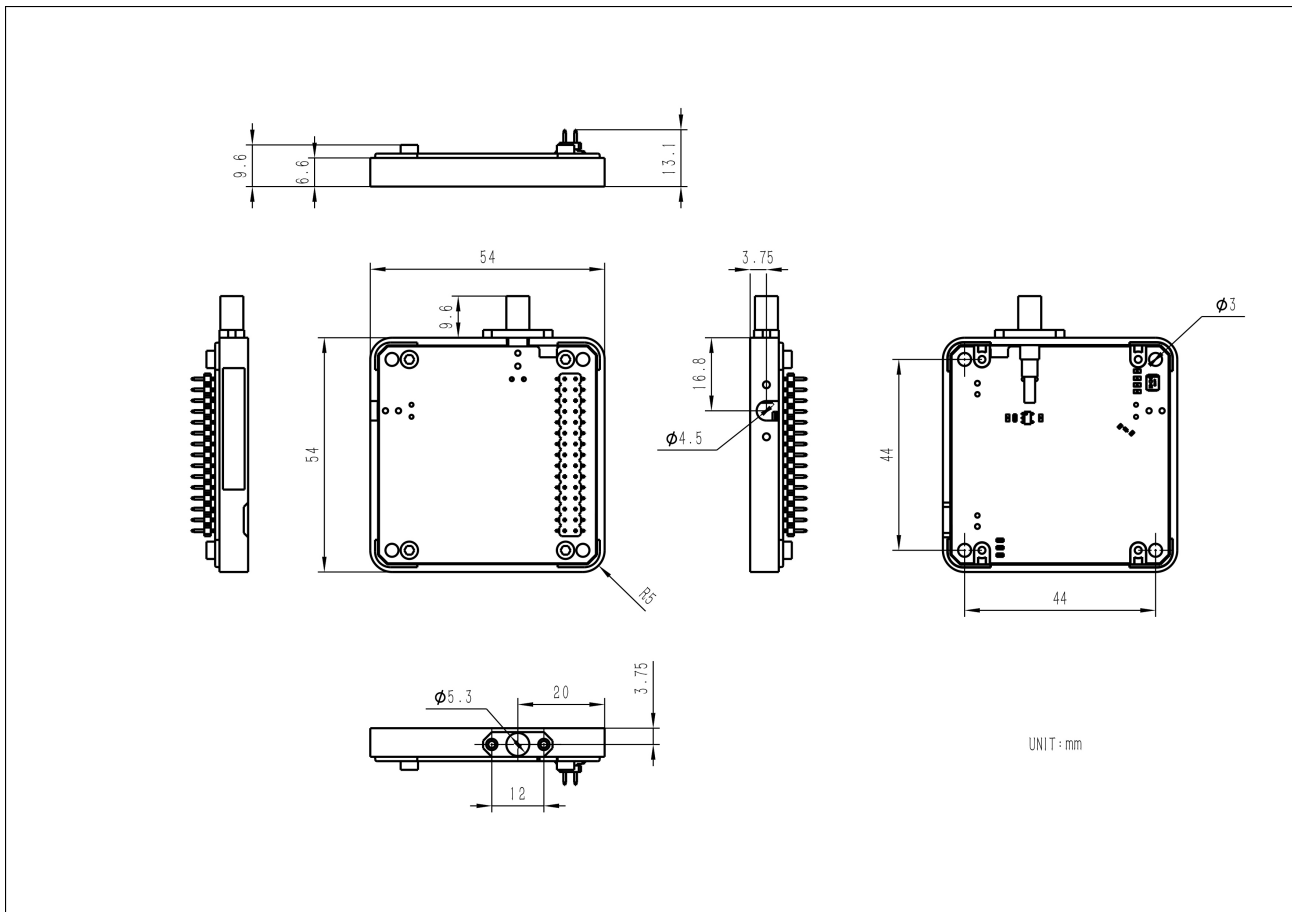
Schematics



PinMap

RA-02	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
CoreMP135	PE11	PE13	PB4	PB13	PA0/PA1	PC13/PA5/PA6/PF2

Model Size



Datasheets

- [Ra-02_CH](#)
- [Ra-02_EN](#)
- [SX127X](#)

Softwares

Arduino

- [Module LoRa433 v1.1 Arduino Library](#)
- [Module LoRa433 v1.1 Arduino Demo\(LoRaSender\)](#)
- [Module LoRa433 v1.1 Arduino Demo\(LoRaReceiver\)](#)
- [Module LoRa433 v1.1 Arduino Demo\(LoRaSetSpread\)](#)
- [Module LoRa433 v1.1 Arduino Demo\(LoRaDuplex\)](#)

UiFlow1

- [Module LoRa433 v1.1 UiFlow1 Docs](#)

Version Change

Release	Product	Notes
Date	Changes	
/	Initial release of LoRa433 (SKU:M005)	/
2024.05.17	LoRa868_V1.1 (SKU:M005_V11)	Added a DIP switch compared to the previous version, allowing for switching communication pins, suitable for M5Core, M5Core2, M5CoreS3 hosts, and enabling multiple stacked modules