

Module-LoRa433_V1.1

SKU:M005-V11



Description

The **LoRa433_V1.1 Module** is a part of the M5Stack stackable module series and is a LoRa communication module operating at a frequency of 433MHz, utilizing the **Ra-02 module** (SX1278 chip) solution. This module comes with a default **external SMA antenna** and also features two additional patch MCX pad interfaces, allowing users to switch between different types of antennas based on their needs. Additionally, the module is equipped with a **dip switch**, enabling users to easily switch between different communication pins. It supports multiple stackable uses simultaneously, offering more customization and flexibility. It is suitable for remote monitoring, smart cities, home and industrial automation, IoT devices, and more.

Features

- Serial communication protocol: SPI
- Operating frequency: 410MHz~525MHz
- 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 toggle pin
- Development platform: Arduino, Micropython, UIFlow(Blockly)

| Includes

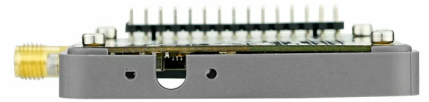
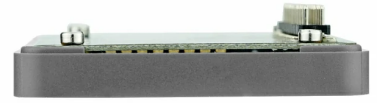
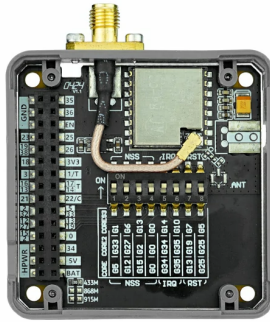
- 1x LoRa433_V1.1 Module
- 1x SMA External Antenna

| Applications

- Remote Control
- Intelligent city
- Home and industrial automation
- Internet of Things (IoT) devices

| Specification

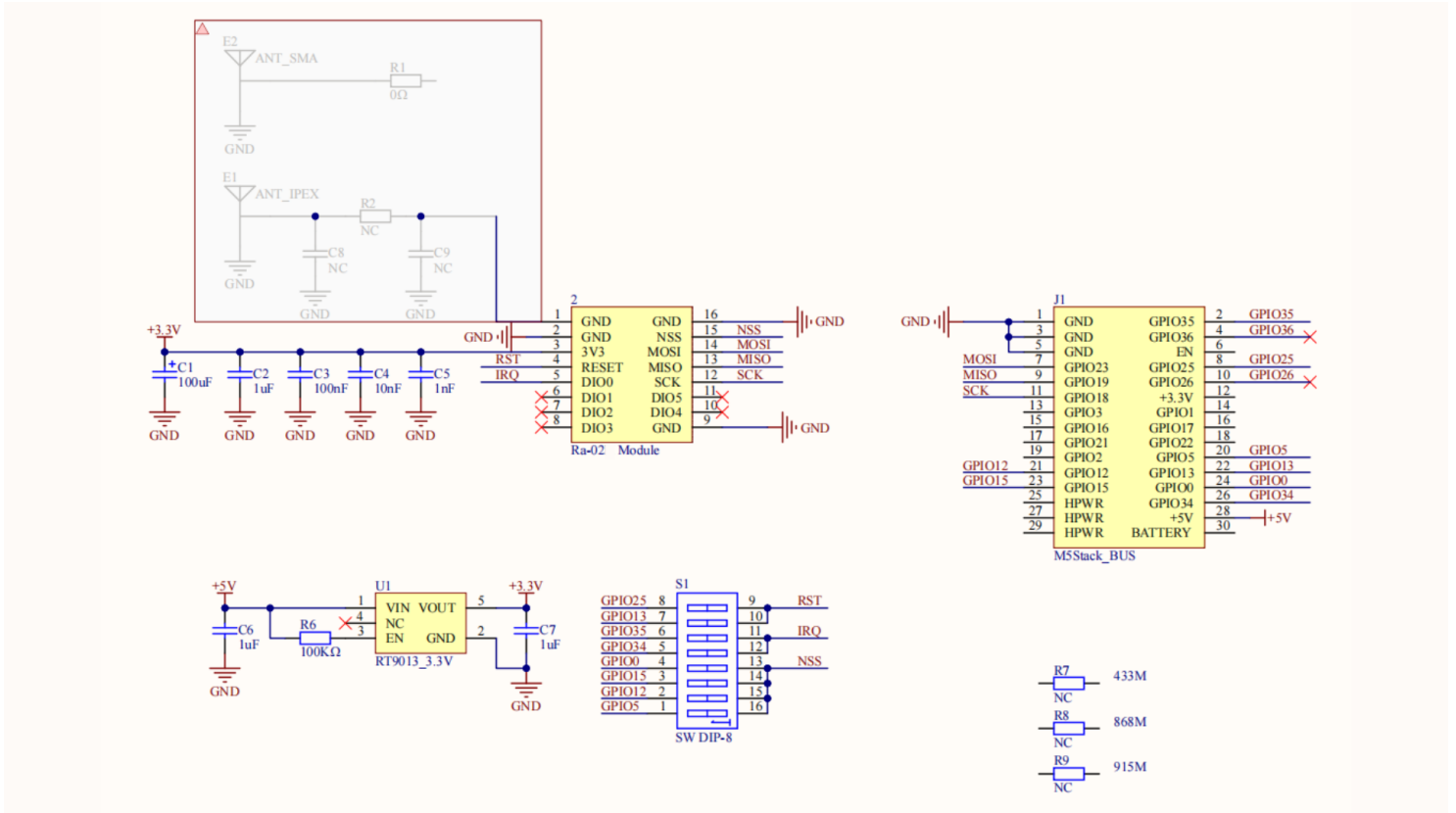
Resources	Parameters
Spectral range	410MHz~525MHz
Communication interface	SPI
Programmable bit rate	Up to 300kbps
Antenna	Glue stick antenna @2.5dBi total length 110mm SMA inner needle
Operating temperature	0-40°C
Product Size	54*54*13.1mm
Package Size	92*63*25mm
Product Weight	16.1g
Package Weight	44.6g



Related Link

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

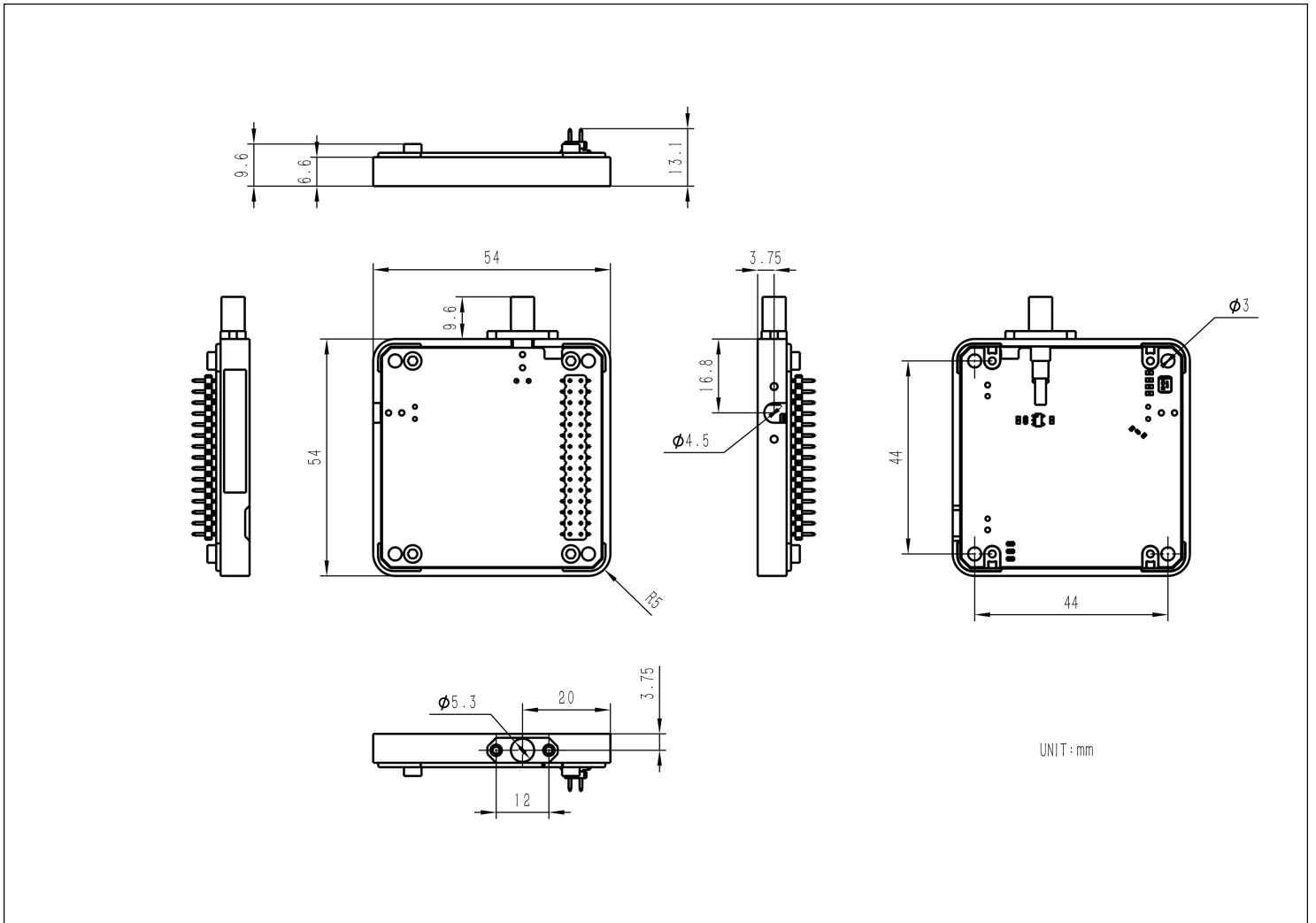
Schematic



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

Module Size



Examples

Arduino

- [LoRa433_V1.1 Module Arduino Library](#)
- [LoRa433_V1.1 Module Arduino Demo\(LoRaSender\)](#)
- [LoRa433_V1.1 Module Arduino Demo\(LoRaReceiver\)](#)
- [LoRa433_V1.1 Module Arduino Demo\(LoRaSetSpread\)](#)
- [LoRa433_V1.1 Module Arduino Demo\(LoRaDuplex\)](#)

Version Change

Listing Date	Changed	Note
/	Product Released LoRa433(SKU:M005)	/
2024.05.17	LoRa868_V1.1(SKU:M005_V11)	Compared with the previous version, the dip switch is added, which can switch different communication pins, suitable for M5Core\M5Core2\M5CoreS3 generation host, and can also be used for multiple stacks

