COM.LoRaWAN 868

Description

COM.LoRaWAN is a LoRaWAN communication module in the M5Stack stackable module series, supporting node-to-node or LoRaWAN communication. The LoRaWAN module based on ASR6501 encapsulates the PSoC4000 and SX1262 chips, supports the 868MHz frequency band, is based on an ultra-low power design, and consumes very low current (3.5μA) in deep sleep mode. In order to facilitate the user to configure the pins, the DIP switch is used to set the hardware serial port pins.

The user only needs to switch the corresponding pins to ON as needed and specify the pins in the program. A DC power socket is designed under the module, which can be powered by an external power supply, and an external antenna can be used to obtain better signal quality. This module is especially suitable for remote low-power transmission application scenarios with ultra-low power consumption and ultra-small size as the core requirements. Since LoRa defines the lower physical layer, the upper networking layers were lacking.

LoRaWAN was developed to define the upper layers of the network. LoRaWAN is a media access control (MAC) layer protocol but acts mainly as a network layer protocol for managing communication between LPWAN gateways and end-node devices as a routing protocol, maintained by the LoRa Alliance.You can upgrade your work with a LoRa / LoRaWAN radio, so it can communicate over very long distances and extremely low power consuming.

COM LoRaWAN serial port settings baud rate: 115200, stop bit: 1, data bit: 8, parity bit: none, terminator: none

Notice

When used with the **FIRE** main control, due to the PSRAM pin conflict, please switch the DIP switch pins of the module base to TX(0/13), RX(5/15), and the device can use USB/ External DC is used for power supply.

When used with **Core2** series main control, due to the different order of the base pin array, COM.X base pins TX(16), RX(17) correspond to the actual pins TX(14), RX of the Core2 main control (13) The equipment needs to use external DC for power supply.

> Note: When **using** the CORE2 **or** CORE2-FOR-AWS main control **to** drive the **module**, please use the DC power input of the base **and** set the power mode to input mode (refer to the code below), otherwise it will **not** start normally
>
> ```
> //mbus_mode_t:
> //kMBusModeOutput: Use USB or battery power
> //kMBusModeInput: Use external power supply 5V, or DC interface
>
> M5.begin(true, true, true, false, kMBusModeInput);
>
> //Initialize Serial according to the actual connected pins
> Serial2.begin(115200, SERIAL_8N1, 13, 14);
> ```

> The module base has a DC power input interface. Please strictly follow the input range (5-12V) to prevent damage to the module when using this interface to connect to the power supply. The internal power DIP switch can adjust the voltage level of the internal terminal VIN to adapt to different modules.

5.5mm
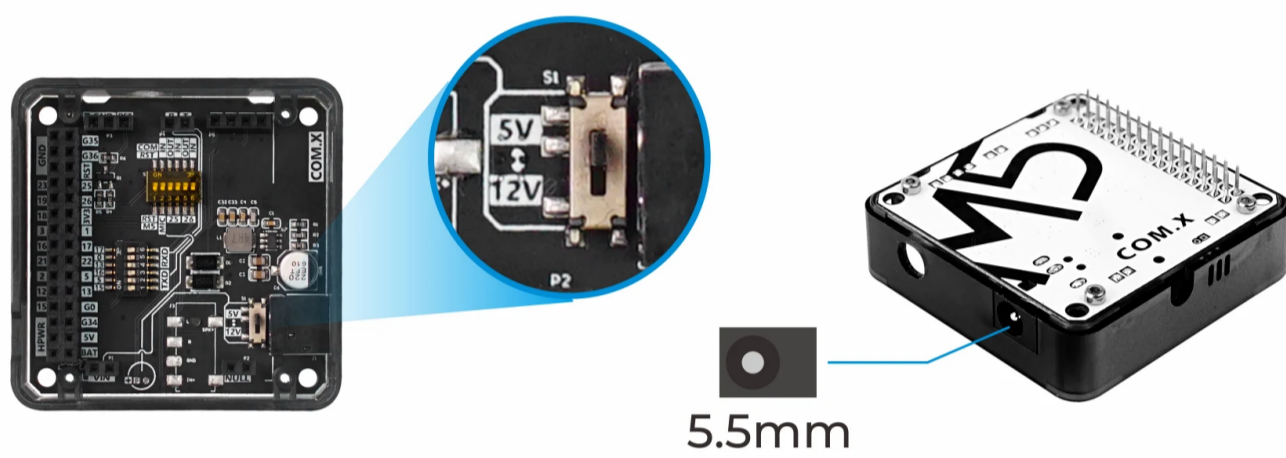
Product Features

- Stackable design
- Support LoRa/LoRaWAN
- Module: Based on ASR6501
- Frequency Baud:868MHz(EU868)
- Radio IC: SX1262
- MasterChip:PSoC® 4000 series MCU (ARM® Cortex® M0+ Core)
- Interface: UART
- Protocol: AT Command
- Compatible with Arduino IDE
- Ultra-low power design

Include

- 1x LoRaWAN Module
- 1x SMA antenna

Applications

- Automatic meter reading

- Home building automation
- Remote irrigation system

Specification

Specification	Parameter
Frequency Baud	868MHz
Communication	UART
Protocol	AT Command
DC interface specifications	5.5mm
Net weight	40g
Gross weight	75g
Product Size	54.2*54.2*13.2mm
Package Size	165*60*36mm

Main countries and regions supported by EU868

Austria/Belgium/Czech Republic/Denmark/Finland/France/Germany/Italy/Netherlands/Sweden/UK/Angola/Andorra/Bulgaria/Estonia/India/Malta/Philippines/Portugal/Russia/Spain/Switzerland/Zambia

EasyLoader

EasyLoader is a concise and fast program writer, which has a built-in case program related to the product. It can be burned to the main control by simple steps to perform a series of function verification.

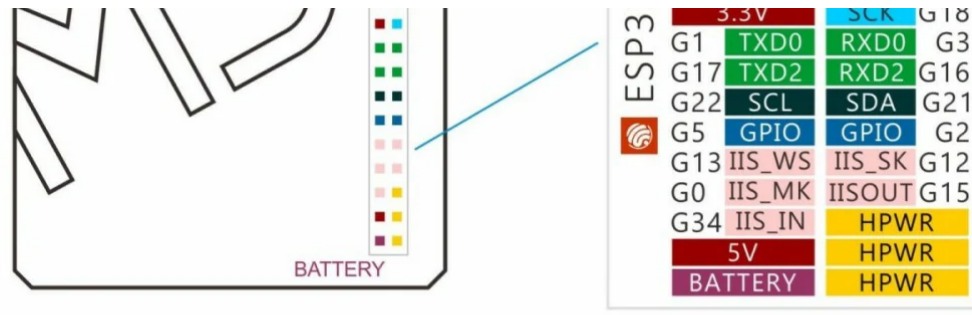Windows   MacOS

Description:
One master and one slave, the slave presses the Button_A to send a message and the master receives

PinMap

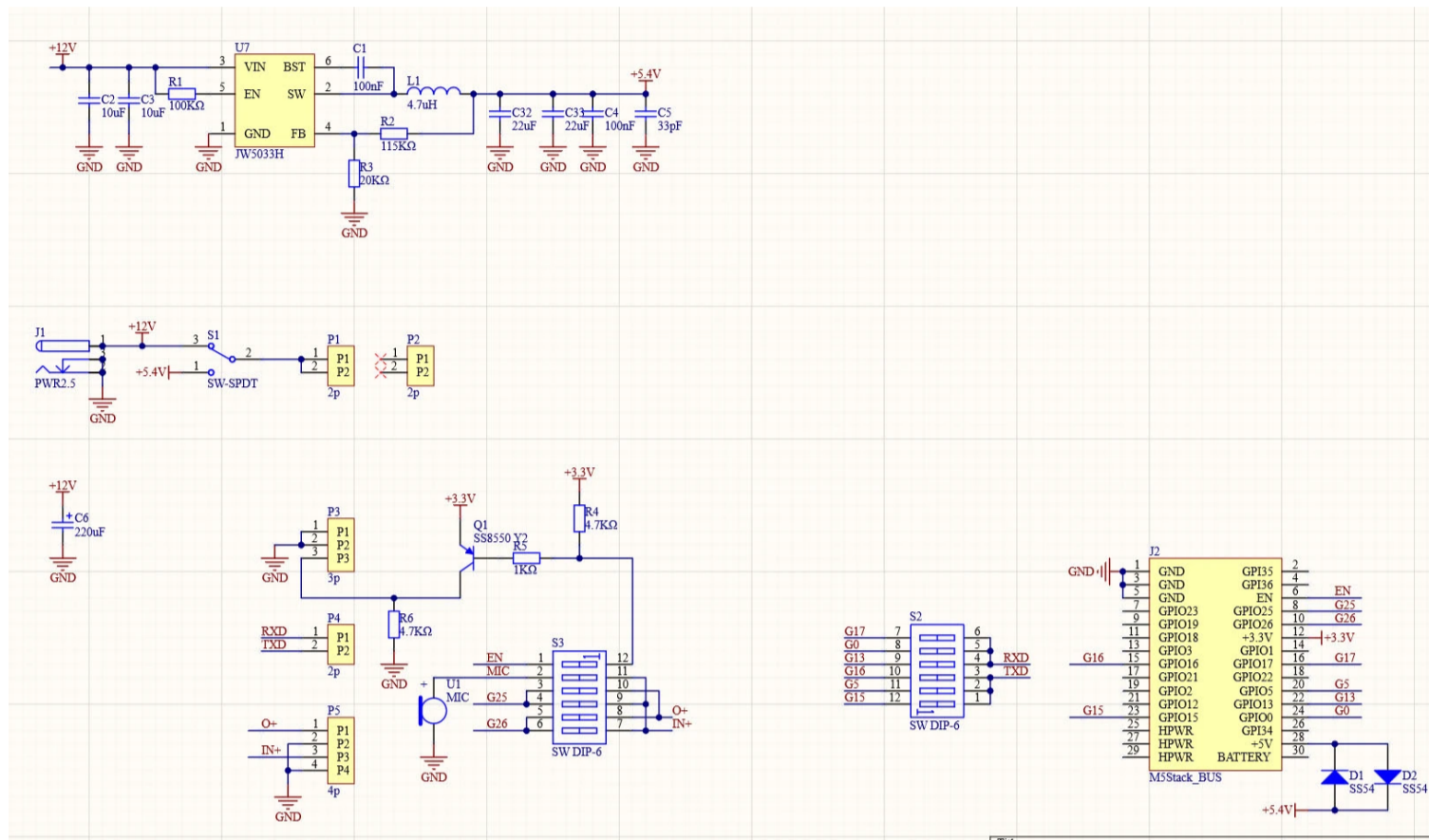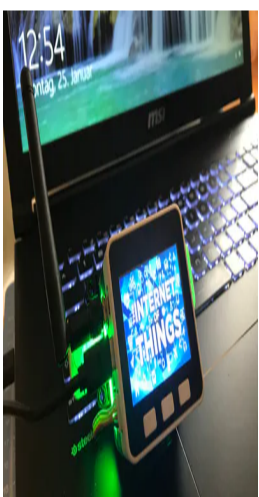| HTCC-AM01_UART	ESP32 Chip
RXD	TXD(GPIO0/13/17)
TXD	RXD(GPIO5/15/16)

MBUS PinMap

Related Link

- **LoRaWAN AT Command**
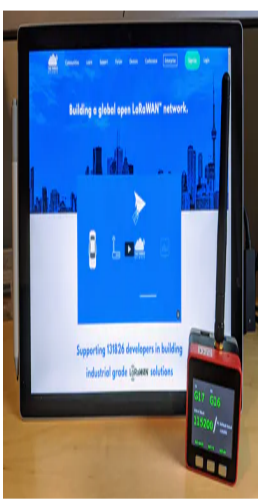- **LoRaWAN Area parameters**

Schematic

Learn

M5Stack COM. LoRaWAN Using Arduino IDE
M5Stack recently released an updated LoRaWAN module. This tutorial teaches you how to connect it to The Things Network using Arduino IDE.

M5Stack COM.LoRaWAN Using UIFlow
M5Stack recently released an updated LoRaWAN module. This tutorial teaches you how to connect it to The Things Network using UIFlow.

Example

Arduino

Click here to get Arduino example

UIFlow

Click here to download

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