LAN Base with W5500 V12
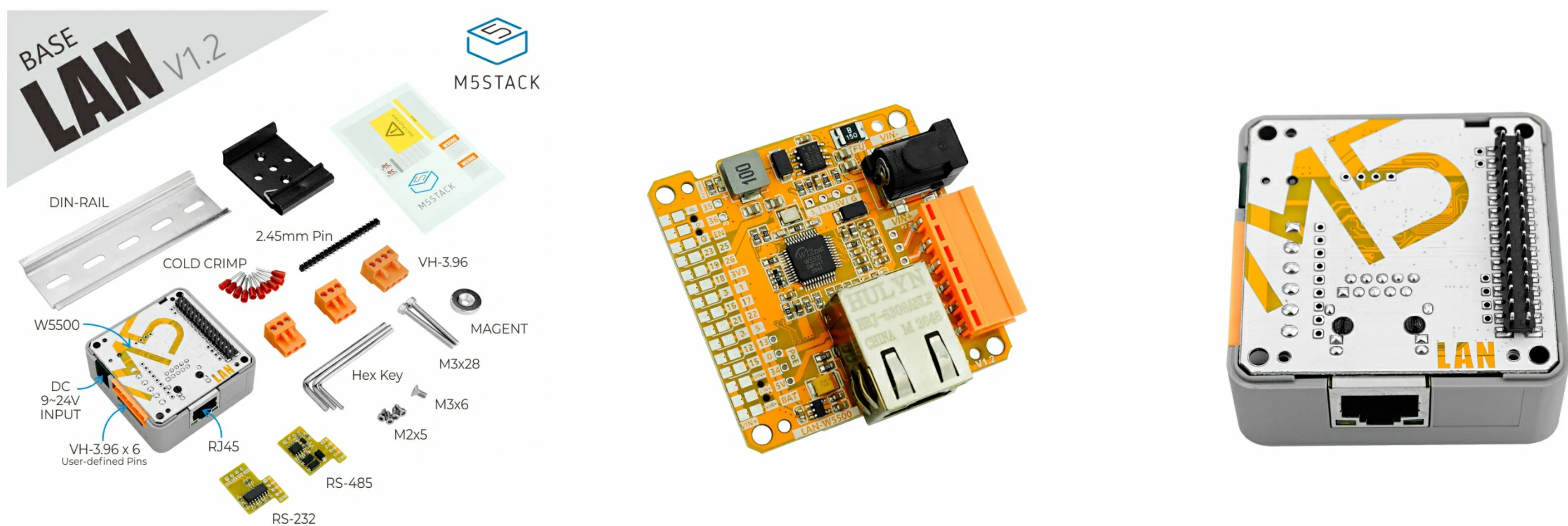
Description

LAN Base is an Ethernet controller base, built-in **W5500** full hardware TCP/IP embedded Ethernet controller (SPI communication interface), supports multiple communication protocols (TCP, UDP, IPv4, ICMP, ARP, IGMP and PPPoE, etc.) and integrated storage buffer area to facilitate Ethernet data packet processing. The internal reserved expansion pad can be used to expand the RS485/RS232 communication switch module or add custom designs, standard fixed rails, etc. Accessories, LAN Base with both performance and expansion flexibility can provide you with a more concise embedded Ethernet connection.

Product Features

- It can meet the wired network access requirements in the actual production environment.
- Designed for industrial application scenarios:
    - Provide metal slide rails for easy installation and fixation
    - Equipped with HT3.96 terminals for electrical connection
    - Support input power voltage: 9-24V
- Standard configuration TTL-RS485 + TTL-RS232 two adapter boards, adapt to different communication interfaces.

Include

- 1x LAN Base
- 1x TTL-RS485 adapter board

- 1x TTL-RS232 adapter board
  - 1x header 20pin
  - 1x metal rail and disk
  - 3x HT3.96 terminal
    - 2x 3pin
    - 1x 4pin

  - 10x cold crimp terminals
  - 3x Allen key
  - 1x 1.5mm
  - 1x 2mm
  - 1x 2.5mm
  - 2x socket head screw M3x28
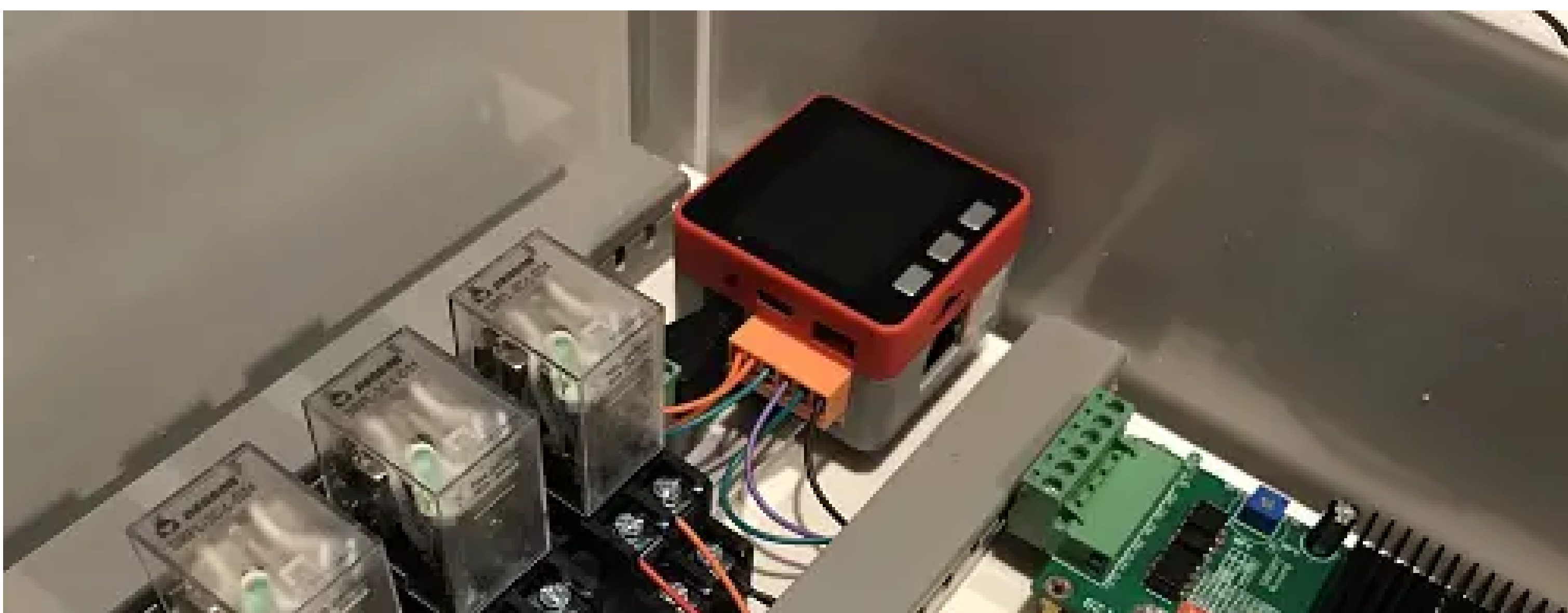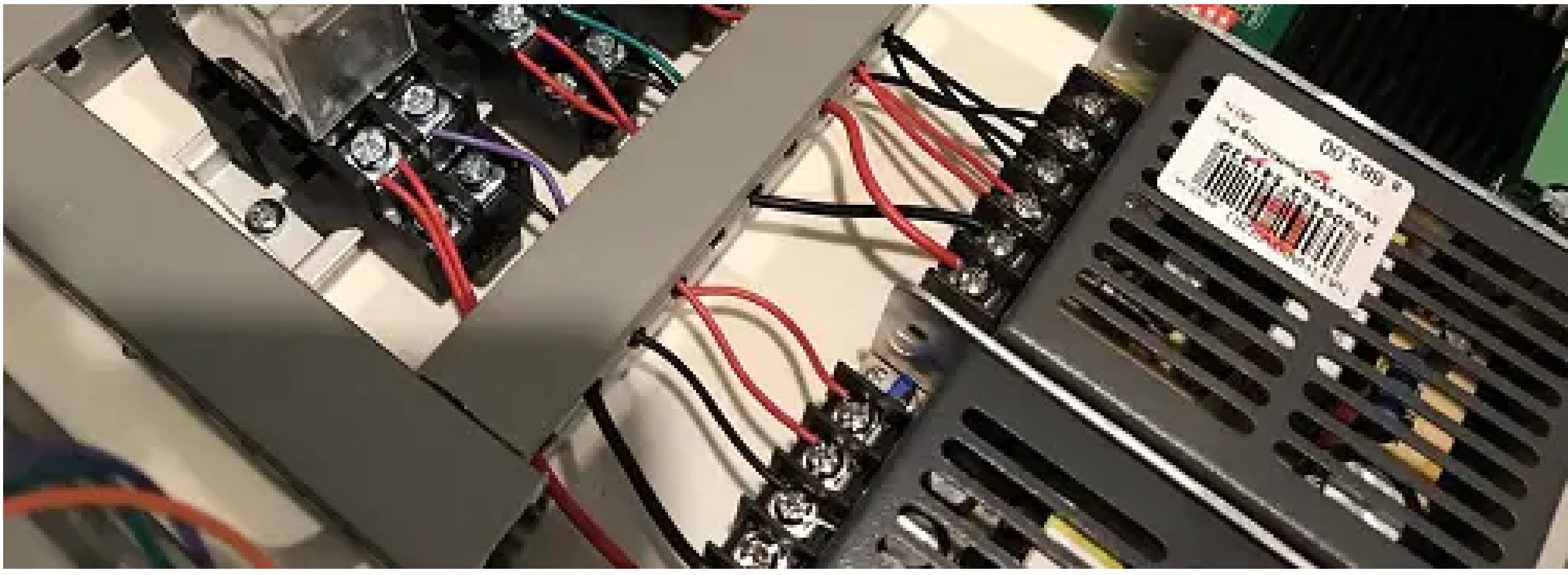 - 4x hex socket tapping screws KA2x4
  - 1x countersunk screw M3x8

Note

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 supply
//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);
```

Application

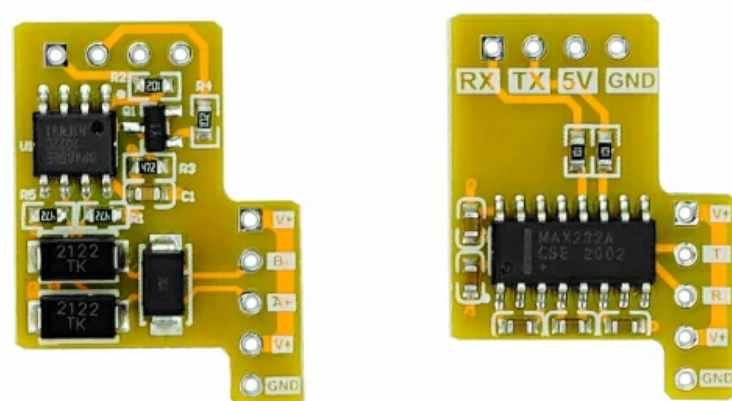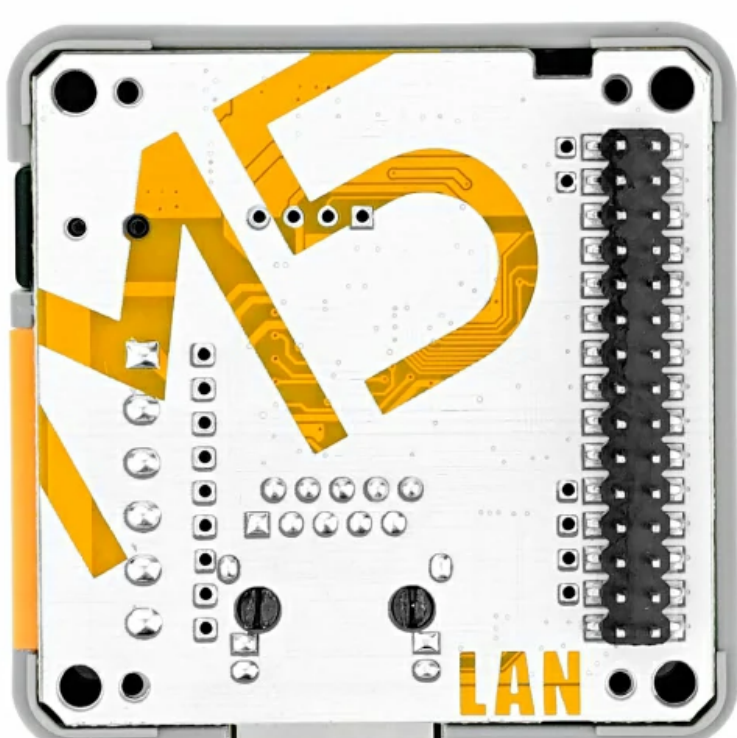- M5Core + LAN realizes the conveyor belt controller

○ Wired video data transmission between PC and Core

Specification

Specifications	Parameters
Ethernet Controller	W5500
Network port	RJ45 adaptive 10/100M network port
Net weight	32g
Gross weight	132g
Product size	54 * 54 * 28mm
Packing size	105 * 65 * 40mm

EasyLoader

> 1.EasyLoader is a simple and fast program burner. The EasyLoader in each product page provides a product-related case program, which can be burned to the main control through simple steps, and a series of functional verification can be carried out .
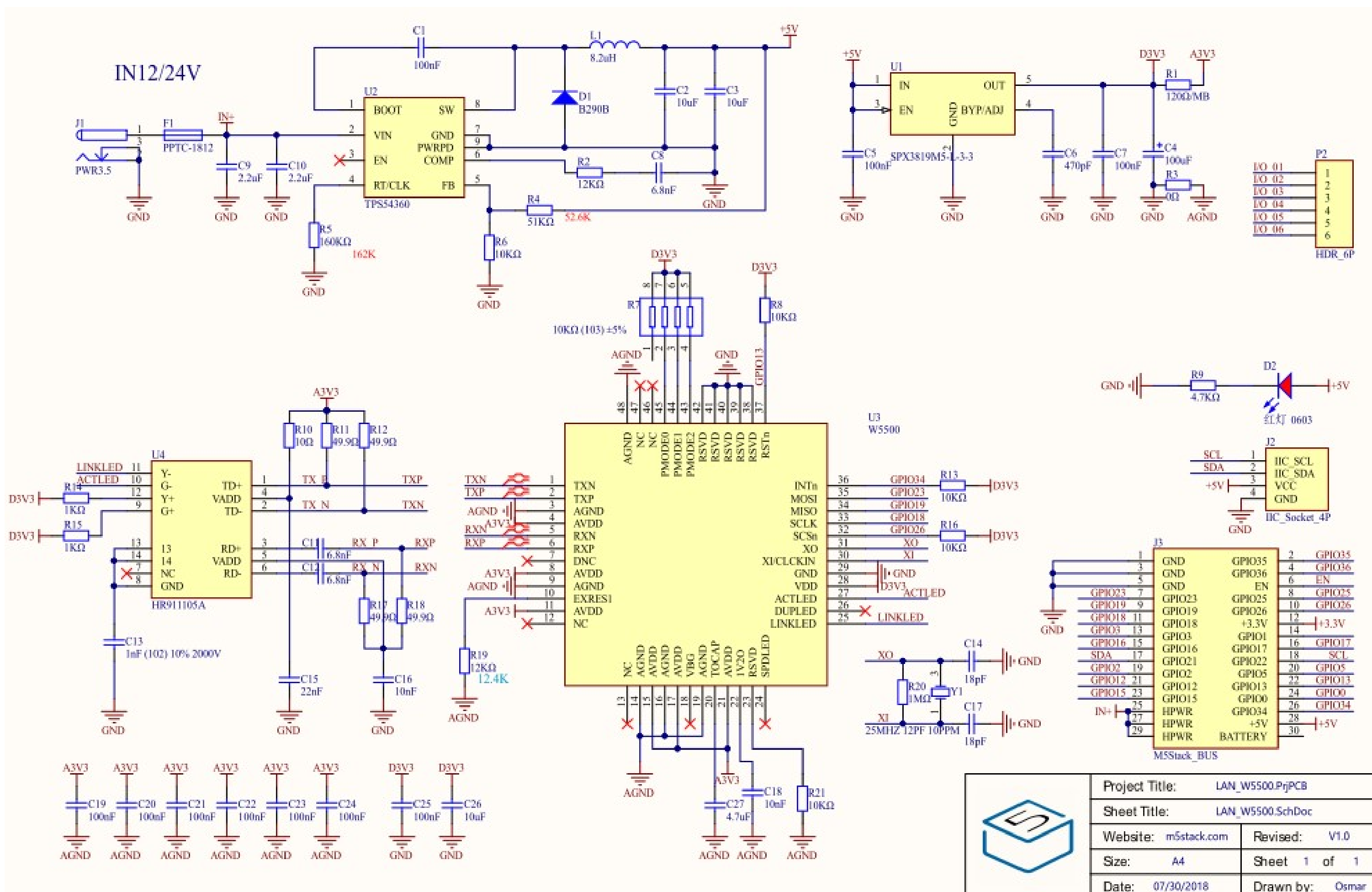
Examples

- LAN BASE WEB SERVER

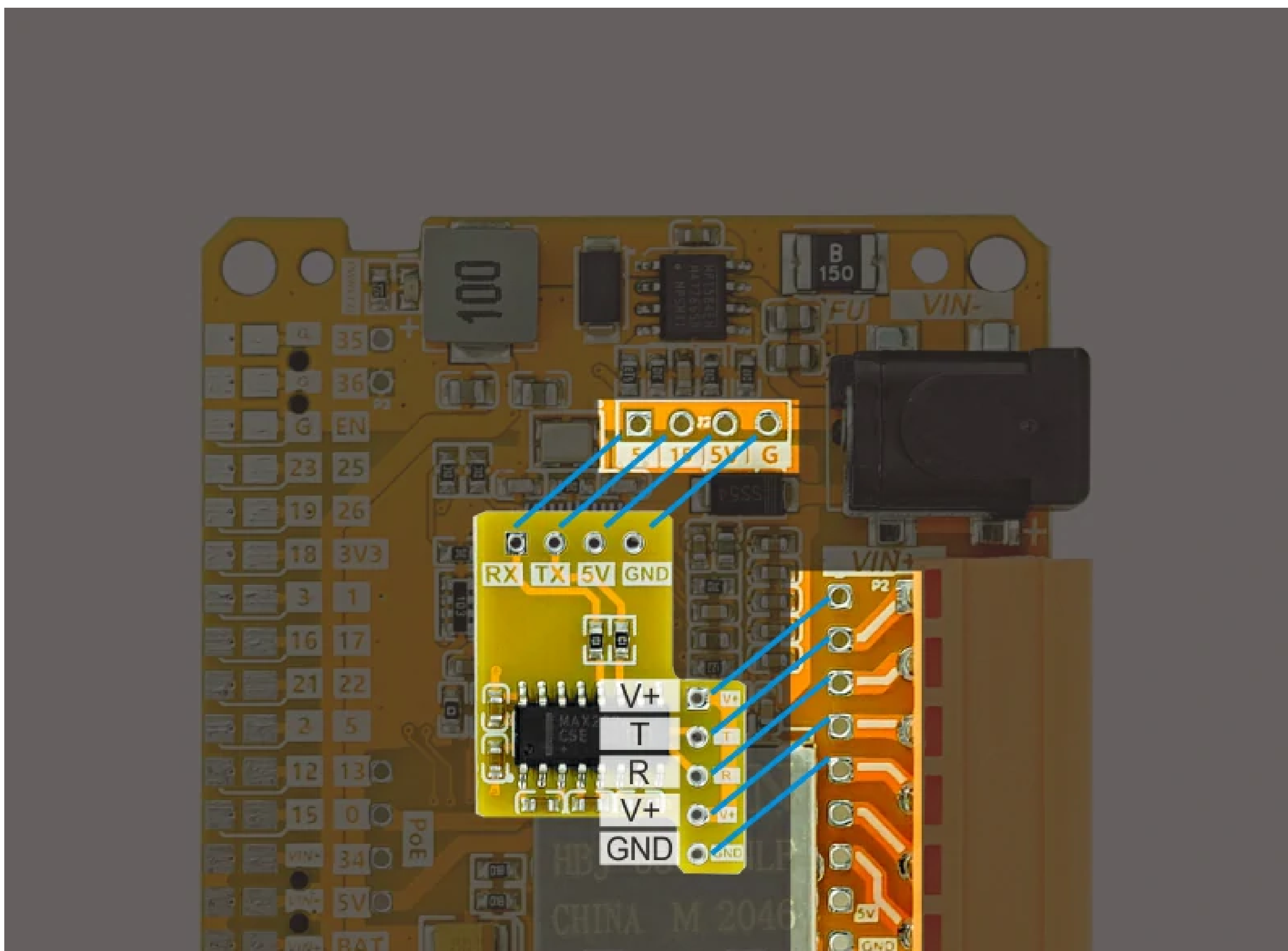# Related Link

- **Datasheet** - W5500

Schematic

Schematic
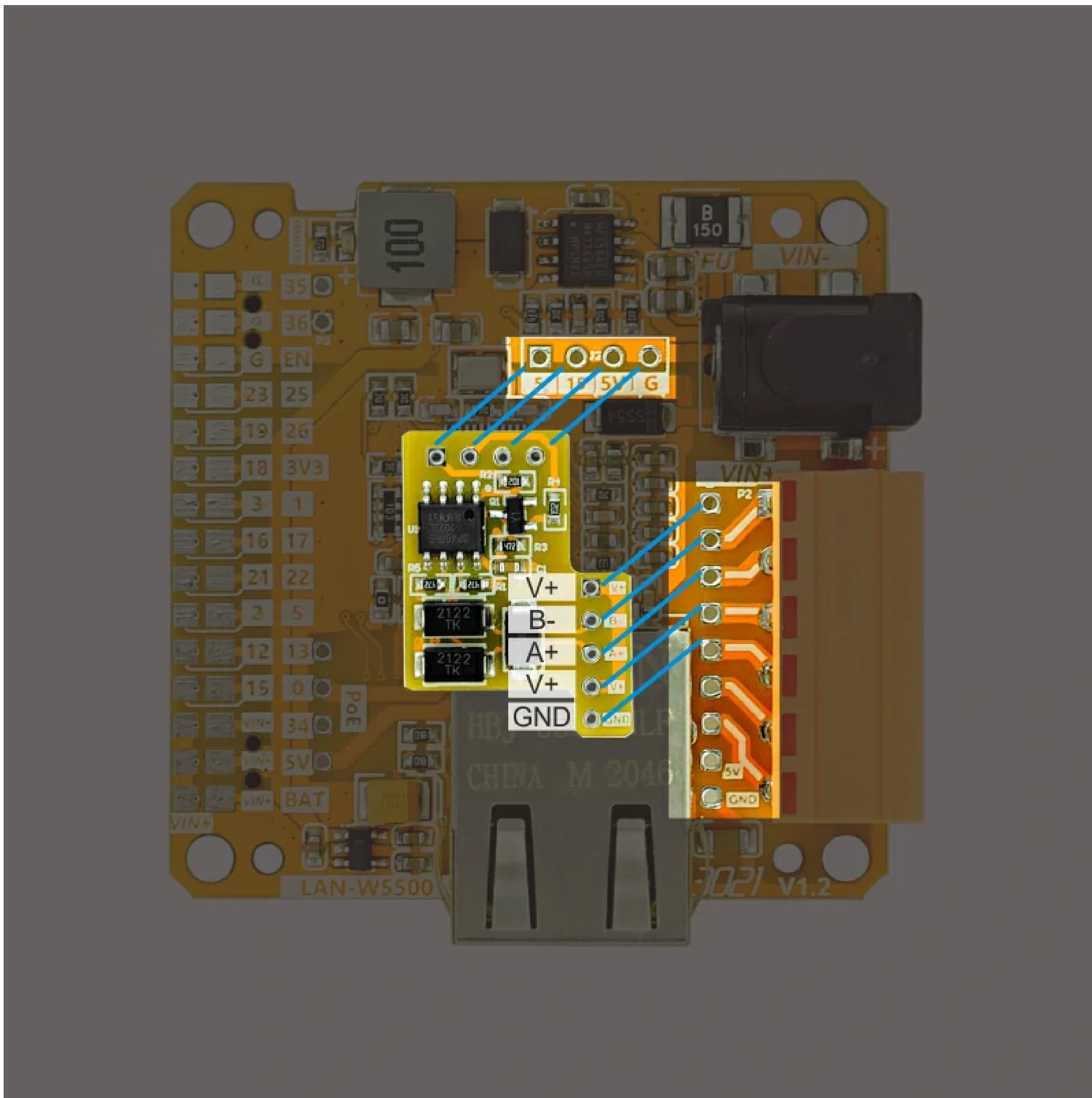
Expanded board welding position

LAN BASE V12 comes standard with two adapter boards, TTL-RS485 + TTL-RS232, which are used to adapt to different communication interfaces. The welding positions are as follows. Please refer to the pin mapping table for the actual connection to GPIO.

○ RS232 adapter board welding position

- RS485 adapter board welding position

PinMap

- W5500 Ethernet chip

W5500	ESP32 Chip
MOSI	GPIO23
MISO	GPIO19
CLK	GPIO18
CS	GPIO26
RST	GPIO13
INTn	GPIO34

- RS485/RS232 adapter board

ESP32 Chip	RS485/RS232
RX	GPIO5
TX	GPIO15

Video

LAN case-PC uses UDP protocol to realize wired video transmission to Core through LAN base