

LAN PoE BASE V12

SKU:K012-C-V12



Description

LAN PoE BASE V12 is an **Ethernet control module** that integrates **PoE** (Power Over Ethernet) function. Adopt **W5500** full hardware TCP/IP embedded Ethernet controller (SPI communication interface) scheme, support multiple communication protocols (TCP, UDP, IPv4, ICMP, ARP, IGMP and PPPoE, etc.) Network packet processing.

Internally reserved expansion pads can be used to expand **RS485 / RS232 / CAN** communication adapter modules or add custom designs, support PoE power supply and standard rail fixing accessories, no need for additional power supply wires and structural design. It can be easily deployed on industrial sites. With both performance and expansion flexibility, **LAN PoE BASE V12** can provide you with a more compact embedded Ethernet connection solution.

Product Features

- W5500:
 - Support 8 independent hardware sockets for simultaneous communication
 - Support TCP, UDP, ICMP, IPv4, ARP, IGMP, PPPoE protocols
 - Integrated 10BaseT / 100Base-T Ethernet PHY
- Wired Ethernet access
 - RJ45 adaptive 10/100M network port
- Power input method:
 - Support PoE IEEE802.3 AF
 - Support input power voltage: 9-24V
 - Support MBUS 5V power supply (when used with M5CORE)

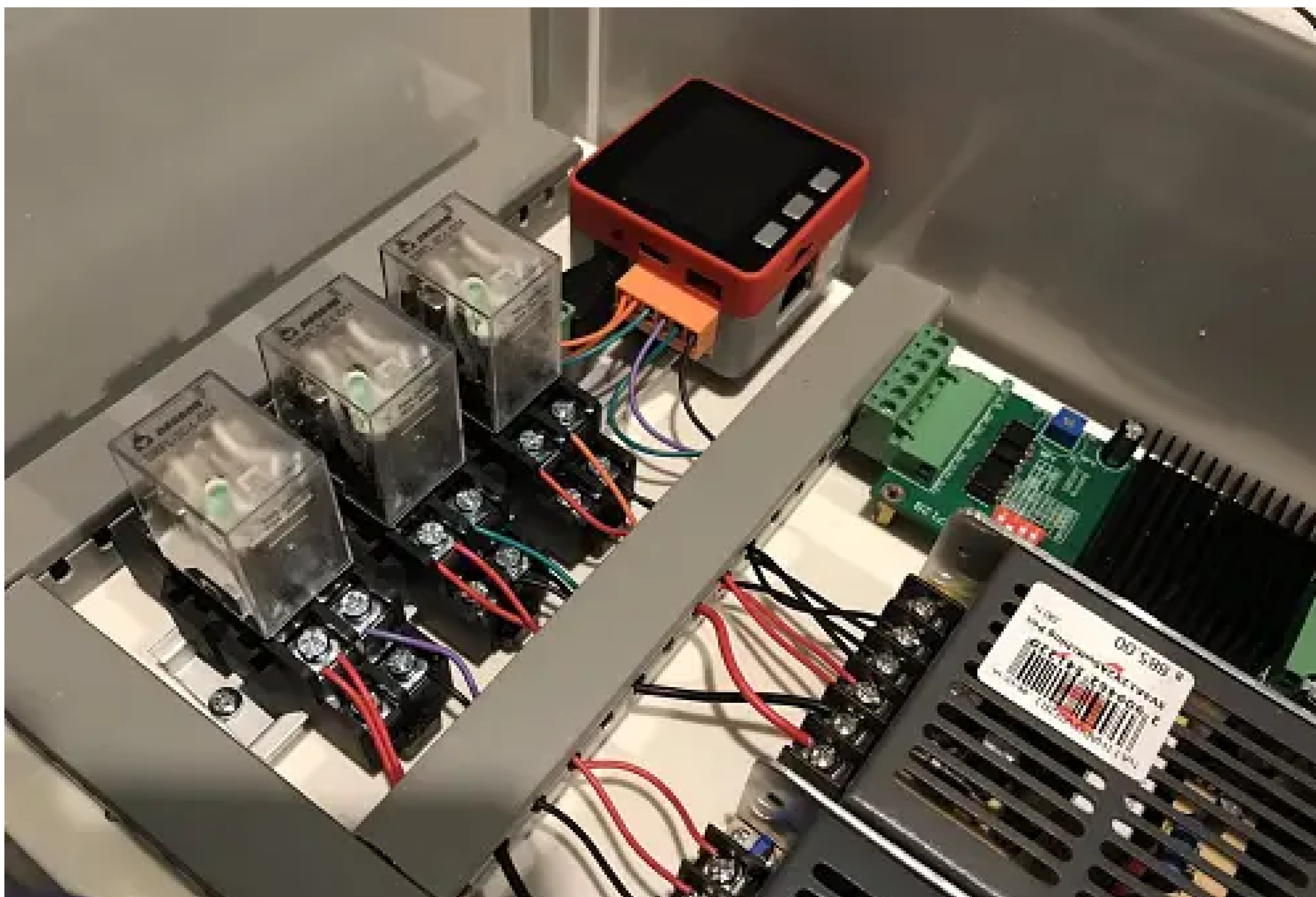
- Support I2C/SPI power supply (when used with M5CORE)
- Slide rail or magnetic fixation
- RS485/RS232/CAN communication expansion board

Include

- 1x LAN PoE BASE V12
- 1x RS485-To-TTL adapter board
- 1x RS232-To-TTL adapter board
- 1x CAN-To-TTL adapter board
- 1x HT3.96-4P terminal
- 2x HT3.96-3P terminals
- 1x 1.5mm hex key
- 1x 2.0mm hex key
- 1x 2.5mm hex key
- 10x 2mm Crimp Terminals
- 1x magnet (with hole in the middle, diameter 15mm, thickness 3mm)
- 1x 35mm silver metal rail
- 1x 35mm black rail clip
- 1x M3*6mm screw (countersunk head, mechanical teeth)
- 2x M3*28mm screws (cup head, mechanical teeth)
- 4x M2*5mm screws (cup head, self-tapping)
- 1x cable gland (M12)
- 1x 2.54mm-20P straight pin header (total height 5.32mm)
- 1x product sticker

Application

- M5Core + LAN implements the belt controller

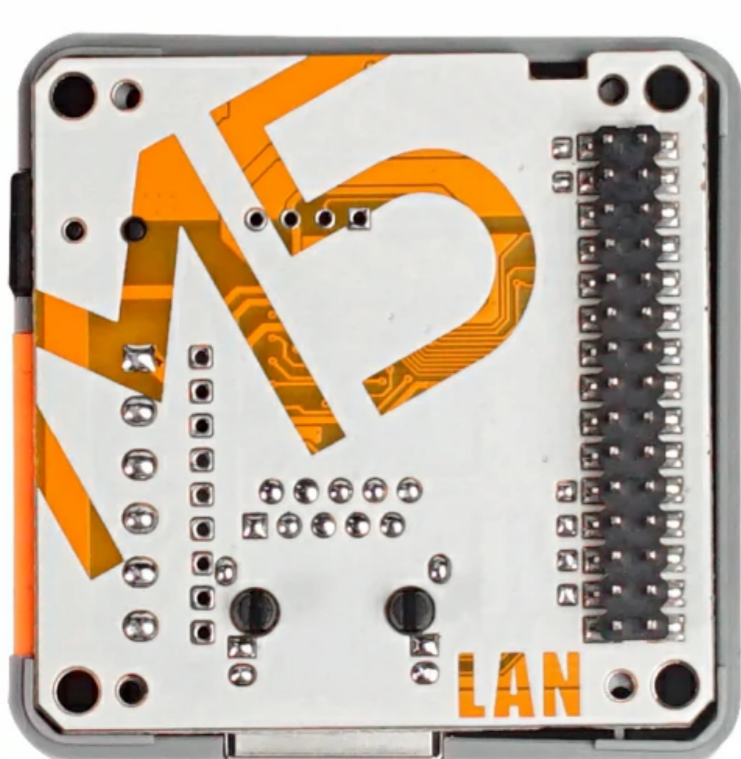


- Cable transmission of video data between PC and Core



Specifications

Specifications	Parameters
W5500 Ethernet Controller	<p>Supports Hardwired TCP/IP Protocols : TCP, UDP, ICMP, IPv4, ARP, IGMP, PPPoE</p> <p>Supports 8 independent sockets simultaneously</p> <p>Supports High Speed Serial Peripheral Interface(SPI MODE 0, 3)</p> <p>Internal 32Kbytes Memory for TX/RX Buffers</p>
RS485-To-TTL	SP485EEN-L/TR
RS232-To-TTL	MAX232ESE
CAN-To-TTL	CA-IS3050G
Ethernet port	RJ45 adaptive 10/100M Ethernet port





[Download 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 .

PinMap

◦ W5500 Ethernet chip

W5500	ESP32 Chip
MOSI	GPIO23
MISO	GPIO19

CLK	GPIO18
CS	GPIO26
RST	GPIO13
INTn	GPIO34

- RS485/RS232/CAN adapter board

ESP32 Chip	RS485/RS232
RX	GPIO5
TX	GPIO15

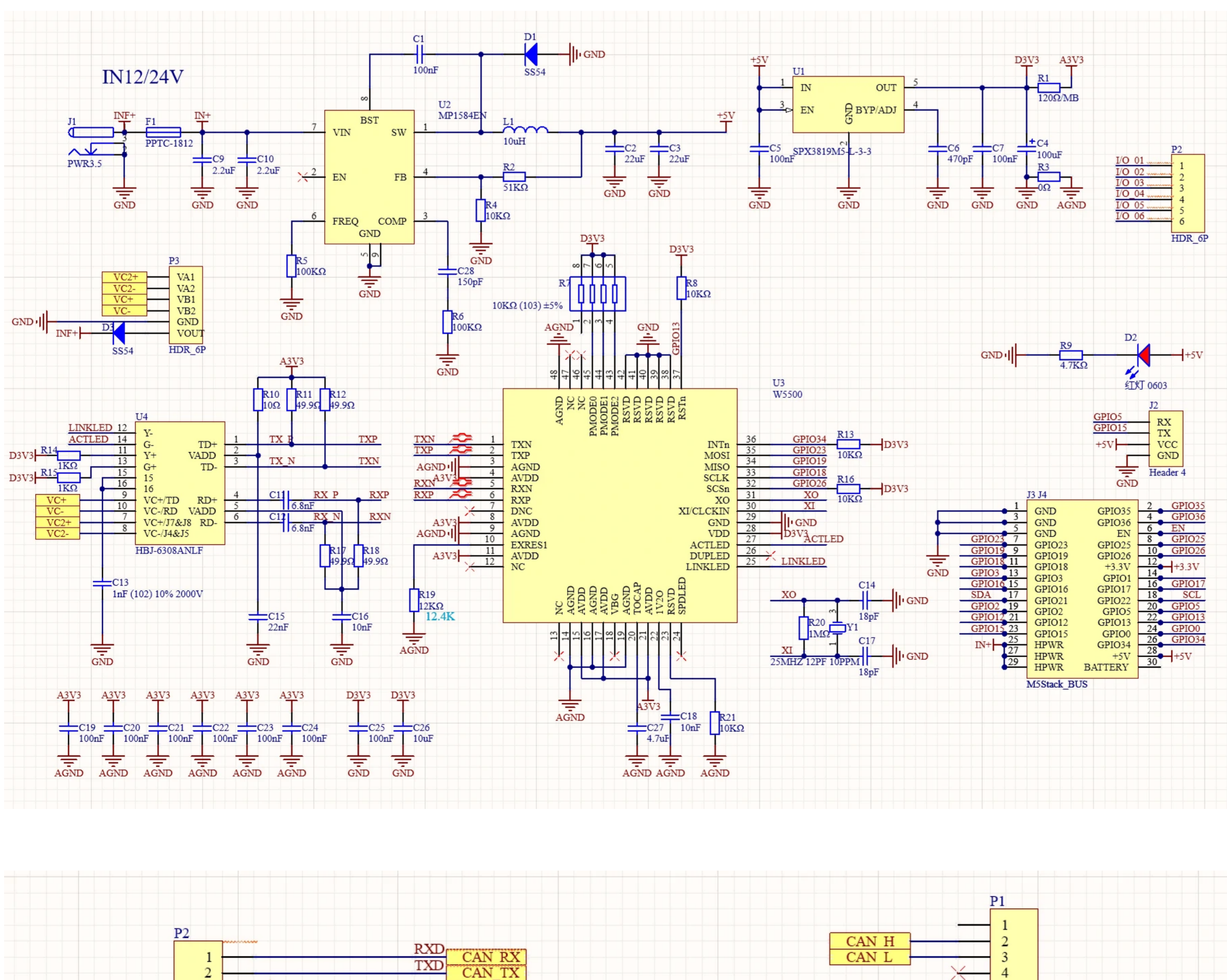
Examples

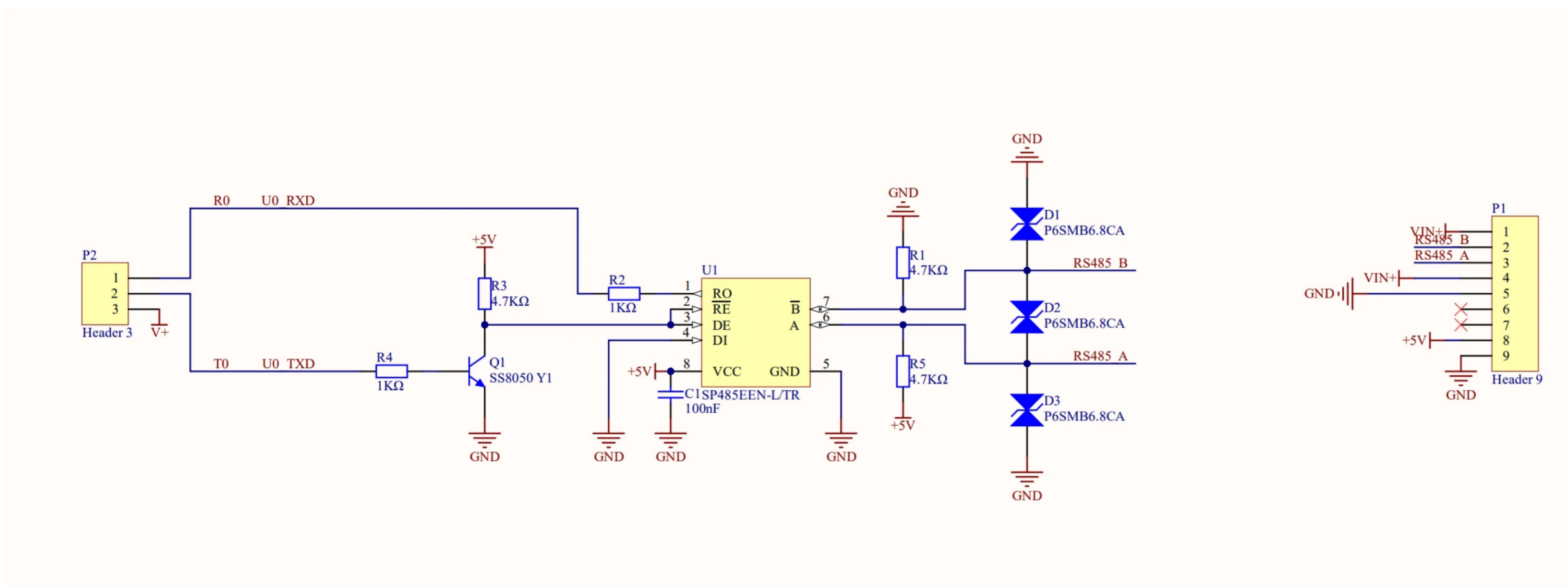
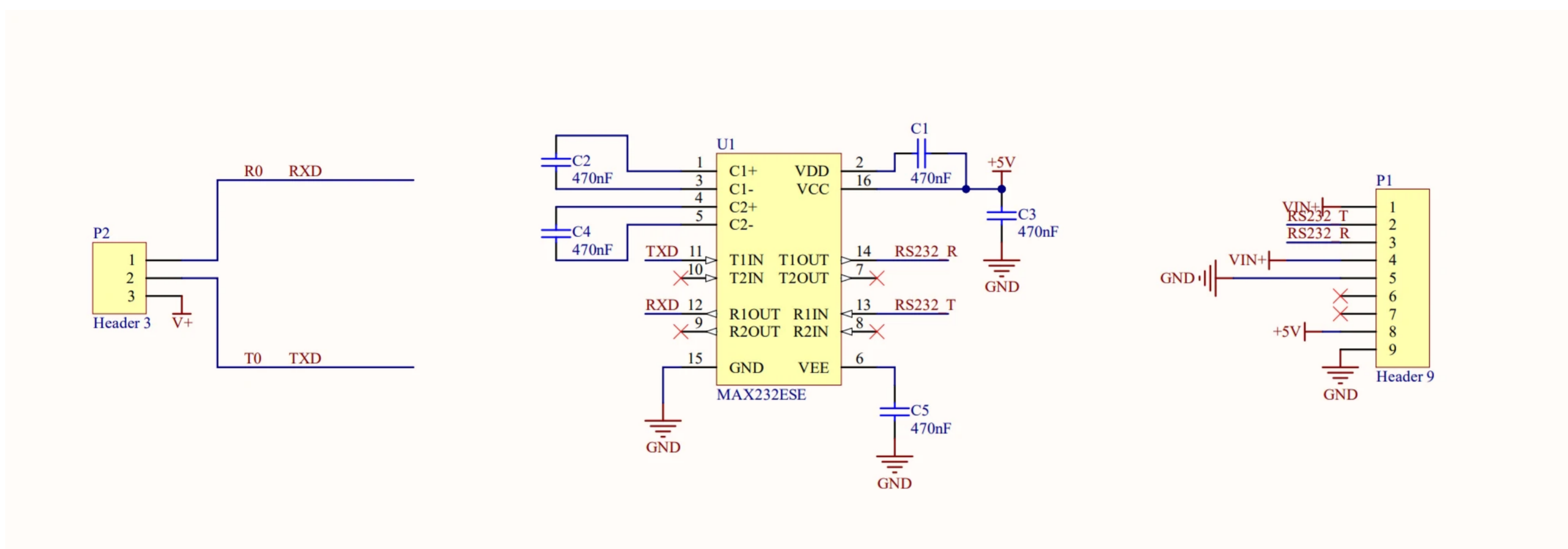
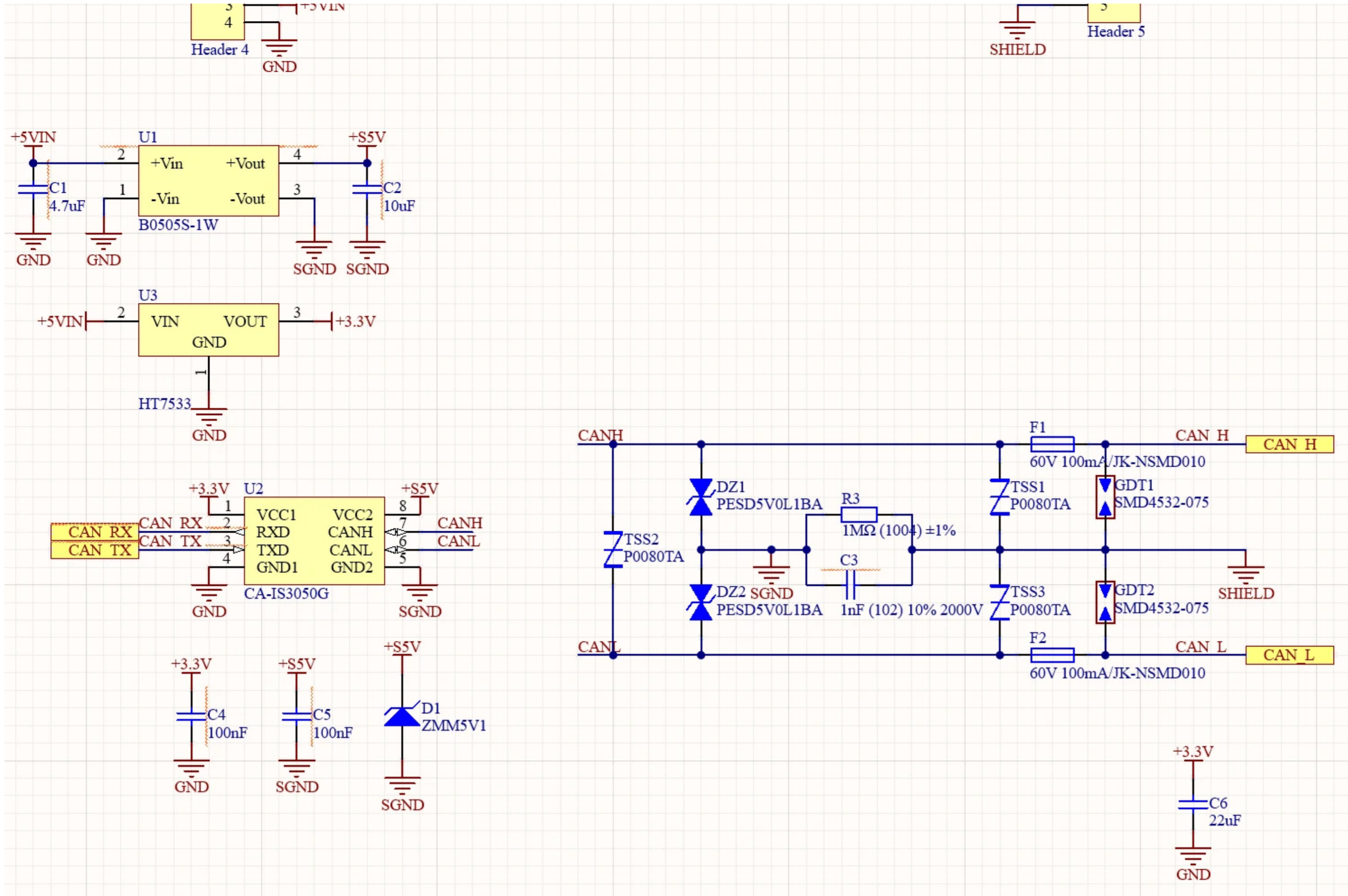
- LAN BASE WEB SERVER

Related Link

- Datasheet - [W5500](#)

Schematic

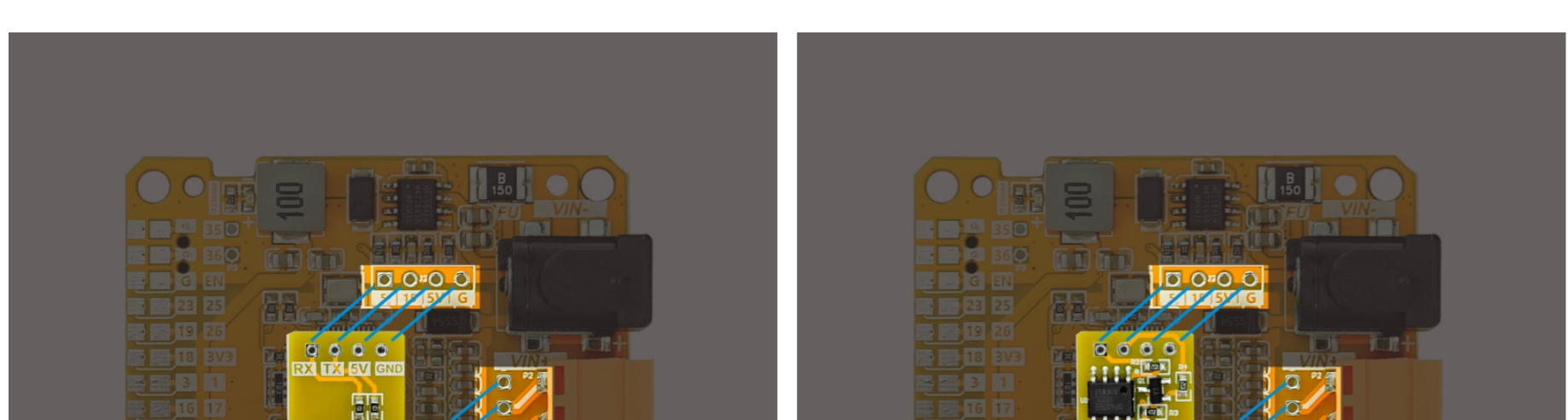


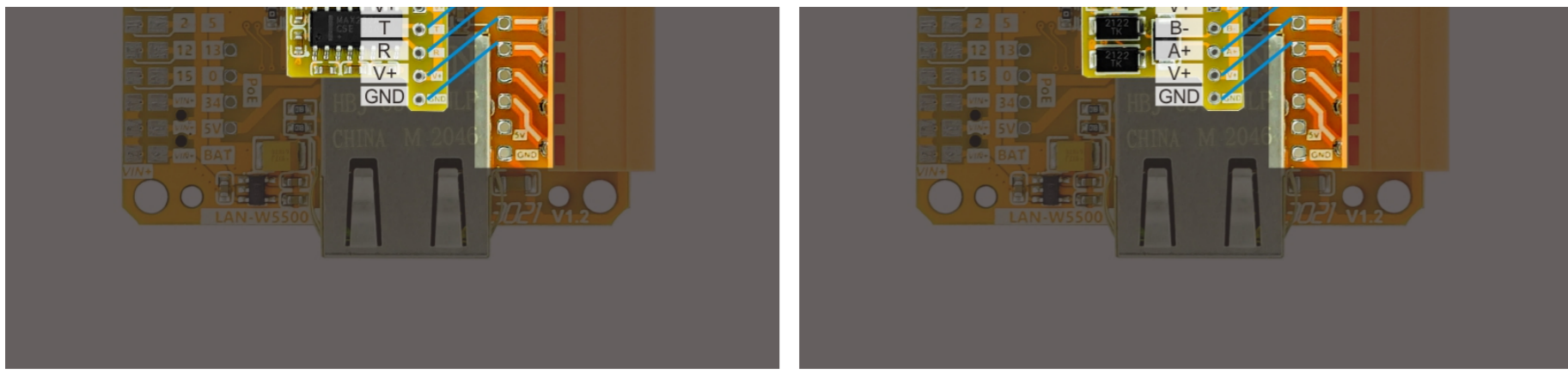


Expanded board welding position

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 or RS485 adapter board welding position





| Video

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

| FAQ

COMMON

Q1: Consultation for after-sales problems of products +

Describe the problems encountered in detail. Screenshots of the programs involved or files can be added as attachments and sent to M5Stack's official after-sales email

support@m5stack.com

Q2: Code Resources, Cases, User Communication +

M5Stack related resource links: Official Github

<https://github.com/m5stack>

<https://m5stack.hackster.io/>

<https://community.m5stack.com/>