

# WT32-ETH01 EVO



## Changelog:

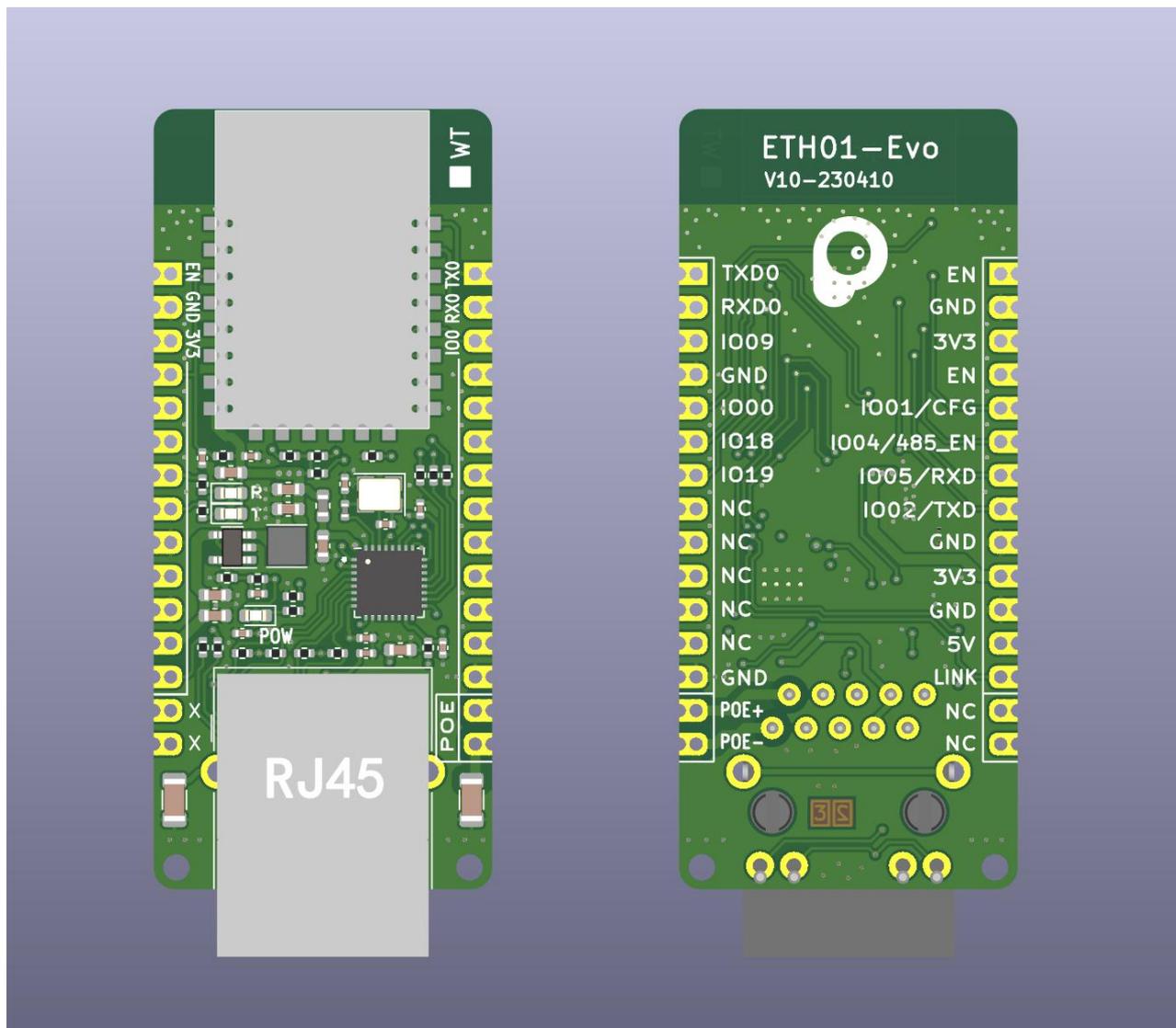
date	Change person	illustrate
2023/06/07	hades	Create a document

## Product Features:

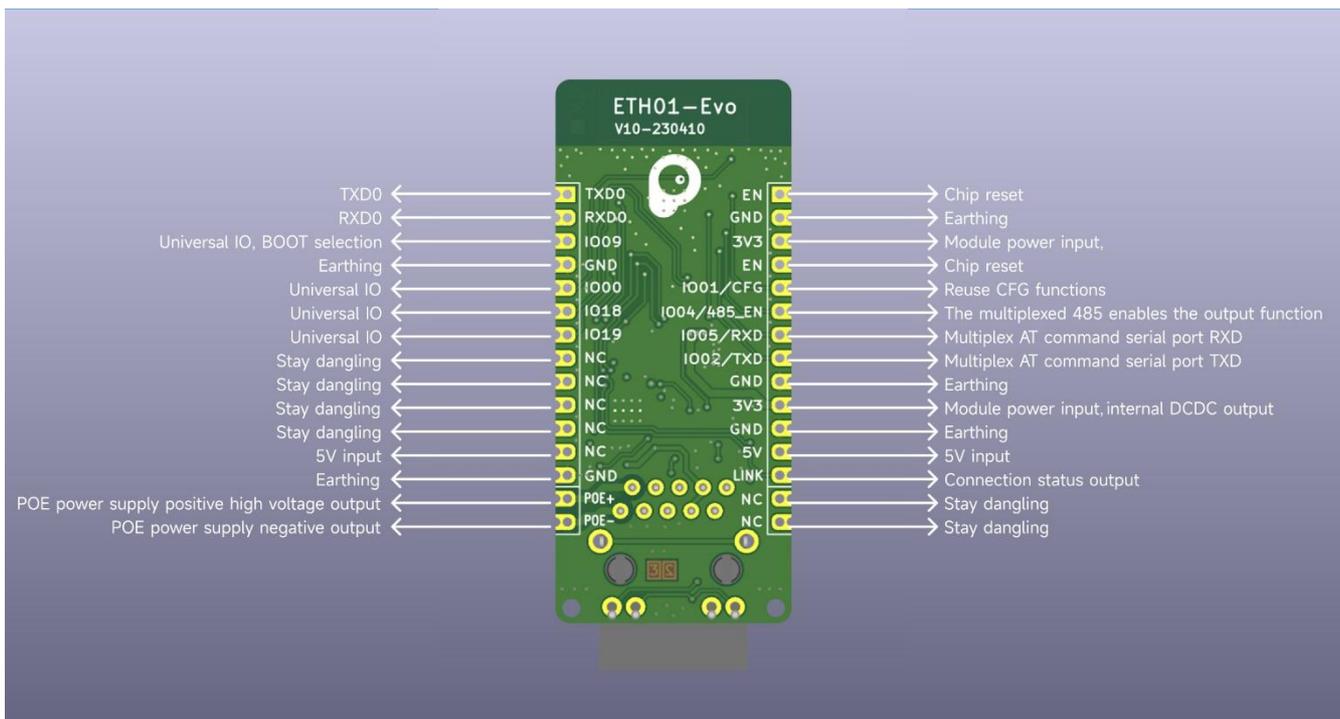
1. Support rapid prototyping

## Hardware interface:

Hardware interface diagram:

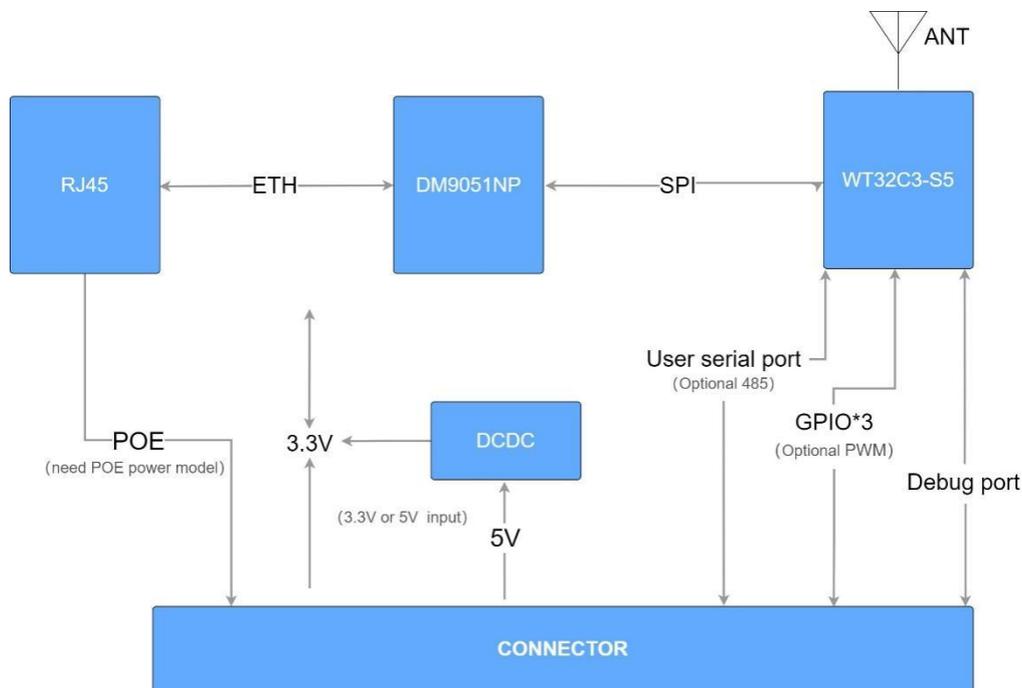


Hardware Interface (Figure 1).



Hardware Interface (Figure 2).

Hardware block diagram:ss



Hardware block diagram (Figure 3).

## Interface description:

[1] Network port (Tab.1)

*RJ45 100M network port with POE input (requires external step-down module)*

[2] Extension Interface A (Tab.2)

Pin	description	Module pin	Voltage range	remark
1	EN	ESP_EN	0-3.3V	Chip reset
2	GND	GND	0V	earthing
3	3.3V	VCC	3.3V±3%	Module power input, internal DCDC output
4	EN	ESP_EN	0-3.3V	Chip reset
5	IO_01/CFG	IO_01	3.3V-TTL	Reuse CFG functions
6	IO_04/485_EN	IO_04	3.3V-TTL	The multiplexed 485 enables the output function
7	IO_05/RXD	IO_05	3.3V-TTL	Multiplex AT command serial port RXD
8	IO_02/TXD	IO_02	3.3V-TTL	Multiplex AT command serial port TXD
9	GND	GND	0V	earthing
10	3.3V	VCC	3.3V±3%	Module power input, internal DCDC output
11	GND	GND	0V	earthing
12	5V	-	5V±5%	5V input
13	LINK	-	3.3V-TTL	Connection status output
14	NC	-	-	Stay dangling
15	NC	-	-	Stay dangling

## [3] Extension interface B (Tab.3)

Pin	description	Module pin	Voltage range	remark
1	TXD0	TXD0	3.3V-TTL	TXD0
2	RXD0	RXD0	3.3V-TTL	RXD0
3	IO_09	VCC	3.3V-TTL	Universal IO, BOOT selection
4	GND	GND	0V	earthing
5	IO_0	IO_0	3.3V-TTL	Universal IO
6	IO_18	IO_18	3.3V-TTL	Universal IO
7	IO_19	IO_19	3.3V-TTL	Universal IO
8	NC	-	-	Stay dangling
9	NC	-	-	Stay dangling
10	NC	-	-	Stay dangling
11	NC	-	-	Stay dangling
12	NC	-	5V±5%	5V input
13	GND	GND	0V	earthing
14	POE+	-	POE+48V	POE power supply positive high voltage output
15	POE-	-	POE+0V	POE power supply negative output

## Interface encapsulation Interface Encapsulation :

Interface description	Interface encapsulation	remark
Network port	RJ45	
Expansion interface A/B	15Pin*2.54mm in-line/half-hole compatible	

## Hardware peripherals:

Peripheral name	description
DM9051	10M/100M Ethernet MAC chip

## Power Characterization:

### [1] Supply Voltage (Tab.1)

The power supply voltage of the module can be either 5V or 3V3, only one of them can be selected.

### [2] Power supply mode (Tab.2)

User can choose freely according to the requirement:

Through-hole (soldered row of pins):

- Power supply by Dupont wire connection;

- Power supply by breadboard connection;

Half-pad (soldered directly to the board): Power supply by user's board. .

## Instructions for use: :

### [1] Power-up instructions (Tab.1)

If using the Dupont cable method: find the 3V3 or 5V power input port and connect the corresponding voltage, the indication (LED1) will light up to indicate the successful power-up.

### [2] Indicator Description (Tab.2)

LED1: Power indicator, power up is normal, the light is on;

LED3: Serial port indicator, light is on when RXD2 has data flow;

LED4: Serial port indicator, when TXD2 has data flow, the lamp is on;

### [3] Explanation of usage (Tab.3)

Through-hole (soldered row of pins): Connect with Dupont cable.

Through-hole (soldering row pin): put on breadboard to use.

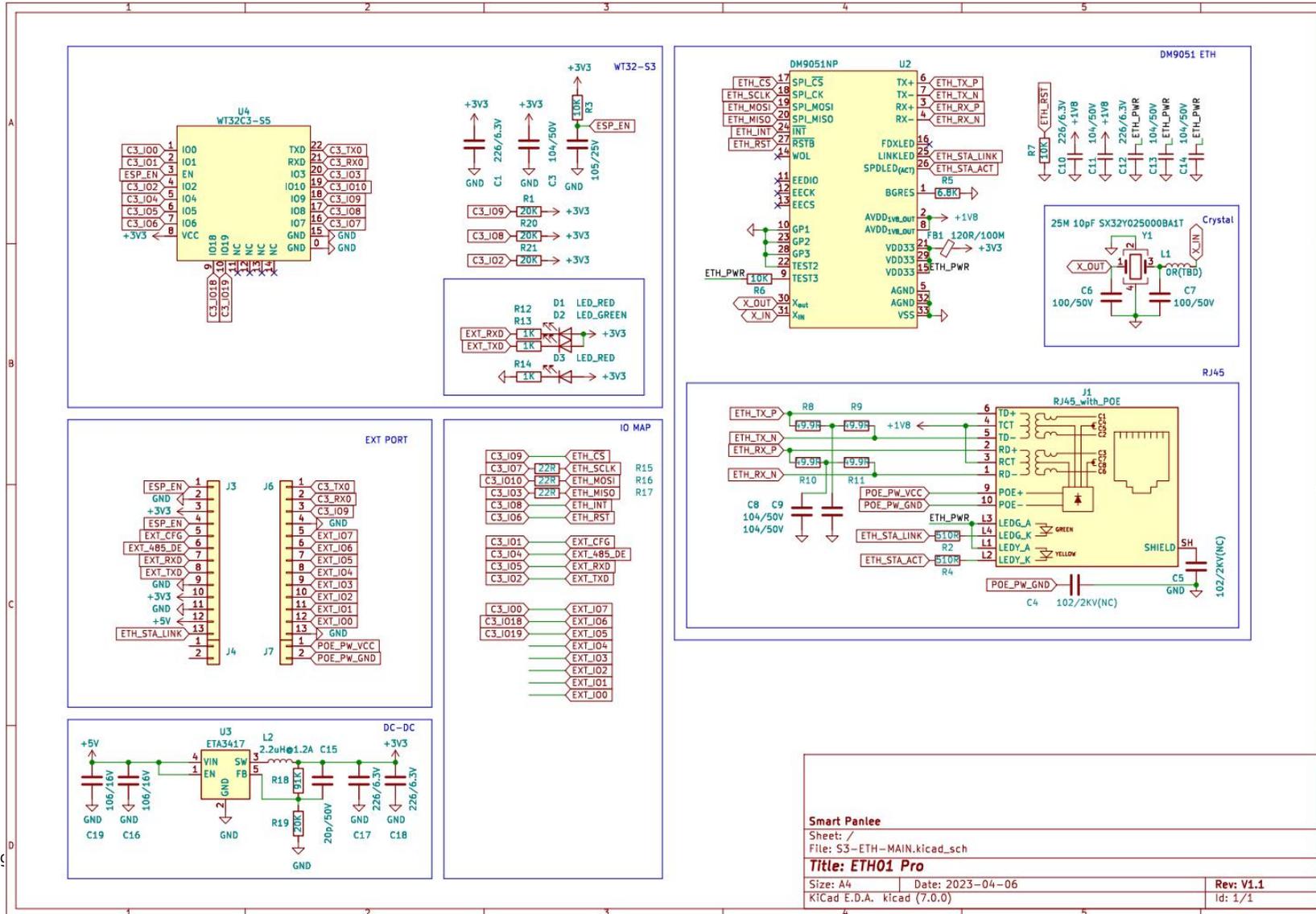
Half-pad: Users can directly solder the module on their own board.

### [4] Explanation of Network Port Operation Indicators (Tab.4)

Connection Status Indication: Green light when correctly connected to the network.

Data Indication: Yellow light blinks when there is data received or sent by the module (including network broadcast packet received by the module).

Schematic:



Smart Panlee		
Sheet: /		
File: S3-ETH-MAIN.kicad_sch		
Title: ETH01 Pro		
Size: A4	Date: 2023-04-06	Rev: V1.1
KiCad E.D.A. kicad (7.0.0)		Id: 1/1