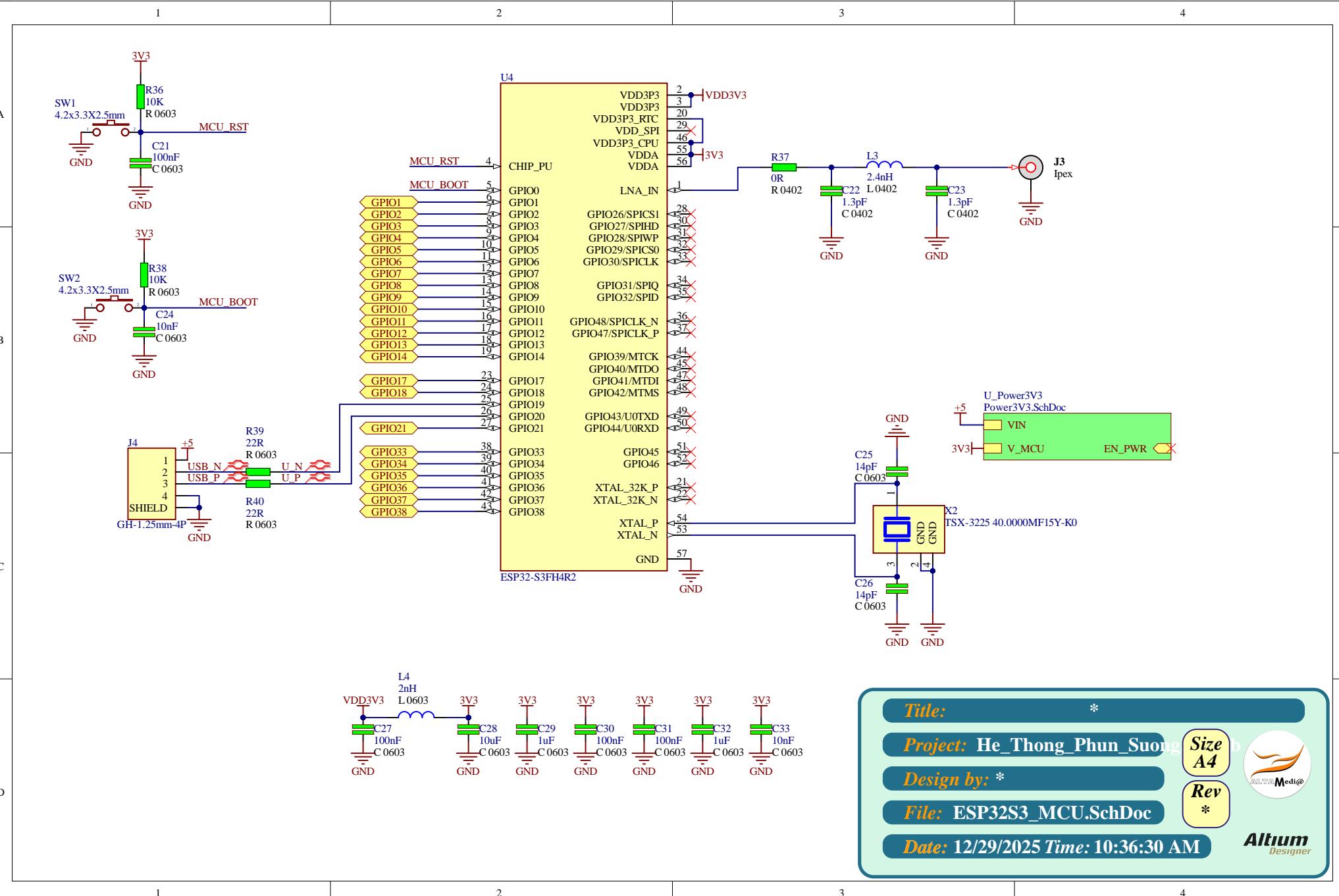


Title: *
Project: He_Thong_Phun_Suong
Design by: *
File: Schematic.SchDoc
Date: 12/29/2025 **Time:** 10:36:29 AM

Altium Designer





Title: *
Project: He_Thong_Phun_Suong
Design by: *
File: ESP32S3_MCU.SchDoc
Date: 12/29/2025 **Time:** 10:36:30 AM

Altium
Designer



1

2

3

4

A

A

B

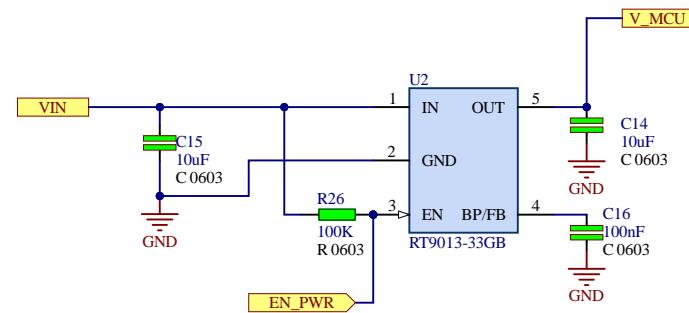
B

C

C

D

D

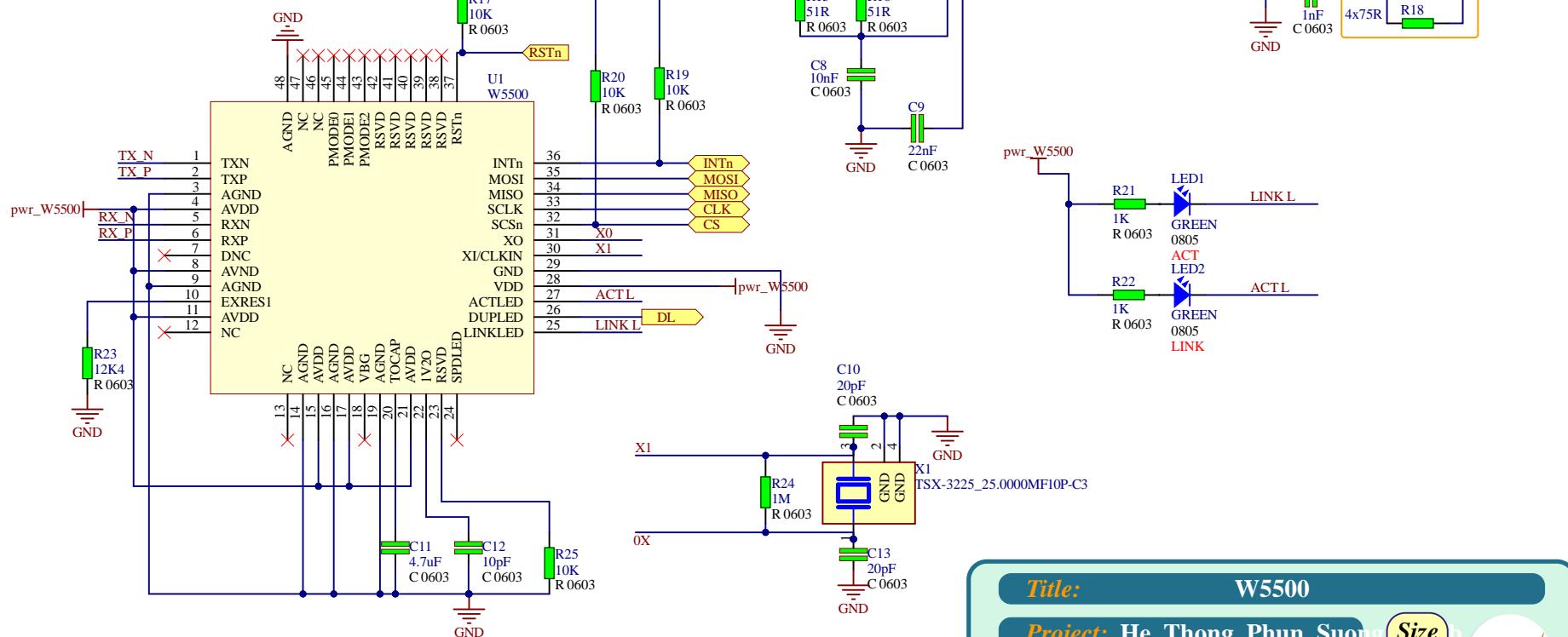
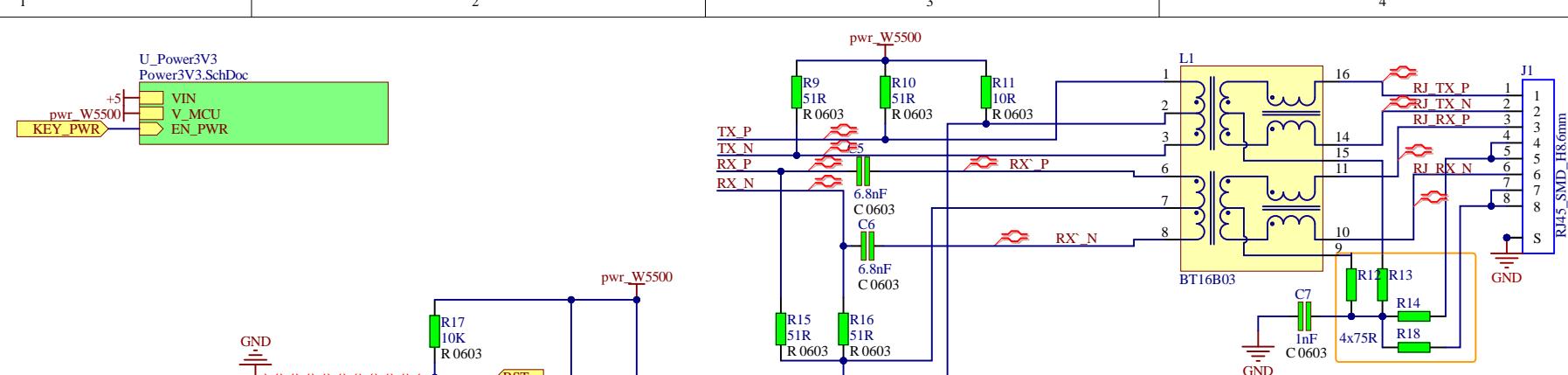


1

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Title: W5500
Project: He_Thong_Phun_Suong
Design by: Trần Ngọc Thân
File: W5500.SchDoc
Date: 12/29/2025 **Time:** 10:36:30 AM

Size: A4
Rev: *

ALTA Medi@

Altium Designer

A

A

B

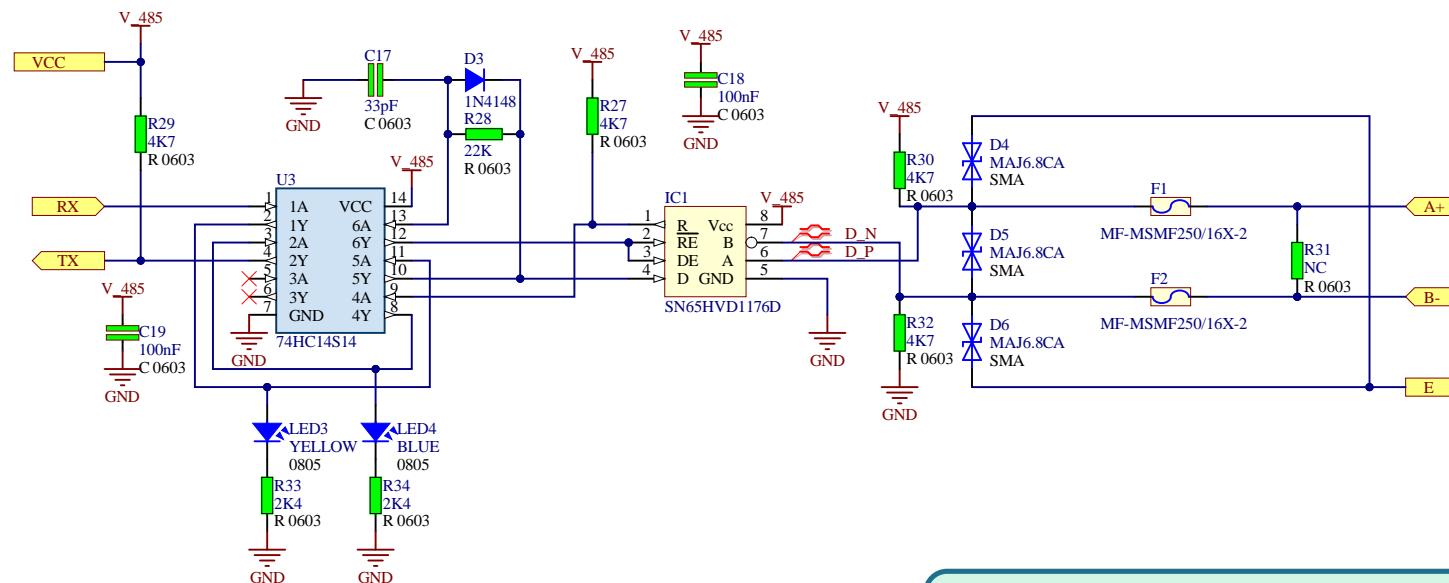
B

C

C

D

D



Title: Modbus Rs485

Project: He_Thong_Phun_Suong

Size: A4
Rev: 3.1



Design by: Trần Ngọc Thân

File: MAX458.SchDoc

Date: 12/29/2025 **Time:** 10:36:30 AM

Altium
Designer

A

B

C

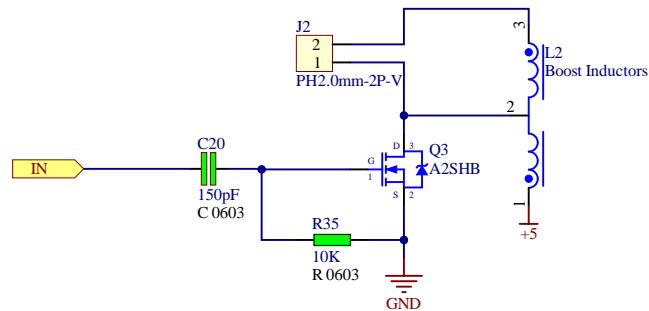
D

A

B

C

D

*Title:*

*

Project: He_Thong_Phun_Suong*Size*
A4*Design by:* **File:* Out_phun_suong.SchDoc*Rev*
Date:* 12/29/2025 *Time:* 10:36:30 AMAltium**
Designer

Comment	Description	Designator	Footprint	LibRef	Quantity
100uF	Cap P 0.1uF < 22uF , 16 - 50V	C1	SMD 3528	CPO	1
1nF		C2, C7	C-0603	CN5	2
10nF		C3, C8, C24, C33	C-0603	CN5	4
100nF		C4, C16A, C14B, C18, C19, C21, C27, C30, C31	C-0603	CN5	9
6.8nF		C5, C6	C-0603	CN5	2
22nF		C9	C-0603	CN5	1
20pF		C10, C13	C-0603	CN5	2
4.7uF		C11	C-0603	CN5	1
10pF		C12	C-0603	CN5	1
10uF		C14A, C14B, C15A, C15B, C28	C-0603	CN5	5
33pF		C17	C-0603	CN5	1
150pF		C20A, C20B	C-0603	CN5	2
1.3pF		C22, C23	C-0402	CN5	2
14pF		C25, C26	C-0603	CN5	2
1uF		C29, C32	C-0603	CN5	2
RED	LED Single colour Green and Red	D1	LED-0805-Blue	LED	1
GREEN	LED Single colour Green and Red	D2, LED1, LED2	LED-0805-Blue	LED	3
1N4148		D0,5A	DIO-SMD-123	D0,5A	1
MA16.8CA	11.2V Clamp 134A Ipp Tvs Diode Surface Mount DO-214AB (SMC)	D4, D5, D6	DIO-SMD-106	SMC16.5CA	3
MF-MSMF250/16X-2	Fuse	F1, F2	FUSER_MF-MSMF250/16X	Fuse	2
SN6SHV-D1176D	5V RS 485 TRANSCIEIVERS	IC1	SOIC-8N	RS485 SN6SHV-D11	1
R145_SMD_H8_6mm	MODULAR JACK, R145, SMT TYPE, AU, 6u"	J1	R145_SMD_H8_6mm	R145_SMD_H8_6mm	1
PH2.0mm-2P-V	Connector 2	J2A, J2B	PH-2.0MM-2P-V	Con2	2
Ipeix	Microcoaxial RF, 50 Ohm, PCB Vertical Jack Receptacle, SMT, 1.25mm Mounted Height	J3	CON RF	CON RF	1
GH-1.25mm-4P	Connector Header Surface Mount, Right Angle 2 position 0.079 (2.0mm)	J4	JST_B4B-PH-SM4-TB	PH-2.0mm-4P	1
XH2.54mm-3P	Connector 3	JP1	CON_3P_R	Con3	1
PH-2.0mm-6P	Connector 6	JP2, JP3	JST_B6B-PH-SM4-TB(LF)(SN)	Con6	2
BT16B03		L1	SO16-12TP1030X265-16N	BT16B03_1	1
Boost Inductors	Inductor	L2A, L2B	Boost Inductors - duplicate	Boost Inductors	2
2.4nH	Inductor	L3	L-0402	L1	1
2nH	Inductor	L4	L-0603	L1	1
YELLOW	LED Single colour Yellow	LED3	LED-0805-Blue	LED	1
BLUE	LED Single colour Green and Red	LED4	LED-0805-Blue	LED	1
A1SHB	HEXFET P-Channel Power MOSFET	Q1, Q2	SOT23A	IRF9540	2
A2SHB	MOSFET N - CHANNEL	Q3A, Q3B	SOT23	A2SHB	2
2K2	Resistor 1/4W	R1, R6	R-0603	RES	2
100K		R2, R5, R26A, R26B	R-0603	RES	4
100R		R3, R7	R-0603	RES	2
10K		R4, R8, R17, R19, R20, R25, R35A, R35B, R36, R38	R-0603	RES	10
51R		R9, R10, R15, R16	R-0603	RES	4
10R		R11	R-0603	RES	1
75R		R12, R13, R14, R18	R-0603	RES	4
1K		R21, R22	R-0603	RES	2
12K4		R23	R-0603	RES	1
1M		R24	R-0603	RES	1
4K7		R27, R29, R30, R32	R-0603	RES	4
22K		R28	R-0603	RES	1
NC		R31	R-0603	RES	1
2K4		R33, R34	R-0603	RES	2
DR		R37	R-0402	RES	1
22R		R39, R40	R-0603	RES	2
4.2x3.3x2.5mm	Switch button 2 pin	SW1, SW2	SW_3x4x2.5mm_4P	SW2	2
W5500		U1	LOFP 48 - duplicate	W5500	1
RT9013-33GB	Linear Voltage Regulator IC 1 Output 500mA SOT-23-5	U2A, U2B	SOT95P280X145-5N	MIC5225-3.3YM5-TR	2
74HC14S14		U3	SOIC14	74HC14S14	1
ESP32-S3FH4R2	RF System on a Chip - SoC SMD IC ESP32-S3FH4R2, dual-core MCU, Wi-Fi 2.4G & BLE 5.0 combo, 4 MB flash and 2 MB PSRAM inside, QFN 56-pin, 7*7 mm	U4	QFN56	ESP32-S3FH4R2	1
TSX-3225_25.0000MF10P-C3	25 MHz ±10 ppm Crystal 18pf 40 Ohms 4-SMD, No Lead	X1	XTAL_TSX-3225	TSX-3225_25.0000MF10P-C3	1
TSX-3225_40.0000MF15Y-K0	25 MHz ±10 ppm Crystal 18pf 40 Ohms 4-SMD, No Lead	X2	XTAL_TSX-3225	TSX-3225_25.0000MF10P-C3	1