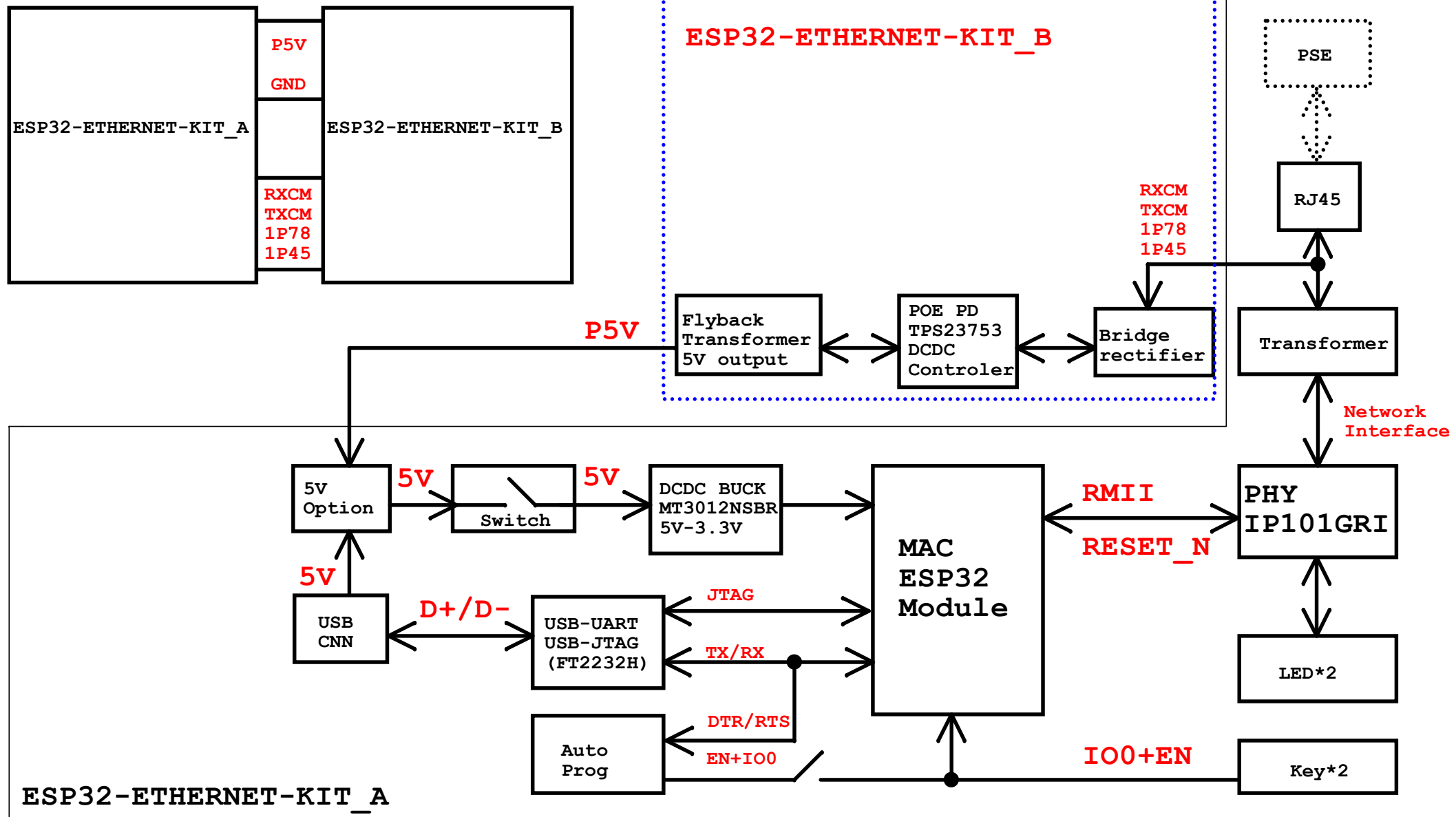
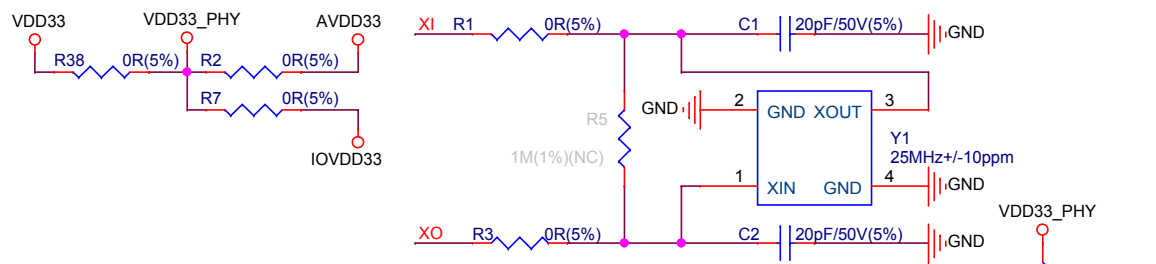
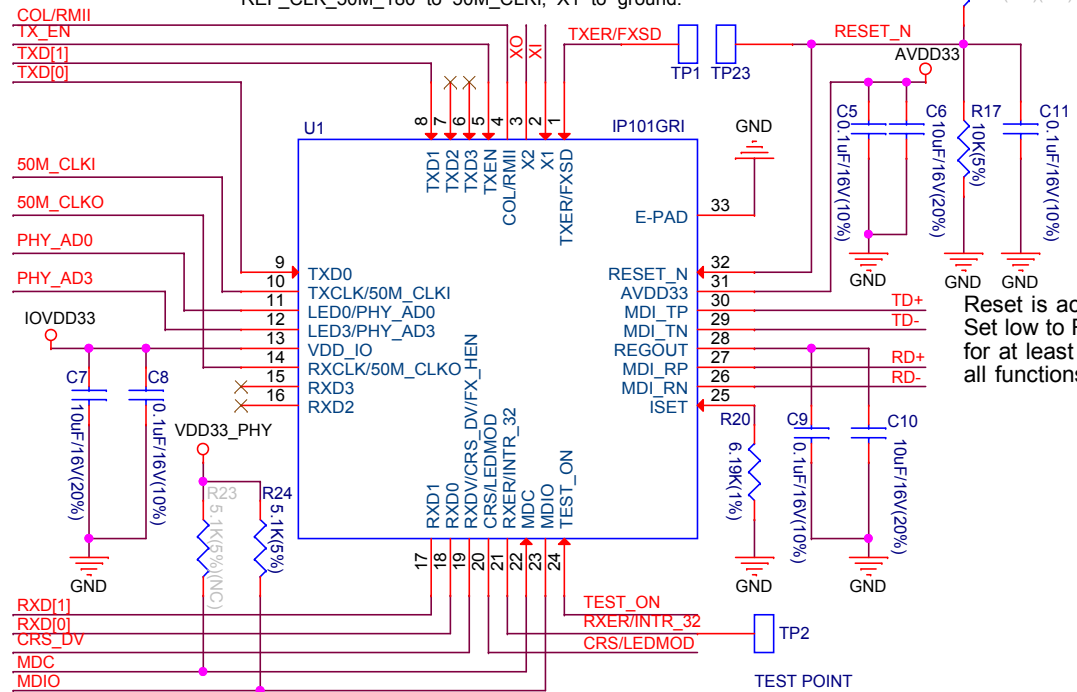


System Block:

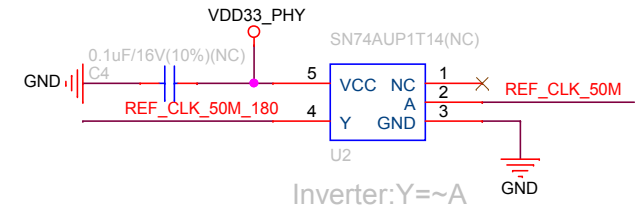
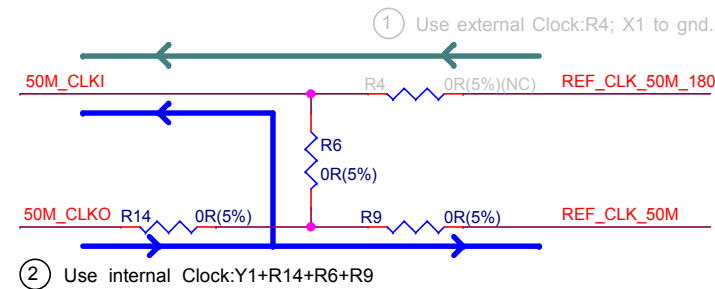




25MHz Crystal(Y1) for RMII.
REF_CLK_50M_180 to 50M_CLKI, X1 to ground.

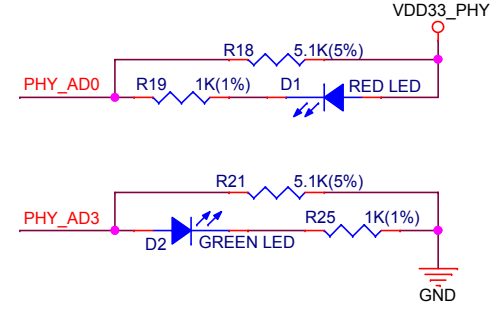


Reset is active low.
Set low to RESET_N pin,
for at least 10ms will reset
all functions available in IP101GRI.

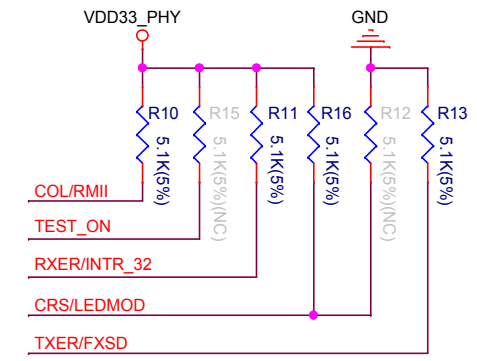


Inverter: Y=~A

DEFAULT : 0XX1



Mode Configuration:



COL/RMII
0: MII Mode
1: RMII Mode
Default: RMII Mode

TEST_ON
1: Enable Test mode.
NC: Normal operation
Default: Normal operation

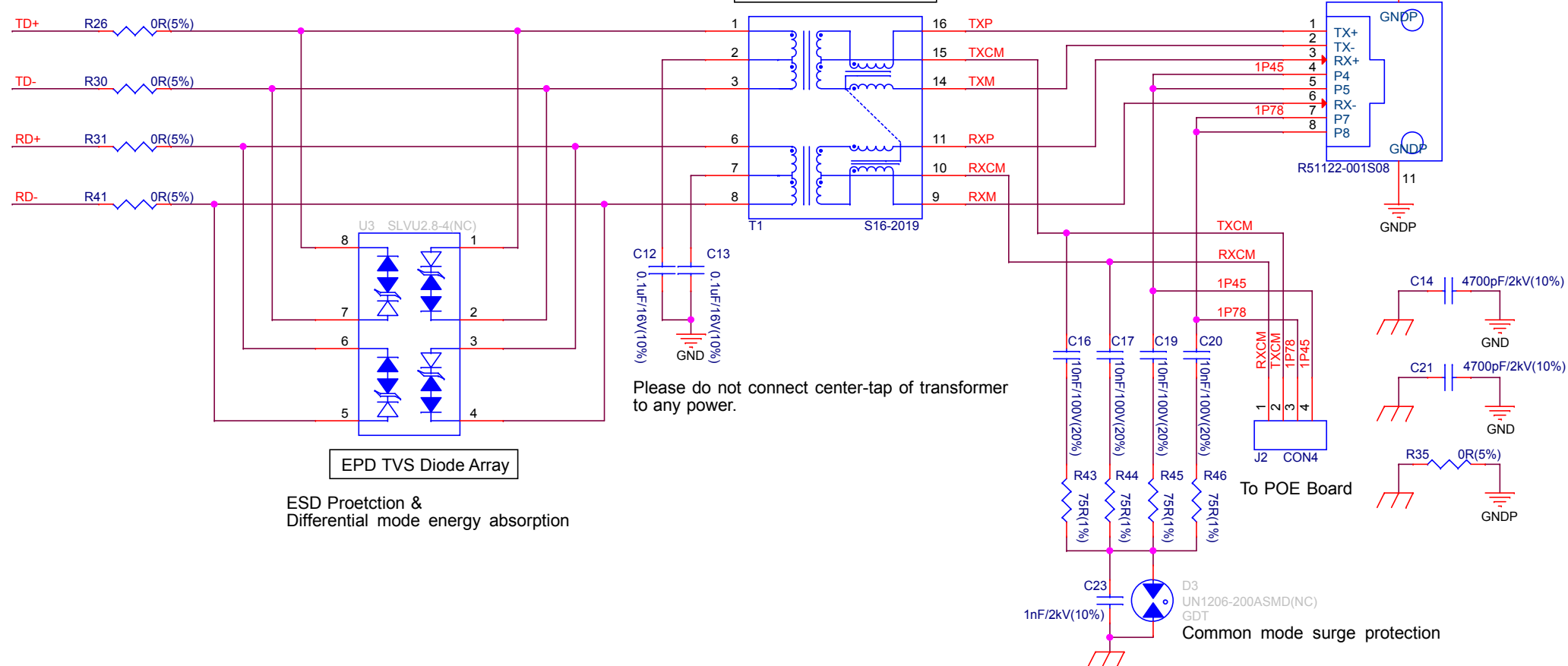
RXER/INTR32
1: INTR funtion
0: RXER funtion
Default: INTR funtion

CRS/LEDMOD
1: LED mode 2
0: LED mode 1
Default: LED mode 2

TXER/FXSD
1: FXSD
0: TXER
Default: TXER

PHY

Built-in 49.9ohm resistors



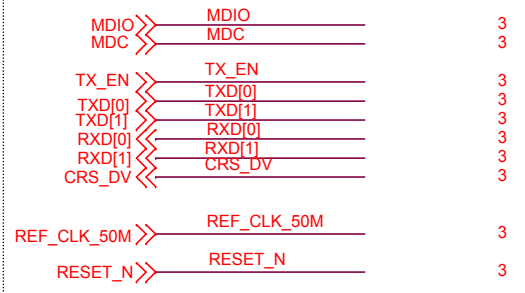
ESD Protection & Differential mode energy absorption

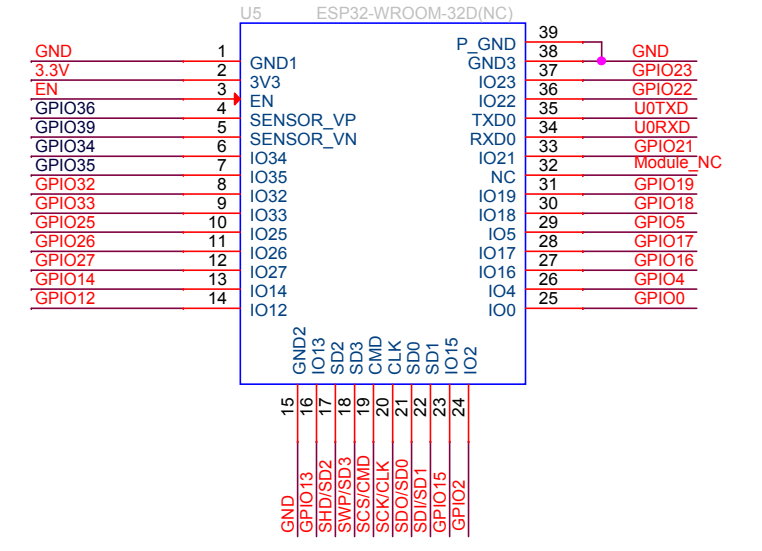
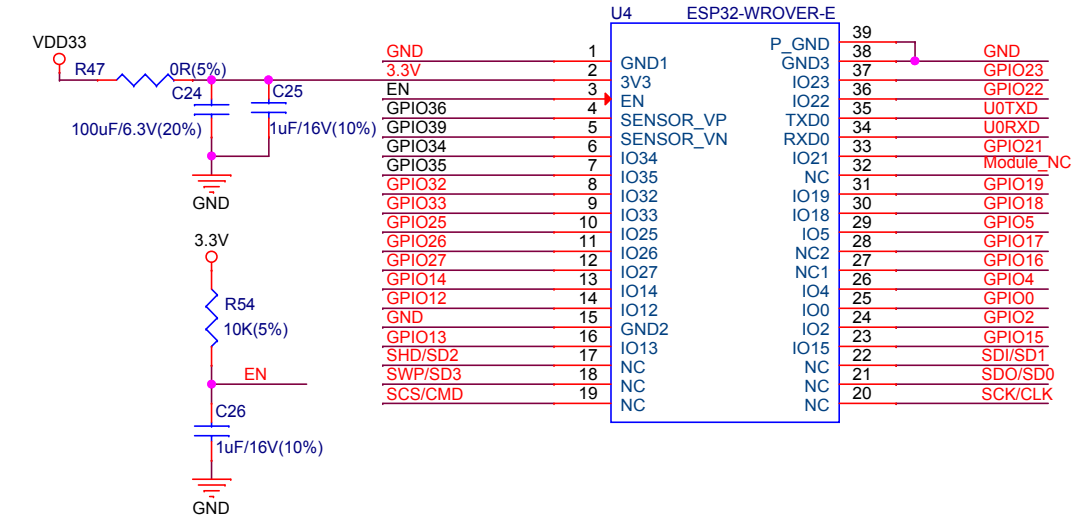
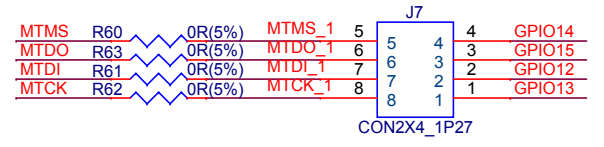
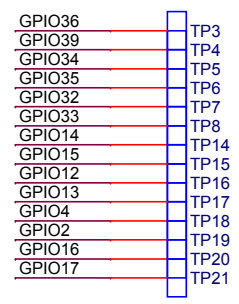
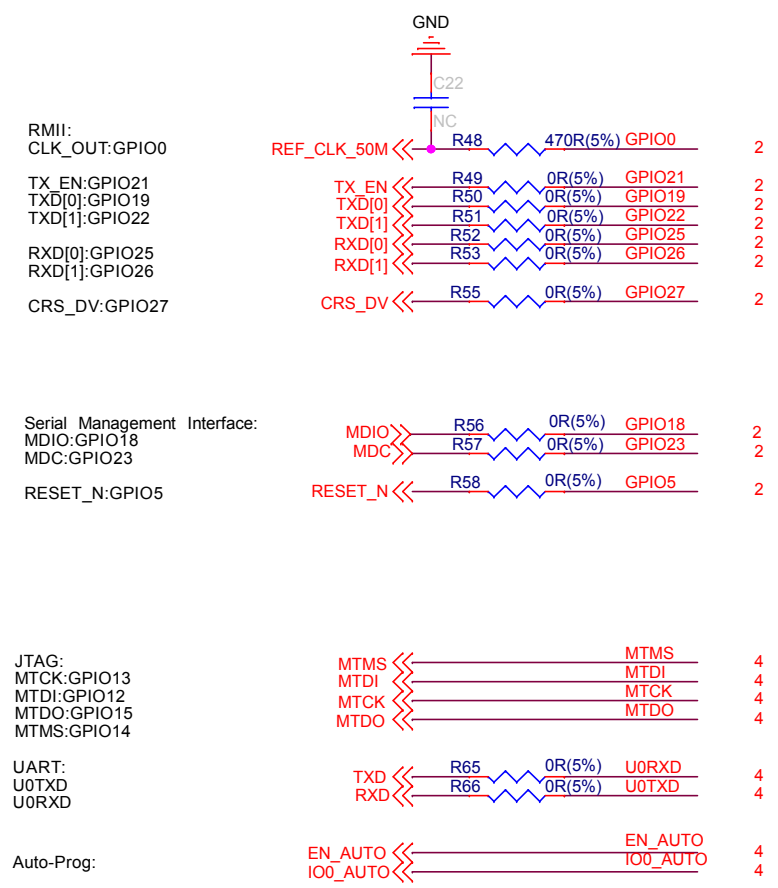
Please do not connect center-tap of transformer to any power.

Serial Management Interface:
MDIO:GPIO18
MDC:GPIO23

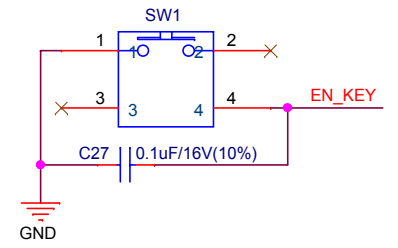
RMII:
TX_EN:GPIO21
TXD[0]:GPIO19
TXD[1]:GPIO22
RXD[0]:GPIO25
RXD[1]:GPIO26
CRS_DV:GPIO27

REF_CLK_50M:GPIO0
RESET_N:GPIO5

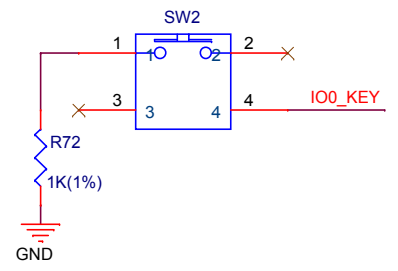




RESET:

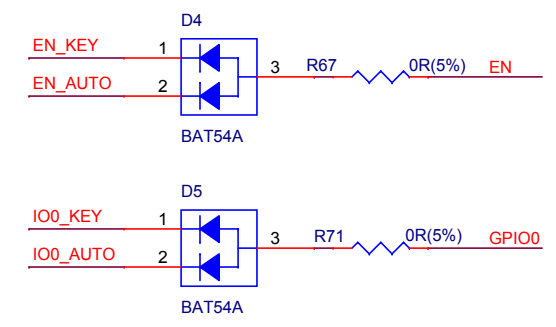


BOOT MODE:

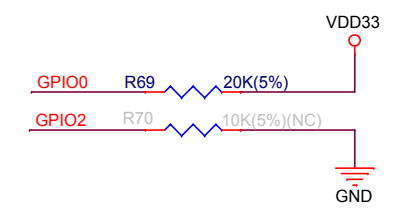


UART DOWNLOAD:
GPIO0->0,GPIO2->0

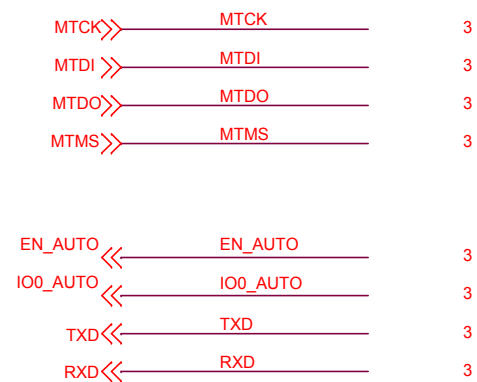
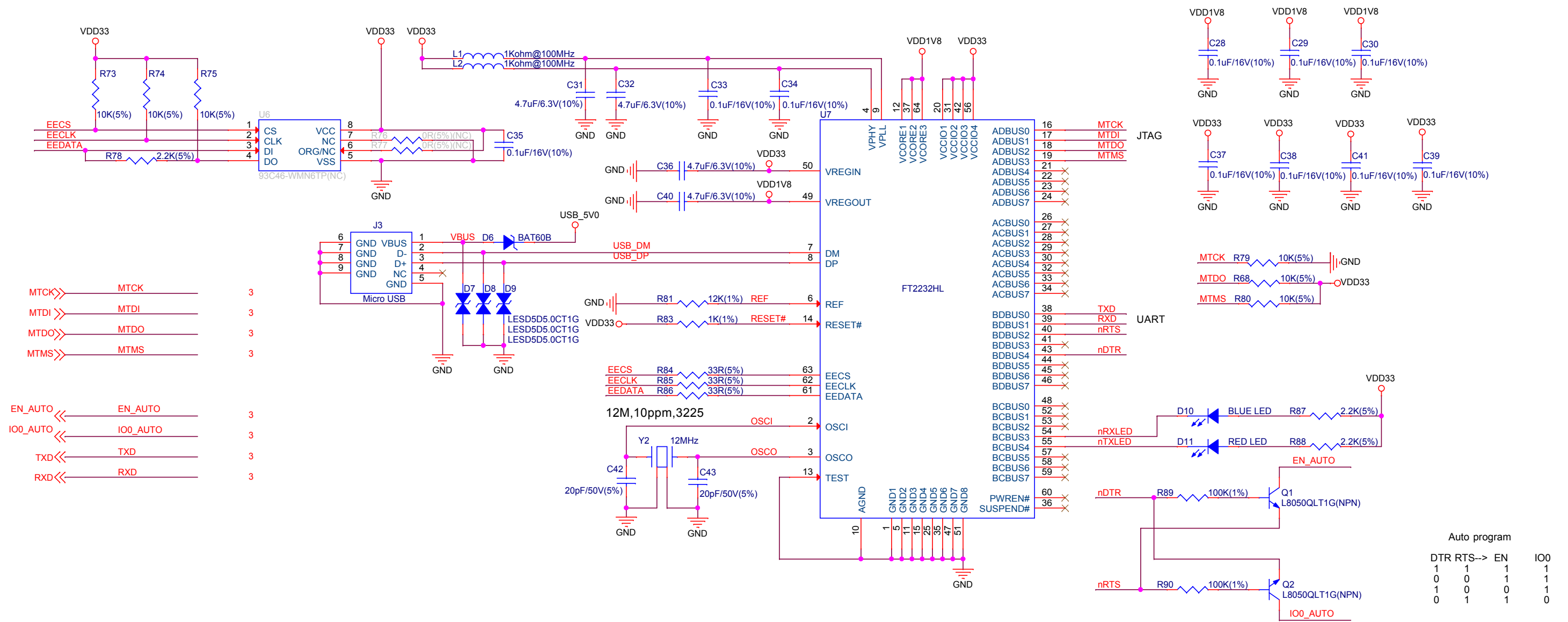
FLASH BOOT:
GPIO0->1



STRAP PINS:

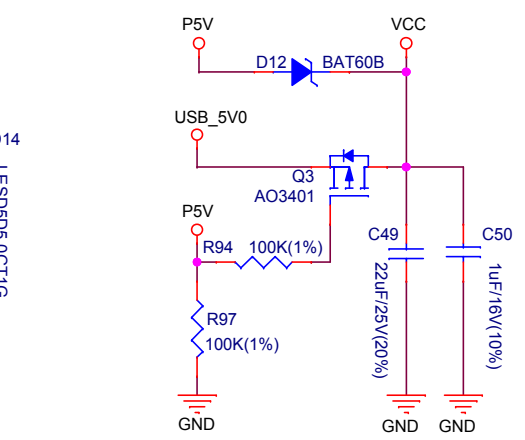
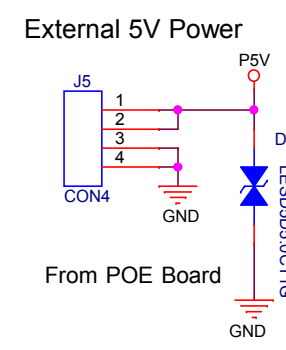


Please place these caps close to VCORE/VCCIO

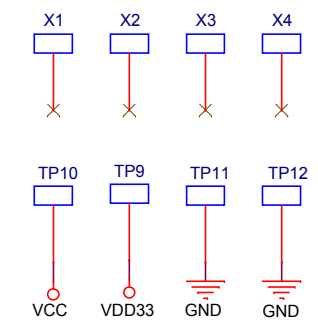
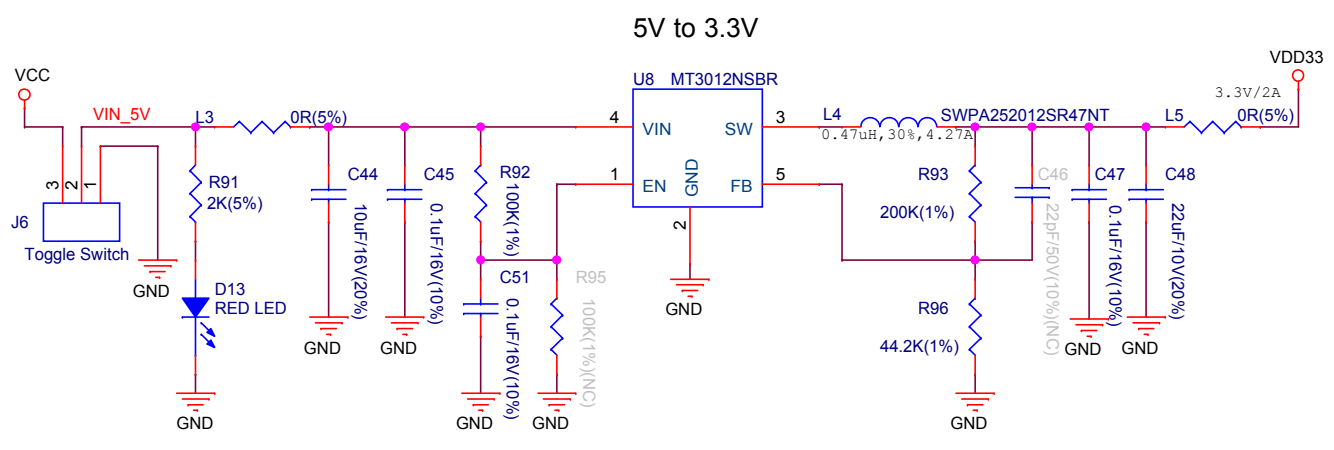


Auto program

DTR	RTS-->	EN	IO0
1	1	1	1
0	0	1	1
1	0	0	1
0	1	1	0



1. If POE board is plugged in, VCC will be only powered by POE.
2. Otherwise, VCC is powered by USB.



ESPRESSIF
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 Title <ESP32-Ethernet-Kit_A>
 Size Page Name Rev Confidential and Proprietary
 A3 <04 : UART&JTAG Debug> V1.2
 Date: Thursday, May 28, 2020 Sheet 4 of 4