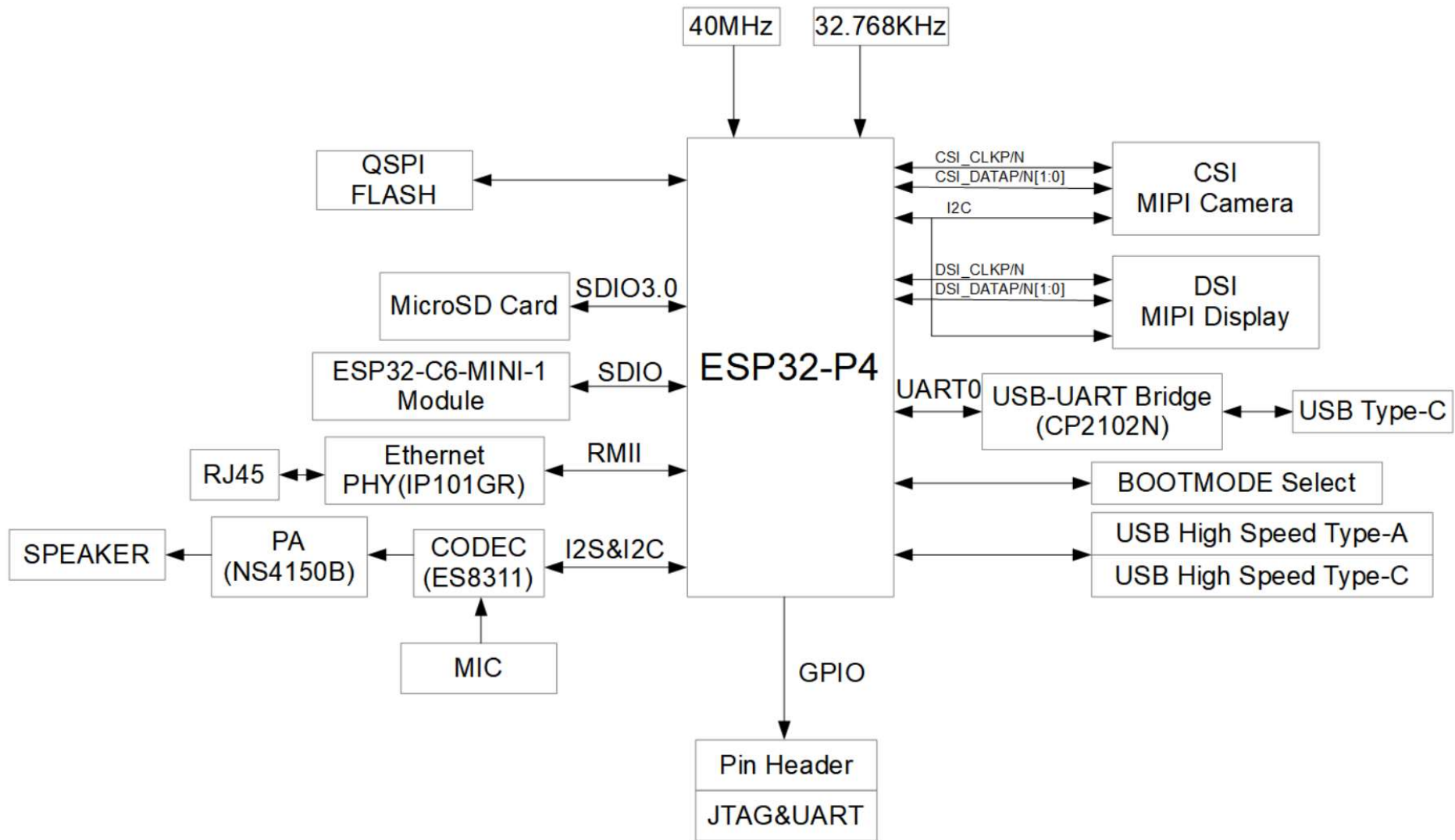
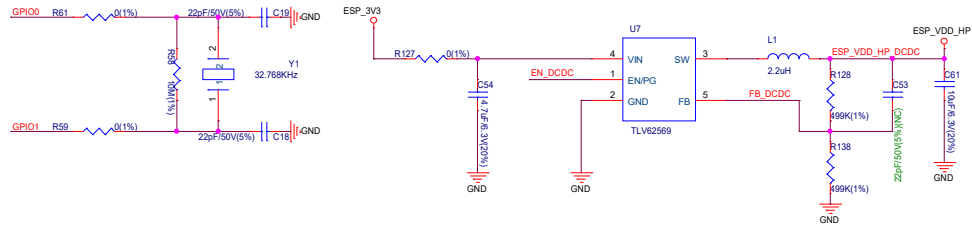
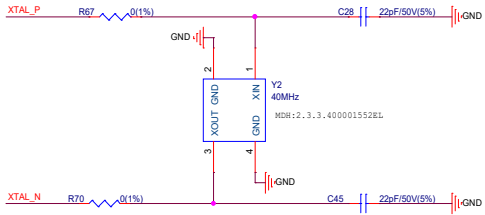
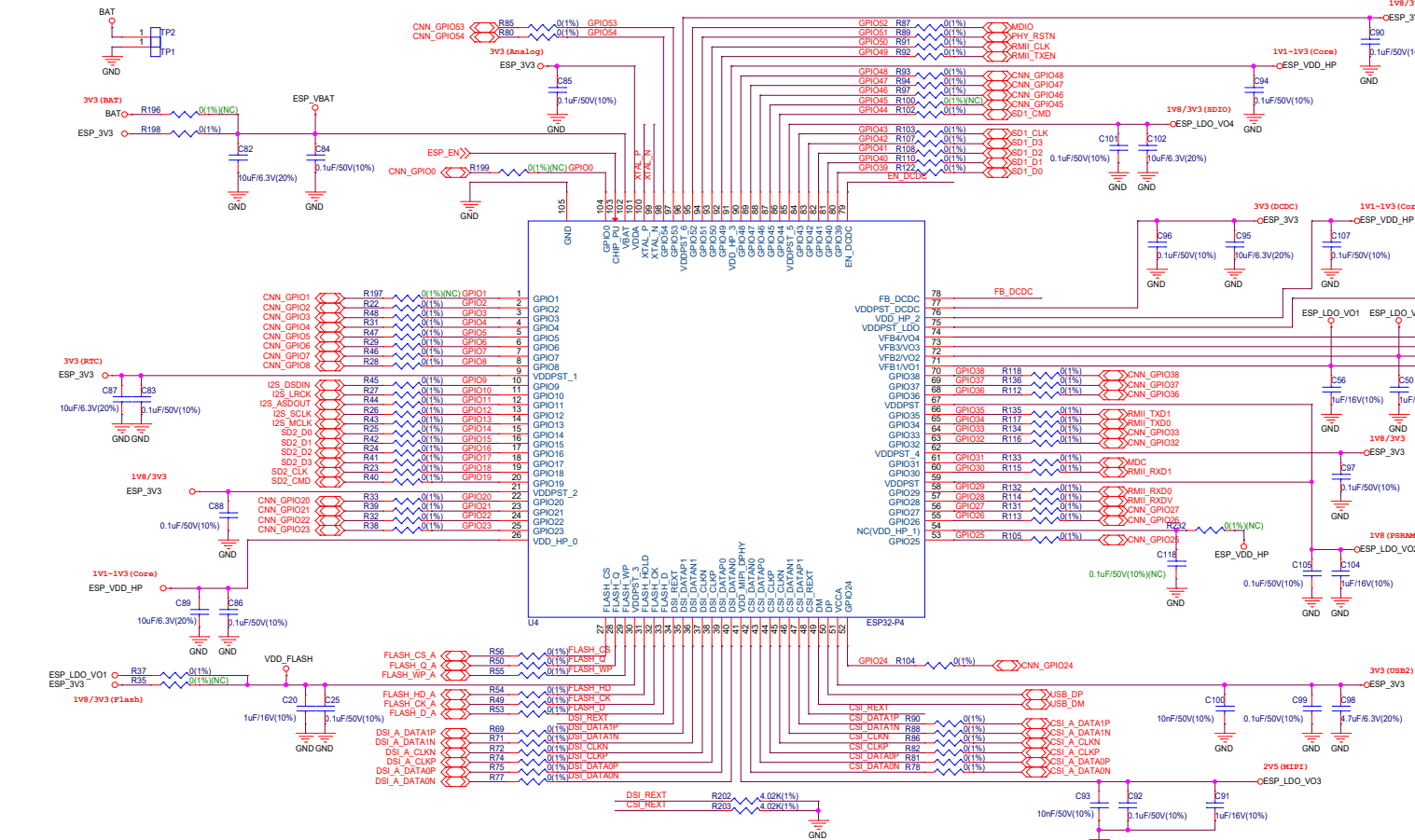


*Design Block:*

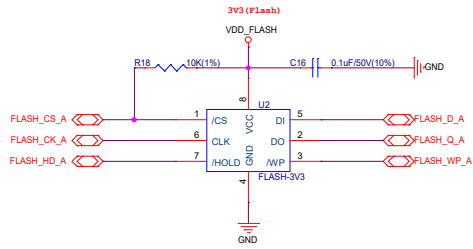




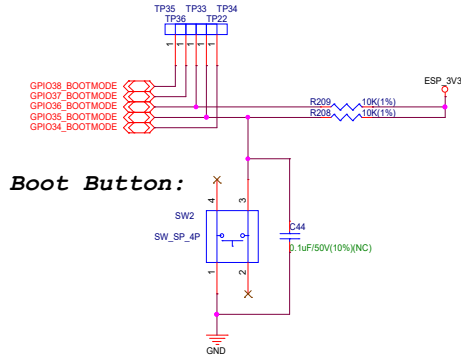
- GPIO38 R206 0(1%) <math>\leftrightarrow</math> GPIO38\_BOOTMODE
- GPIO37 R212 0(1%) <math>\leftrightarrow</math> GPIO37\_BOOTMODE
- GPIO36 R204 0(1%) <math>\leftrightarrow</math> GPIO36\_BOOTMODE
- GPIO35 R207 0(1%) <math>\leftrightarrow</math> GPIO35\_BOOTMODE
- GPIO34 R205 0(1%) <math>\leftrightarrow</math> GPIO34\_BOOTMODE
  
- GPIO7 R104 0(1%) <math>\leftrightarrow</math> ESP\_I2C\_SDA
- GPIO8 R190 0(1%) <math>\leftrightarrow</math> ESP\_I2C\_SCL
  
- GPIO53 R79 0(1%) <math>\leftrightarrow</math> PA\_CTRL
- GPIO54 R76 0(1%) <math>\leftrightarrow</math> CS\_EN
- GPIO6 R30 0(1%) <math>\leftrightarrow</math> CS\_WAKEUP
  
- GPIO38 R228 0(1%) <math>\leftrightarrow</math> UART0\_RXD
- GPIO37 R227 0(1%) <math>\leftrightarrow</math> UART0\_TXD
- GPIO45 R231 0(1%) <math>\leftrightarrow</math> SD\_PWRn



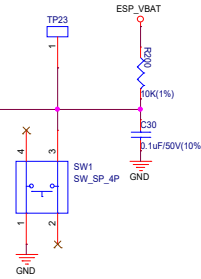
**FLASH:**



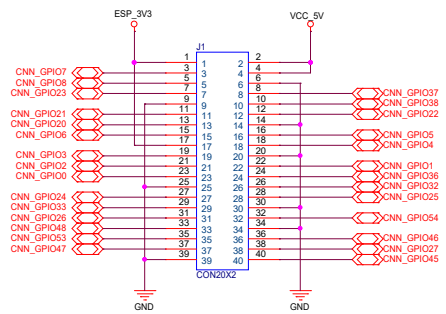
**Boot Strapping Pins:**



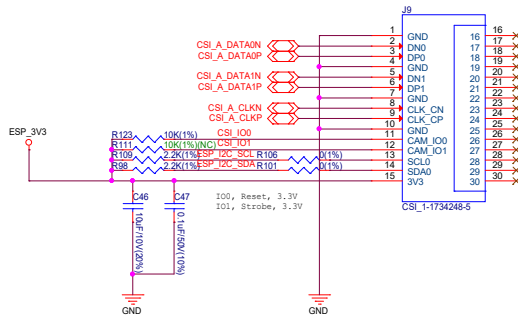
**Reset Button:**



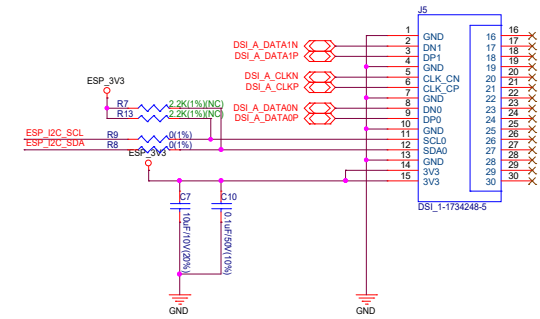
**Pin Header For GPIOs:**



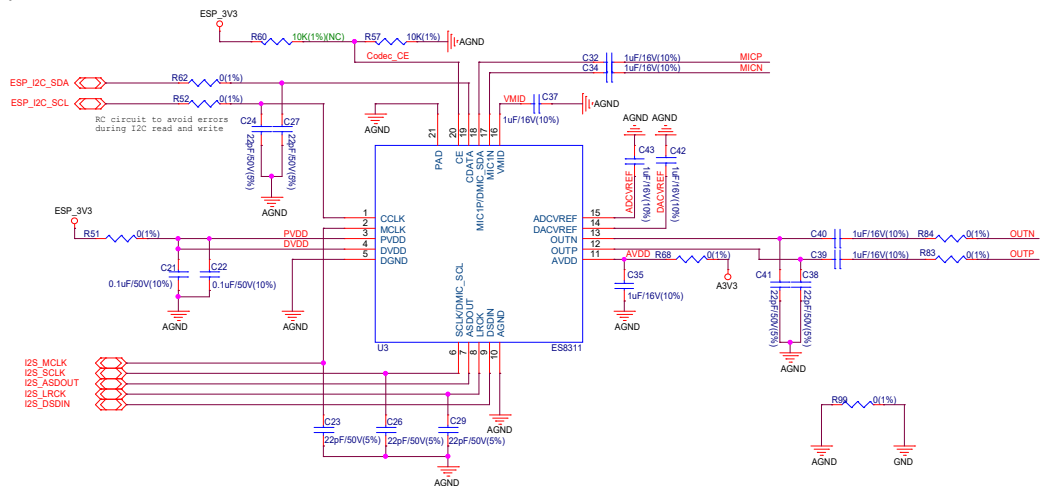
**CSI Connector:**



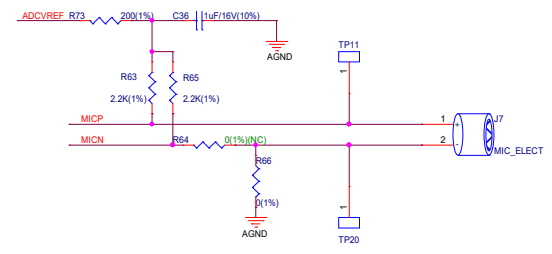
**DSI Connector:**



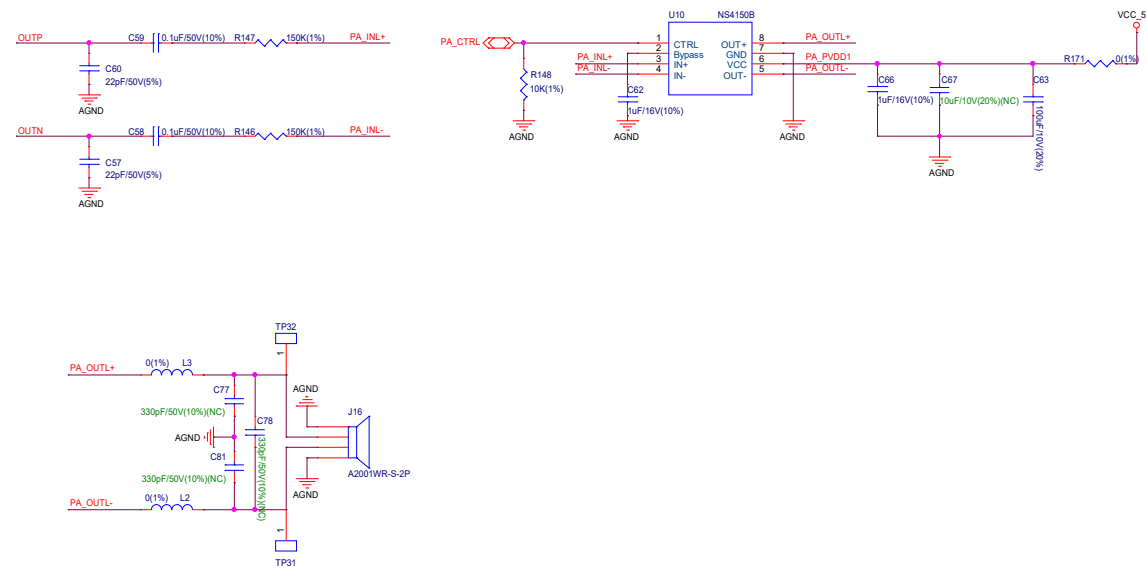
### Codec:



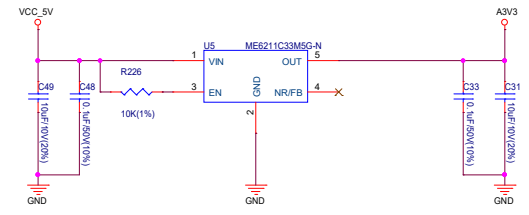
### MIC:



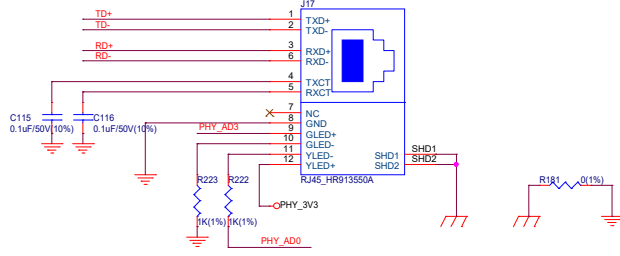
### PA&SPEAKER:



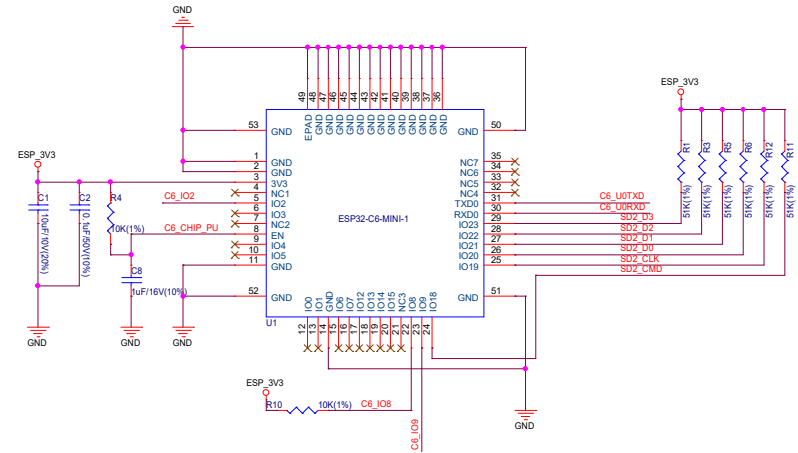
### 3.3V LDO For AVDD:



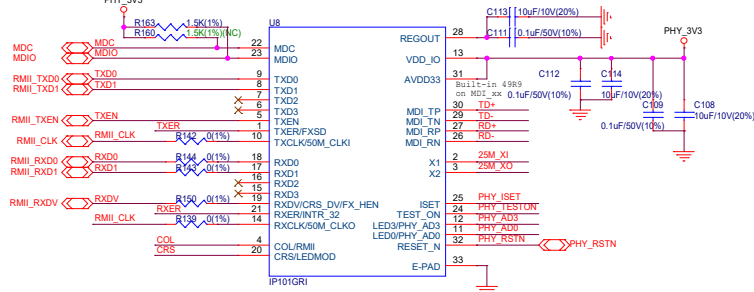
### RJ45 with Trans



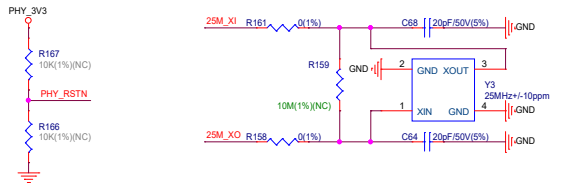
### WiFi & BT Module:



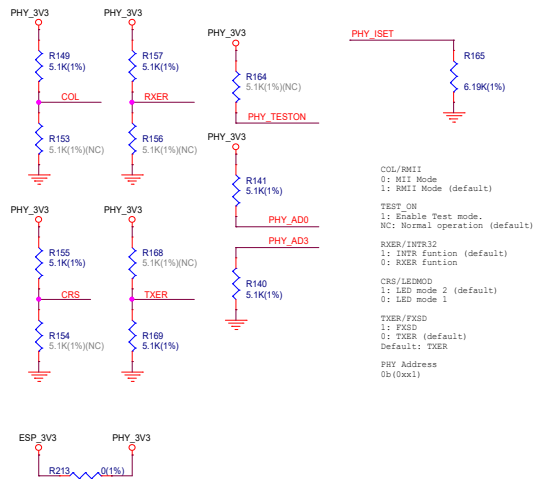
### ETHERNET PHY IC



PHY\_RSTN is active low.  
Set low to PHY\_RSTN pin for at least 10ms will reset all functions available in IP101GR1.

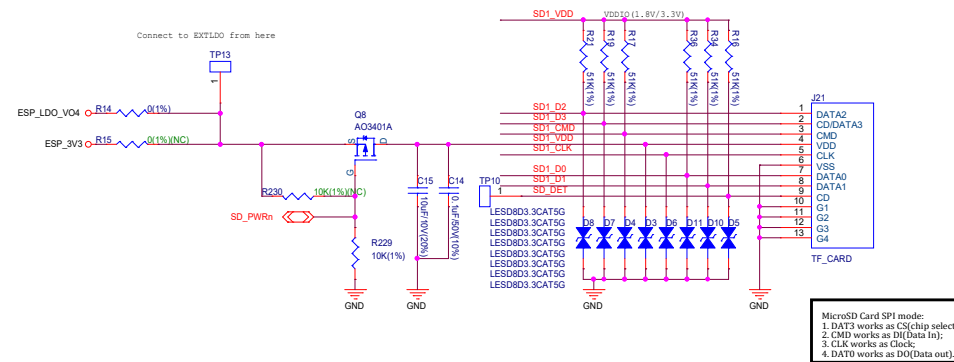


### PHY MODE CONFIG



- COL/RMII
  - 0: RII Mode
  - 1: RMII Mode (default)
- TEST\_ON
  - 1: Enable Test mode.
  - 0: Normal operation (default)
- RXER/INTR32
  - 1: RXER function (default)
  - 0: RXER function
- CRS/LEDMD0
  - 1: LED mode 2 (default)
  - 0: LED mode 1
- TXER/FXSD
  - 1: FXSD
  - 0: TXER (default)
  - Default: TXER
- PHY Address
  - 0b(0xx1)

### MicroSD Card:



MicroSD Card SPI mode:  
1. DAT3 works as CS(chip select);  
2. CMD works as DI(Data In);  
3. CLK works as Clock;  
4. DAT0 works as DO(Data Out).

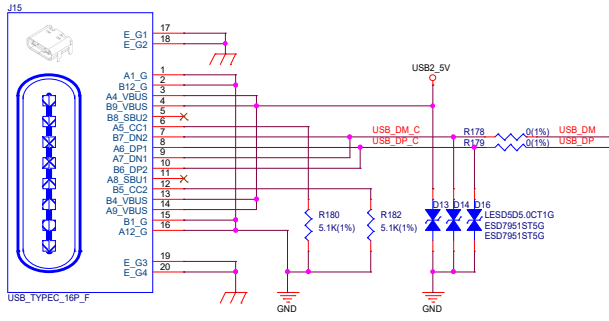
### ESPRESSIF

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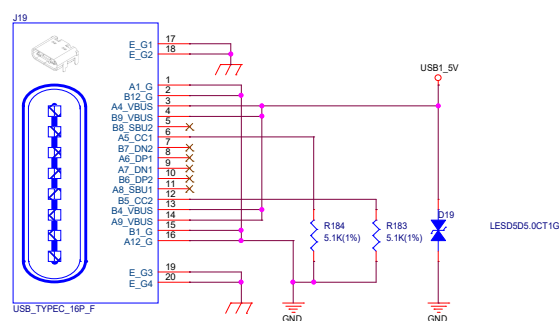
Title: ESP32-P4\_FUNCTION\_EV\_BOARD

Size	Page Name	Rev	Proprietary
C	05_Ethernet_SDMIMC_WIFI	1.4	
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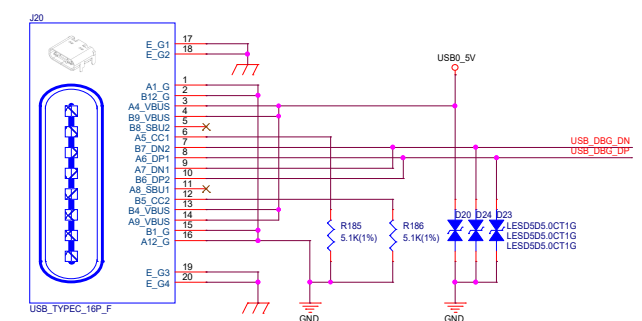
**USB High Speed & Power in:**



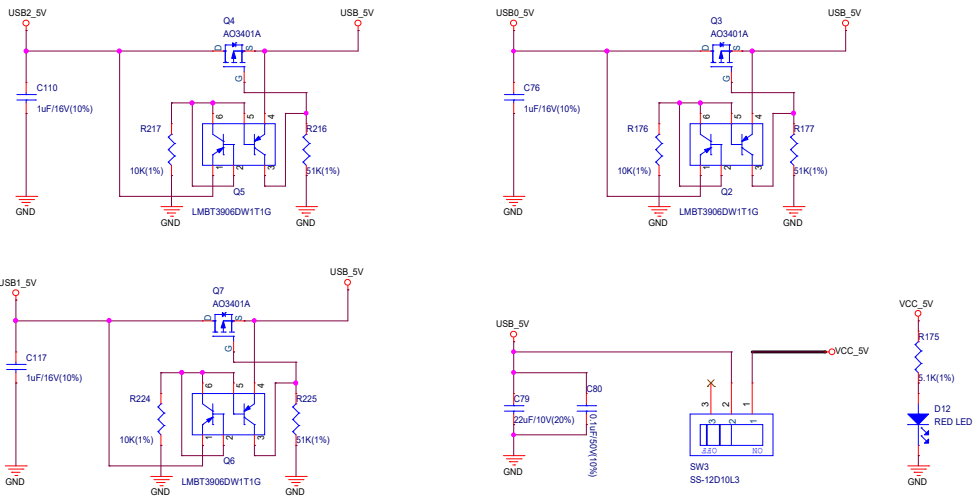
**USB Full Speed Slave & Power in (24&25):**



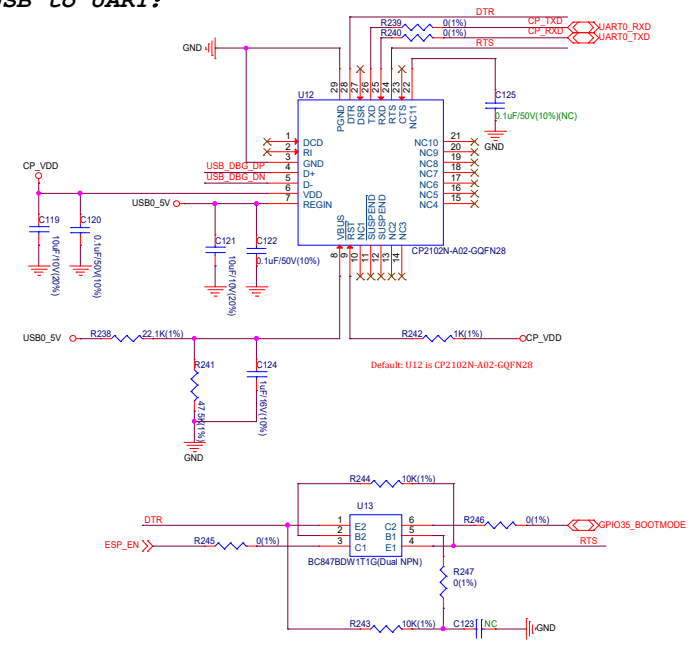
**USB Full Speed Slave & Power in (26&27):**



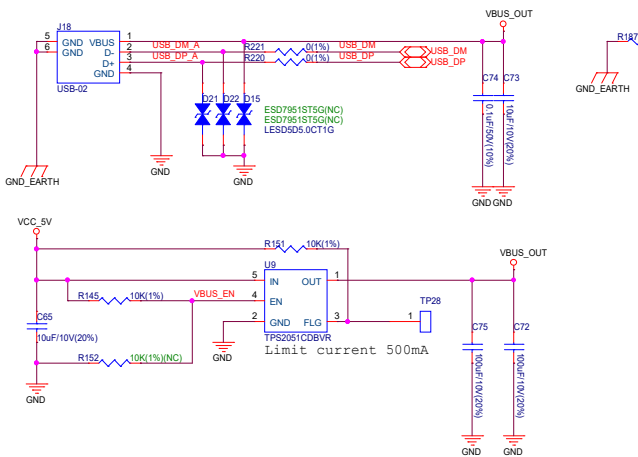
**Ideal Diodes:**



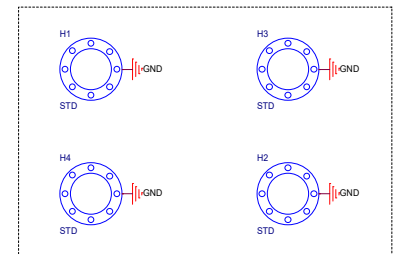
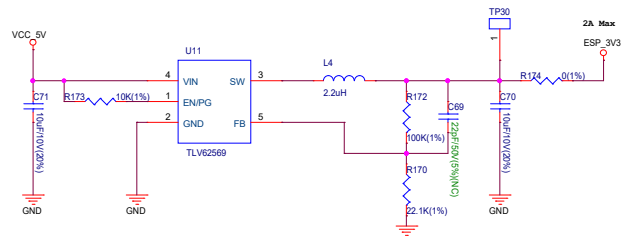
**USB to UART:**



**USB High Speed Host:**



**3V3 DC-DC:**



<b>ESPRESSIF</b>			
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