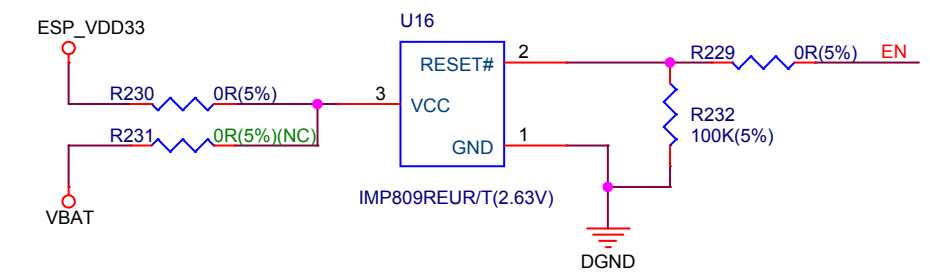
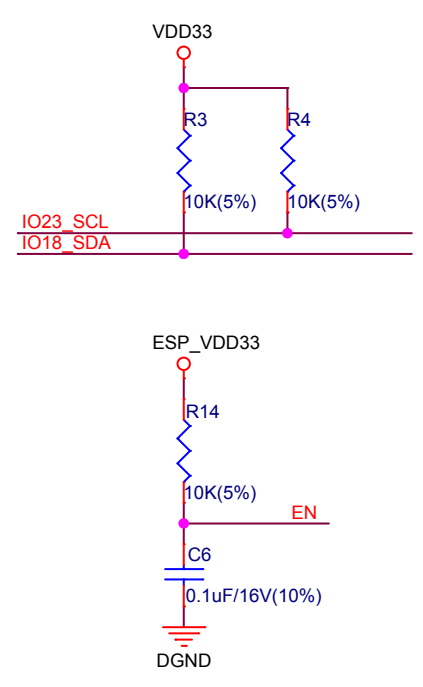
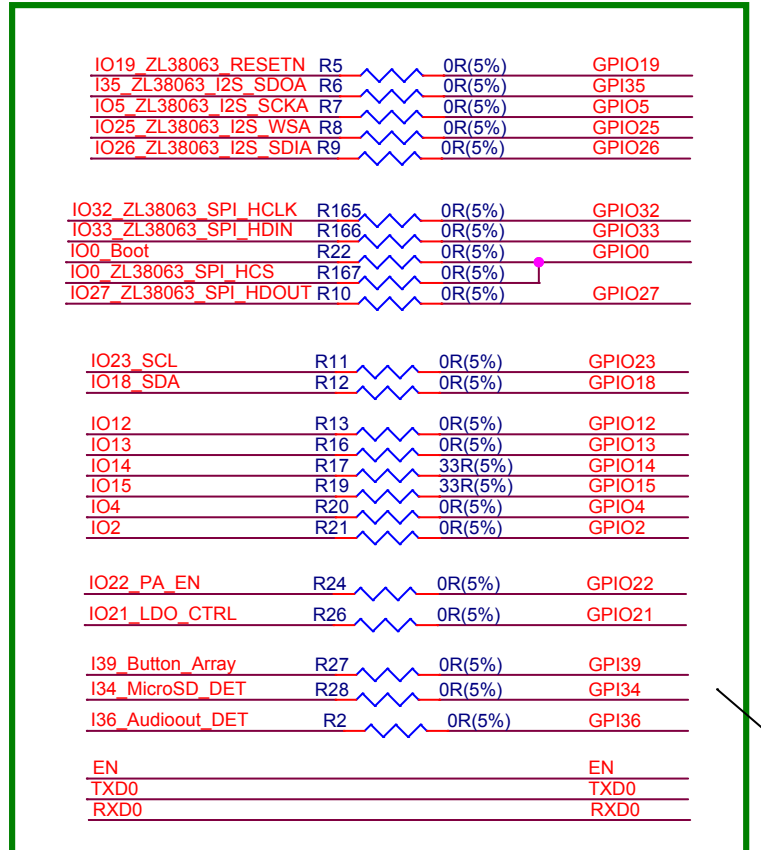
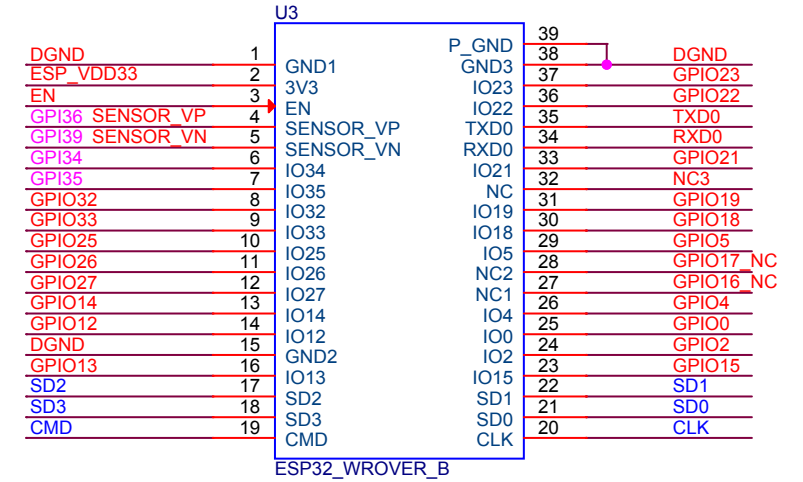
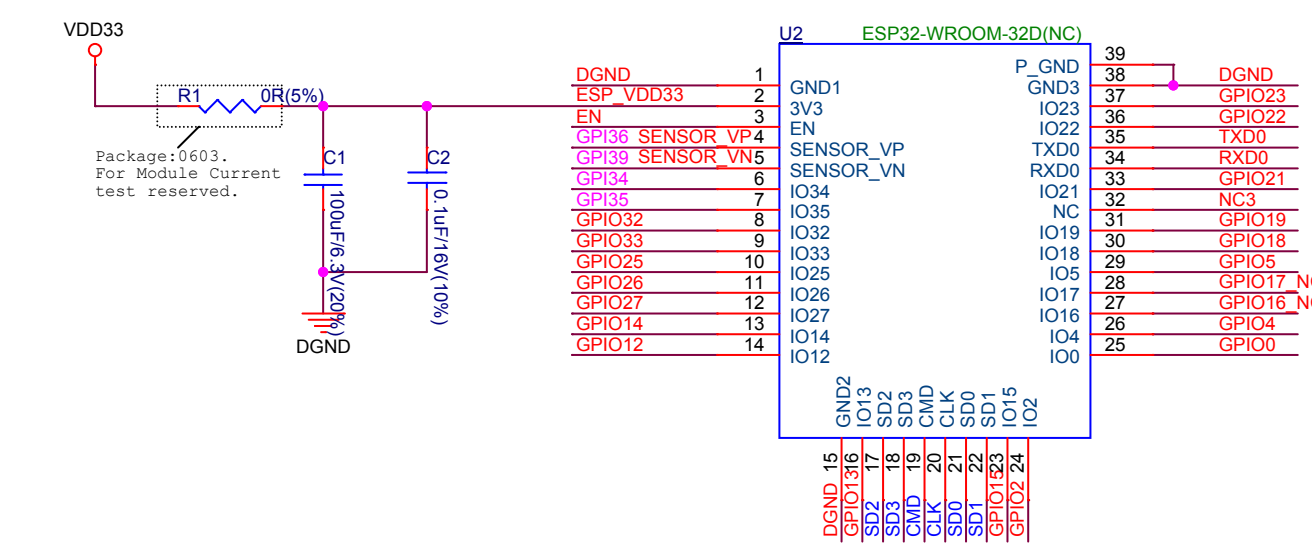
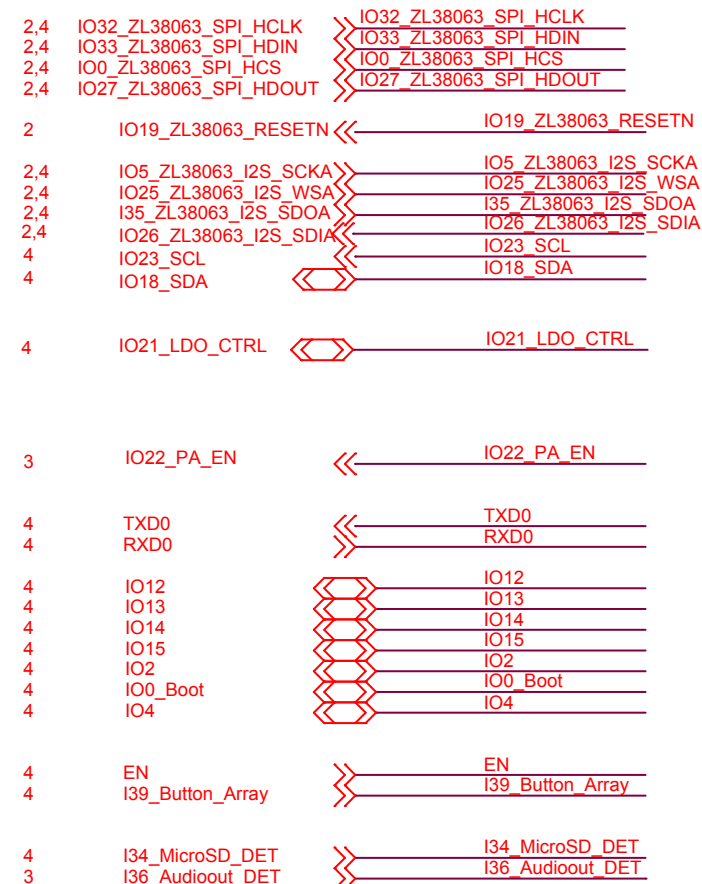
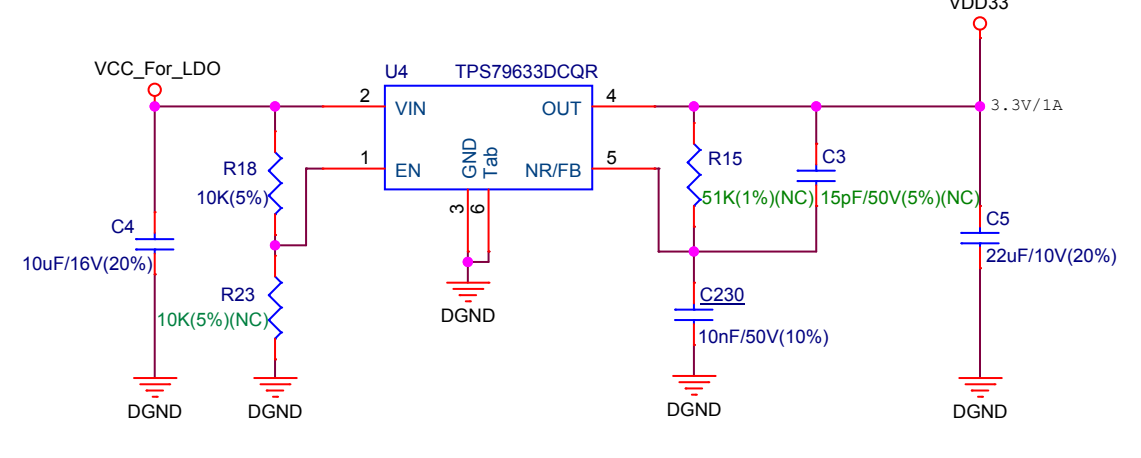


# ESP32 Module:

The blue NETNAME means 1.5V level.  
The purple color means INPUT only.

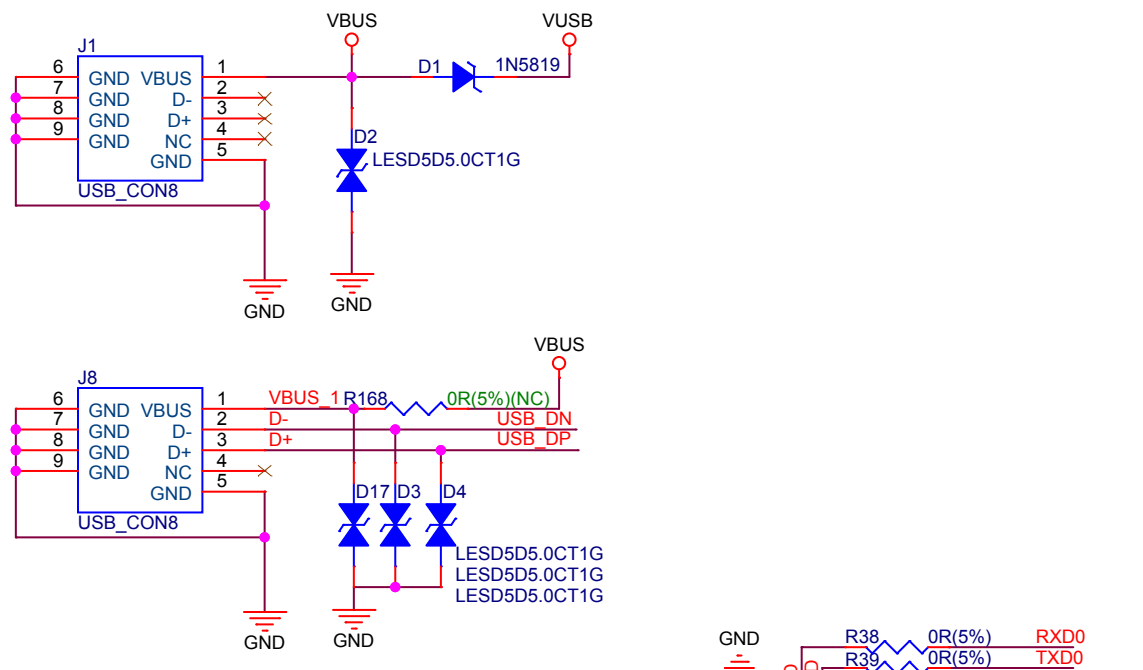


## Power Supply For ESP32:

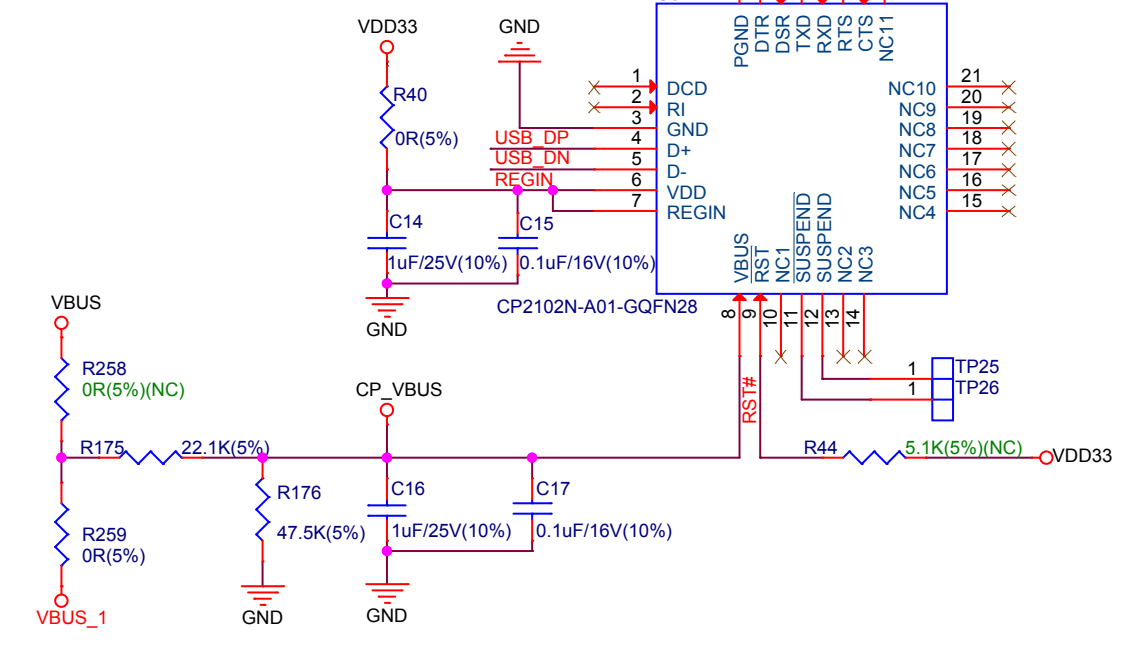


Please keep this block, it directly shows Pin assignment. If you wanna change Pin assignment, just revise this block.

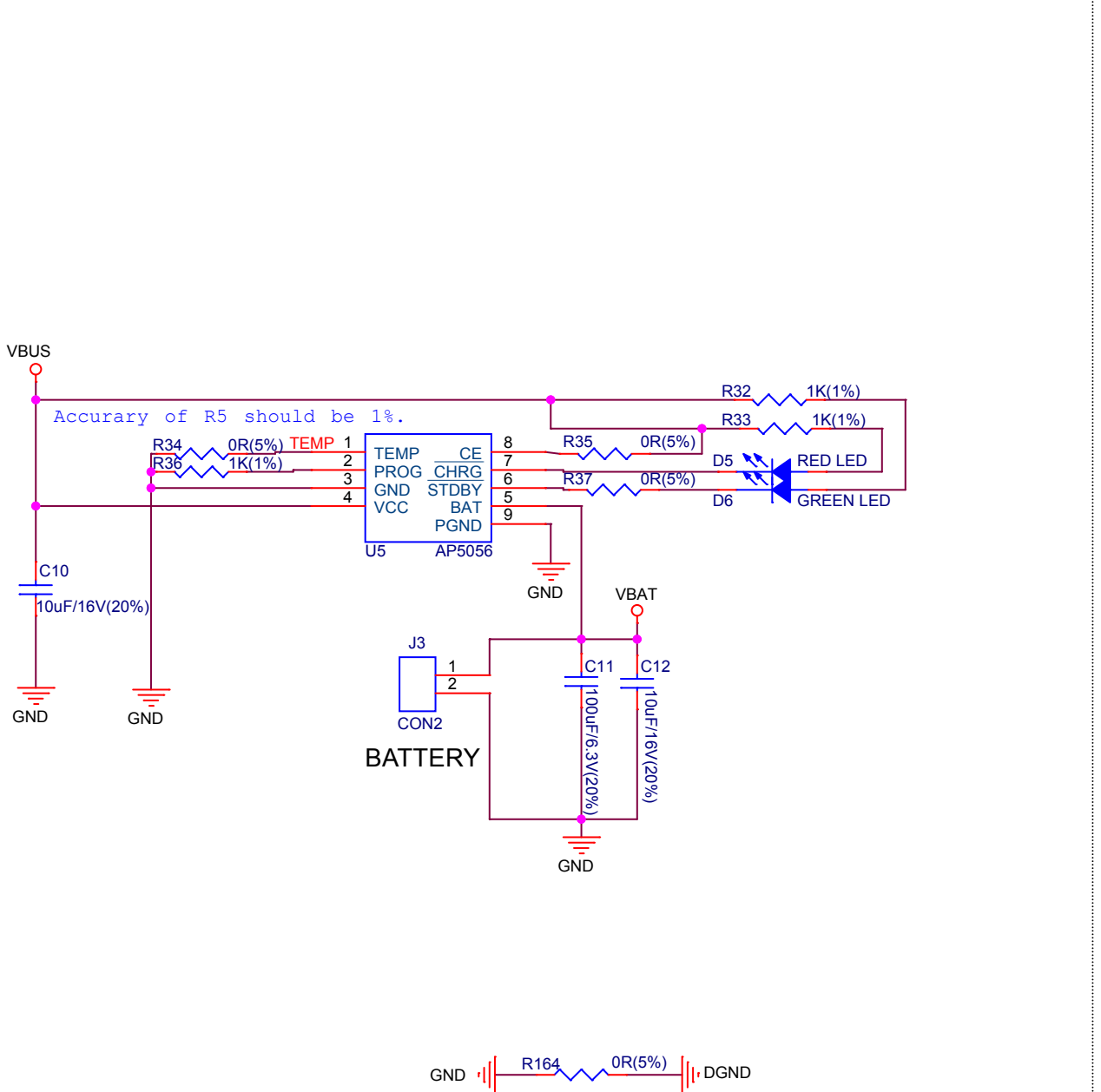
## USB:



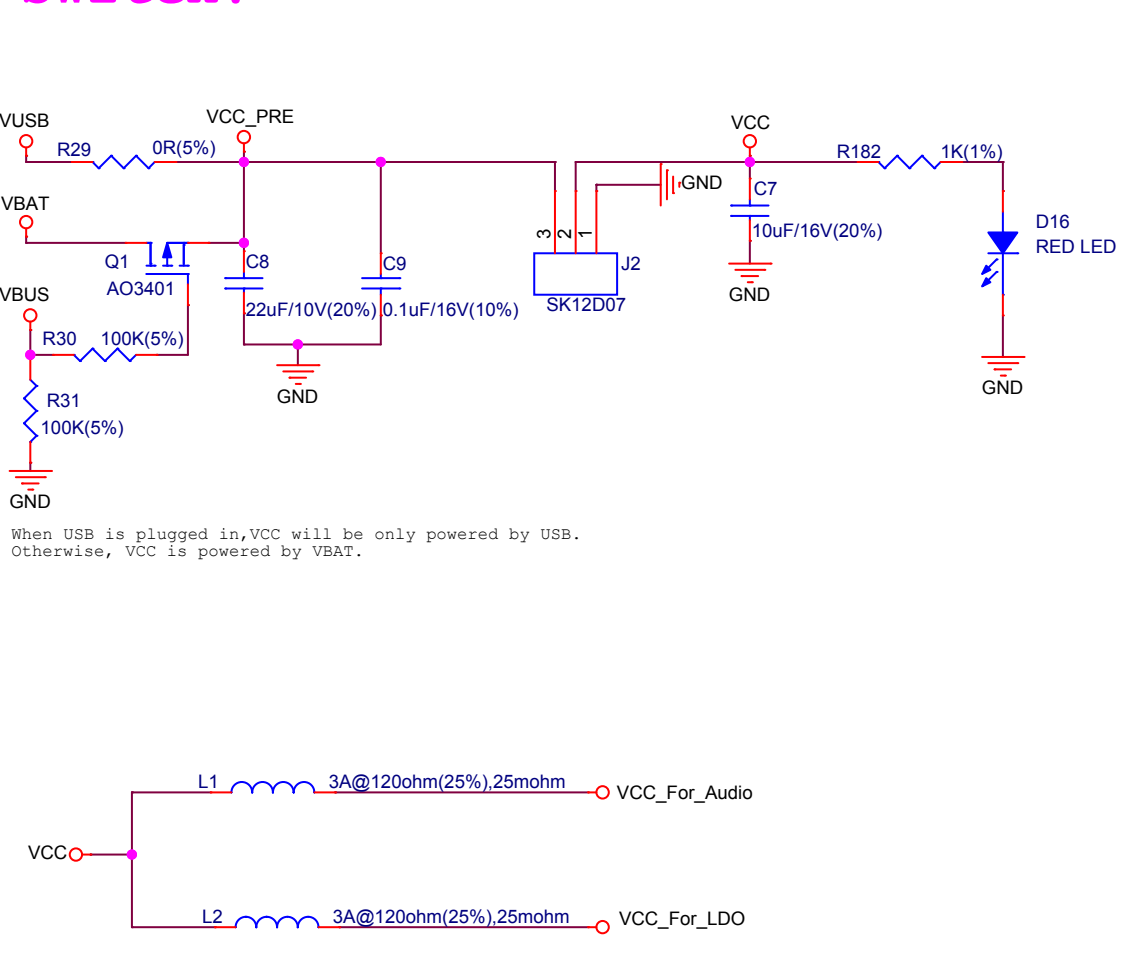
## USB<->UART:



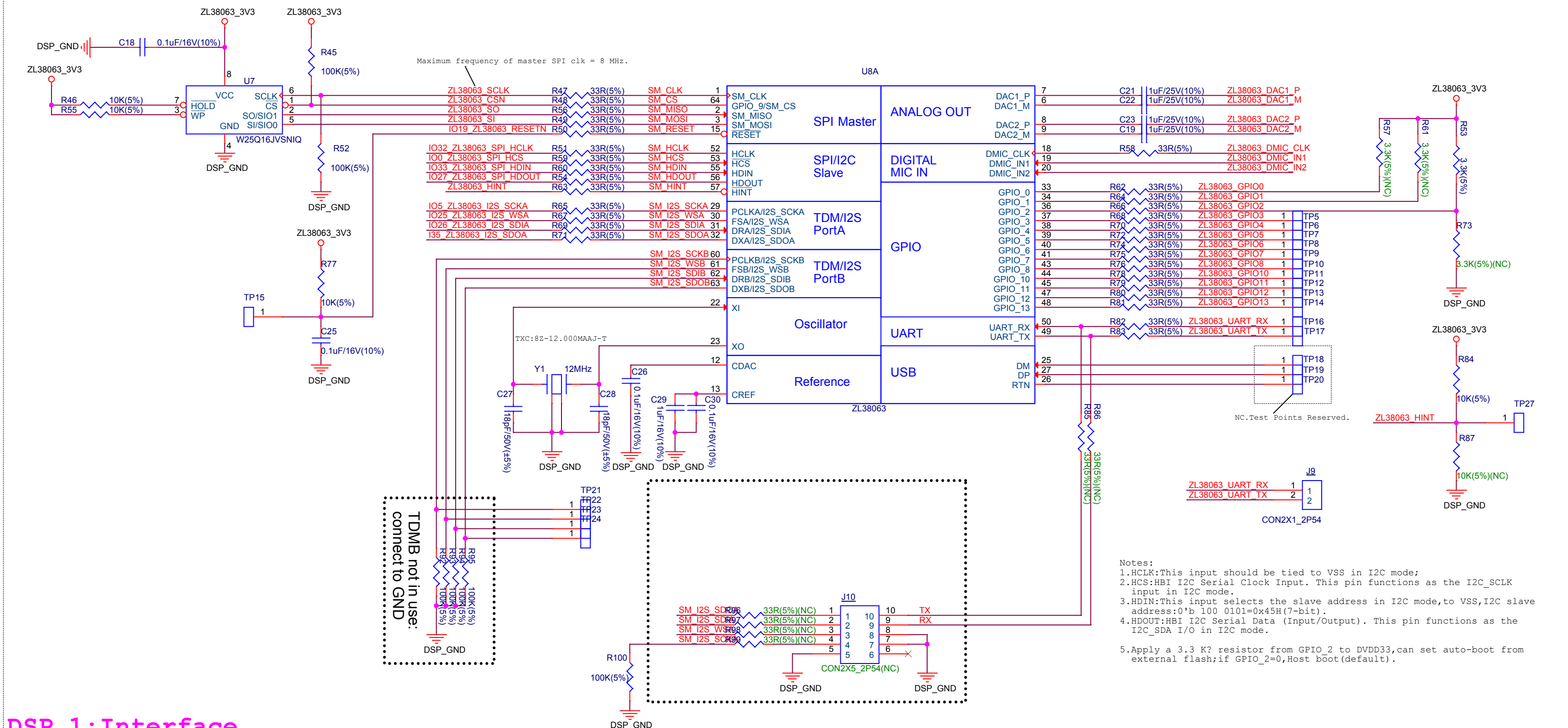
## Charge Circuit:



## Power Switch:



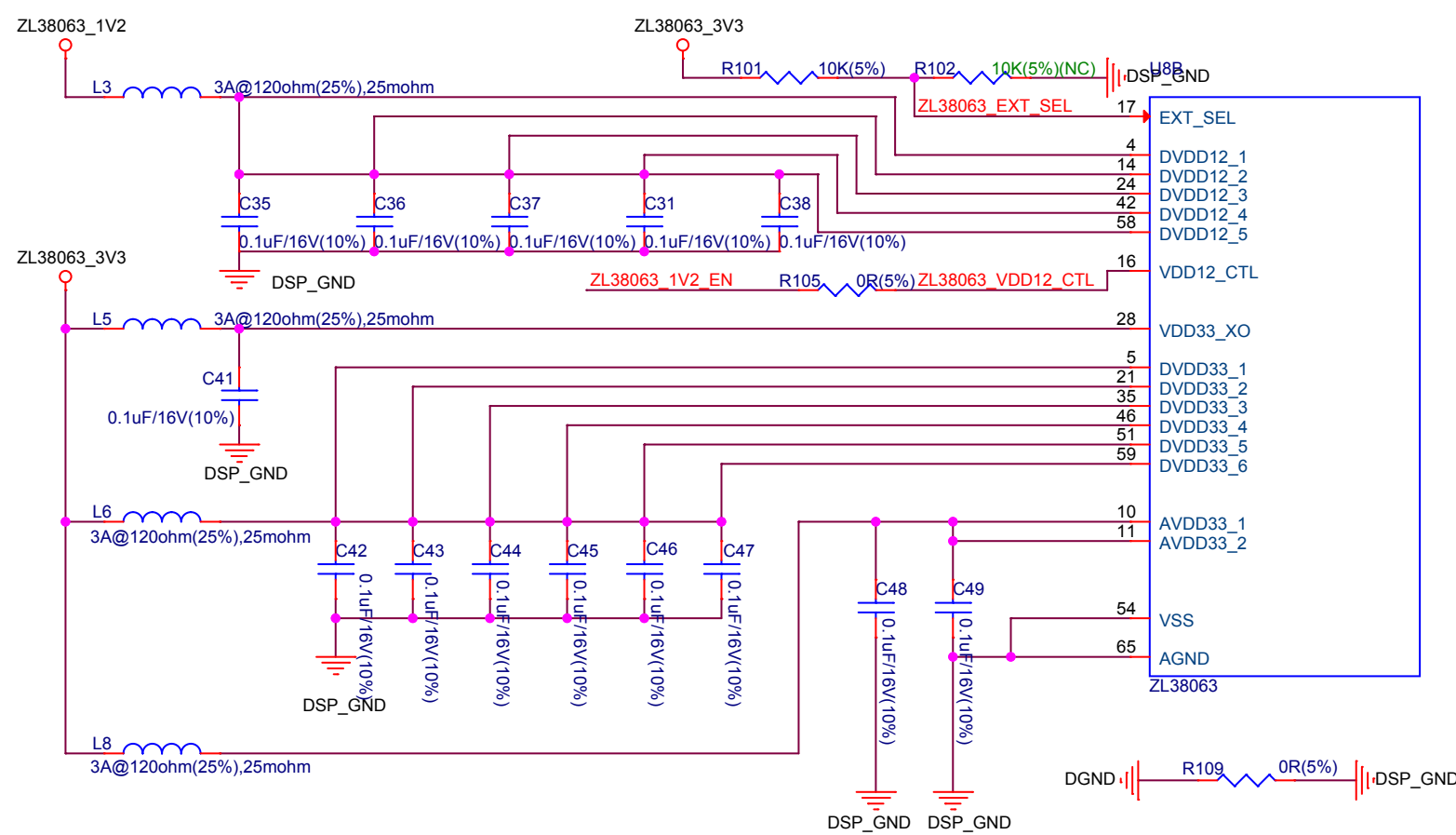
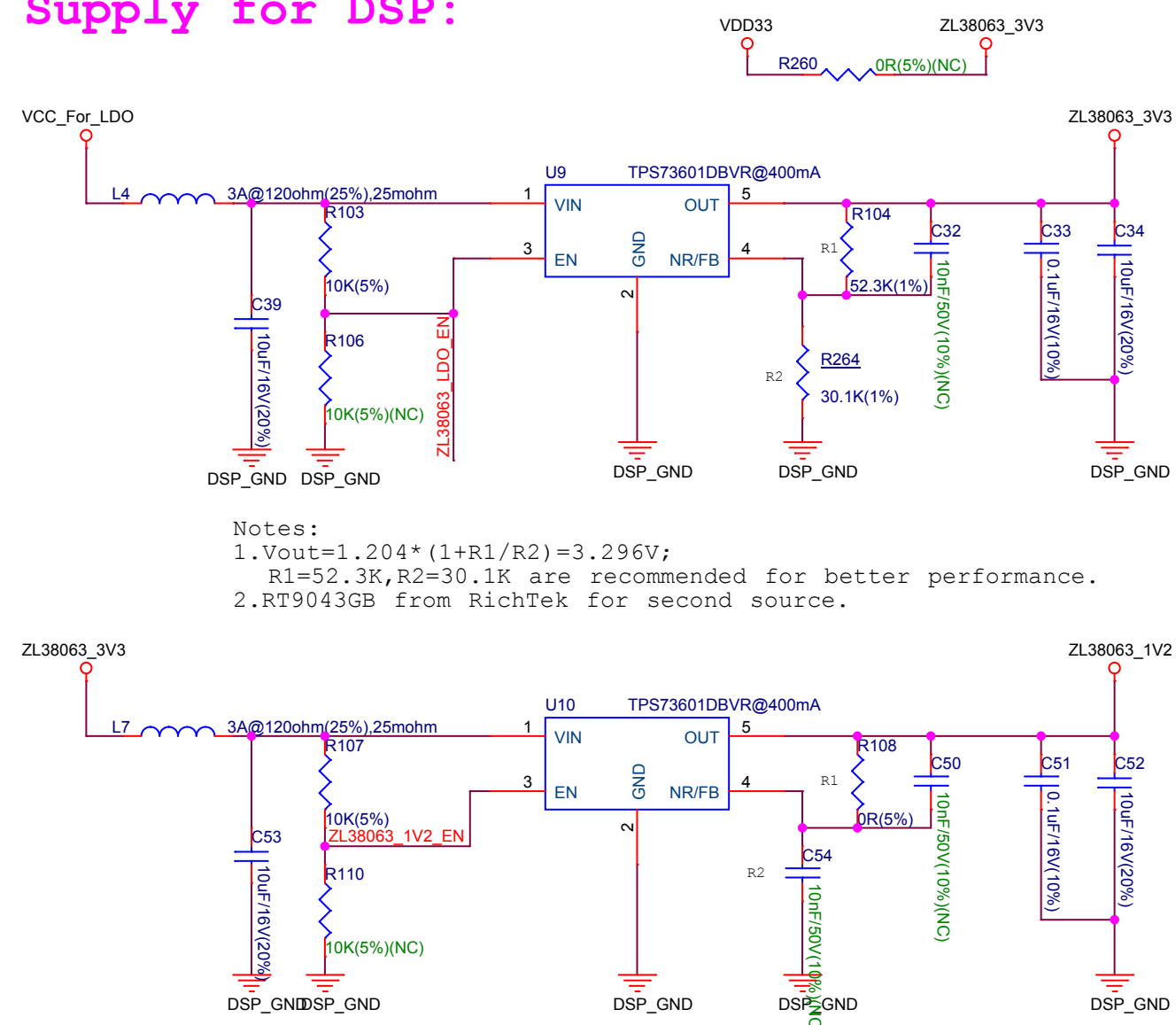
1.4	IO32_ZL38063_SPI_HCLK	IO32_ZL38063_SPI_HCLK
1.4	IO33_ZL38063_SPI_HDIN	IO33_ZL38063_SPI_HDIN
1.4	IO0_ZL38063_SPI_HCS	IO0_ZL38063_SPI_HCS
1.4	IO27_ZL38063_SPI_HDOUT	IO27_ZL38063_SPI_HDOUT
1	IO19_ZL38063_RESETN	IO19_ZL38063_RESETN
1.4	IO5_ZL38063_I2S_SCKA	IO33_ZL38063_I2S_SCKA
1.4	IO25_ZL38063_I2S_WSA	IO25_ZL38063_I2S_WSA
1.4	IO26_ZL38063_I2S_SDOA	IO26_ZL38063_I2S_SDOA
1.4	IO26_ZL38063_I2S_SDOA	IO26_ZL38063_I2S_SDOA
3.4	ZL38063_DAC1_P	ZL38063_DAC1_P
3	ZL38063_DAC1_M	ZL38063_DAC1_M
3	ZL38063_DAC2_P	ZL38063_DAC2_P
3	ZL38063_DAC2_M	ZL38063_DAC2_M
4	ZL38063_DMIC_CLK	ZL38063_DMIC_CLK
4	ZL38063_DMIC_IN1	ZL38063_DMIC_IN1
4	ZL38063_DMIC_IN2	ZL38063_DMIC_IN2
4	ZL38063_LDO_EN	ZL38063_LDO_EN



DSP.1: Interface

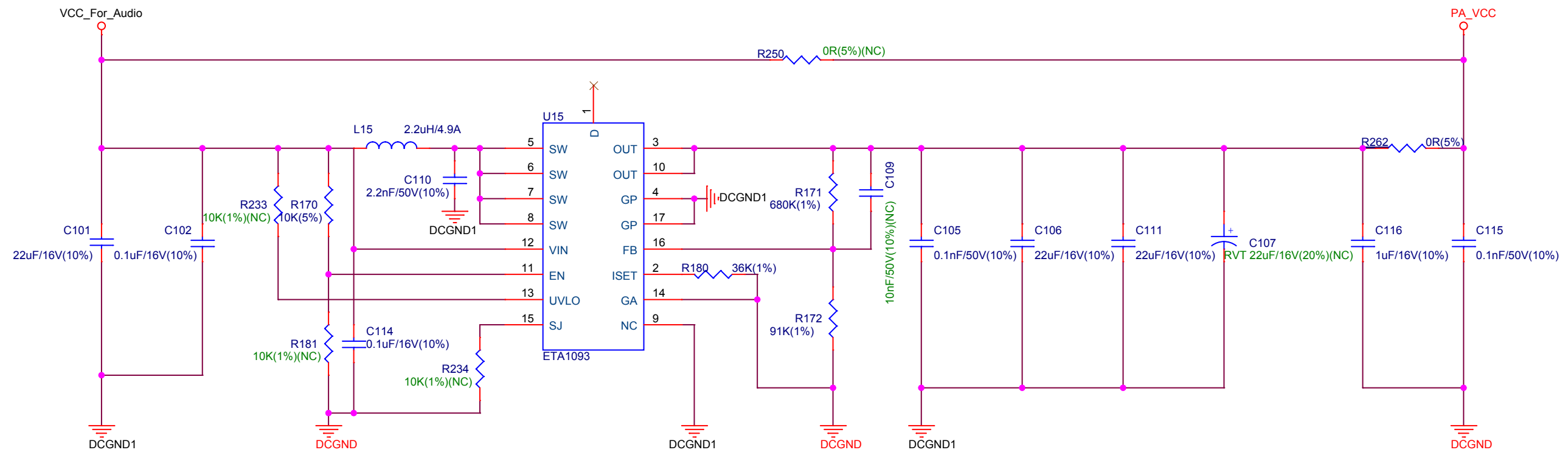
Power Supply for DSP:

DSP.2: Power



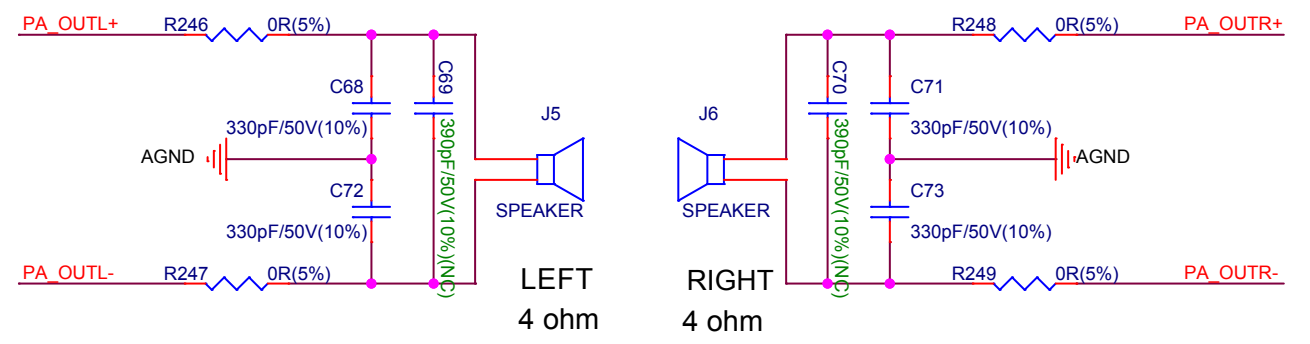
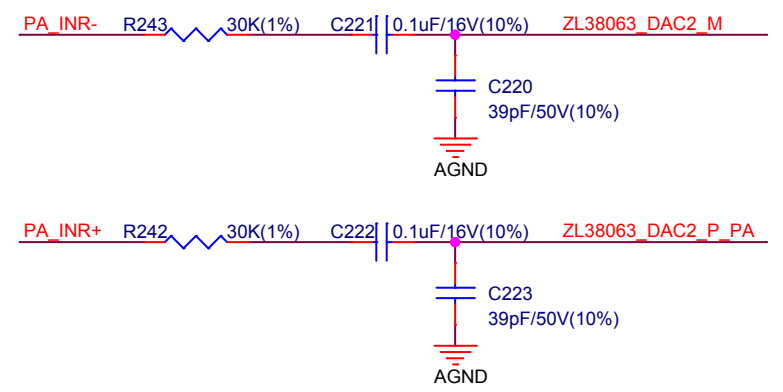
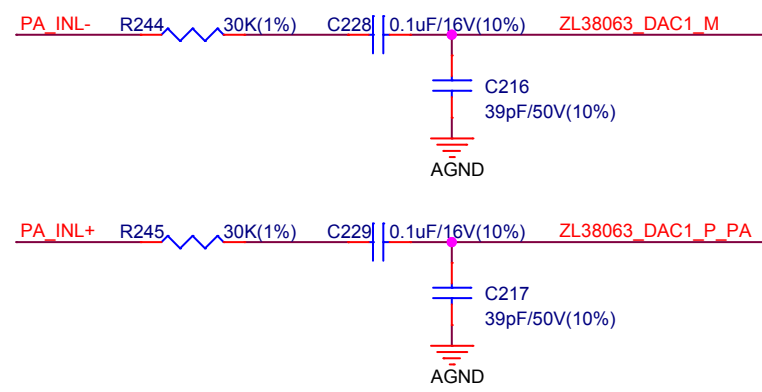
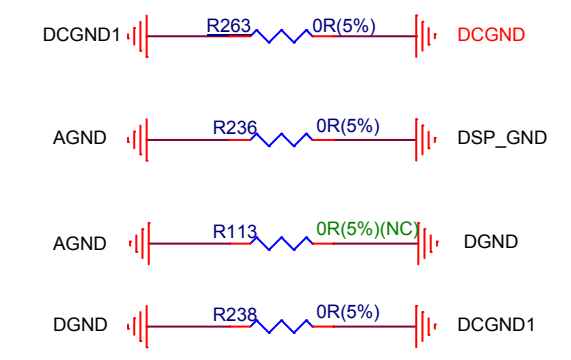
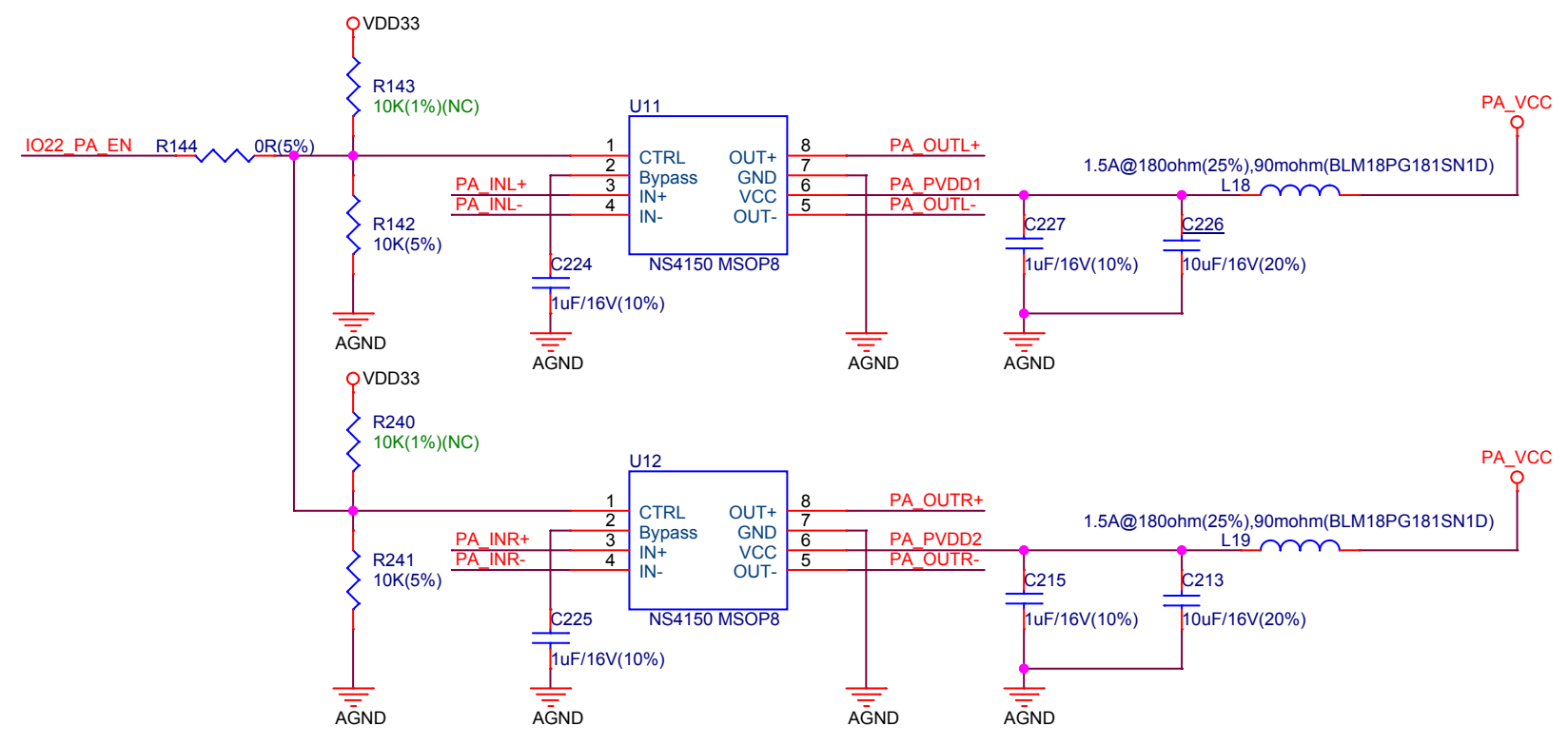
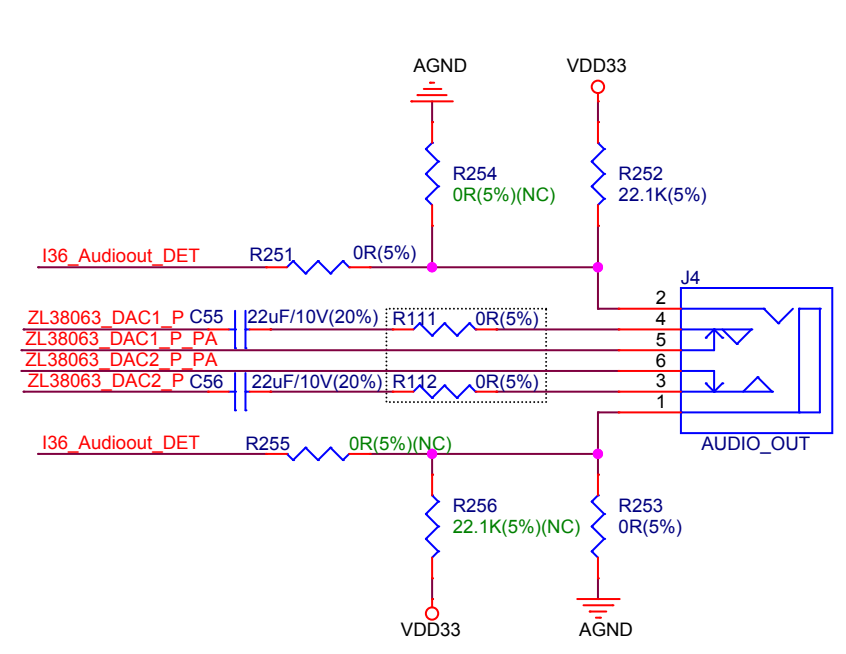
# PA Output:

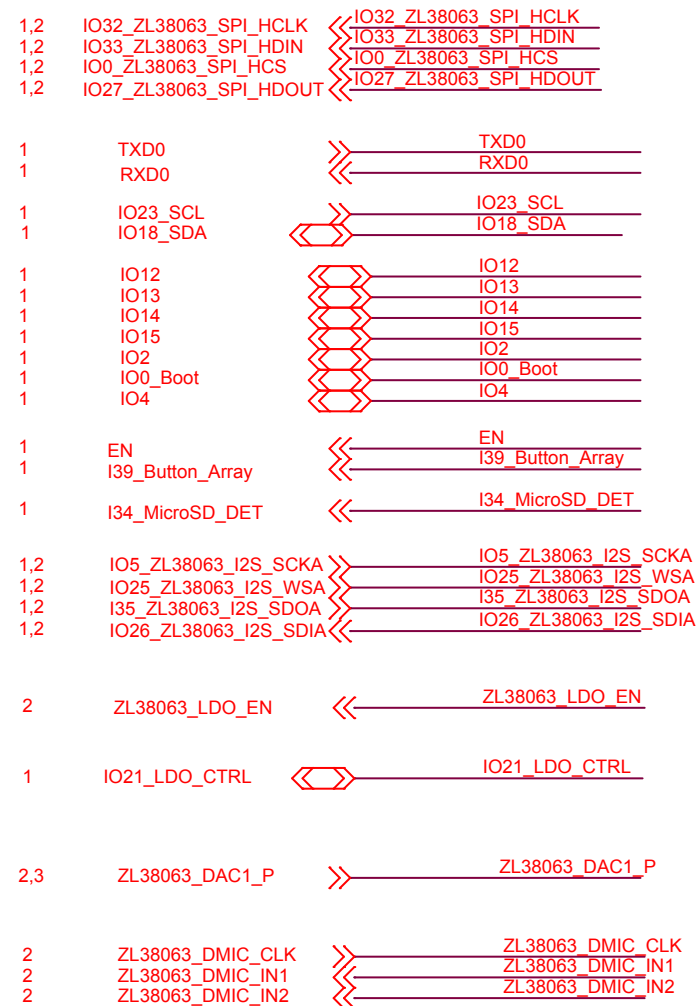
1	IO22_PA_EN	IO22_PA_EN
2,4	ZL38063_DAC1_P	ZL38063_DAC1_P
2	ZL38063_DAC1_M	ZL38063_DAC1_M
2	ZL38063_DAC2_P	ZL38063_DAC2_P
2	ZL38063_DAC2_M	ZL38063_DAC2_M
1	I36_Audioout_DET	I36_Audioout_DET



Notes:  
 1.  $V_{out} = 0.6 * (R1+R2) / R2 = 5V$ ;  
 2.  $I_{peak} = (180 / R_{iset}) * 1000 = 5A$

# Audio Out:

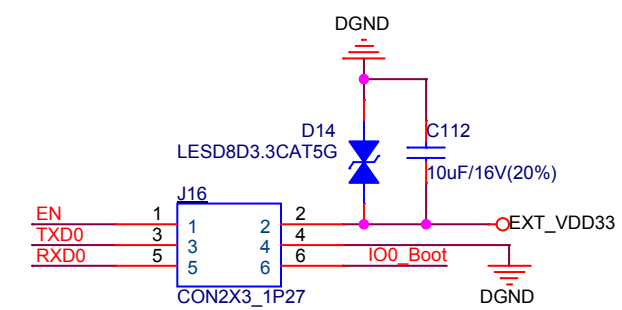




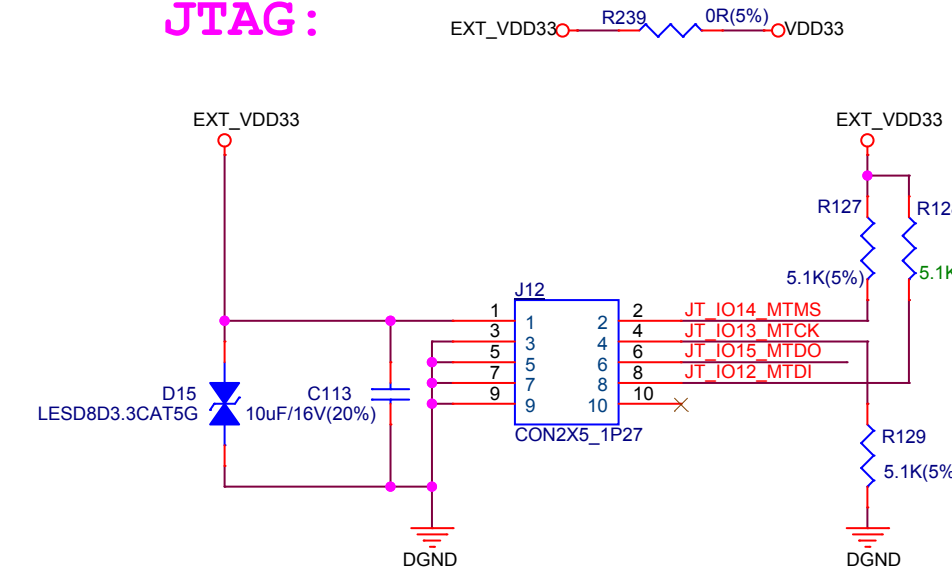
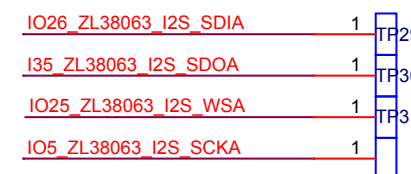
### UART:

### SPI & I2C:

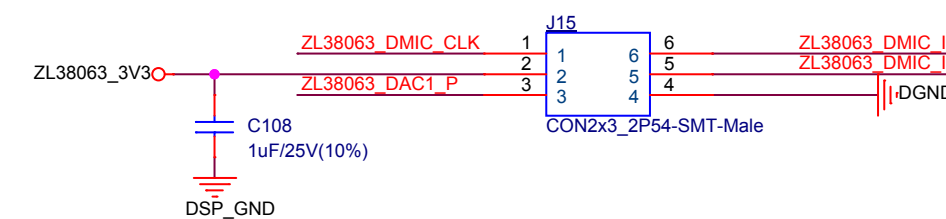
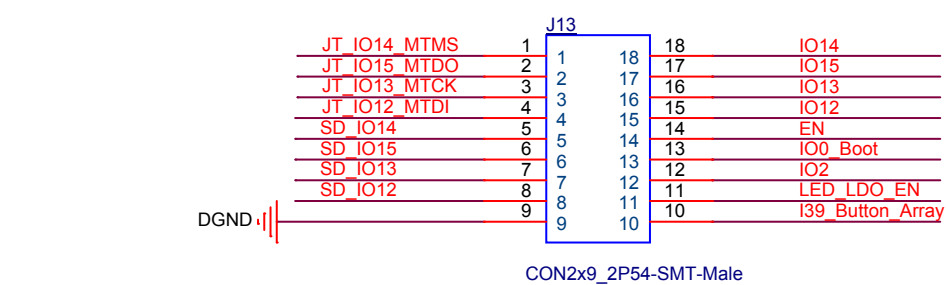
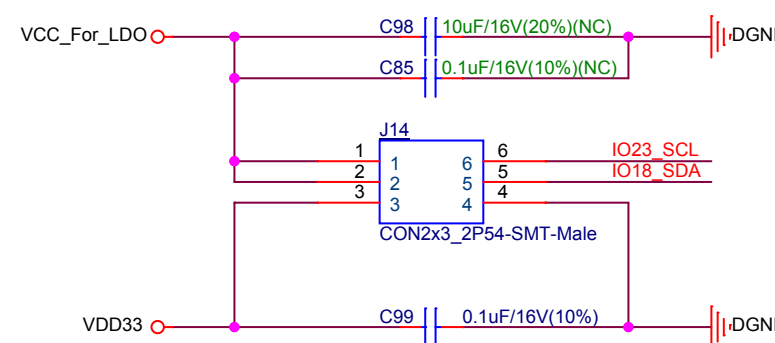
### JTAG:



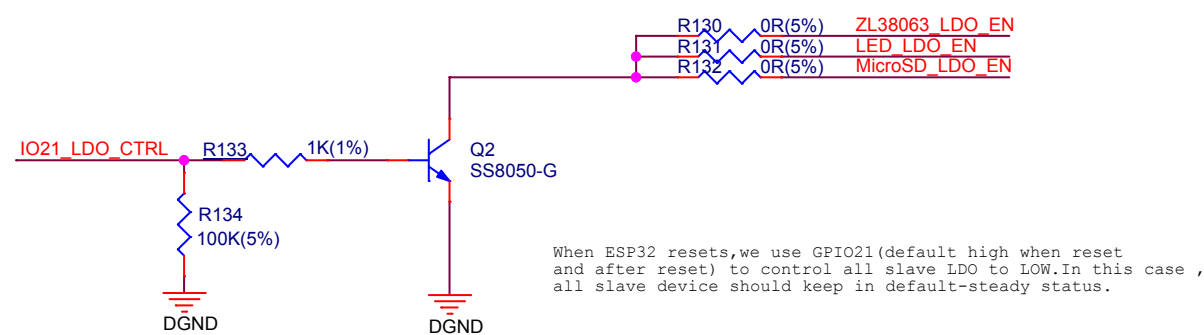
### I2S:



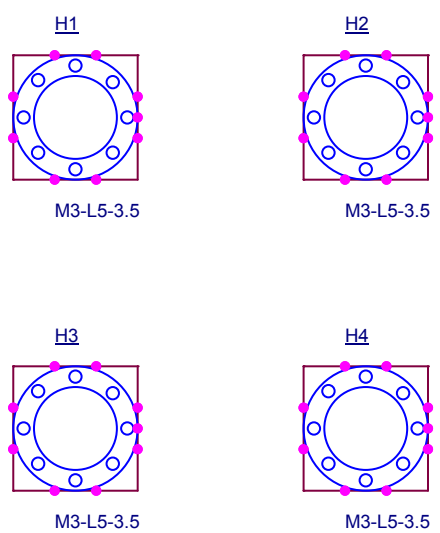
### Connectors For SubBoard:



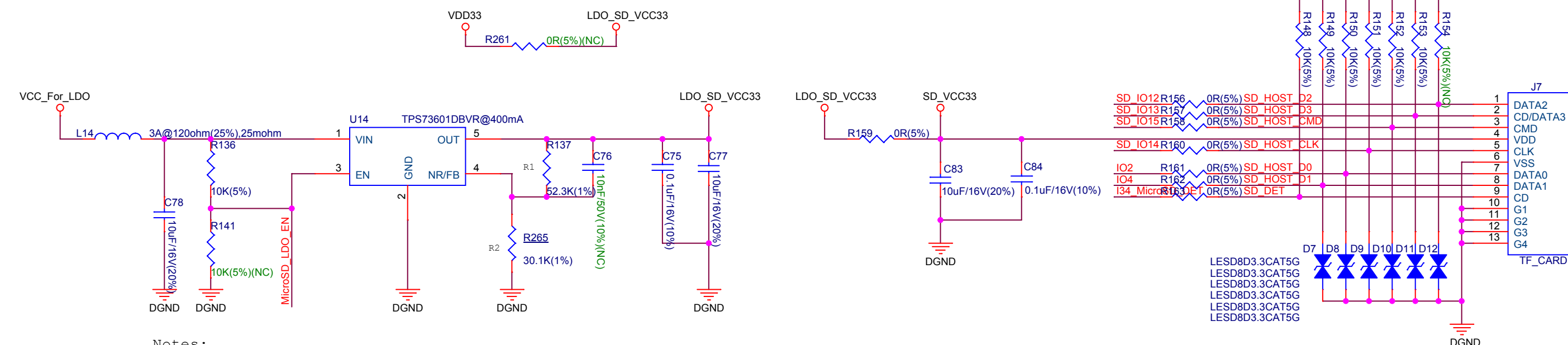
### Reset Test



### Fixing Holes:



### MicroSD:



Notes:  
 1.  $V_{out} = 1.204 * (1 + R1/R2) = 3.296V$ ;  
 $R1 = 52.3K, R2 = 30.1K$  are recommended for better performance.  
 2. RT9043GB from RichTek for second source.

ESPRESSIF

乐鑫信息科技(上海)有限公司

Title: ESP32-LYRATD-MSC\_A\_04\_Keys\_Connector

Size: Document Number  
 C: <Doc> Rev: 2.2

Date: Friday, November 09, 2018 Sheet 4 of 4