

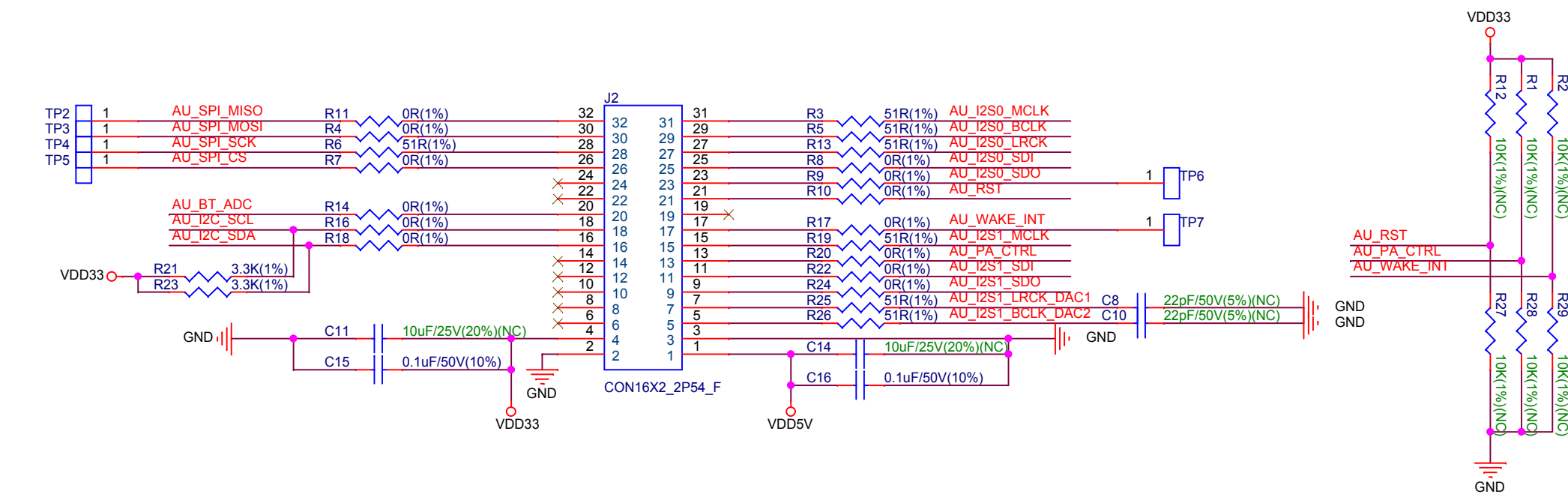
System Block:

Leaving Blank

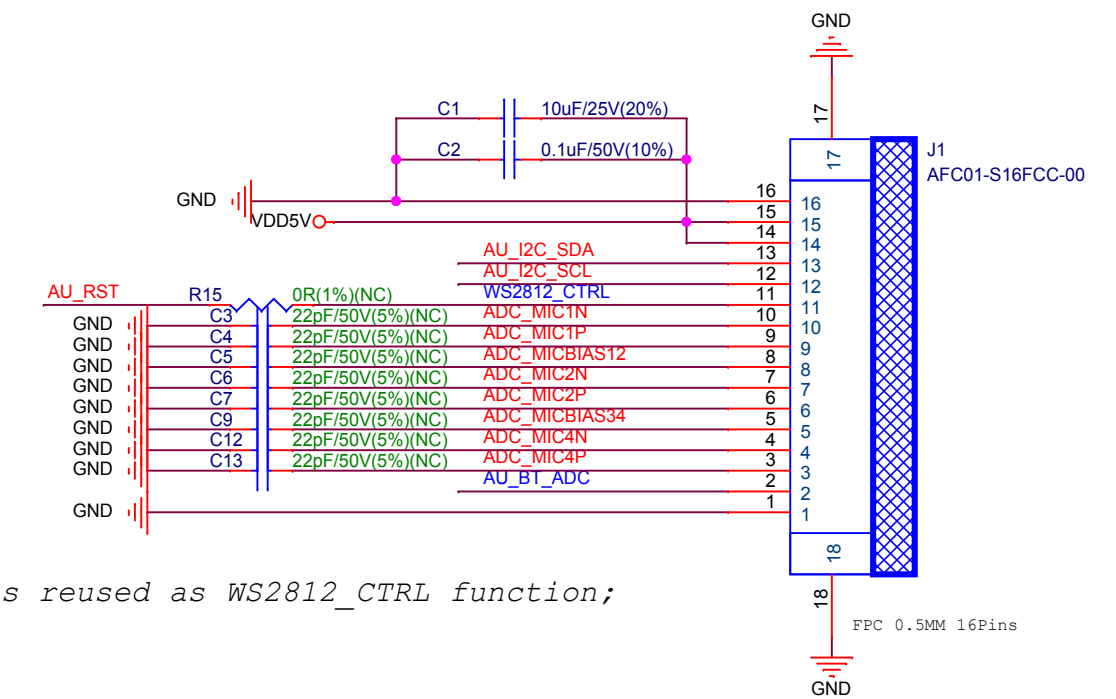
ESPRESSIF		
乐鑫信息科技(上海)股份有限公司		
Title #31003_ESP-LyraT-8311A		
Size	Document Number	Rev
C	01_DesignBlock	V1.2
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Connector to Mainboard:

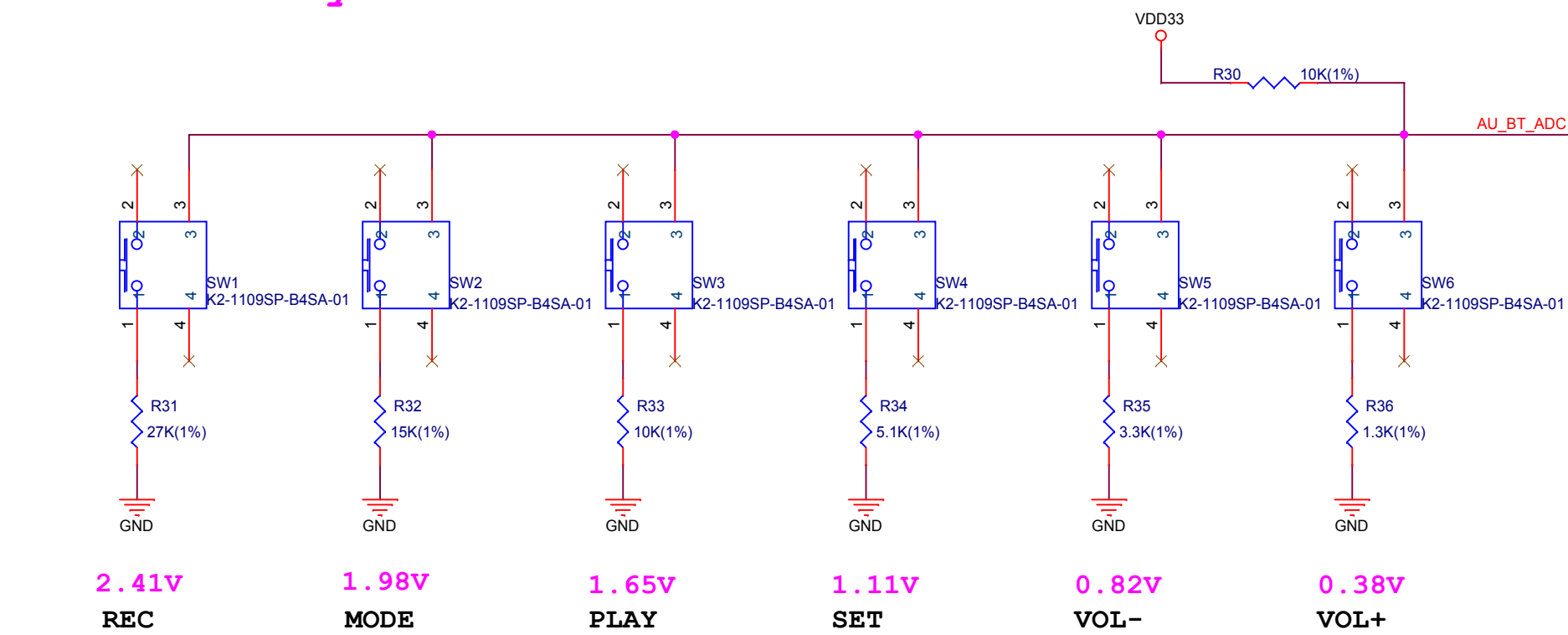


Connector to Micboard(Reserved):

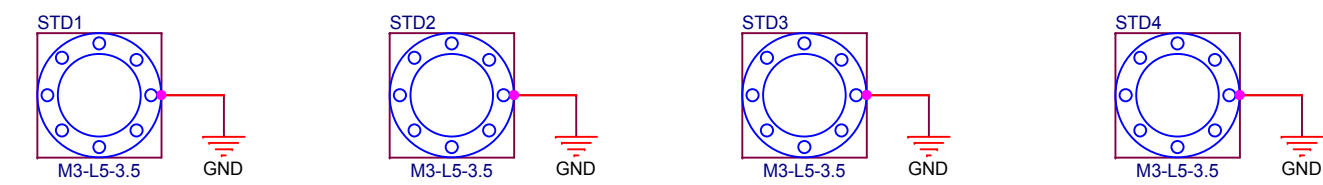


1. AU_RST is reused as WS2812_CTRL function;

Buttons Array:



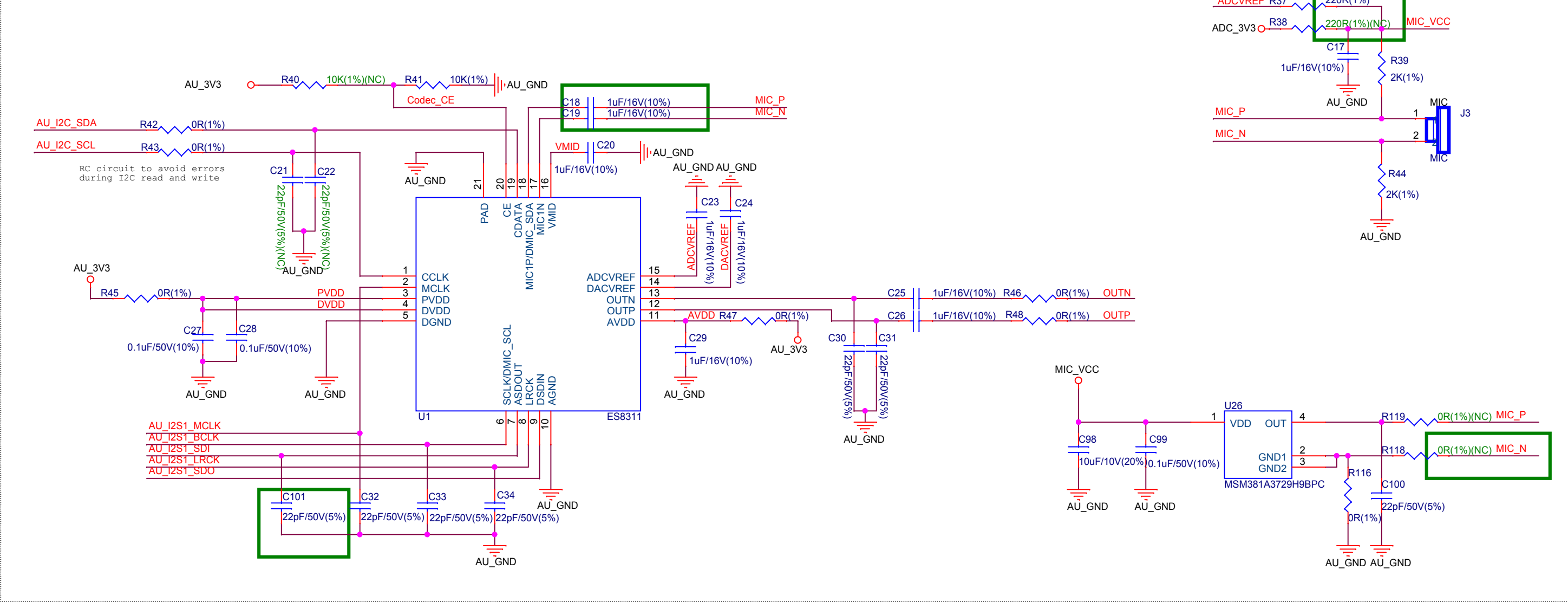
Locating Holes:



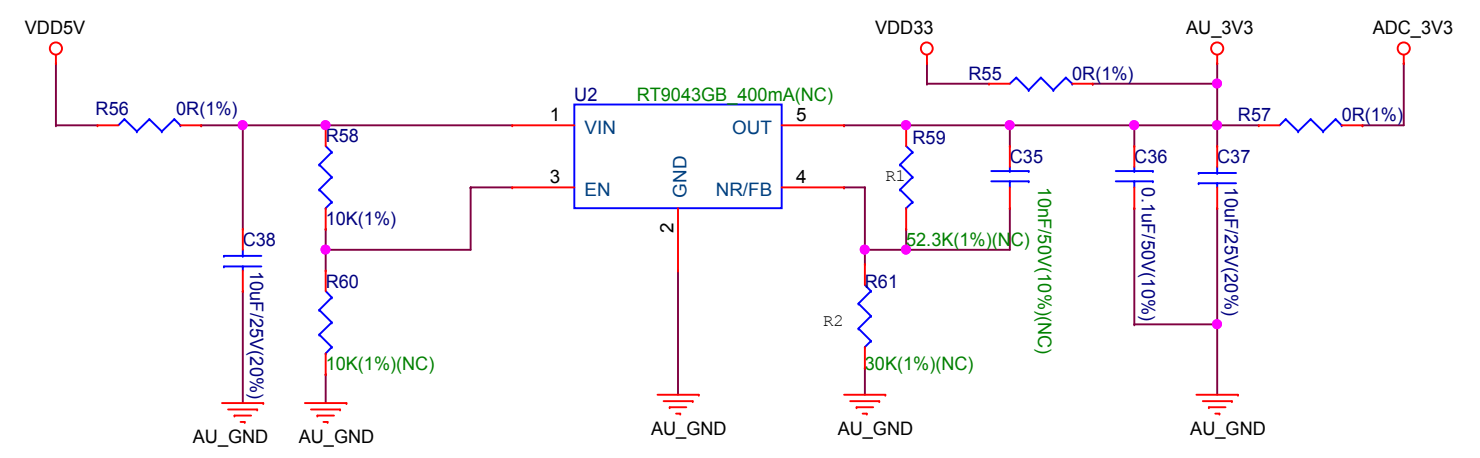
1. Supporting Motherboard other subboard;
2. Drilling vias around holes;
3. D = 3MM;

2	AU_PA_CTRL	AU_PA_CTRL
2,4	AU_I2C_SCL	AU_I2C_SCL
2,4	AU_I2C_SDA	AU_I2C_SDA
2,4	AU_I2S0_MCLK	AU_I2S0_MCLK
2,4	AU_I2S0_BCLK	AU_I2S0_BCLK
2,4	AU_I2S0_LRCK	AU_I2S0_LRCK
2,4	AU_I2S0_SDI	AU_I2S0_SDI
2	AU_I2S1_MCLK	AU_I2S1_MCLK
2	AU_I2S1_SDI	AU_I2S1_SDI
2	AU_I2S1_SDO	AU_I2S1_SDO
2	AU_I2S1_LRCK_DAC1	AU_I2S1_LRCK_DAC1
2	AU_I2S1_BCLK_DAC2	AU_I2S1_BCLK_DAC2
4	PA_OUTL+	PA_OUTL+
4	PA_OUTL-	PA_OUTL-
4	EAR_AOUTLP	EAR_AOUTLP
4	EAR_AOUTLN	EAR_AOUTLN
4	MIC_P	MIC_P
4	MIC_N	MIC_N
4	OUTP	OUTP
4	OUTN	OUTN

Codec:

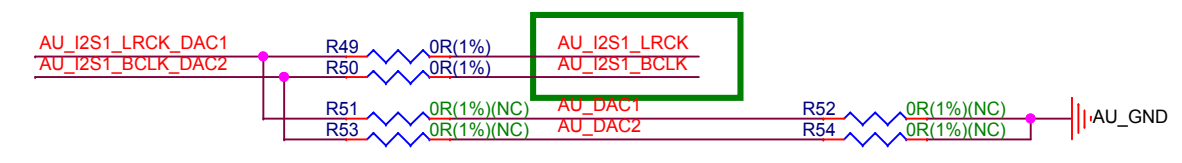


Power for Codec (Reserved):

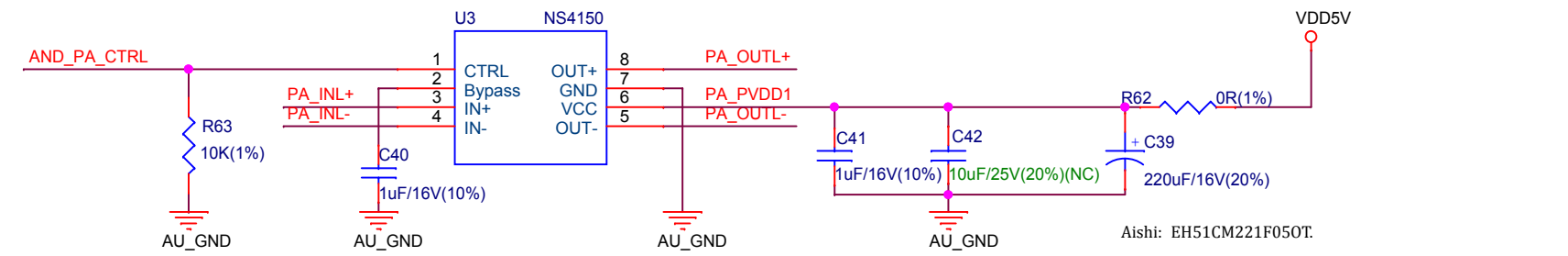


Notes:
 1. $V_{out} = 1.20 * (1 + R1/R2) = 3.296V$;
 R1=52.3K, R2=30.1K are recommended for better performance.

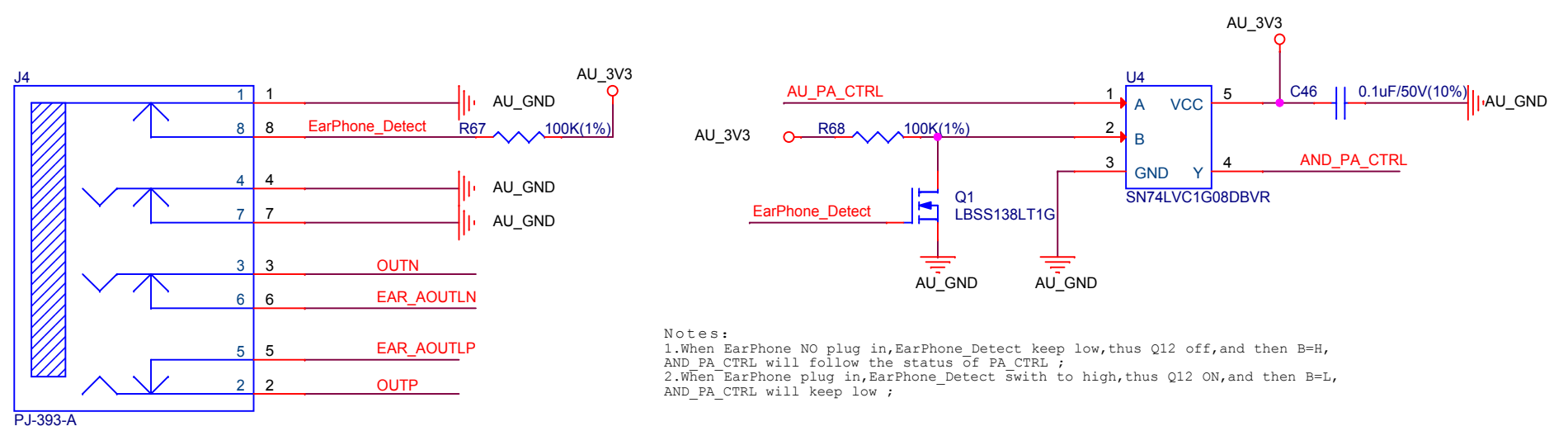
Audio SI Switch:



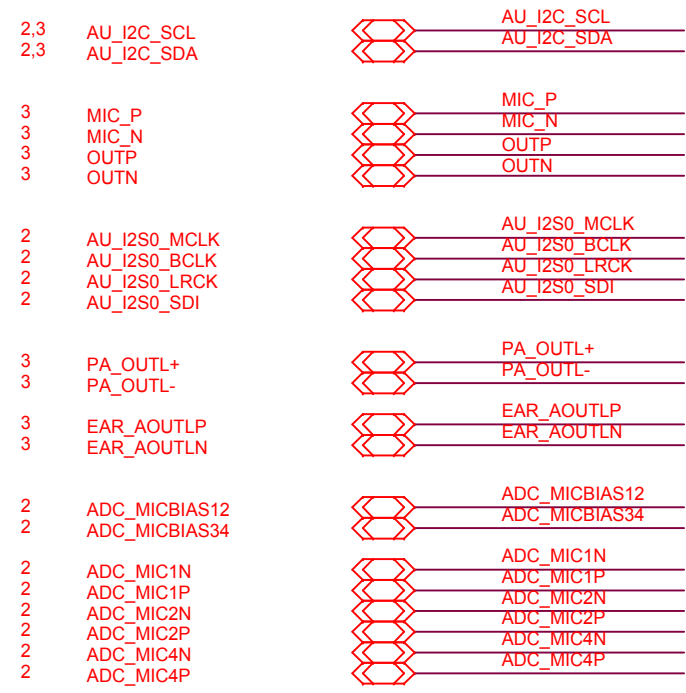
PA & Speaker:



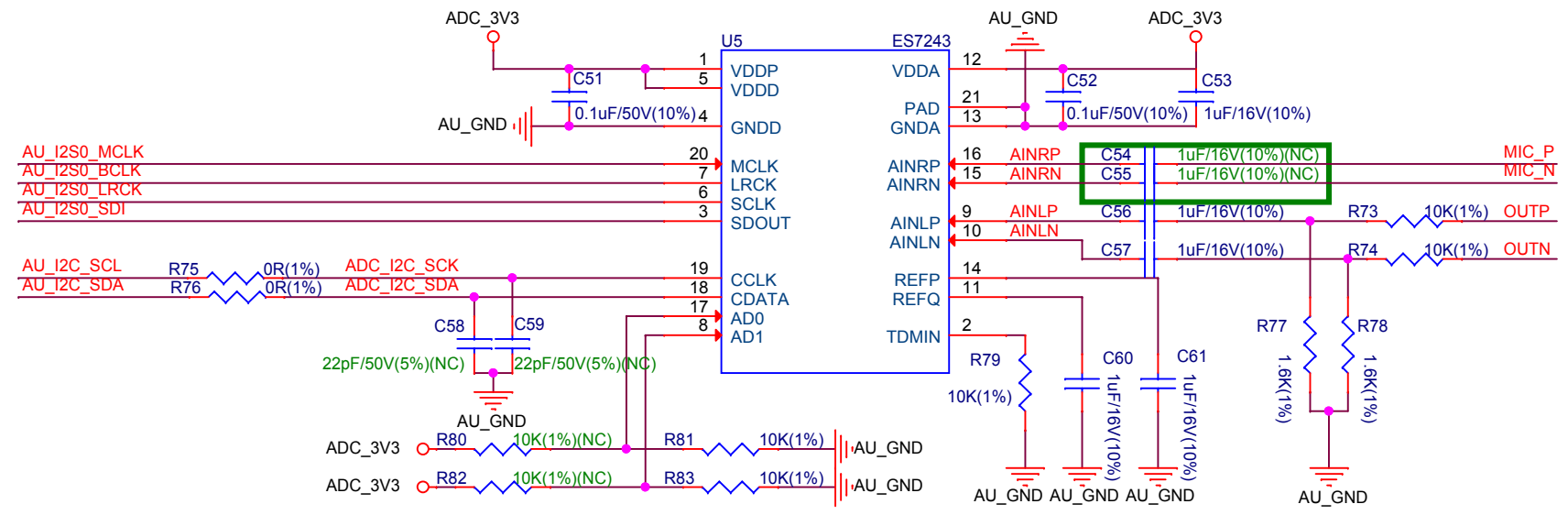
EarPhone:



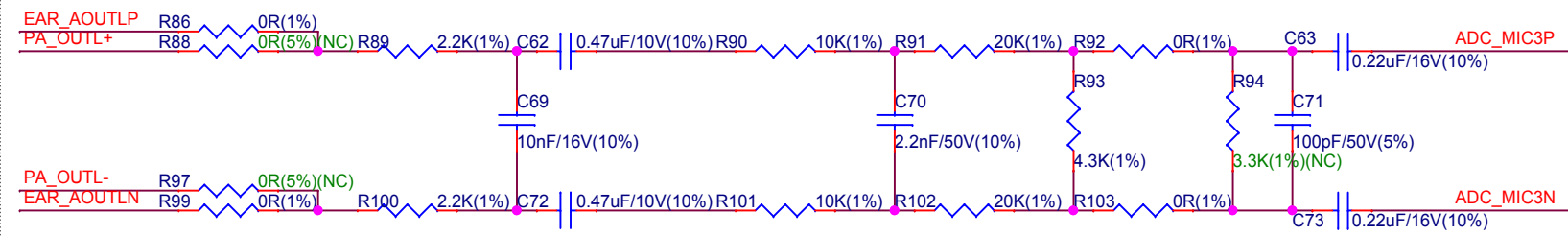
Notes:
 1. When EarPhone NO plug in, EarPhone_Detect keep low, thus Q12 off, and then B=H, AND_PA_CTRL will follow the status of PA_CTRL;
 2. When EarPhone plug in, EarPhone_Detect switch to high, thus Q12 ON, and then B=L, AND_PA_CTRL will keep low;



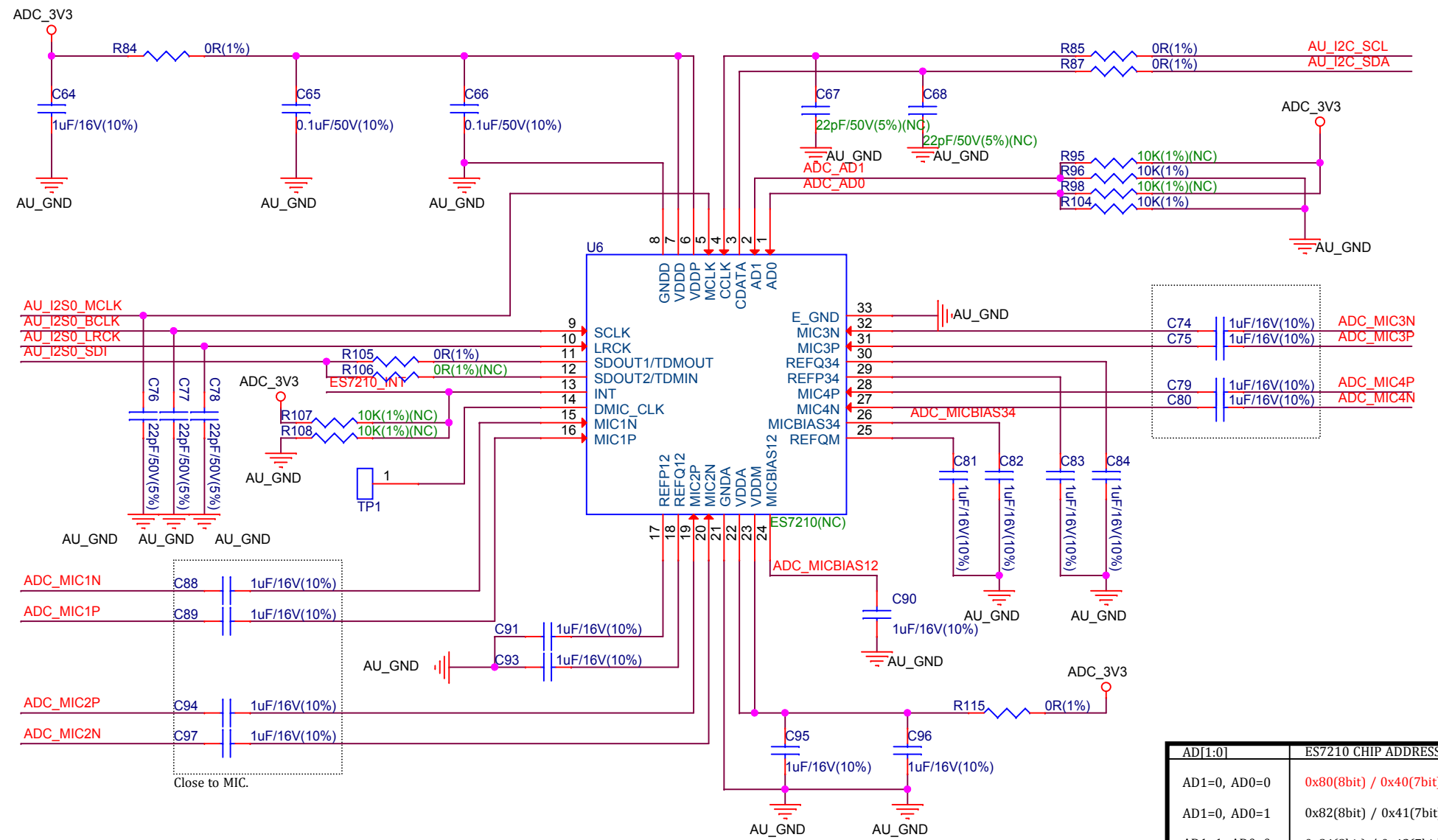
ADC1:



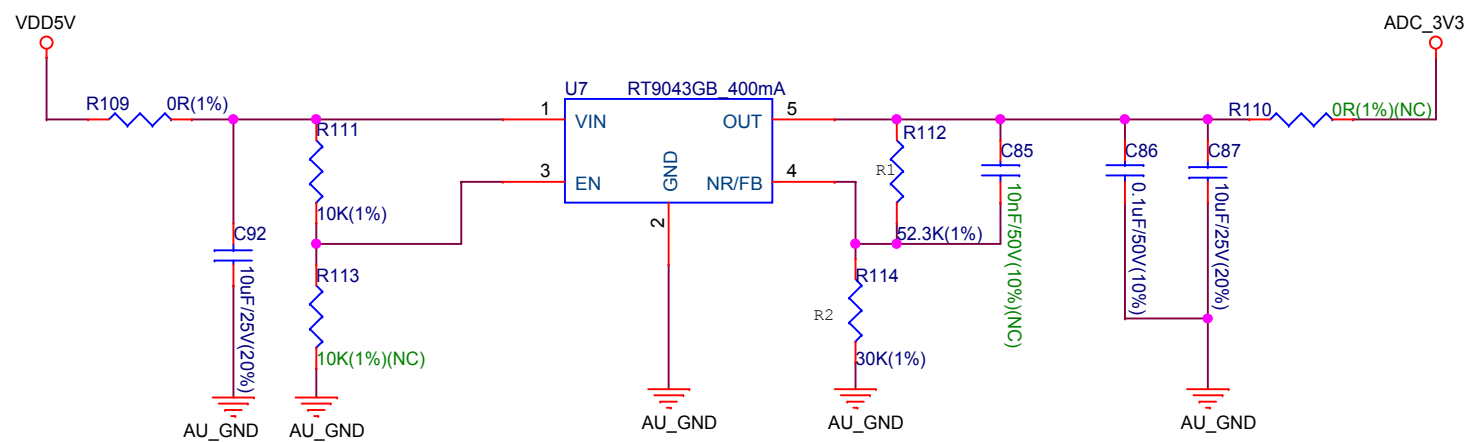
AEC:



ADC2 (Reserved):



Power for ADC:



Notes:
 1. $V_{out} = 1.20 * (1 + R1/R2) = 3.296V$;
 R1=52.3K, R2=30.1K are recommended for better performance.

AD1:0	ES7210 CHIP ADDRESS
AD1=0, AD0=0	0x80(8bit) / 0x40(7bit) (Default)
AD1=0, AD0=1	0x82(8bit) / 0x41(7bit)
AD1=1, AD0=0	0x84(8bit) / 0x42(7bit)
AD1=1, AD0=1	0x86(8bit) / 0x43(7bit)

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