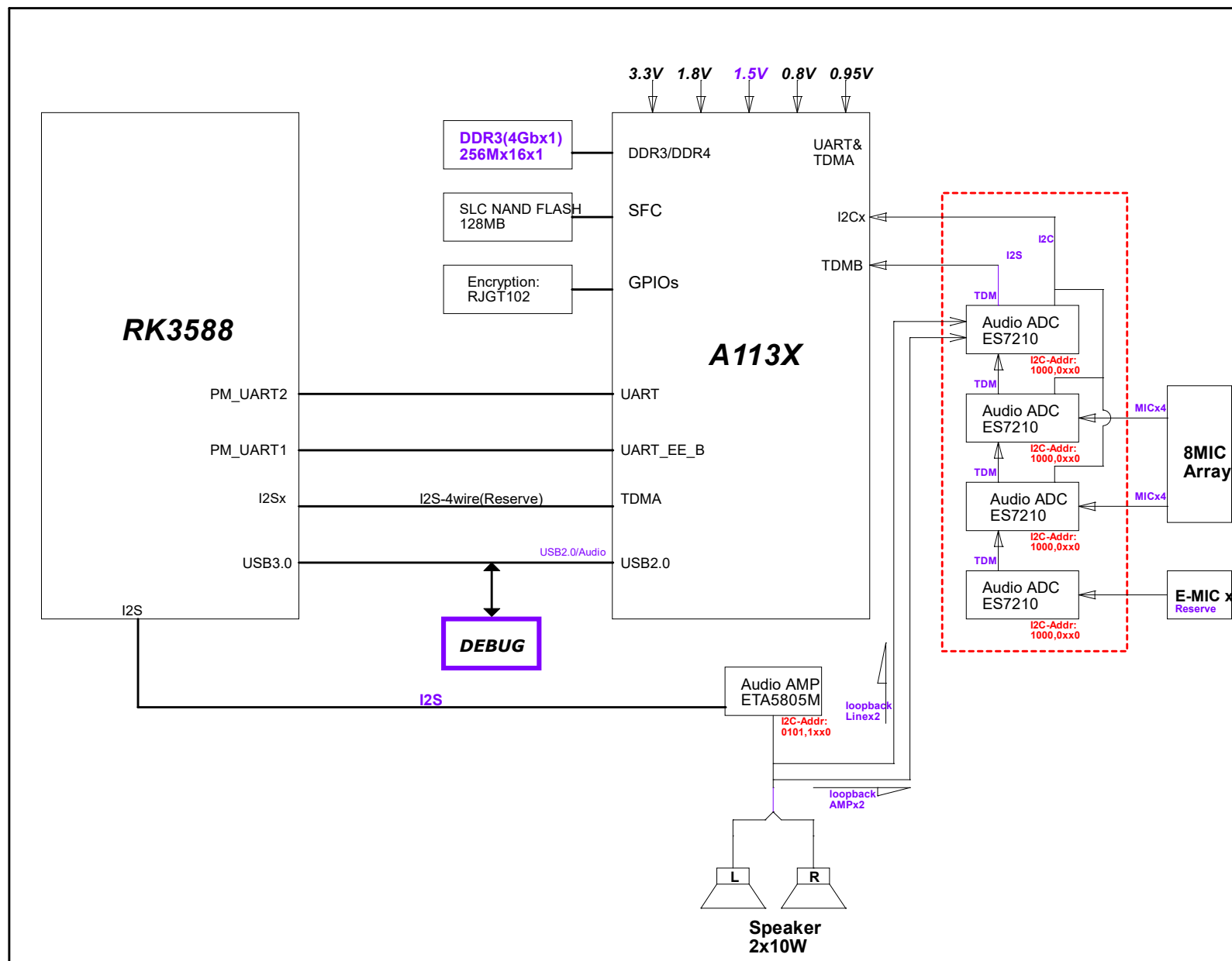
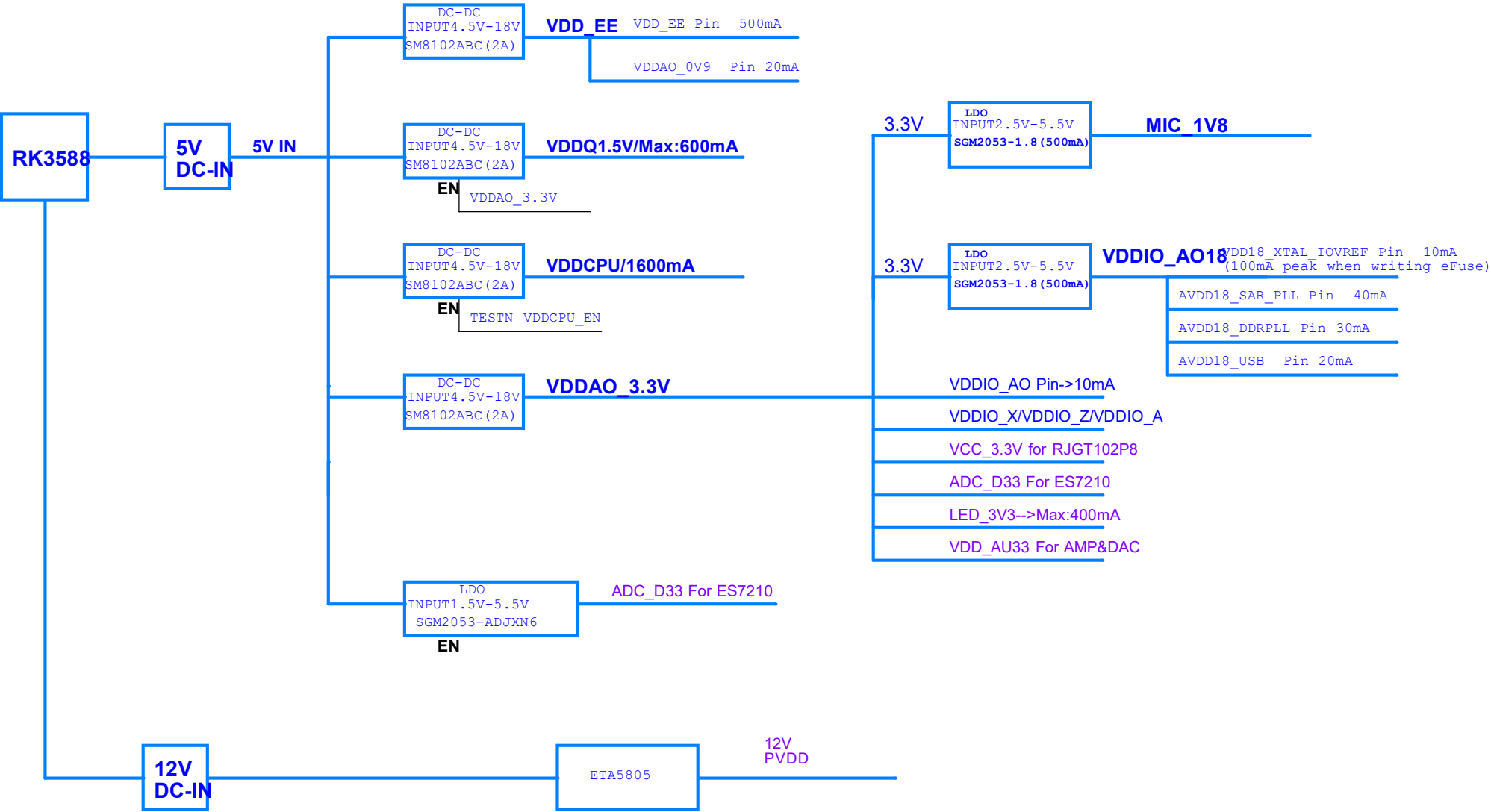


Version	Start Date	End Date	Designer	Change list
V1.0	2022.11.09	2022.11.16	Yang degao	Initial version Review
V1.1	2023.02.24	2023.02.27	Yang degao	1. AMP I2S connect to RK3588 2. ADD one UART connect to RK3588 3. R804\R805\R744\R745 NC
V1.2	2023.06.12	2023.06.12	Yang degao	结构板框修改， 板框 变窄 U2113 Add FB1
V1.3	2023.08.15	2023.08.08	Yang degao	1.结构 板框 变 更 2.Electret microphone circuit add TVS*8 (ED1\ED5-ED11)

Block Diagram

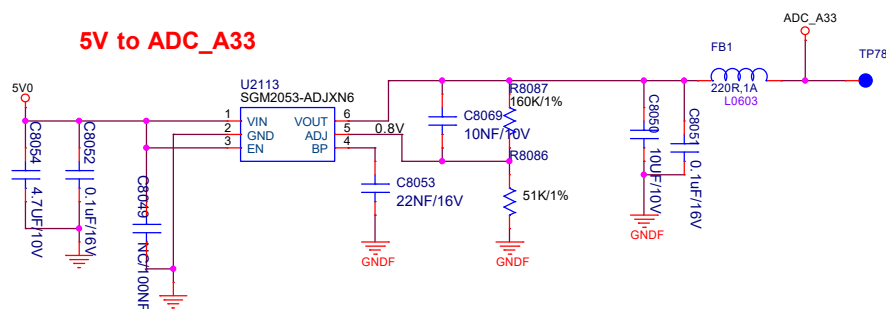


Power Tree

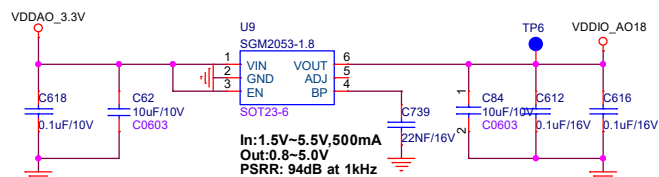
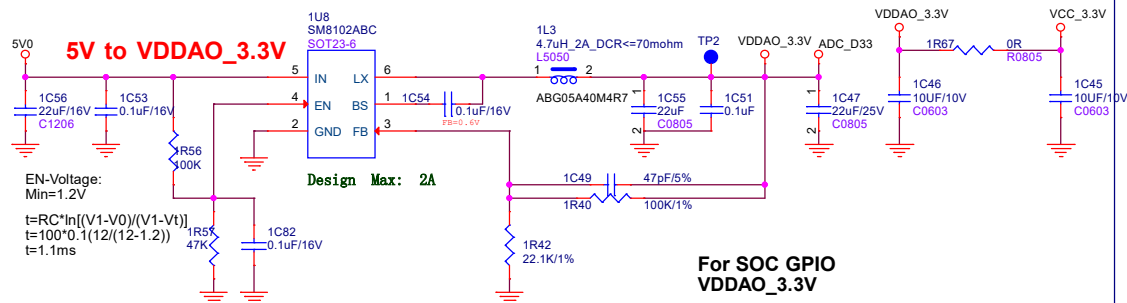


Power IN

5V to ADC_A33

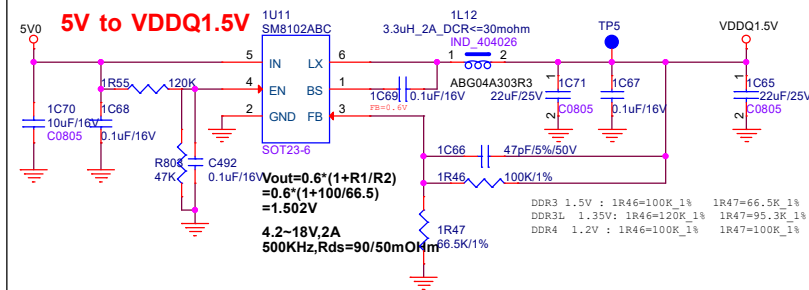
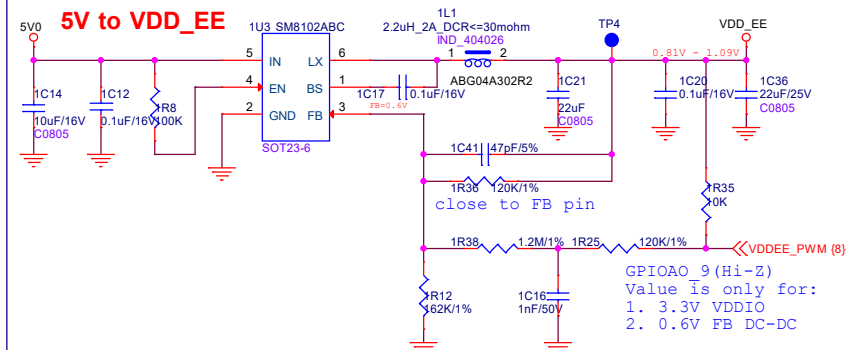
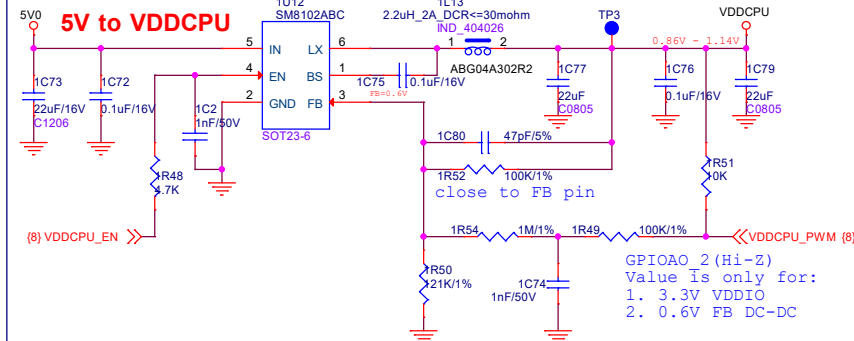
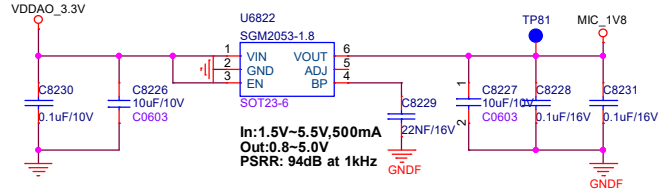


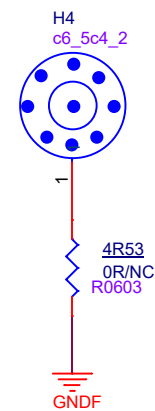
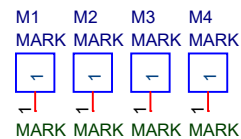
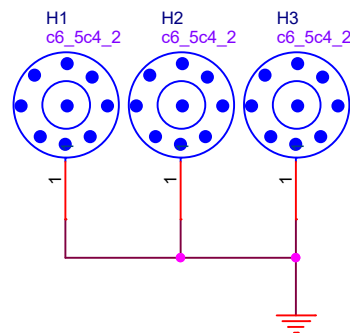
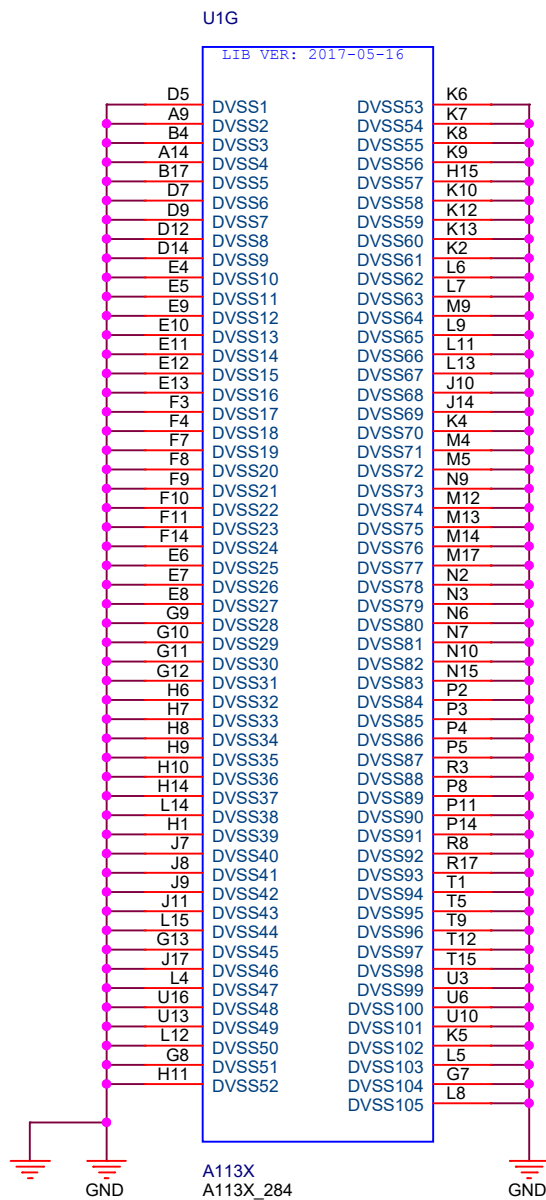
5V to VDDAO_3.3V



Note: Select fast power on LDO to make sure VDDAO_1.8V ramps up with VDDAO_3.3V at same time

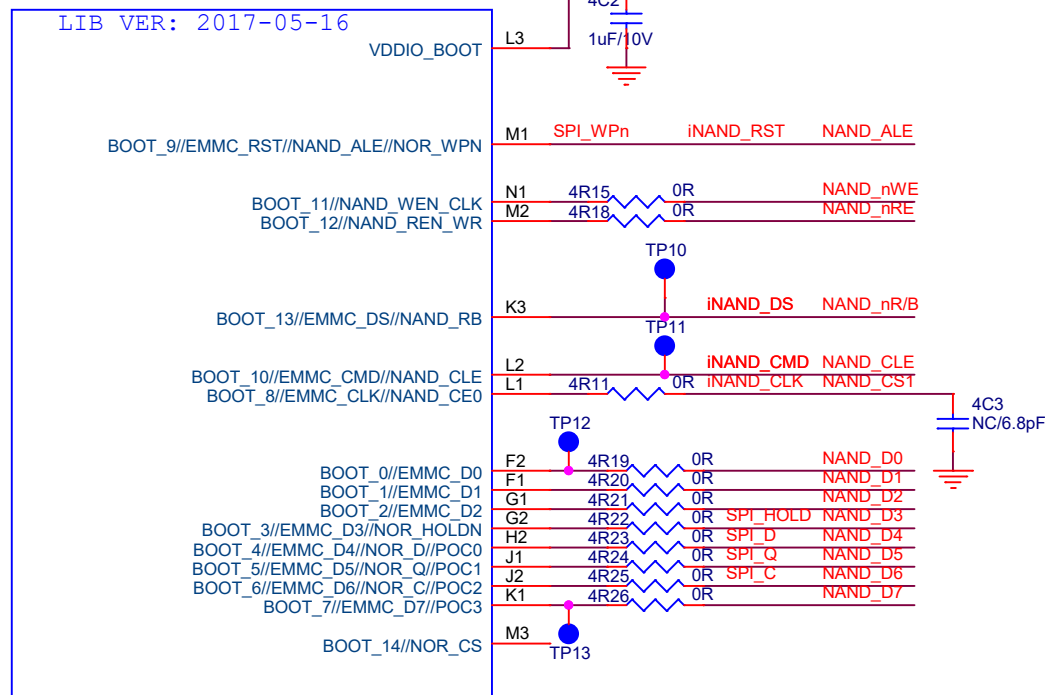
For SOC GPIO VDDIO_AO18



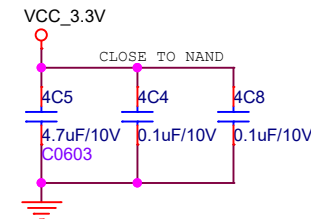
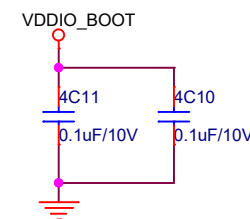
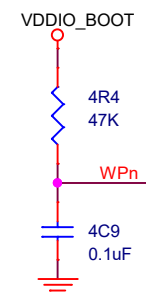


U1B A113X

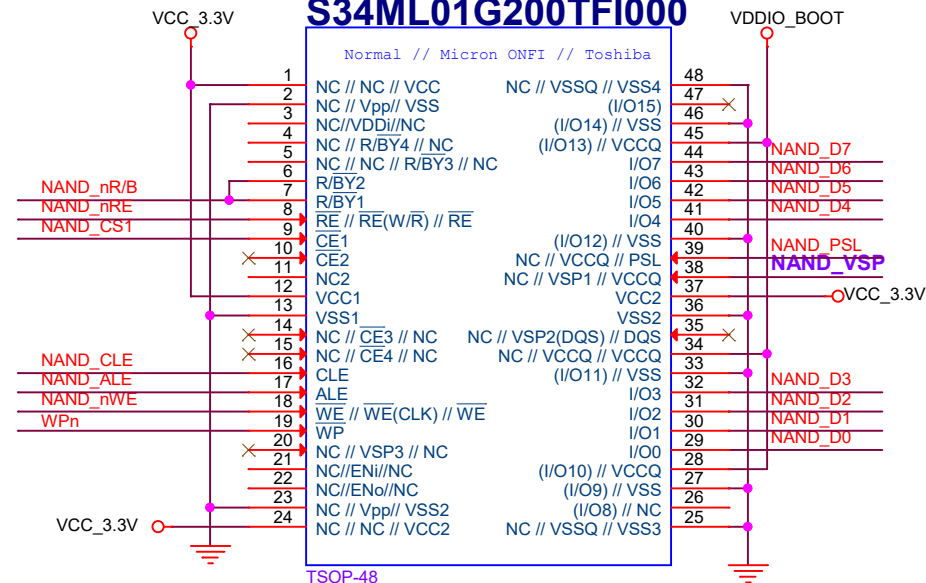
LIB VER: 2017-05-16



A113X_284



4U5 S34ML01G200TFI000

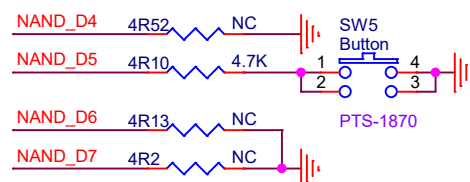


SLC NAND(128MB)

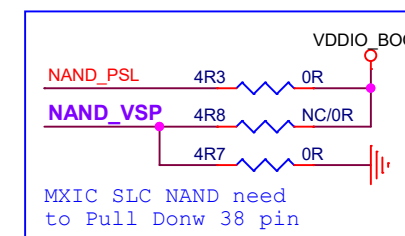
Power ON Config

BOOT_5[NAND_D5]: 0= USB Boot First

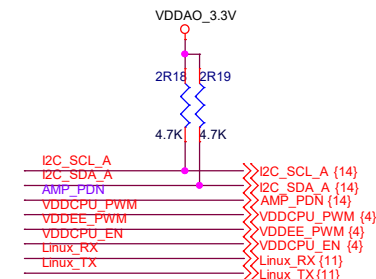
BOOT_6[NAND_D6]: 0= SPI NOR Boot First

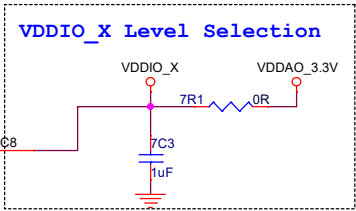
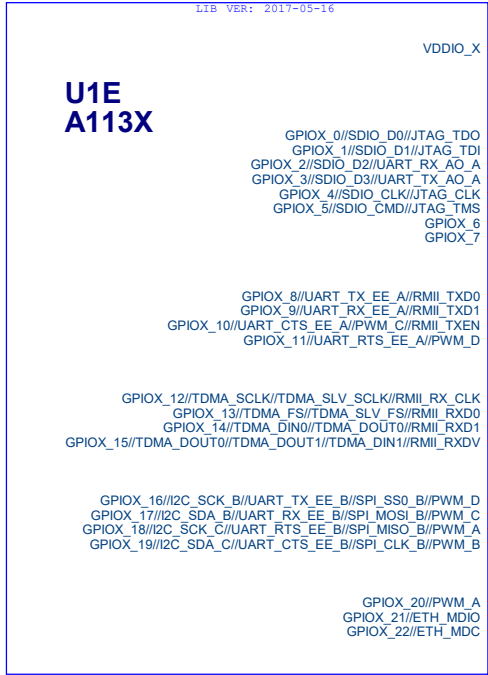


close to branch ponit



MXIC SLC NAND need to Pull Donw 38 pin





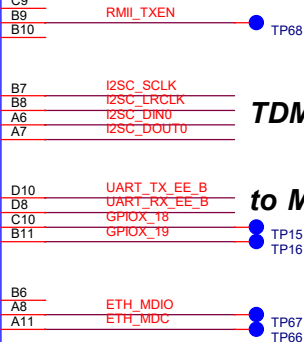
- A4
- B5
- B2
- A2
- A3
- B3
- A1
- C3
- GPIOX_7

- A10
- C9
- B9
- B10

- B7
- B8
- A6
- A7

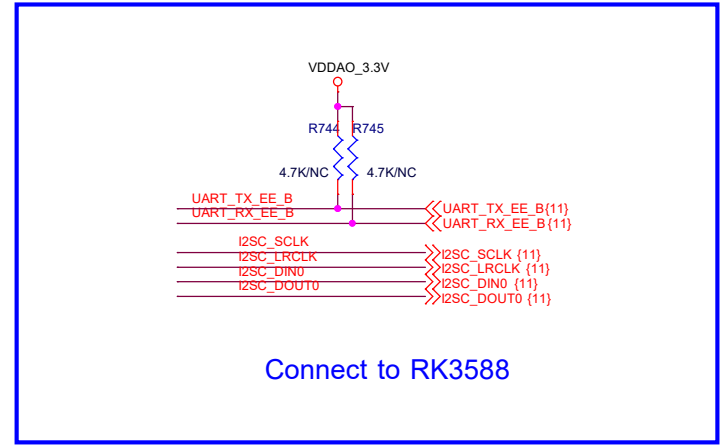
- D10
- D8
- C10
- B11

- B6
- A8
- A11



TDM port A

to Main BD



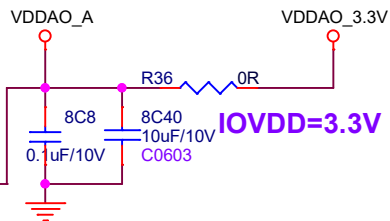
Connect to RK3588

VDDIO_A Level Selection

LIB VER: 2017-05-16

U1D
A113X

VDDIO_A



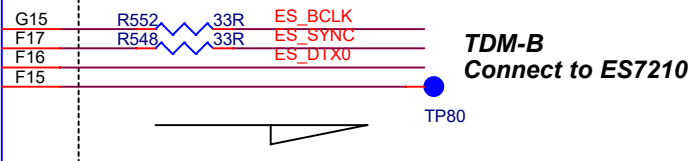
GPIOA_0//MCLK_C//CLKSYN_IN//PWM_VS
GPIOA_1//MCLK_B//SPDIF_IN//SPDIF_OUT//CLKSYN_IN



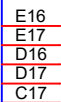
GPIOA_2//TDMC_SCLK//TDMC_SLV_SCLK//SPI_MOSI_B
GPIOA_3//TDMC_FS//TDMC_SLV_FS//SPI_MISO_B
GPIOA_4//TDMC_DOUT0//TDMC_DIN0//SPI_CLK_B
GPIOA_5//TDMC_DOUT1//TDMC_DIN1//SPI_SS0_B



GPIOA_8//TDMB_SCLK//TDMB_SLV_SCLK
GPIOA_9//TDMB_FS//TDMB_SLV_FS
GPIOA_10//TDMB_DOUT0//TDMB_DIN0
GPIOA_11//TDMB_DOUT1//TDMB_DIN1//SPDIF_OUT



GPIOA_14//PDM_DCLK//CLKSYN_IN//PWM_A
GPIOA_15//PDM_DIN0//PWM_B
GPIOA_16//PDM_DIN1//PWM_C
GPIOA_17//PDM_DIN2//I2C_SDA_C//ETH_MDIO
GPIOA_18//PDM_DIN3//I2C_SCK_C//ETH_MDC



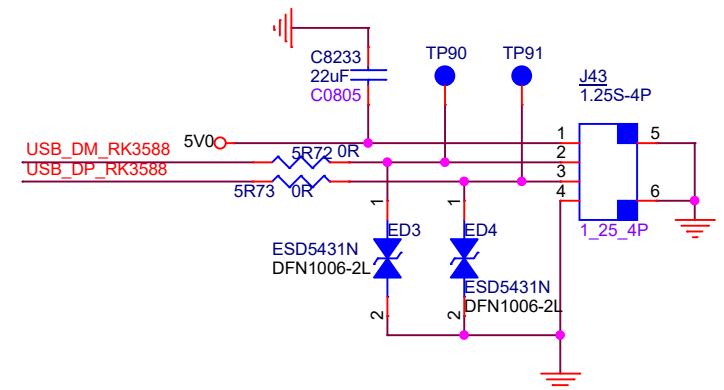
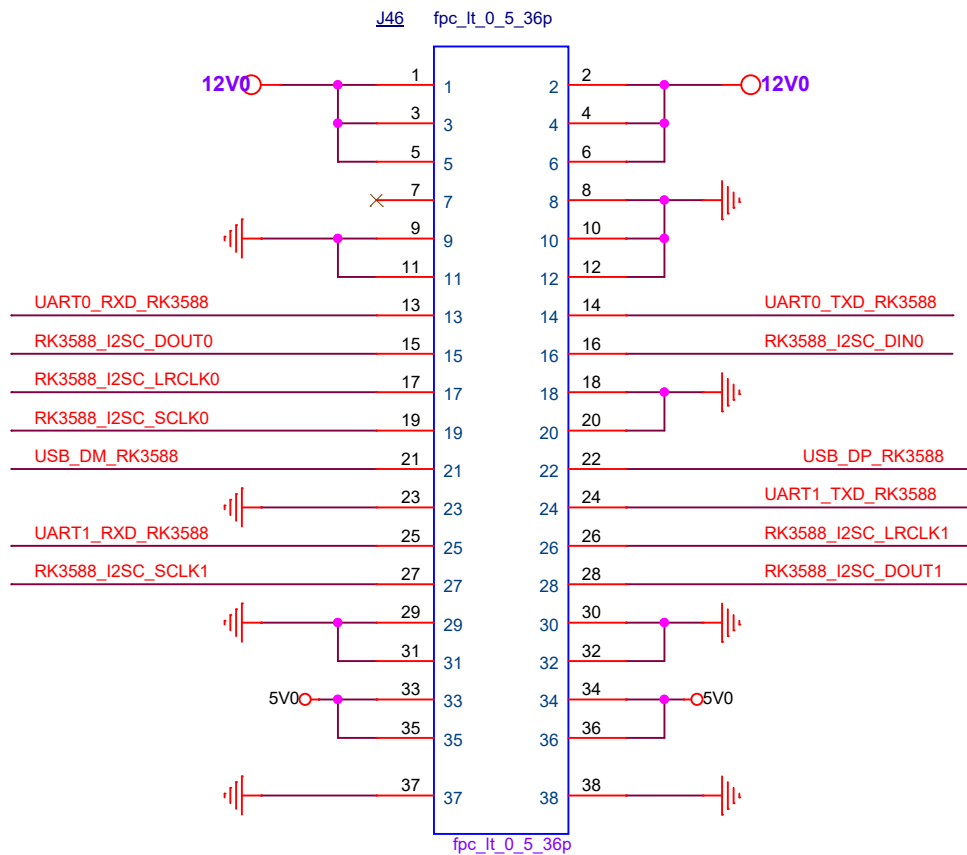
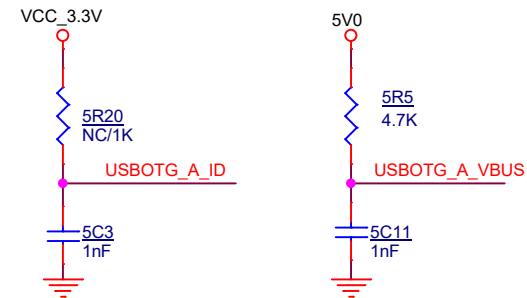
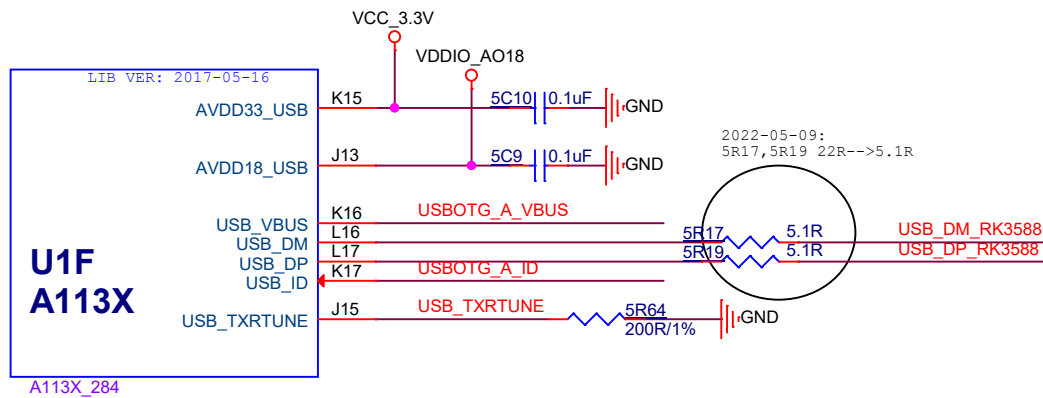
GPIOA_19//SPDIF_IN//SPDIF_OUT//PDM_DCLK//I2C_SDA_D
GPIOA_20//SPDIF_OUT//SPDIF_IN//CLKSYN_IN//I2C_SCK_D

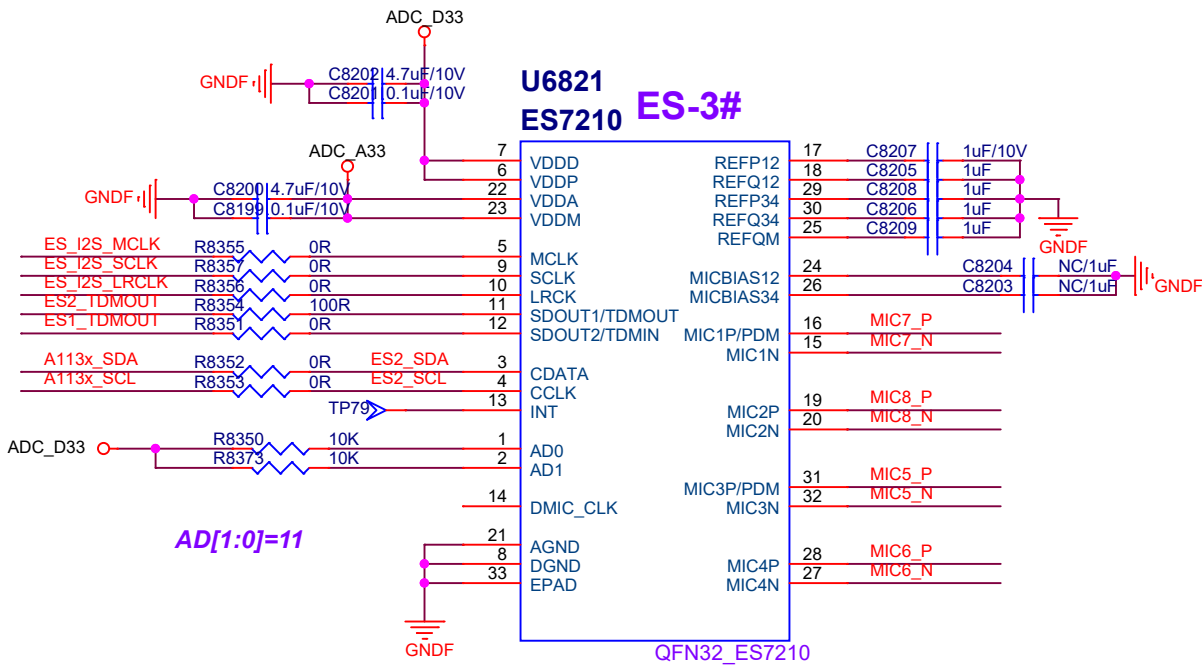


A113X_284



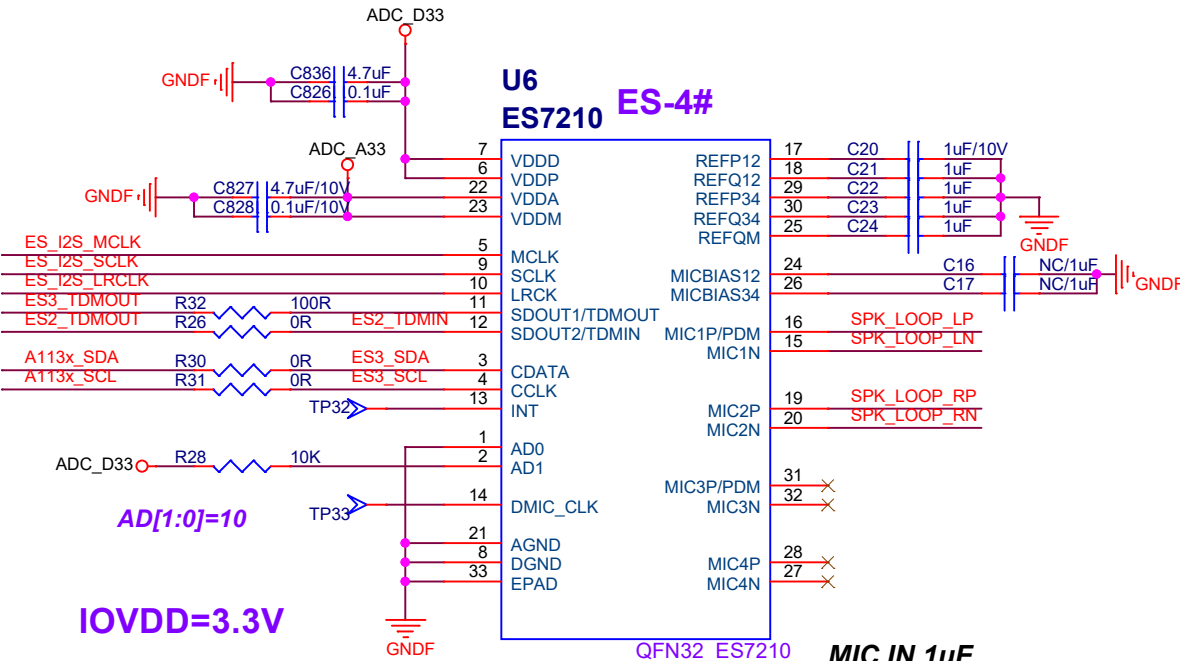
Connect to ES7210





MIC7_P
MIC7_N
MIC8_P
MIC8_N
MIC5_P
MIC5_N
MIC6_P
MIC6_N

MIC7_P {13}
MIC7_N {13}
MIC8_P {13}
MIC8_N {13}
MIC5_P {13}
MIC5_N {13}
MIC6_P {13}
MIC6_N {13}



SPK_LOOP_LP
SPK_LOOP_LN
SPK_LOOP_RP
SPK_LOOP_RN

SPK_LOOP_LP {14}
SPK_LOOP_LN {14}
SPK_LOOP_RP {14}
SPK_LOOP_RN {14}

AMP Loopback Input

A113x_SDA
A113x_SCL

A113x_SDA {8,13}
A113x_SCL {8,13}

ES_I2S_MCLK
ES_I2S_SCLK
ES_I2S_LRCLK

ES_I2S_MCLK {10,13}
ES_I2S_SCLK {10,13}
ES_I2S_LRCLK {10,13}

ES3_TDMOUT R793 0R

ES_DTX0 {10}

Connect to A113X

ES1_TDMOUT

ES1_TDMOUT {13}

MIC IN 1uF capacitance
Close to Connector

