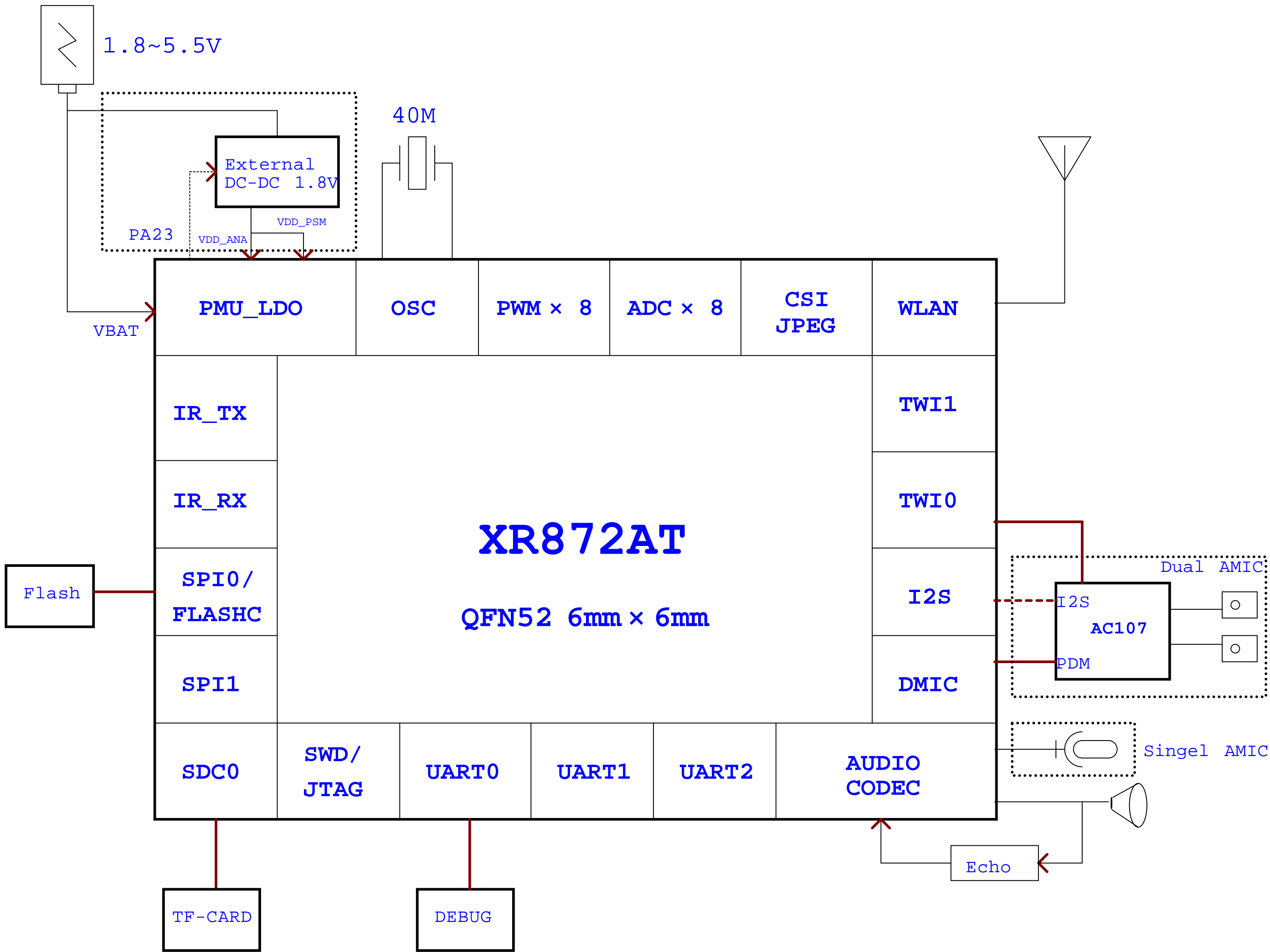


INDEX

P01: INDEX-HISTORY
P02: BLOCK_DIAGRAM
P03: XR872AT-1 MIC
P04: OPTION -2 MIC-CODEC

HISTORY

版 本	修 改 日 期	修 改 内 容
XR872AT_1&2MIC_AEC_REF_V1_0	2019-07-26	



需外供输入电源

Input

VCC-BAT

Output

VDD-EXT 3.3V
VDD-ANA 1.8V
VDD-DIG 1.1V
AVDD 2.8V

GPIO

PA0
PA1
PA2
PA3
PA4
PA5
PA6
PA7
PA8
PA9
PA10
PA11
PA12 I2S-MCLK
PA13 I2S-BCLK
PA14 I2S-DI
PA-SHDN
PA16 I2S-LRCK
PA19 TWI0-SCL
PA20 TWI0-SDA
PDM-CLK
PDM-DAT
PA23
PA6
PA7
PA8
PA9
PA10
PA11
PA12
PA13
PA14
PA16
PA19
PA20

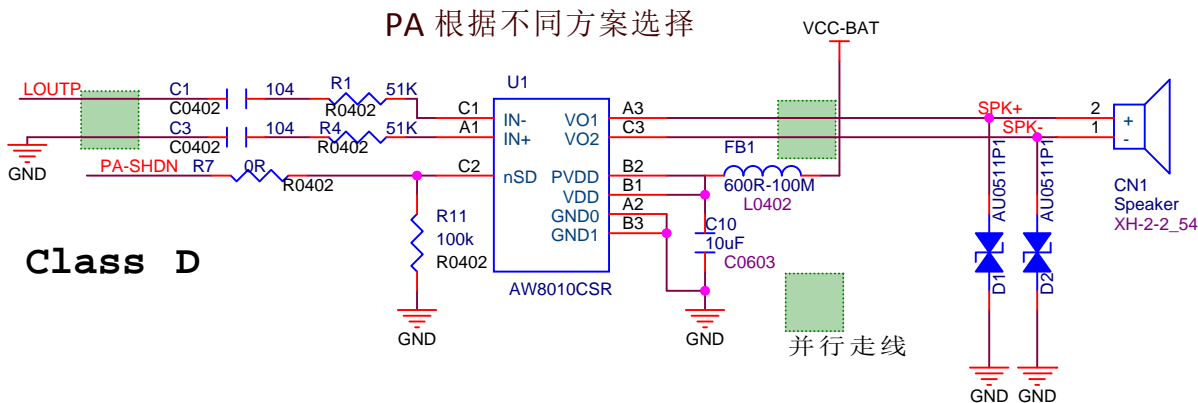
I2C

4 TWI0-SCL << TWI0-SCL
4 TWI0-SDA << TWI0-SDA

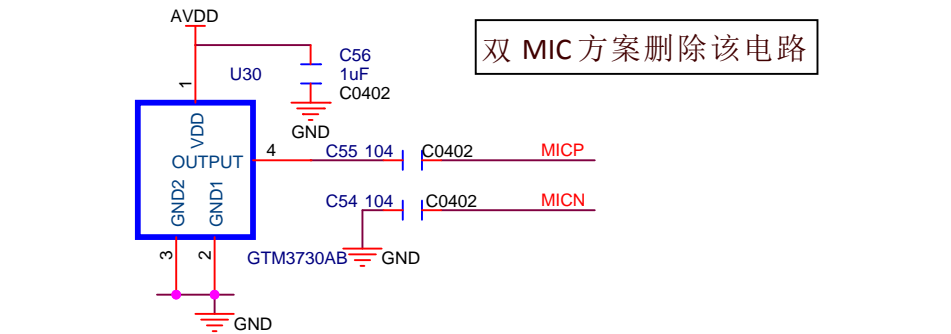
PDM-IN

4 PDM-CLK << PDM-CLK
4 PDM-DAT << PDM-DAT

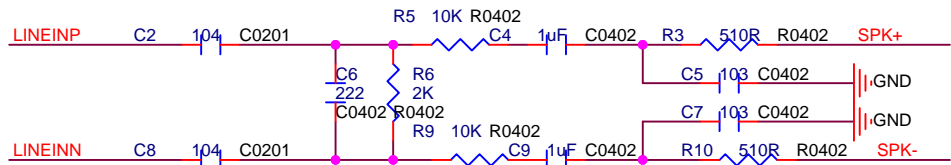
SPEAKER



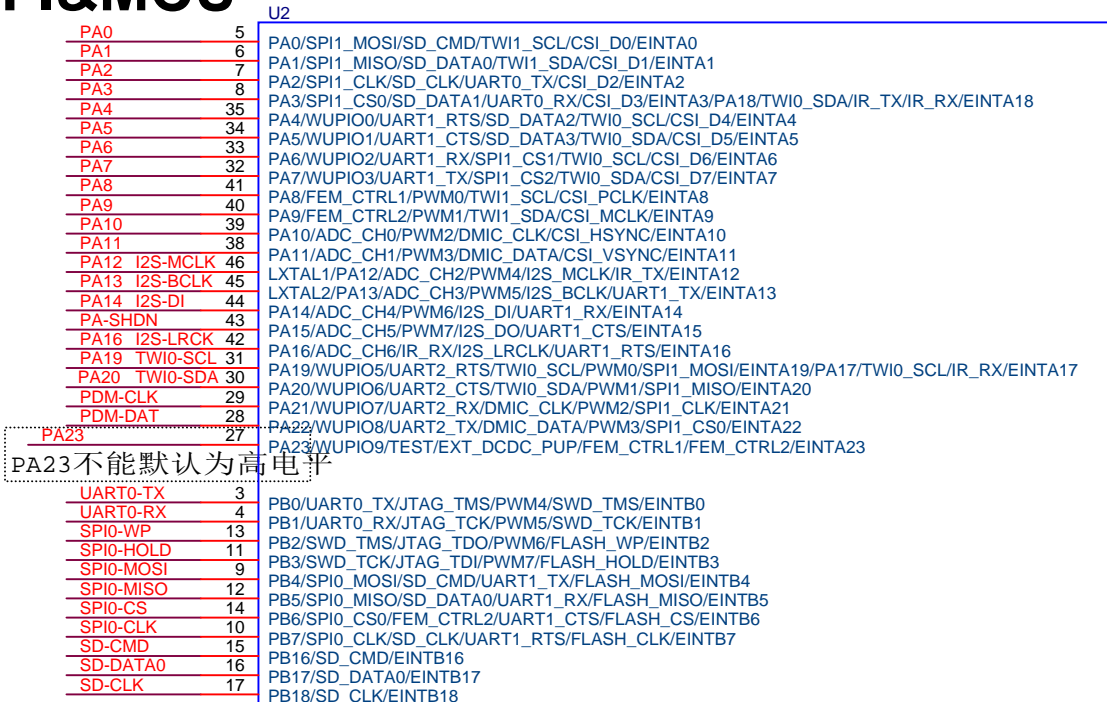
MIC



AEC AUDIO



WIFI&MCU



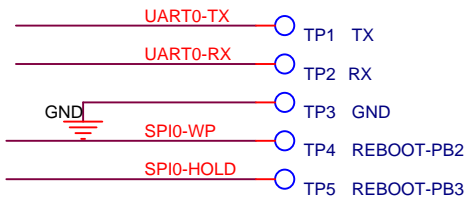
XR872AT

XR872AT is a highly integrated low-power WLAN/AUDIO Microcontroller SOC.

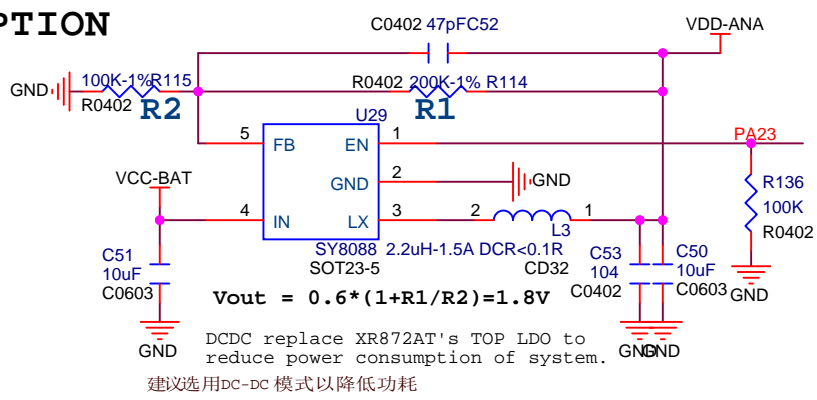
POWER INPUT

VCC-BAT: 1.8V-5.5V 800mA
VDD-PSM: Supply PSRAM, 1.8V
VDD-IO: Supply Peripheral, 1.8V/3.3V.
3.3V supplied by VDD-EXT(Imax=200mA@3.3V),
1.8V supplied by VDD-ANA(Imax=350mA@1.8V).

DEBUG&REBOOT



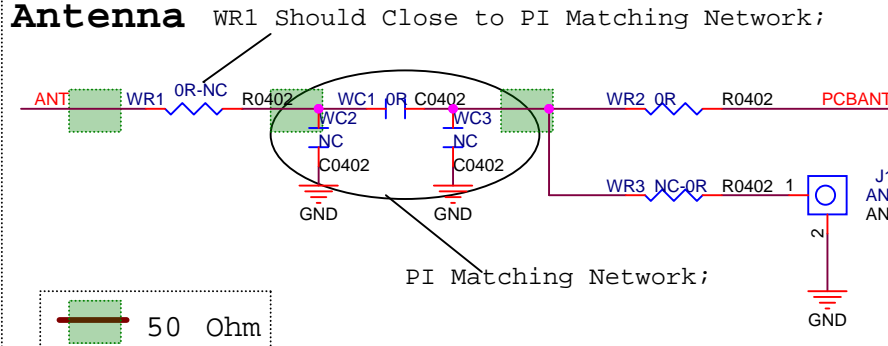
OPTION



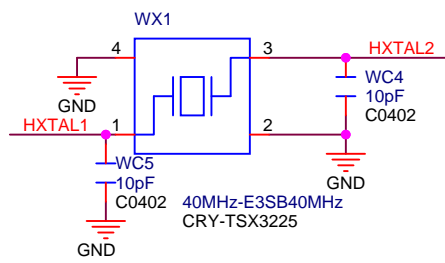
$$V_{out} = 0.6 * (1 + R1/R2) = 1.8V$$

DCDC replace XR872AT's TOP LDO to reduce power consumption of system.
建议选用DC-DC 模式以降低功耗

Antenna

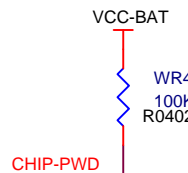


CLK



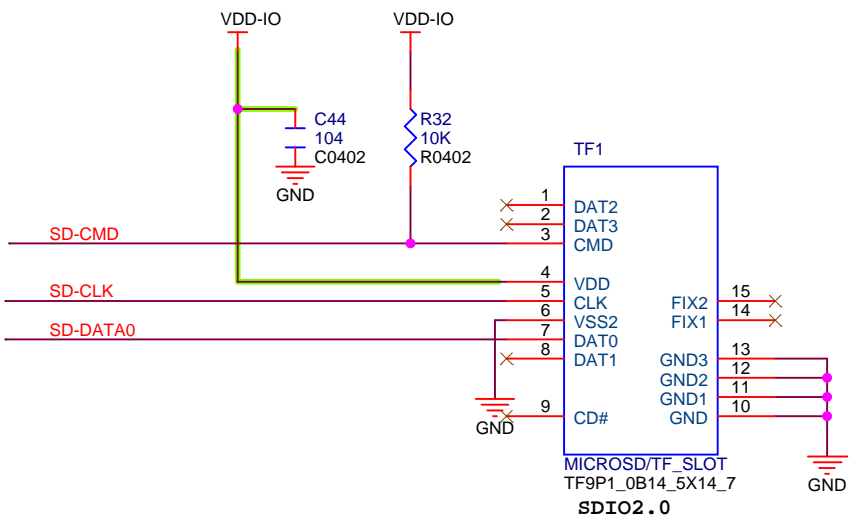
WC8/WC10 默认焊接, 通过软件进行校准, 可配范围: 0-25.4pF

CHIP-RESET



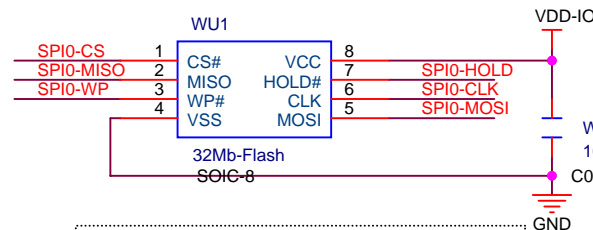
CHIP-PWD上电后需为高, 拉低即复位。

TF-CARD



FLASH

选型 Flash 注意 VDD-IO供电电压匹配



至少8M, 根据需要决定容量和封装

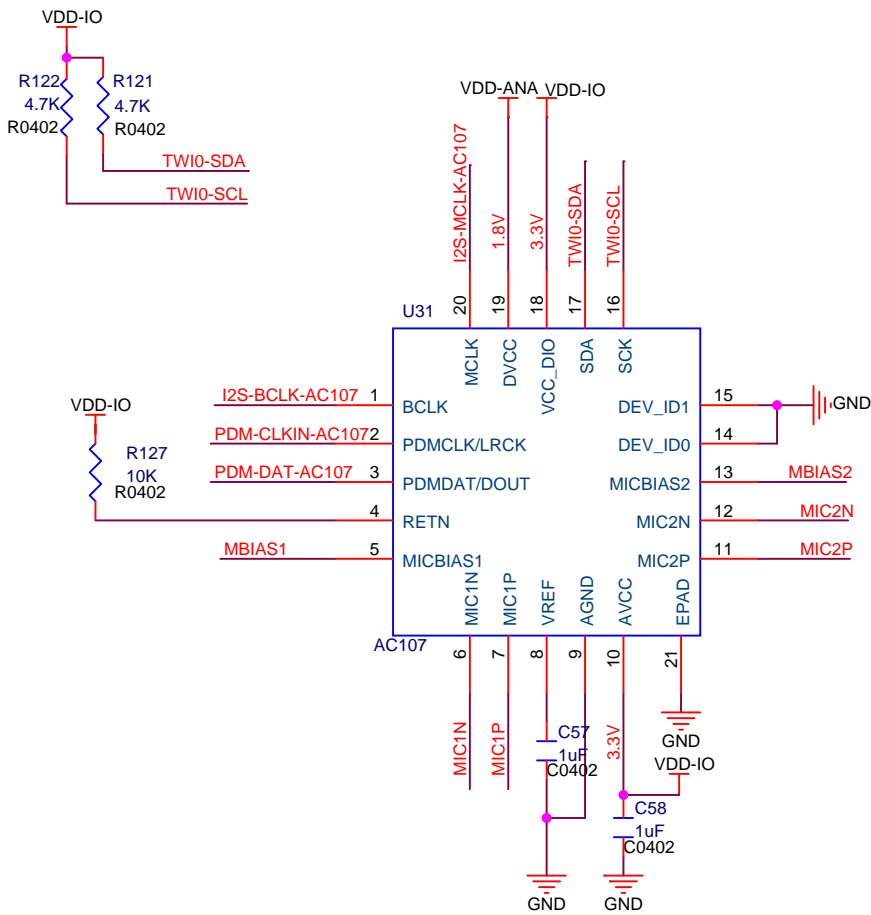
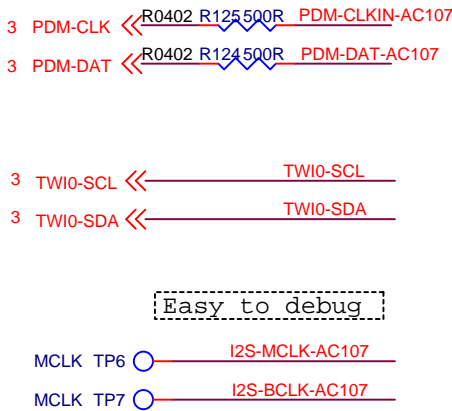


Design Name XR872AT_1&2MIC_AEC_REF

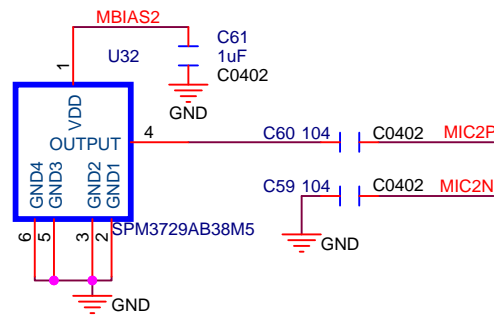
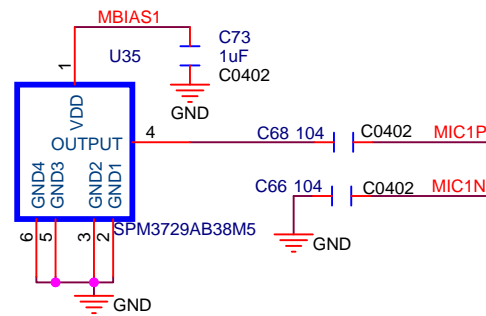
Size Custom Page Name XR872AT-1 MIC Rev V1.0

Date: Monday, October 28, 2019 Sheet 3 of 4

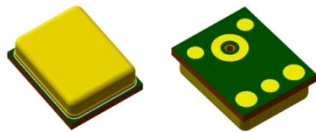
CODEC



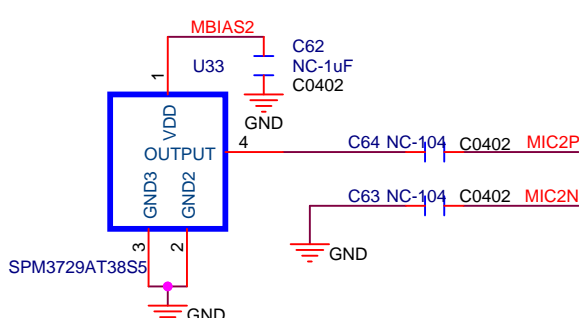
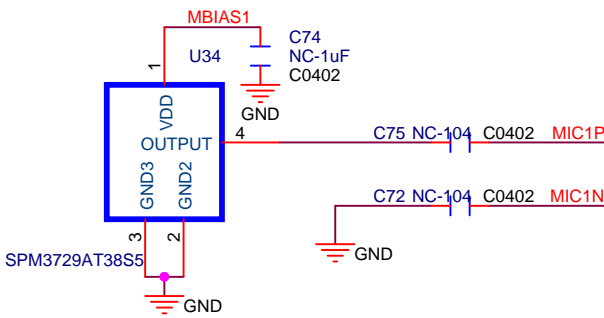
MEMS AMIC



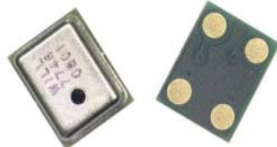
MIC要根据结构设计
MIC底部拾音。



MEMS AMIC (Option)



MIC要根据结构设计
MIC顶部拾音。



ECM AMIC(Option)

MIC要根据结构设计，
建议分体，接线连接。

