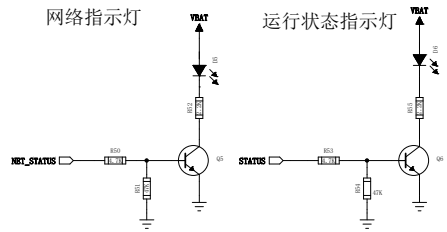
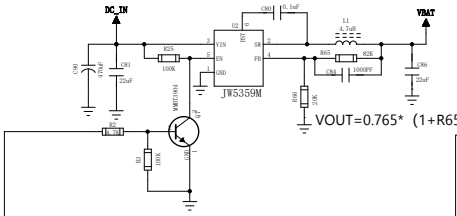
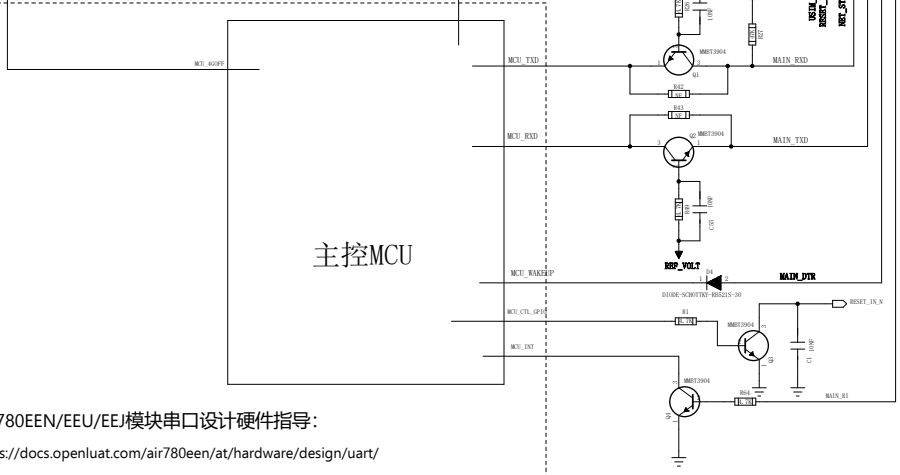




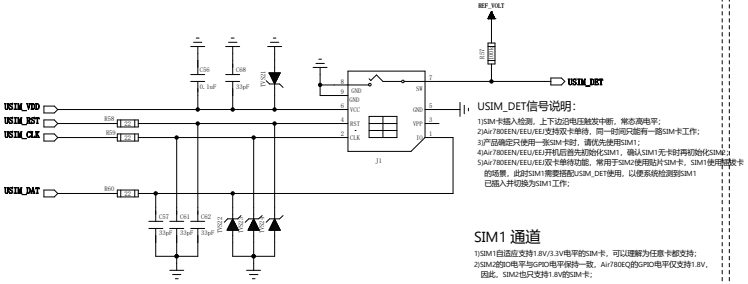
DCDC开关电源供电设计指导以及选型：

https://docs.openluat.com/air780een/at/hardware/design/power/



Air780EEN/EEU/EEJ模块串口设计硬件指导：

https://docs.openluat.com/air780een/at/hardware/design/uart/



USIM_DET信号说明：

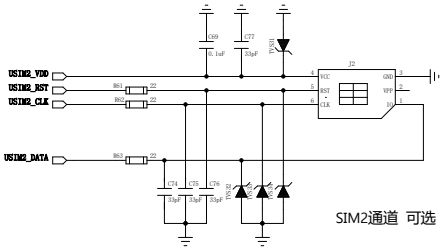
1)SIM卡插入检测，上下边沿电压触发中断，常态高电平；
2)Air780EEN/EEU/EEJ支持双卡单待，同一时间只能有一路SIM卡工作；
3)产品确定只使用一张SIM卡时，请优先使用SIM1；
4)Air780EEN/EEU/EEJ开机后首先初始化SIM1，确认SIM1无卡时再初始化SIM2；
5)Air780EEN/EEU/EEJ双卡单待功能，常用于SIM2使用贴片SIM卡，SIM1使用插拔卡的场景，此时SIM1需要搭配USIM_DET使用，以便系统检测到SIM1已插入并切换为SIM1工作；

SIM1 通道

1)SIM1自适应支持1.8V/3.3V电平的SIM卡，可以理解为任意卡都支持；
2)SIM2的IO电平与GPIO电平保持一致，Air780EQ的GPIO电平仅支持1.8V，因此，SIM2也只支持1.8V的SIM卡；

SIM 卡电路很简单，但也有几点需要注意一下

https://docs.openluat.com/air780een/at/hardware/design/sim/



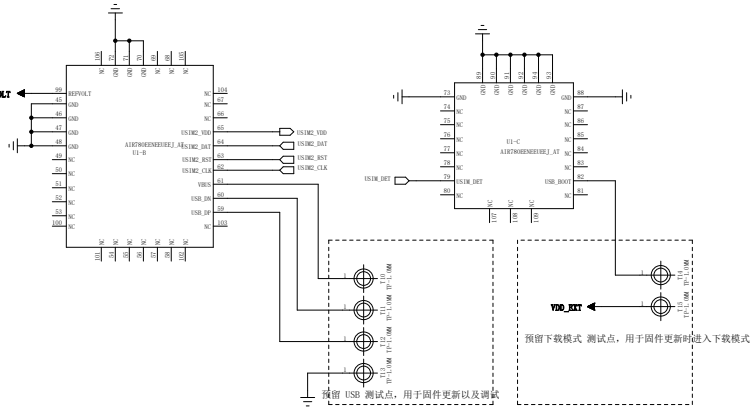
SIM2通道 可选

SIM2说明：
1)SIM2，不用时请悬空；
2)请注意SIM1的管脚说明；
3)请注意USIM_DET的管脚说明；

特别提醒：

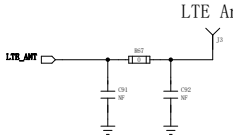
Air780EEN/EEU/EEJ无法像Air780E/Air780EP/Air780EPS等型号一样可以软硬件设置IO电平为3.3V，

Air780EEN/EEU/EEJ的IO电平只能为1.8V；



Air780EEN/EEU/EEJ开机以启动及外围电路设计指导：

https://docs.openluat.com/air780een/at/hardware/design/poweron/



推荐预留PI型匹配电路

关于蜂窝模组天线的一些大白话常识

https://docs.openluat.com/air780een/at/hardware/design/ant/

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

COMPANY:	上海合宙		
TITLE:	Air780EEN/EEU/EEJ用于AT使用方式时的参考设计		
DRAWN: JJ	DATED: 2024-10-28		
CHECKED: laolu	DATED: 2024-10-29		
QUALITY CONTROL: laolu	DATED: 2024-10-29		
RELEASED: laolu	DATED: 2024-10-29		
CODE: laolu	SIZE: A1	DRAWING NO: 20241029	REV: 1
SCALE: G2		SHEET: 1 OF 1	