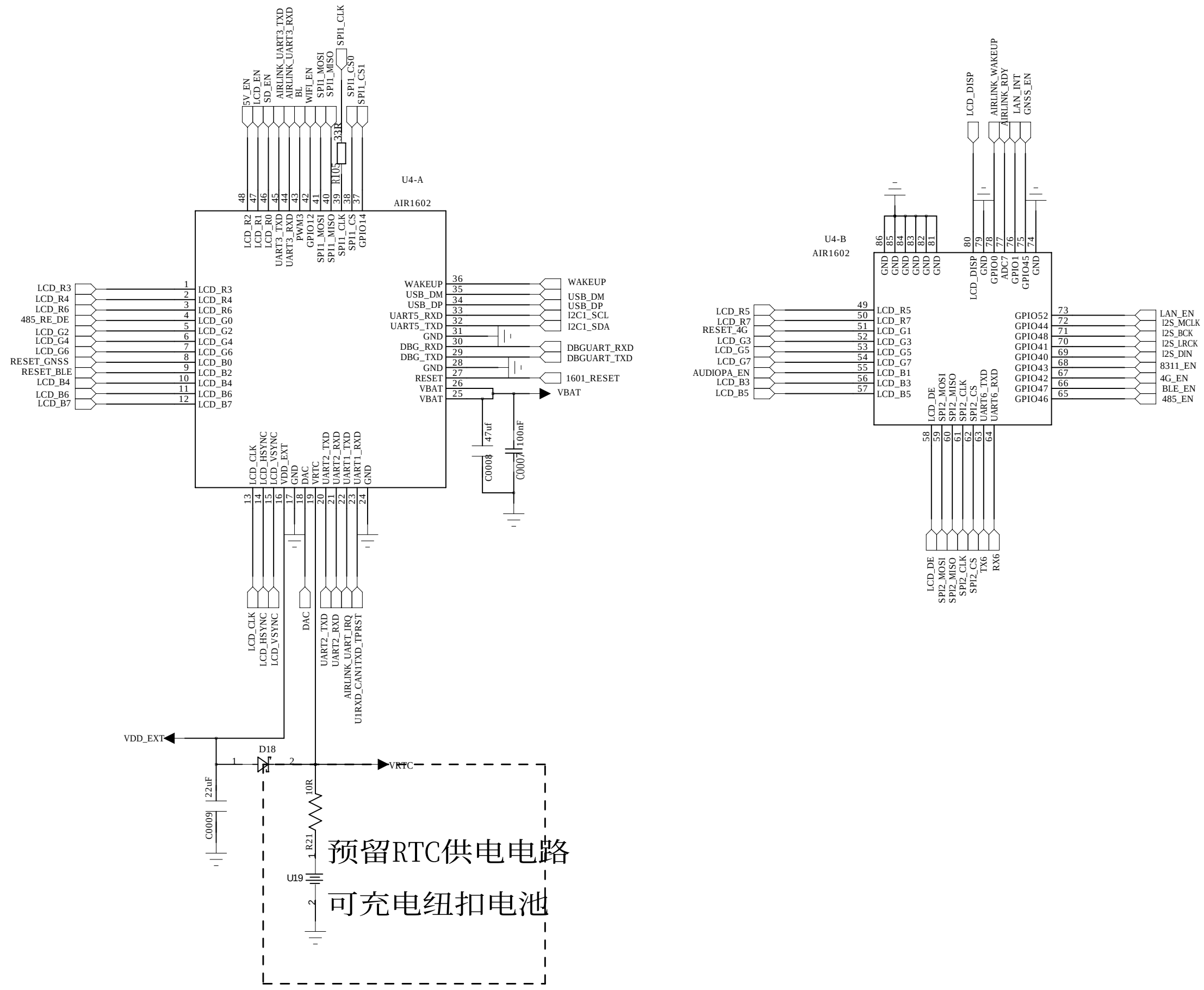
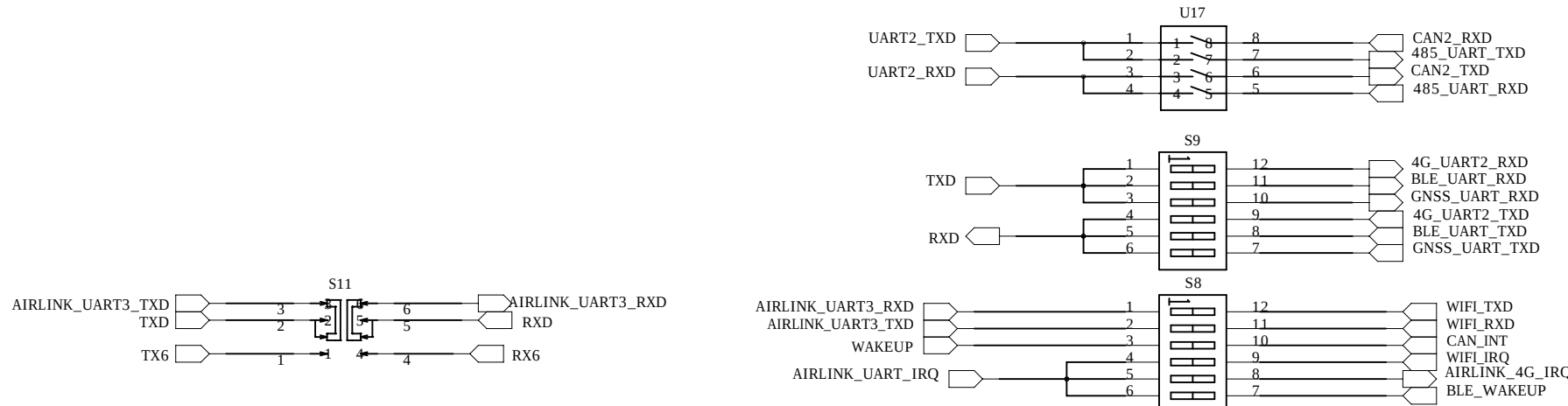


REVISION RECORD			
DATE	ECO NO.	APPROVED	DATE

Air1602开发板



信号切换 拨码开关



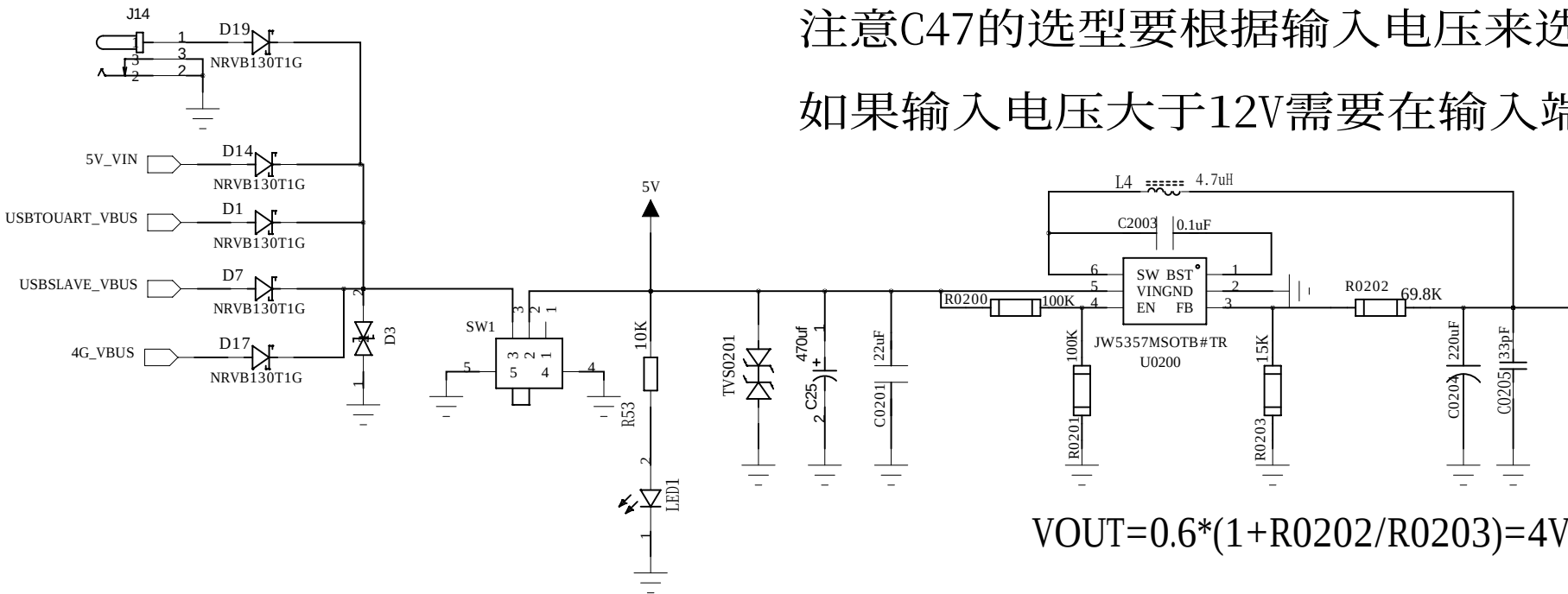
同一信号可复用为多种功能
通过拨码开关进行通断控制
方便验证不同的功能

COMPANY: 0T0eLuatOS			
TITLE: EVB_Air1601_V1.0			
DRAWN: ZhuPengun	DATED: 2026-1-21	CODE: 7	
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QUALITY CONTROL: laolu	DATED: 2026-1-21	REV: 1	
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SHEET: 1		OF 16	

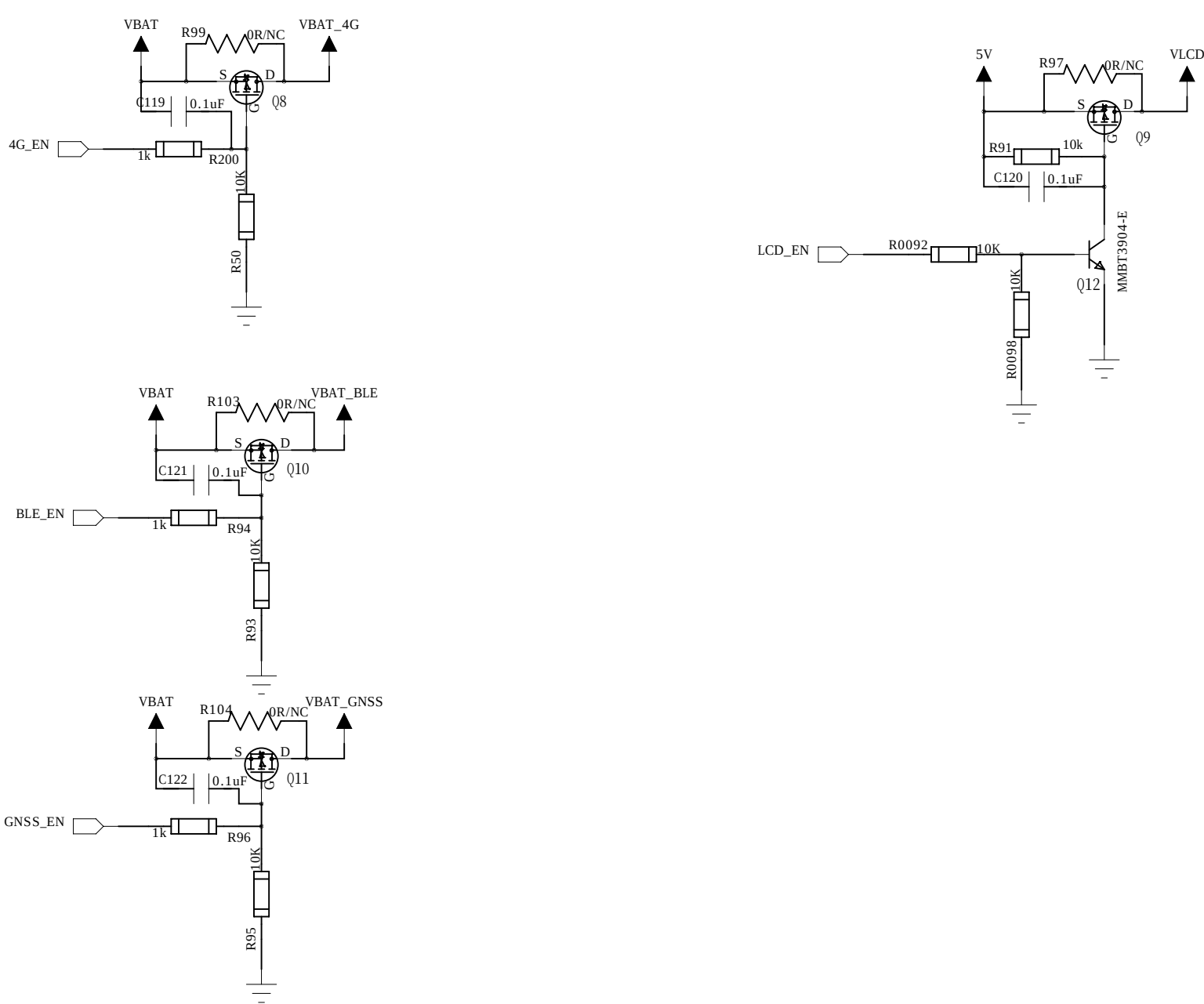
REVISION RECORD			
LTW	ECO NO.	APPROVED:	DATE:

DC-DC 方案

下图是DCDC开关电源的参考设计，采用的是杰华特公司的JW5357开关电源芯片
它的最大输出电流在3A，同时输入电压范围4.5V~18V
注意C47的选型要根据输入电压来选择耐压值。
如果输入电压大于12V需要在输入端再加一颗470uF的电解电容



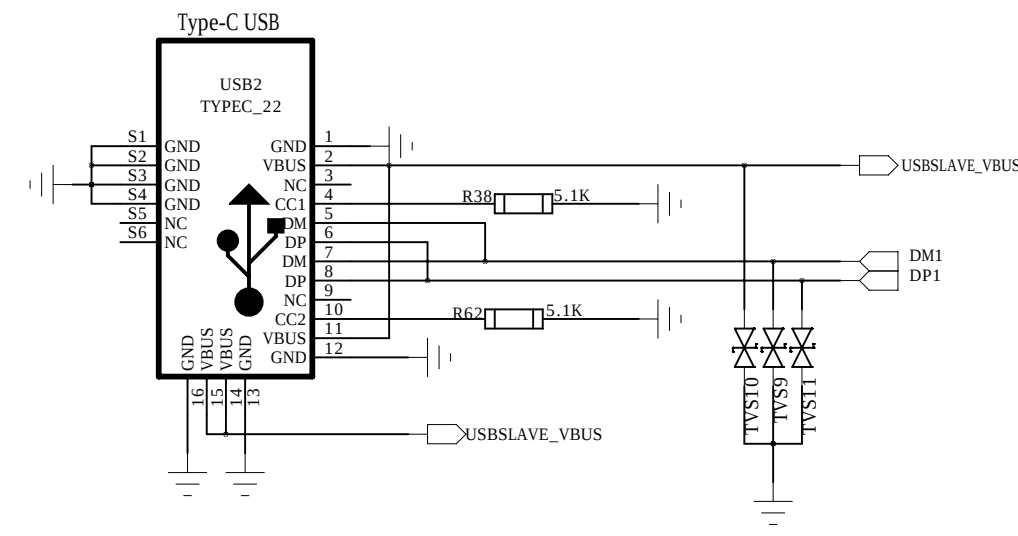
Air1601的VBAT供电范围3.3V-4.35V
Air1601内置3.3V LDO为芯片供电
此LDO即为PIN16：VDD_EXT



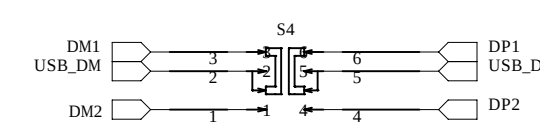
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DRAWN: ZhuPingjun	DATE: 2026-1-21				
CHECKED: laolu	DATE: 2026-1-21	CODE: 7	SIZE: A0	DRAWING NO: 20260210	REV: 1
QUALITY CONTROL: laolu	DATE: 2026-1-21				
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REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

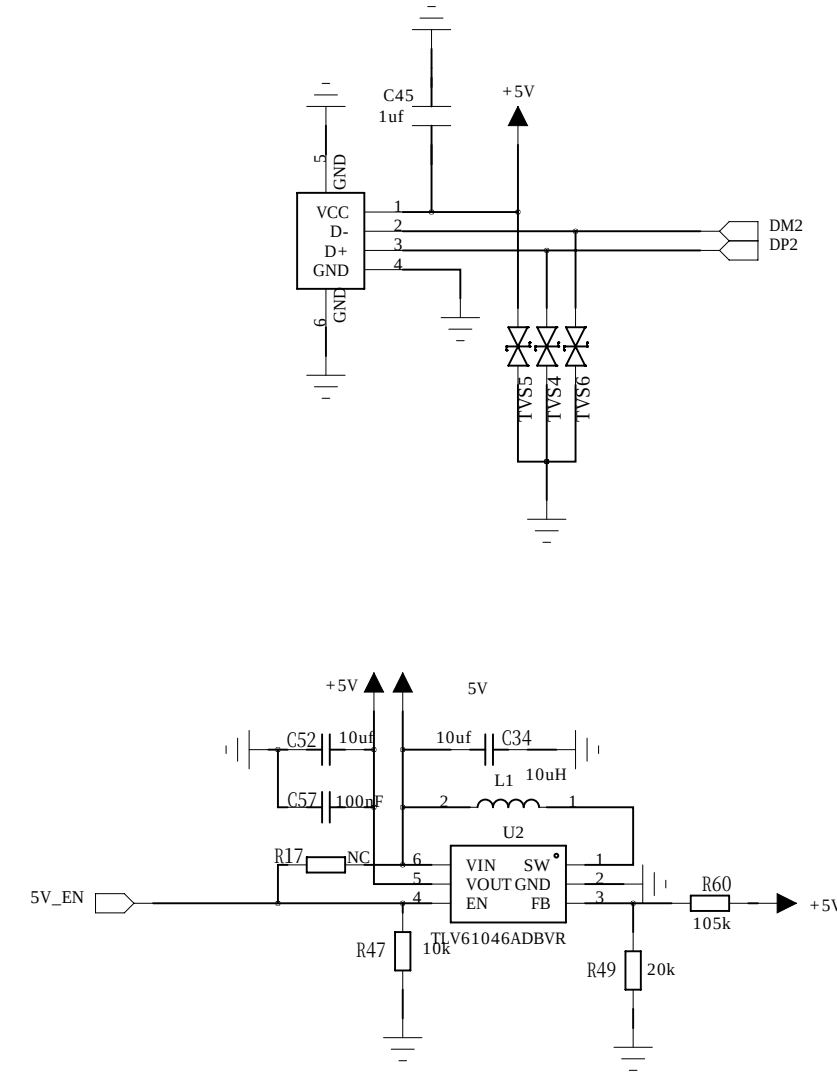
USB Slave



UVC vs USB切换



USB HOST 之 UVC



UVC摄像头

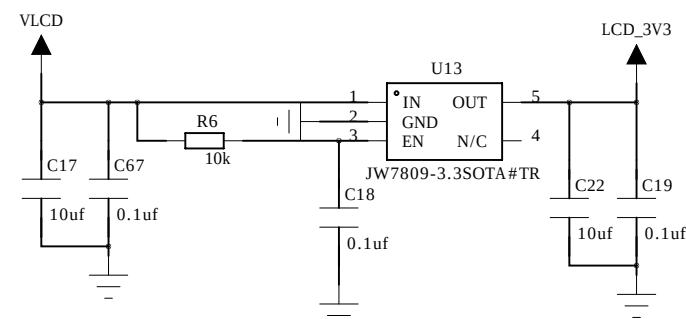
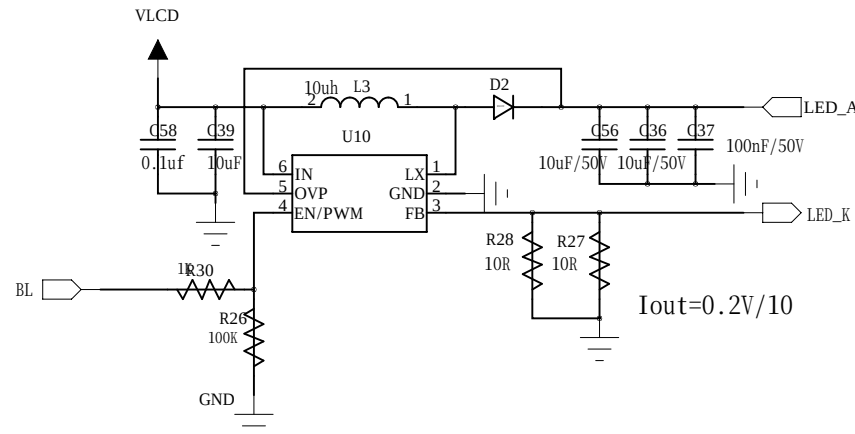
			COMPANY: 0 Ì Ø æ LuatOS			
			TITLE: EVB_Air1601_V1.0			
DRAWN: ZhuPunjun	DATED: 2026-1-21					
CHECKED: laolu	DATED: 2026-1-21		CODE:	SIZE:	DRAWING NO:	REV:
QUALITY CONTROL: laolu	DATED: 2026-1-21		7	A0	20260210	1
RELEASED:	DATED: 2026-1-21		SCALE: <Scale>			SHEET 4 of 16

DRAWN: ZhuPingjun	DATED: 2026-1-21
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QUALITY CONTROL: laolu	DATED: 2026-1-21
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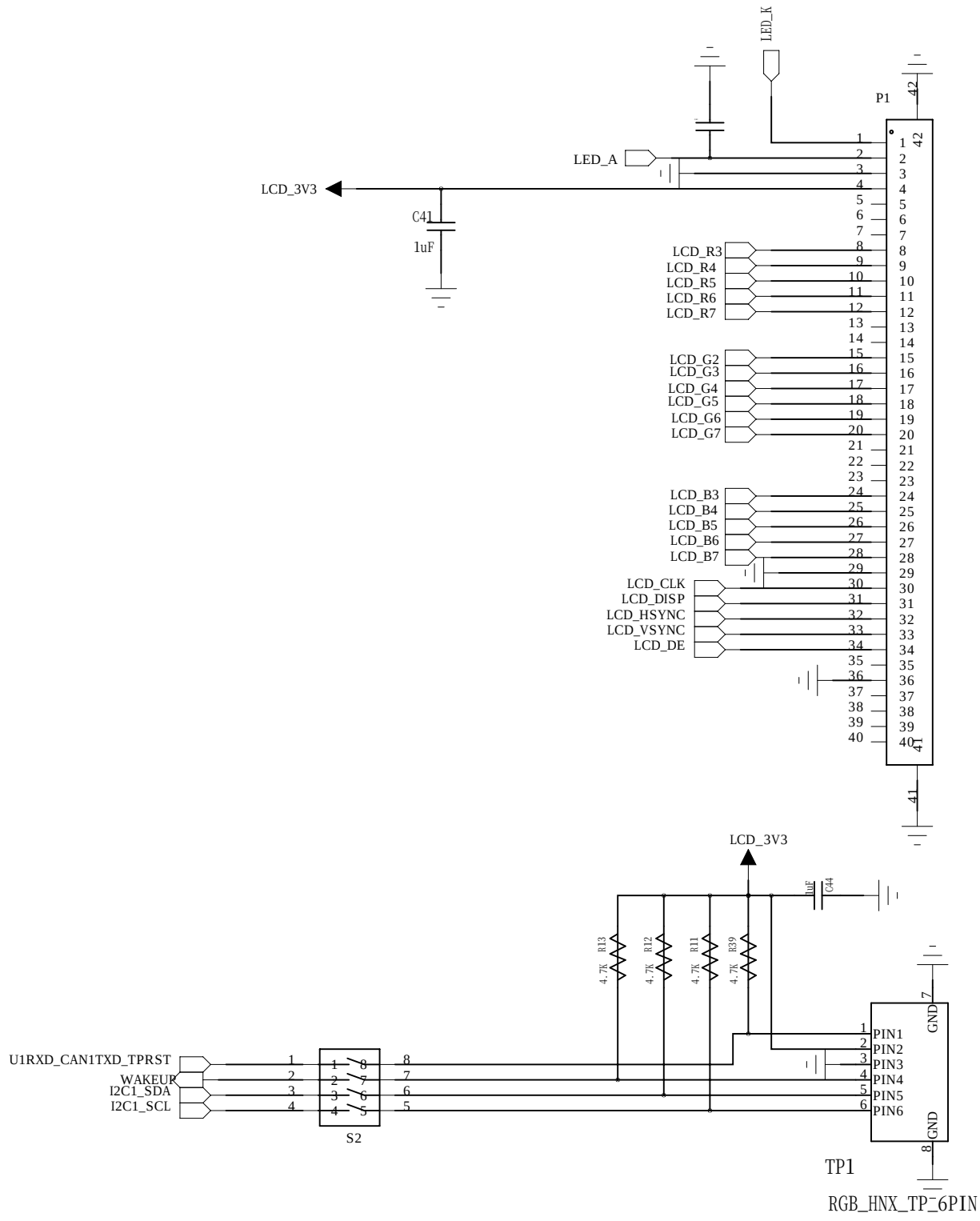
EVB_Air1601_V1.0			
CODE:	SIZE:	DRAWING NO:	REV:
7	A0	20260210	1
SCALE: <Scale>			SHEET 4 OF 16

REVISION RECORD			
LTH	ECO NO.	APPROVED:	DATE:

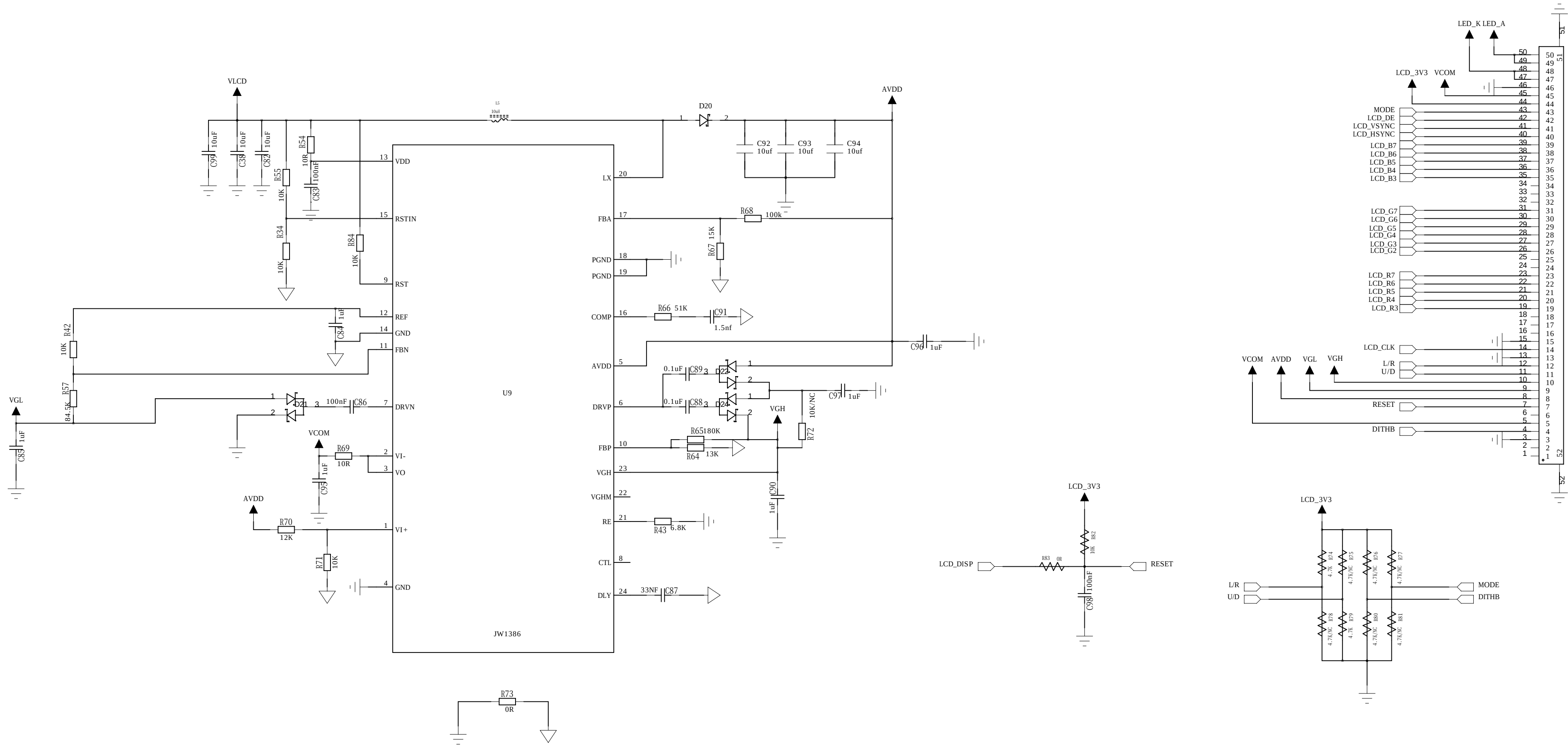
LCD接口



合宙会提供已调试好的LCD模组列表给大家选择
也欢迎大家推荐LCD模组供我们调试验证



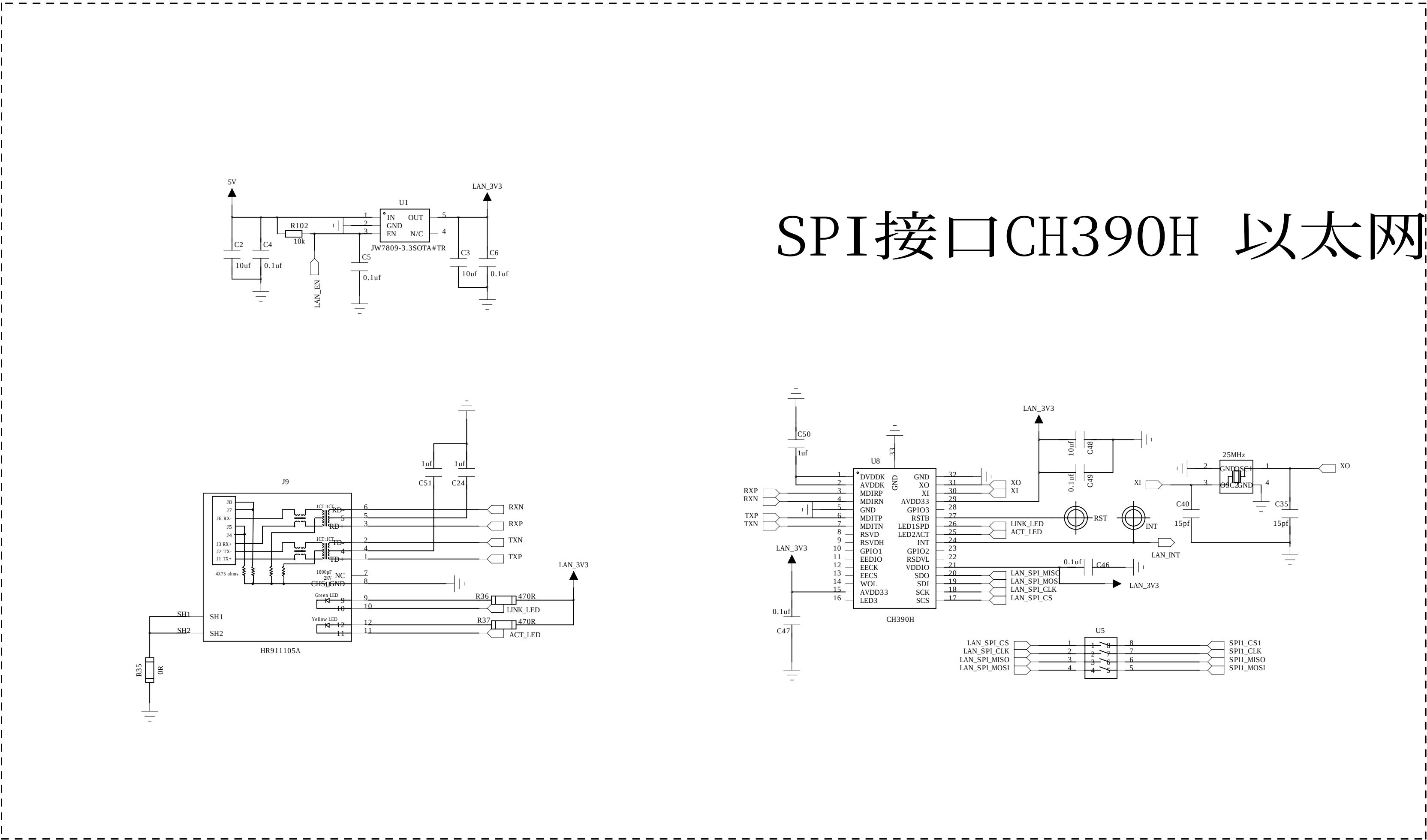
50P 输出上接



COMPANY: 0 I O æLuoatOS			
TITLE: EVB_Air1601_V1.0			
CODE: 7	SIZE: A0	DRAWING NO: 20260210	REV: 1
SCALE: <Scale>		SHEET 5 OF 16	

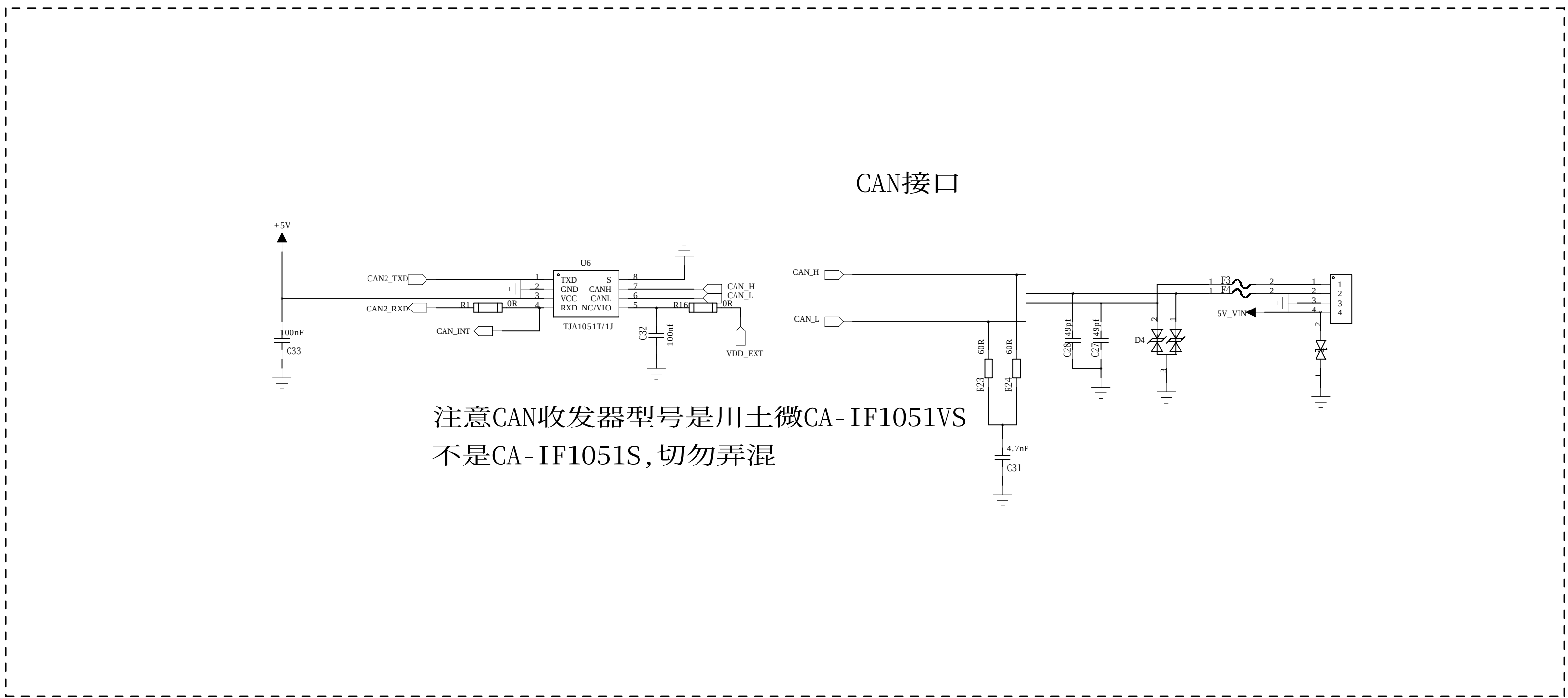
REVISION RECORD			
LTW	ECO NO.	APPROVED:	DATE:

SPI接口CH390H 以太网



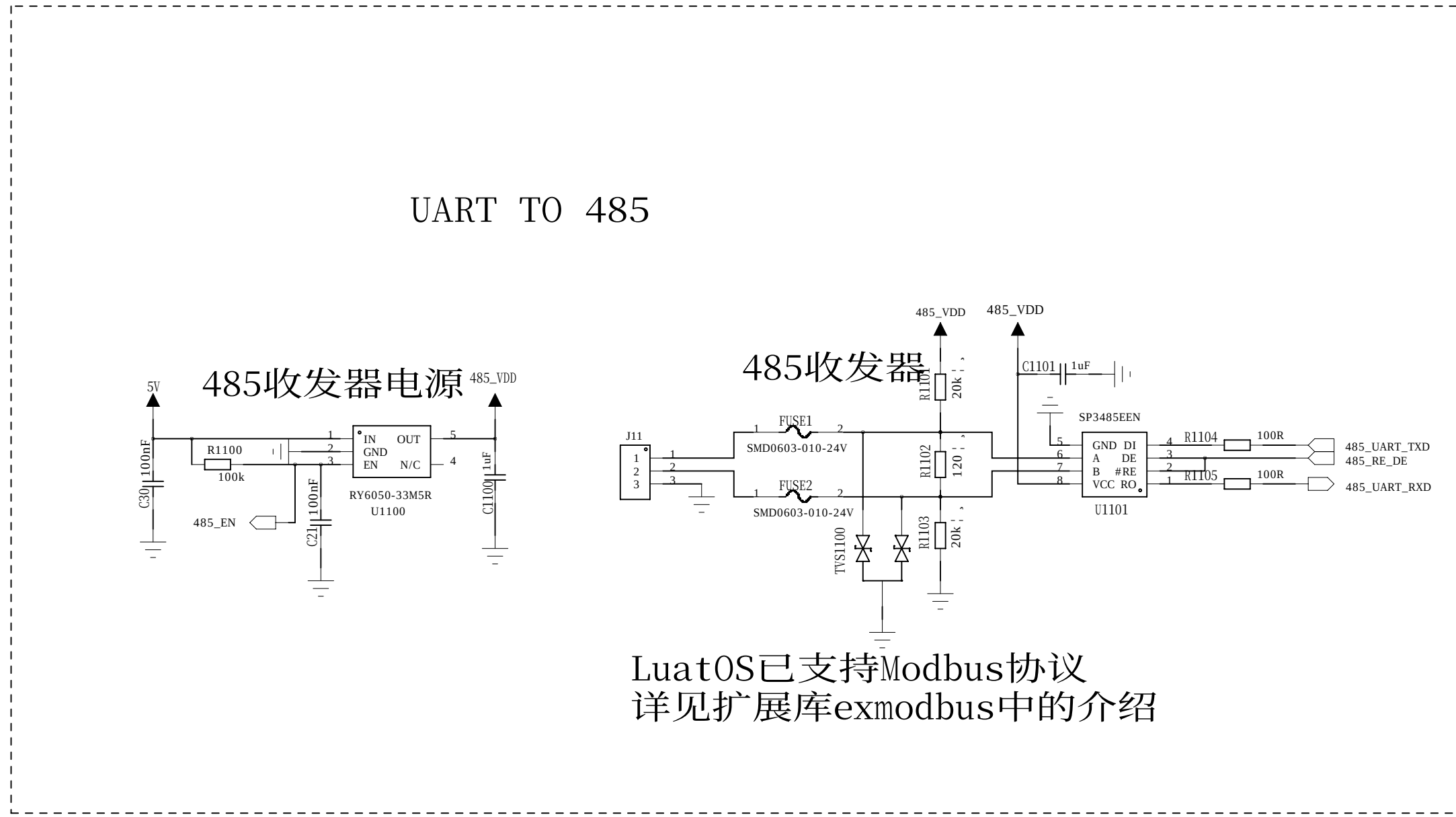
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		TITLE: EVb_Air1601_V1.0			
DRAWN: ZhuPingjun	DATED: 2026-1-21				
CHECKED: laolu	DATED: 2026-1-21				
QUALITY CONTROL: laolu	DATED: 2026-1-21				
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SCALE: <Scale >			SHEET: 7 of 16		

REVISION RECORD			
LTW	ECO NO.	APPROVED:	DATE:



DRAWN: ZhuPingjun		DATED: 2026-1-21		COMPANY: ° I ÕæLuatOS			
CHECKED: laolu		DATED: 2026-1-21		TITLE: EVB_Air1601_V1.0			
QUALITY CONTROL: laolu		DATED: 2026-1-21		CODE: 7	SIZE: A0	DRAWING NO:	REV:
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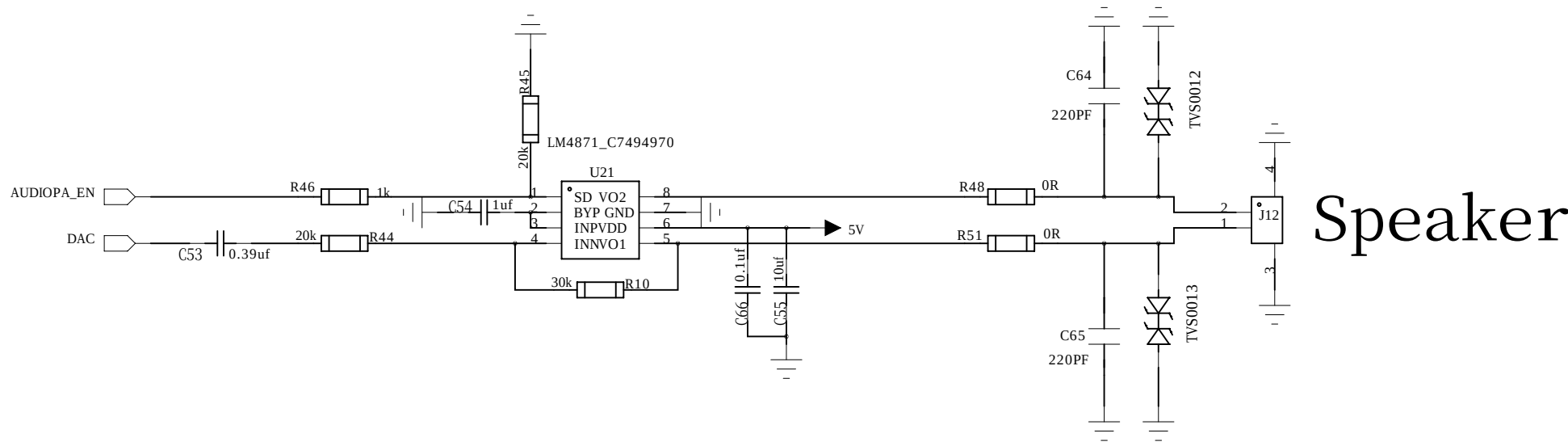
REVISION RECORD			
LTW	ECO NO.	APPROVED	DATE



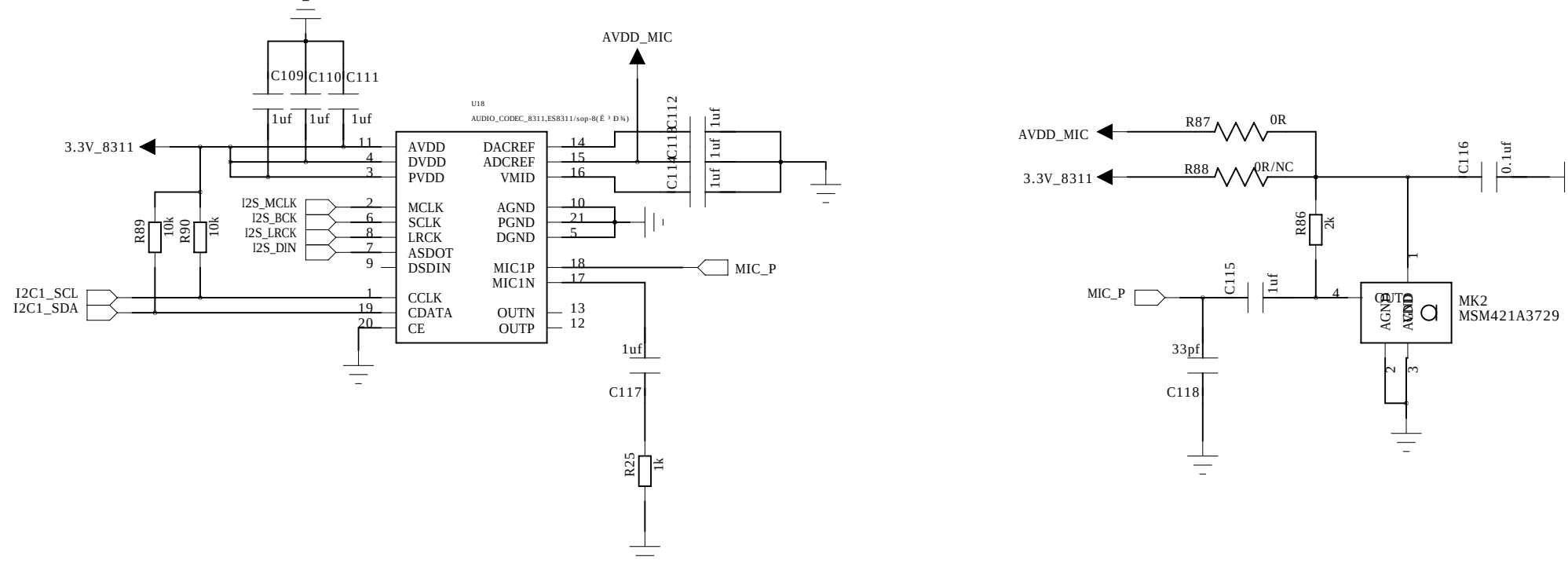
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DRAWN: ZhuPingjun	DATED: 2026-1-21				
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RELEASED: laolu	DATED: 2026-1-21	SCALE: <Scale >		SHEET 9 OF 16	

REVISION RECORD			
LTW	ECO NO.	APPROVED:	DATE:

音频输出(喇叭)参考电路



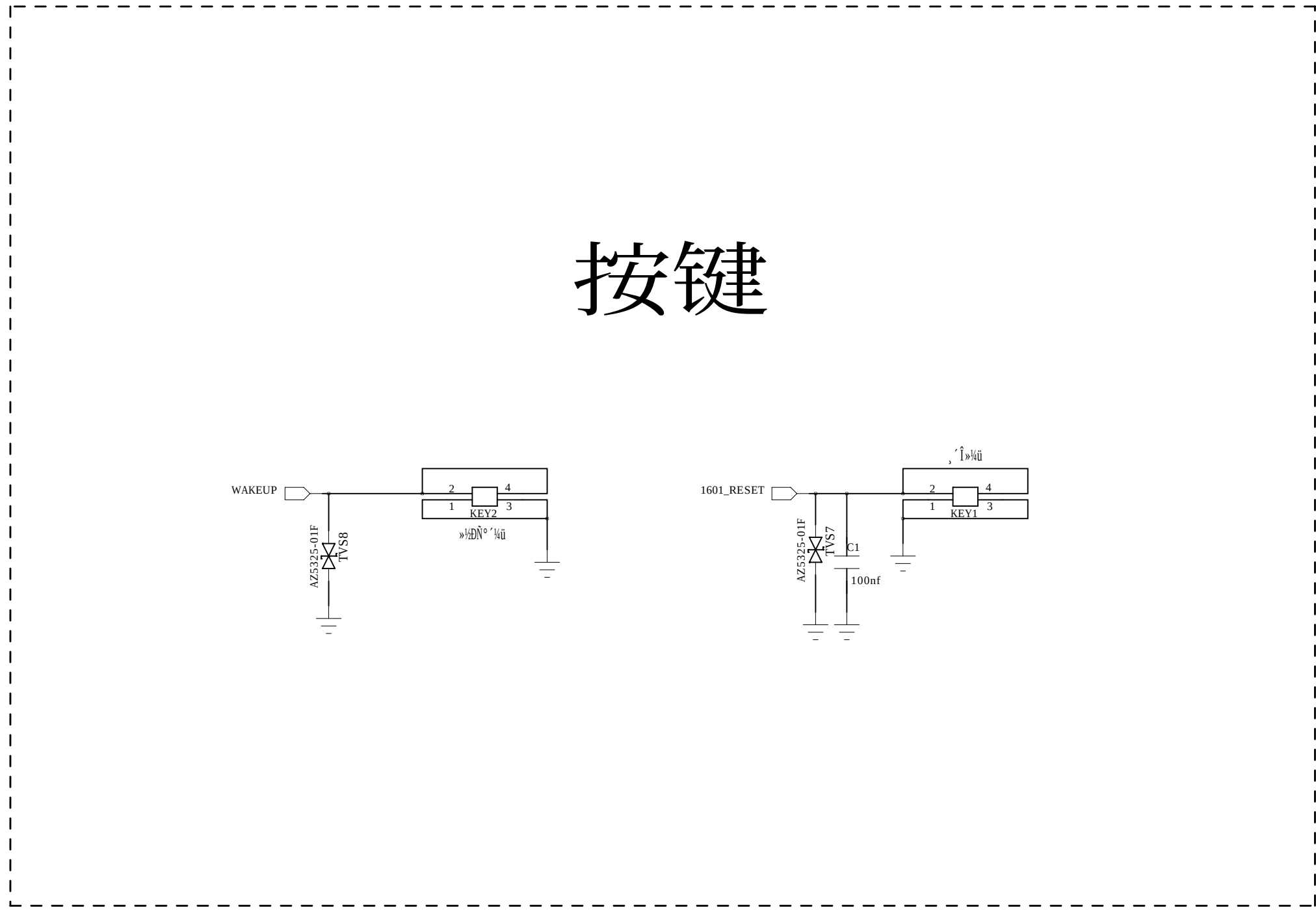
麦克风



DRAWN: ZhuoPingjun				DATE: 2026-1-21			
CHECKED: laolu				DATE: 2026-1-21			
QUALITY CONTROL: laolu				DATE: 2026-1-21			
RELEASED: laolu				DATE: 2026-1-21			
CODE: 7				SIZE: A0			
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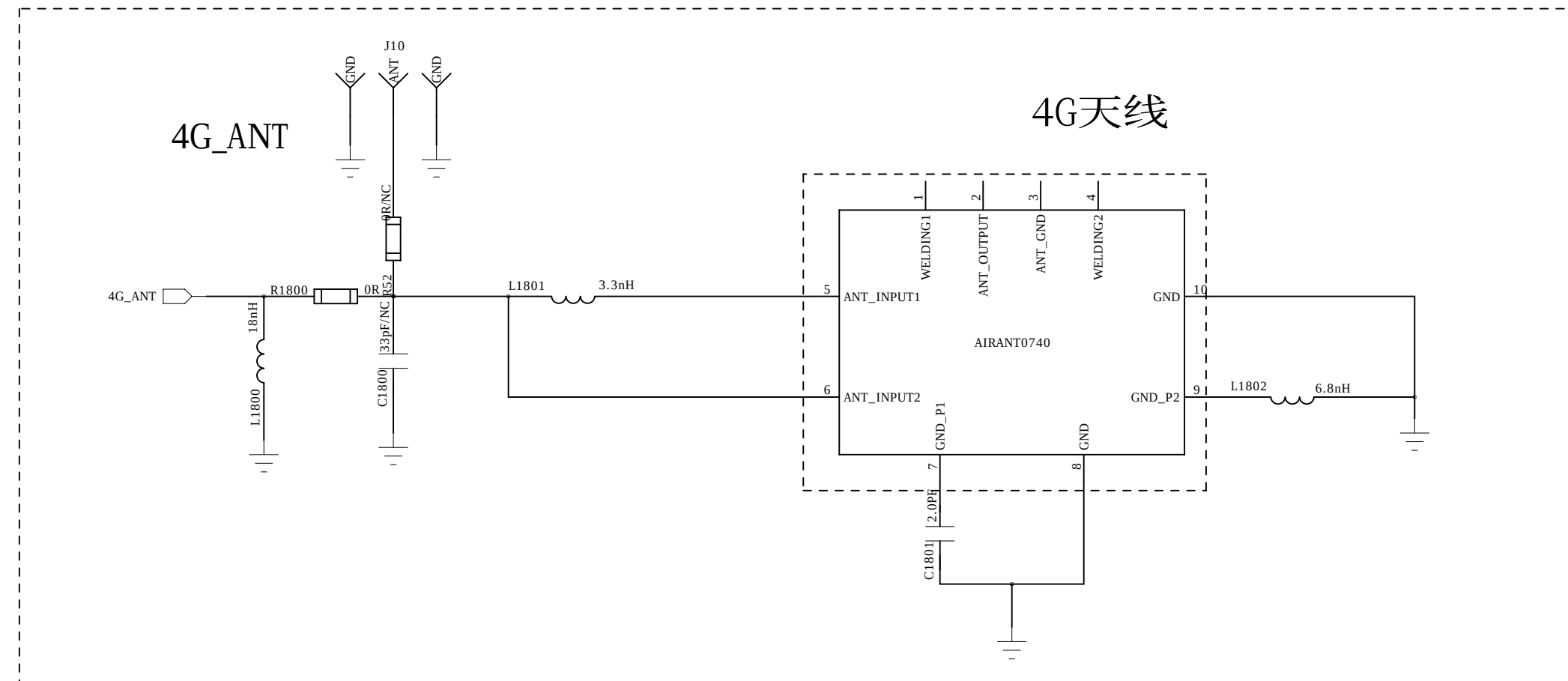
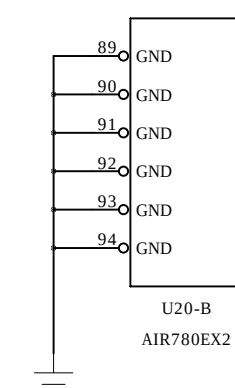
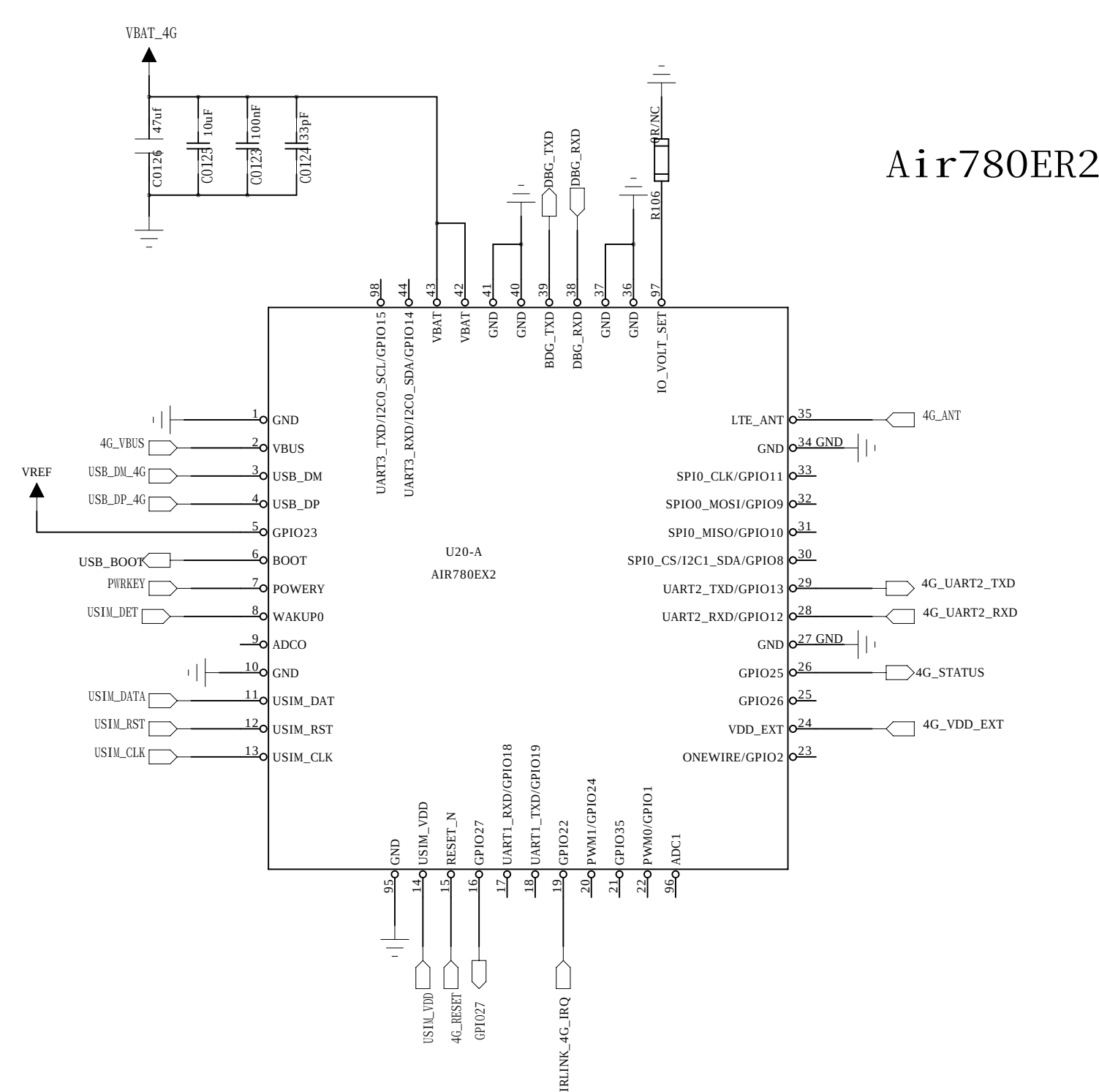
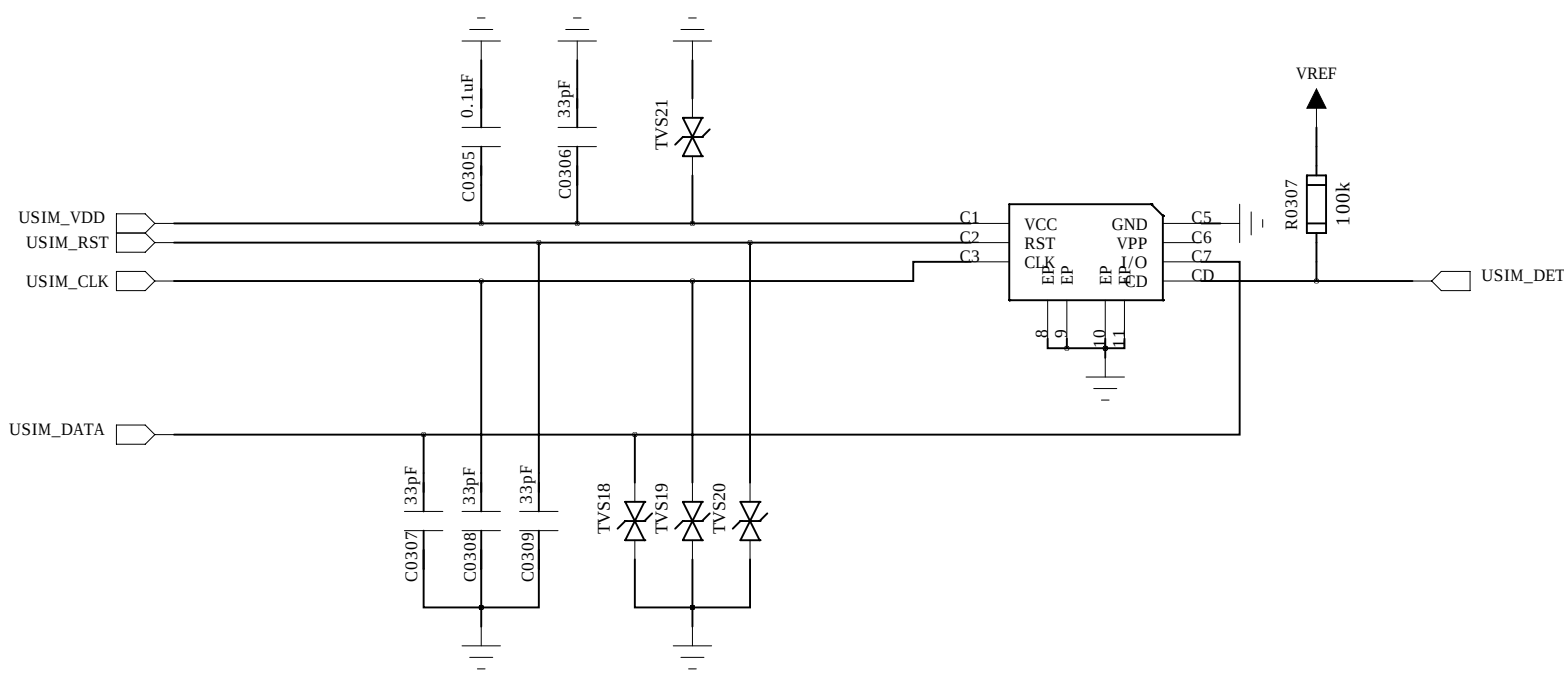
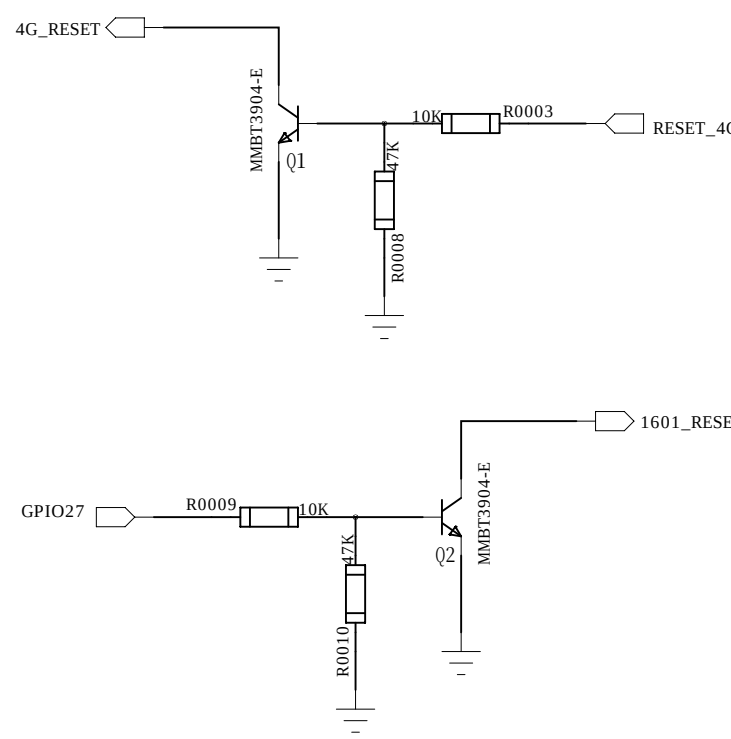
COMPANY: 0 I O a LuatOS			
TITLE: EVB_Air1601_V1.0			

REVISION RECORD			
LTW	ECO NO.	APPROVED:	DATE:

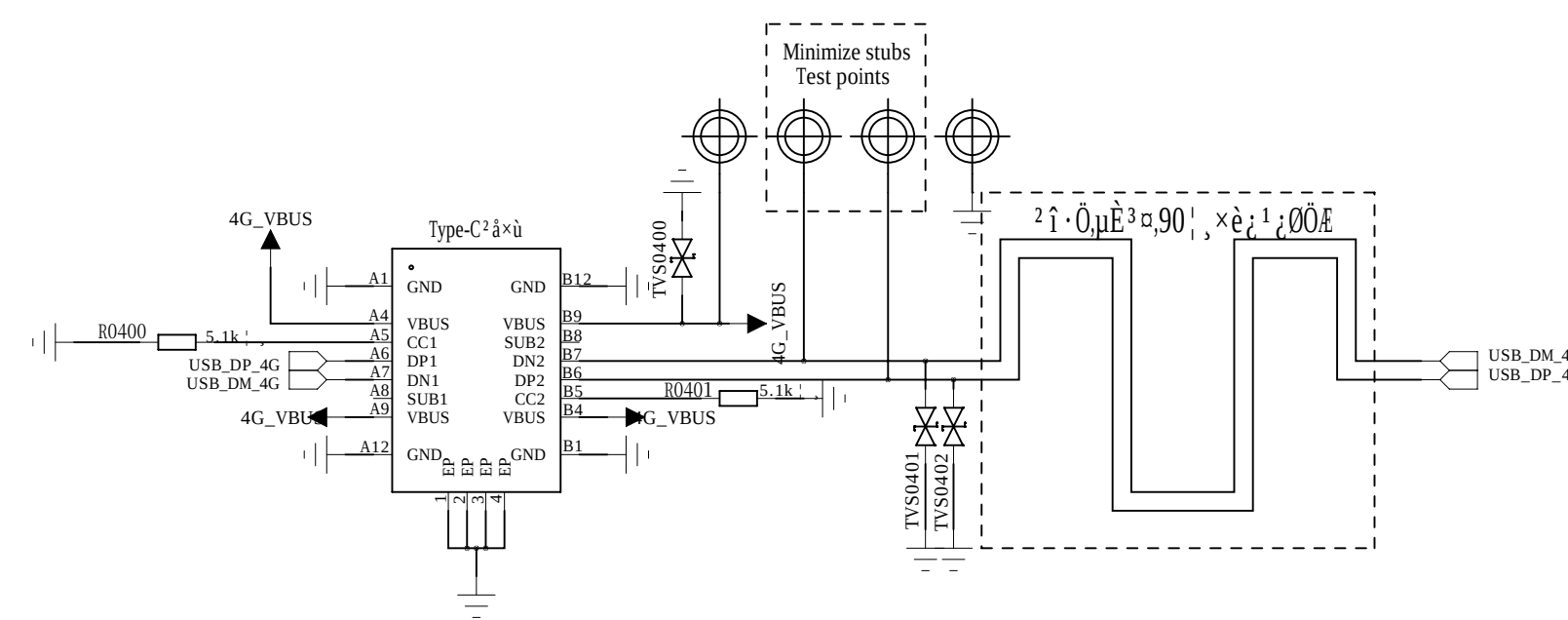


DRAWN: ZhuPingjun		DATED: 2026-1-21		COMPANY: ª ¨æLuatOS			
CHECKED: laolu		DATED: 2026-1-21		TITLE: EVB_Air1601_V1.0			
QUALITY CONTROL: laolu		DATED: 2026-1-21		CODE: 7	SIZE: A0	DRAWING NO: 20260210	REV: 1
RELEASED: laolu		DATED: 2026-1-21		SCALE: <Scale>			SHEET:11 OF 16

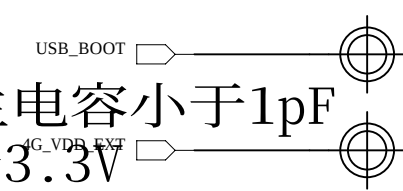
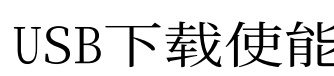
REVISION RECORD			
ETR	ECO NO:	APPROVED:	DATE:



- 1, 本参考设计使用的是合宙贴片式PCB天线: AirANT4073, 尺寸40*7*3mm;
- 2, 合宙还有多款尺寸不同、封装各异的贴片式PCB天线可供选择;
- 3, 匹配电路已调试好, PCB封装(含匹配电路)已做成标准封装, 欢迎咨询;



1. USB走线需要严格按照差分线控制，做到平行和等长；
2. USB走线的阻抗需要控制到差分90欧姆；
3. 需要尽可能的减少USB走线的stubs，减少信号反射；USB信号的测试点最好直接放在走线上以减少stub
4. 在靠近USB连接器或者测试点的地方添加TVS保护管，由于USB的速率较高，需保证选用的TVS保护管的寄生电容小于1pF
5. VBUS作为USB插入检测，必须连接USB电源或者外接电源，否则USB无法被检测到，VBUS的检测电压要大于3.3V



USB_BOOT 在开机过程中拉高可以进入USB下载模式，DGB_UART，也常备称为UART0，用作底层日志的抓取
建议预留测试点 波特率921600bps，不可更改
不可作为通用I/O使用

DGB_UART, 也常备称作为UART0, 用作底层日志的抓取
 载模式
 波特率921600bps, 不可更改
 不可作为通用UART使用

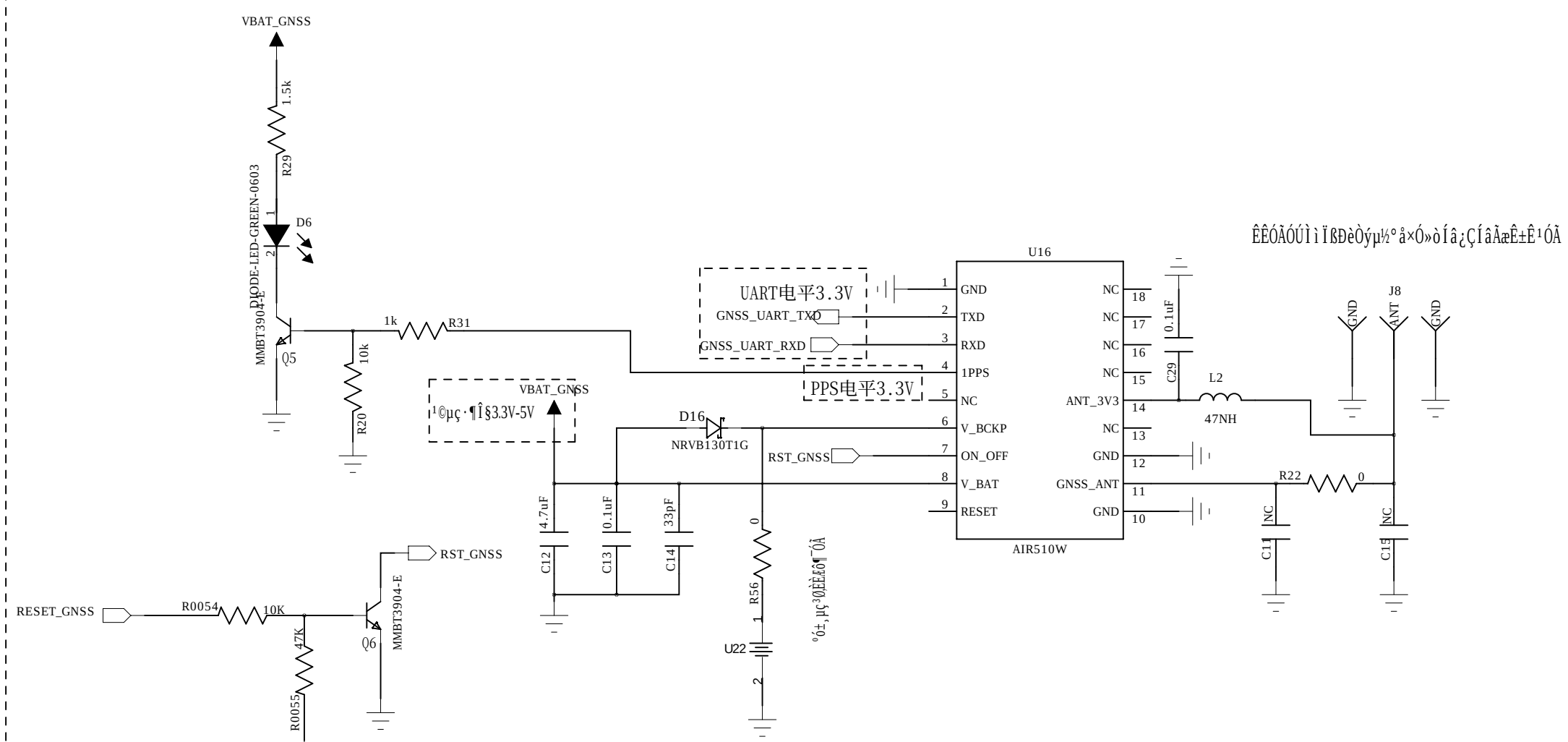
开机键测试点,设计批量升级夹具时会用到

VBAT供电测试点, 设计批量升级夹具时会用到

		COMPANY:		" I Ì æLuatOS	
		TITLE:		EVb_Air1601_V1.0	
DRAWN:	ZhuoPingJun	DATED:	2026-1-21		
CHECKED:	laolu	DATED:	2026-1-21		
QUALITY CONTROL:	laolu	DATED:	2026-1-21	CODE:	7
				SIZE:	A0
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RELEASED:	laolu	DATED:	2026-1-21	SCALE:	<SCALE>
				SHEET:	12 of 16

REVISION RECORD			
LTW	ECO NO.	APPROVED:	DATE:

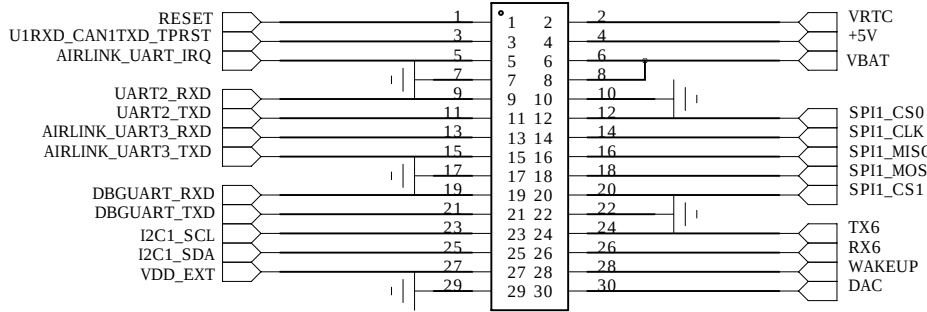
Air510W有源天线参考设计



		COMPANY: ® I Ì Ì αLuoTOS			
		TITLE: EVB_Air1601_V1.0			
DRAWN: ZhuPingjun	DATED: 2026-1-21				
CHECKED: laolu	DATED: 2026-1-21	CODE: 7	SIZE: A0	DRAWING NO: 20260210	REV: 1
QUALITY CONTROL: laolu	DATED: 2026-1-21				
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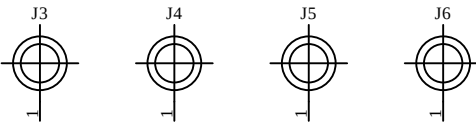
REVISION RECORD			
LTW	ECO NO.	APPROVED:	DATE:

插针



方便外设及信号电平测试

螺丝孔



DRAWN: ZhuPingjun				COMPANY: ° Ī Ō æLuatOS			
CHECKED: laolu				TITLE: EVB_Air1601_V1.0			
DATE: 2026-1-21		DATE: 2026-1-21		CODE: 7		SIZE: A0	
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