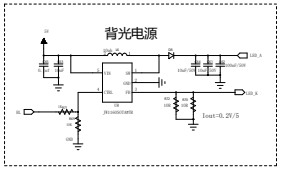
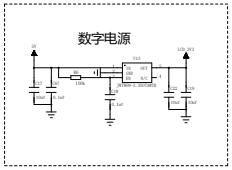
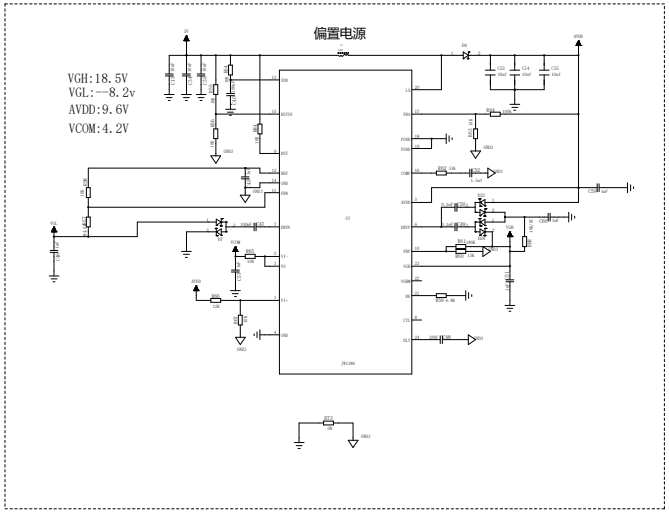
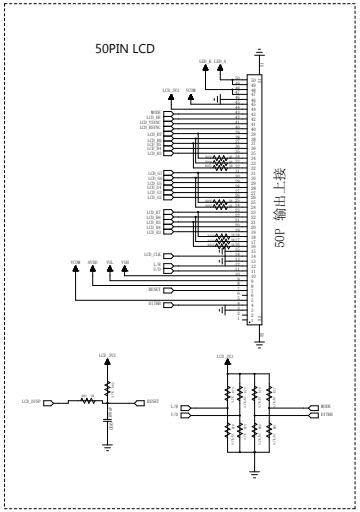
LCD 电源

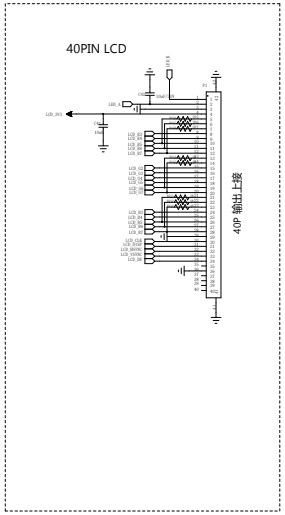


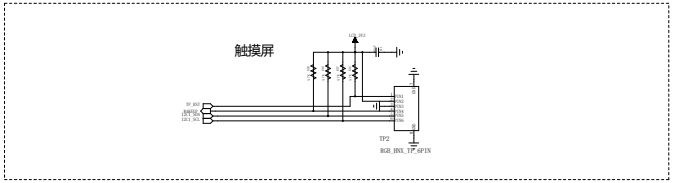




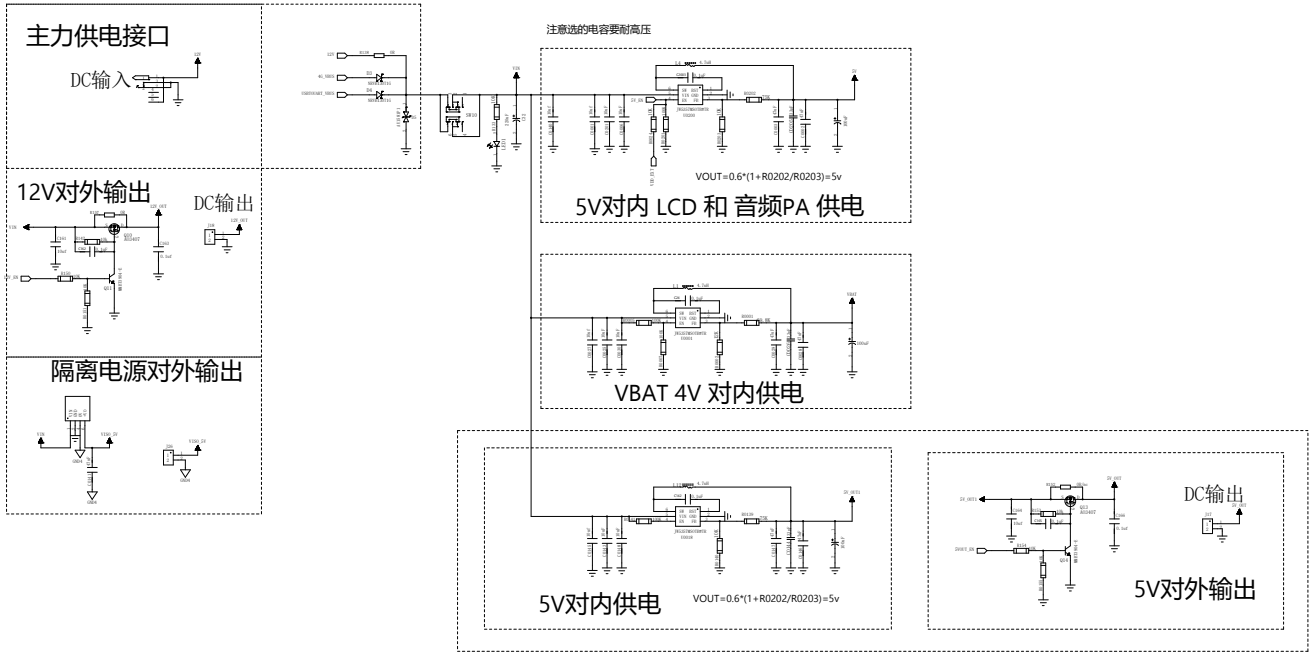
触摸屏接口

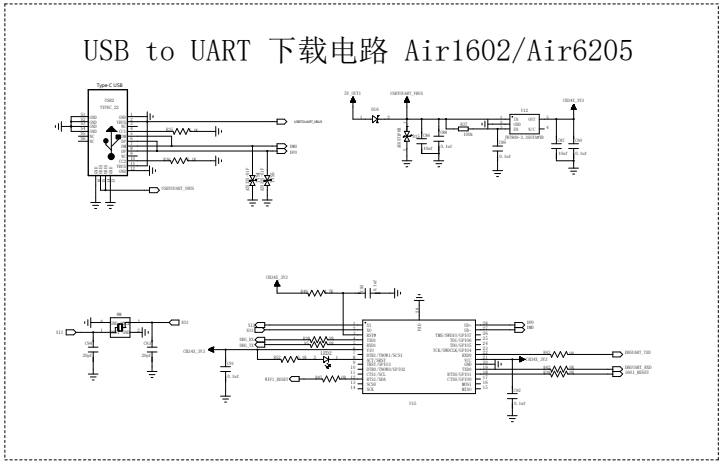




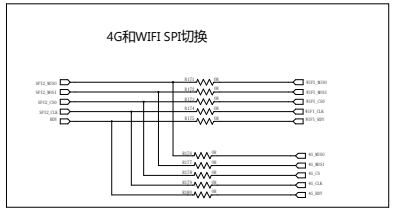


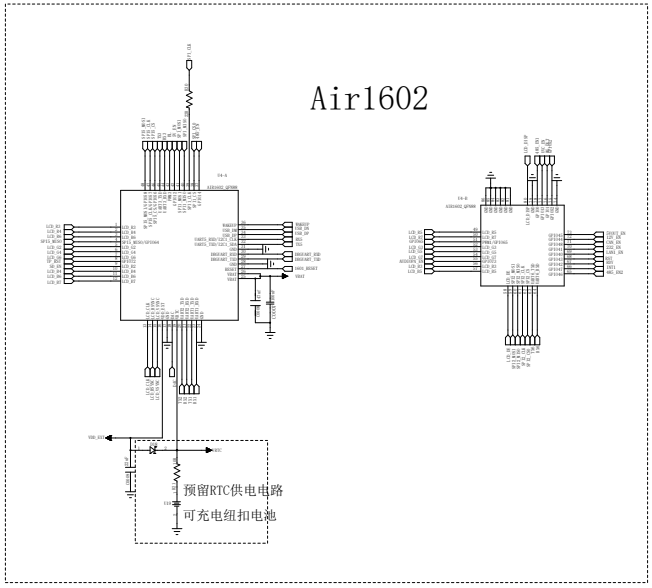
DRAWN: ZhuPingjun	DATE: 2026-10-04	上海合宙LuatOS	
CHECKED: LuXiangcheng	DATE: 2026-10-04	TITLE: Air8606工控大板	
APPLICATION: LuXiangcheng	DATE: 2026-10-04	CODE:	SIZE: A0
APPROVED: LuXiangcheng	DATE: 2026-10-26	SCALE:	SHEET: 1 OF 14

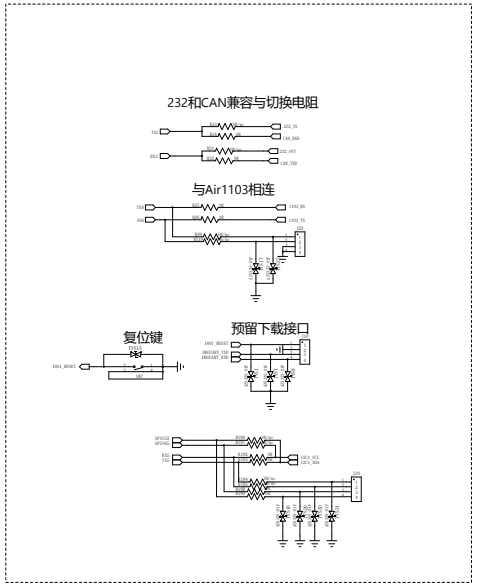




COMPANY:	上海合宙LuatOS		
TITLE:	Air8606工控大板		
DRAWN: ZhuPingJun	DATE: 2026-10-04		
CHECKED: LuXiangcheng	DATE: 2026-10-04		
APPLIED: LuXiangcheng	DATE: 2026-10-04		
RELEASED: LuXiangcheng	DATE: 2026-10-26		
CODE:	SIZE: A0	DRAWING NO:	REV:
SCALE:		SHEET 2 OF 14	



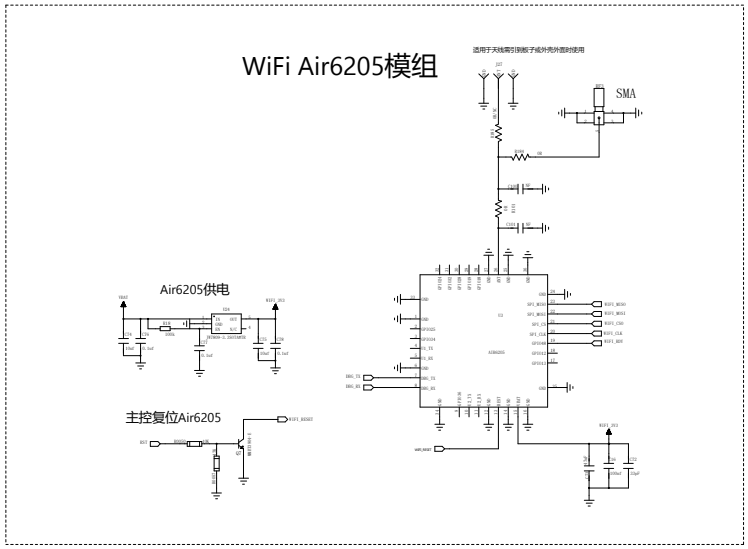




螺丝孔



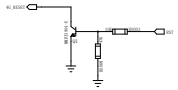
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RELEASED: LuXiangcheng	DATE: 2026-10-26	SCALE:	SHEET: 3 OF 14

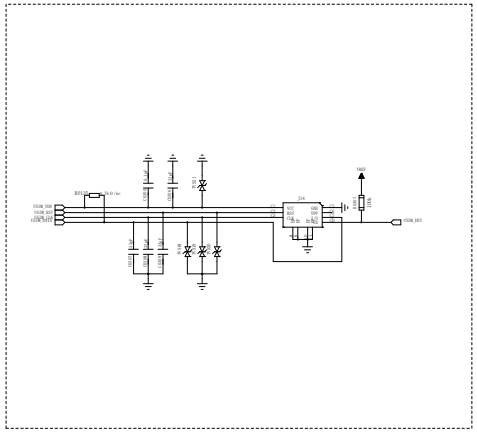


REVISION RECORD			
LTR	ECO NO.	APPROVED	DATE

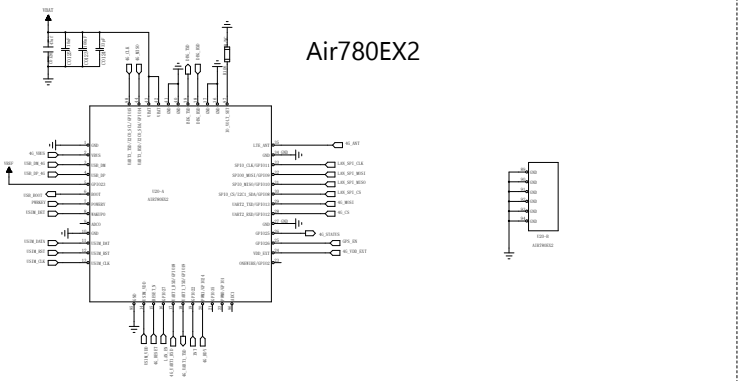
DRAWN: ZhuPingJun	DATE: 2026-10-04	COMPANY: 上海合宙LuatOS	
CHECKED: LuXiangcheng	DATE: 2026-10-04	TITLE: Air8606工控大板	
APPLIED: LuXiangcheng	DATE: 2026-10-04	CODE:	SIZE: A0
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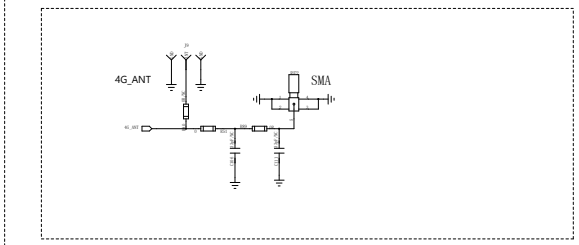
主控复位



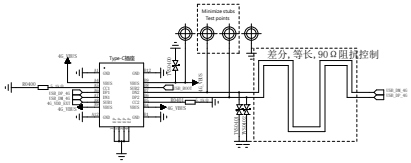


Air780EX2



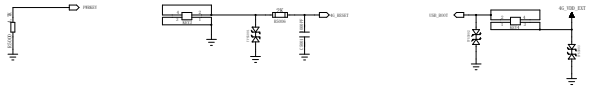


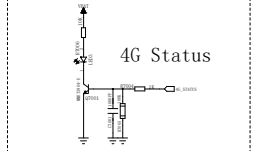
USB

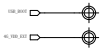


1.USB走线需要严格按照差分线控制，做到平行和等长；
2.USB走线的阻抗需要控制到差分90欧姆；
3.需要尽可能的减少USB走线的stubs，减少信号反射；USB信号的测试点最好直接放在走线上以减少stub
4.在靠近USB连接器或者测试点的地方添加TVS保护管，由于USB的速率较高，需保证选用的TVS保护管的寄生电容小于1pF
5.VBUS作为USB插入检测，必须连接USB电源或者外接电源，否则USB无法被检测到，VBUS的检测电压要大于3.3V

按键开机　RESET_N 复位　USB下载使能







USB_BOOT 在开机过程中拉高可以进入USB下载模式
建议预留测试点



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

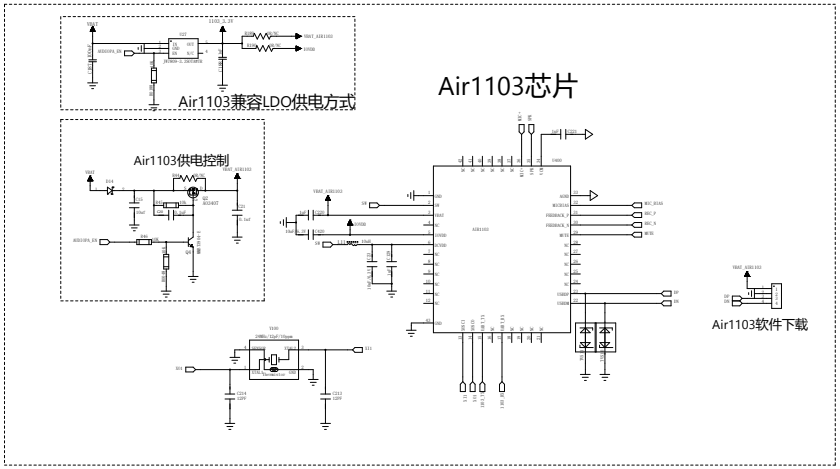


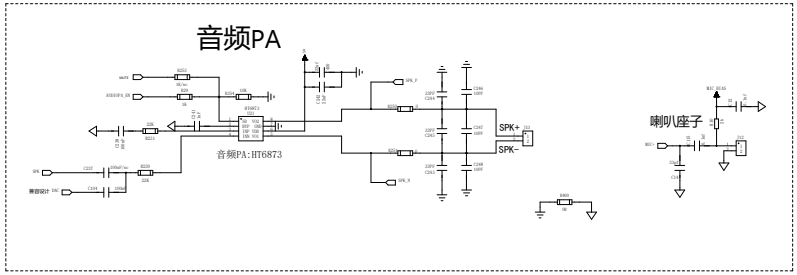
开机键测试点，设计批量升级夹具时会用到

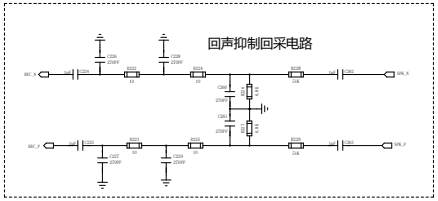


VBAT供电测试点，设计批量升级夹具时会用到

COMPANY:	上海合宙LuatOS		
TITLE:	Air8606工控大板		
DRAWN: ZhuPingJun	DATE: 2026-10-04	CODE:	SIZE: A0
CHECKED: LuXiangcheng	DATE: 2026-10-04	DRAWING NO:	REV:
APPLIED: LuXiangcheng	DATE: 2026-10-04		
APPROVED: LuXiangcheng	DATE: 2026-10-26	SCALE:	SHEET: 5 OF 14

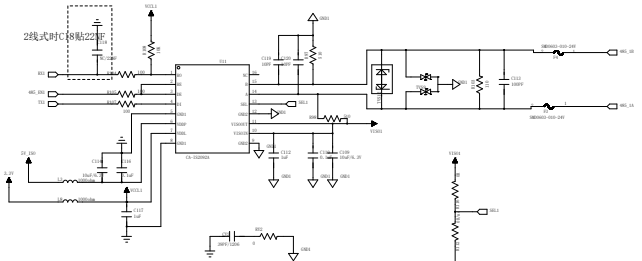




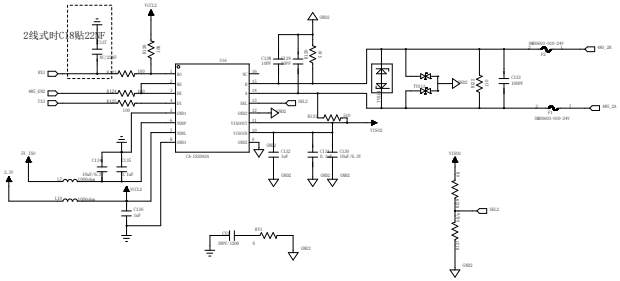


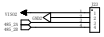
COMPANY:	上海合宙LuatOS		
TITLE:	Air8606工控大板		
DRAWN: ZhuPingJun	DATE: 2026-10-04	CODE:	SIZE: A0
CHECKED: LuXiangcheng	DATE: 2026-10-04	DRAWING NO:	REV:
APPLIED: LuXiangcheng	DATE: 2026-10-04		
APPROVED: LuXiangcheng	DATE: 2026-10-26	SCALE:	SHEET: 6 OF 14

UART1 TO 隔离485 兼容设计

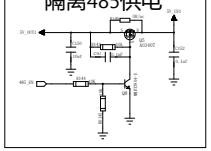




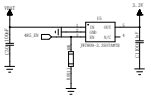




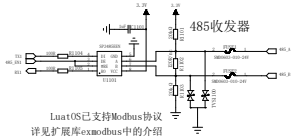
隔离485供电



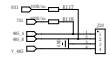
485数字电源



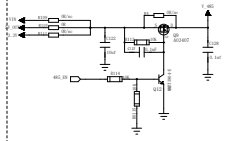
UART1 TO 非隔离485 兼容设计



LuatOS已支持Modbus协议
详见扩展库exmodbus中的介绍



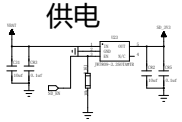
非隔离电源对外供电

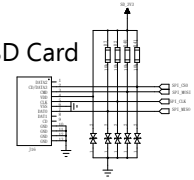


COMPANY:	上海合宙LuatOS		
TITLE:	Air8606工控大板		
DRAWN: ZhuPingJun	DATE(S): 2026-10-04		
CHECKED: LuXiangcheng	DATE(S): 2026-10-04		
APPLIED: LuXiangcheng	DATE(S): 2026-10-04		
RELEASED: LuXiangcheng	DATE(S): 2026-10-26		
		CODE:	SIZE: A0
		DRAWING NO:	REV:
		SHEET 1 OF 14	

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

SPI接口SD卡



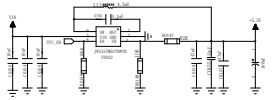


DRAWN: ZhuPingJun	DATE: 2026-10-04	COMPANY: 上海合宙LuatOS	
CHECKED: LuXiangcheng	DATE: 2026-10-04	TITLE: Air8606工控大板	
APPLIED CHECKED: LuXiangcheng	DATE: 2026-10-04	CODE:	SIZE: A0
RELEASED: LuXiangcheng	DATE: 2026-10-26	SCALE:	SHEET: 8 OF 14

USB HOST

人脸识别UVC U盘 键盘鼠标套装

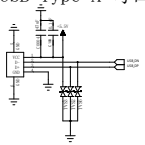
人脸识别UVC独立供电



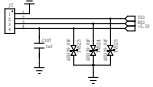
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人脸识别USB Type-A 母口

UVC摄像头



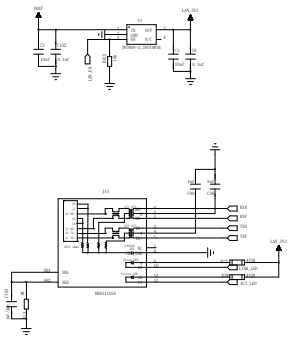
人脸识别UART通信

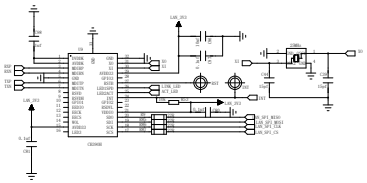


COMPANY:	上海合宙LuatOS		
TITLE:	Air8606工控大板		
DRAWN: ZhuPingJun	DATE: 2026-10-04	CODE:	SIZE: A0
CHECKED: LuXiangcheng	DATE: 2026-10-04	DRAWING NO:	REV:
APPLIED: LuXiangcheng	DATE: 2026-10-04		
RELEASED: LuXiangcheng	DATE: 2026-10-26	SCALE:	SHEET: 9 OF 14

Air780EX2侧以太网-->LAN

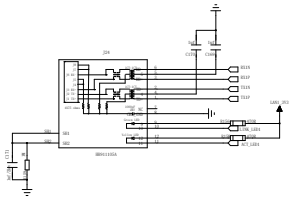
SPI接口CH390H

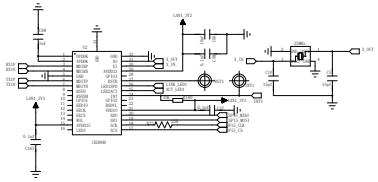




Air1602侧以太网-->WAN

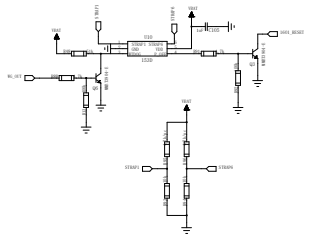
SPI接口CH390H





COMPANY:	上海合宙LuatOS		
TITLE:	Air8606工控大板		
DRAWN: ZhuPingJun	DATE: 2026-10-04		
CHECKED: LuXiangcheng	DATE: 2026-10-04		
APPLIED CHECKED: LuXiangcheng	DATE: 2026-10-04		
RELEASED: LuXiangcheng	DATE: 2026-10-26		
CODE:	SIZE: A0	DRAWING NO:	REV:
SCALE:		SHEET: 10F 14	

主控看门狗Air153D



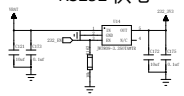
REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

COMPANY:	上海合宙LuatOS
TITLE:	Air8606工控大板
CODE:	
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REV:	
SCALE:	
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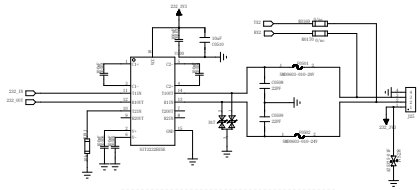
DRAWN:	ZhuPingJun	DATE: 2026-10-04
CHECKED:	LuXiangcheng	DATE: 2026-10-04
APPLIED CHECKED:	LuXiangcheng	DATE: 2026-10-04
RELEASED:	LuXiangcheng	DATE: 2026-10-26

RS232

RS232 供电



RS232 收发器

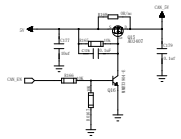


SIT3232E 最高支持 960kbps 波特率，量产建议≤576000bps 使用。

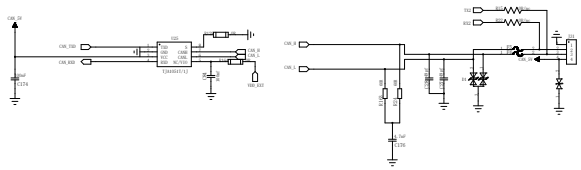
DRAWN: ZhuPingJun	DATE: 2026-10-04	COMPANY: 上海合宙LuatOS	
CHECKED: LuXiangcheng	DATE: 2026-10-04	TITLE: Air8606工控大板	
APPLIED: LuXiangcheng	DATE: 2026-10-04	CODE:	SIZE: A0
RELEASED: LuXiangcheng	DATE: 2026-10-26	SCALE:	SHEET: 12OF 14

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

CAN供电



CAN收发器

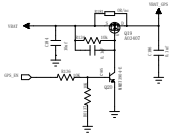


DRAWN: ZhuPingJun	DATE: 2026-10-04	COMPANY: 上海合宙LuatOS
CHECKED: LuXiangcheng	DATE: 2026-10-04	TITLE: Air8606工控大板
APPLIED: LuXiangcheng	DATE: 2026-10-04	CODE: SIZE: A0 DRAWING NO: REV:
RELEASED: LuXiangcheng	DATE: 2026-10-26	SCALE: SHEET: 13OF 14

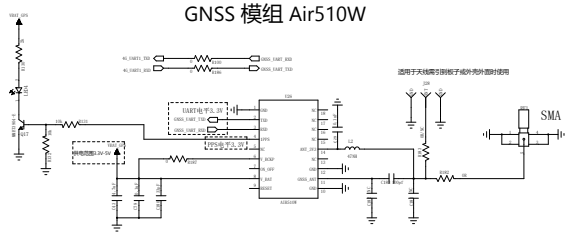
REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

GNSS 定位 功能可选

GNSS 供电



GNSS 模组 Air510W



COMPANY:	上海合宙LuatOS		
TITLE:	Air8606工控大板		
DRAWN: ZhuPingJun	DATE: 2026-10-04	CODE:	SIZE: A0
CHECKED: LuXiangcheng	DATE: 2026-10-04	DRAWING NO:	REV:
APPLIED: LuXiangcheng	DATE: 2026-10-04		
RELEASED: LuXiangcheng	DATE: 2026-10-26	SCALE:	SHEET: 14OF 14