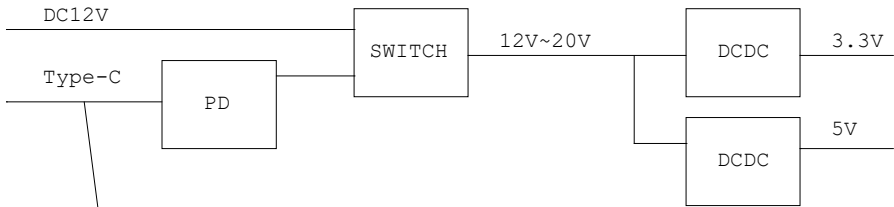
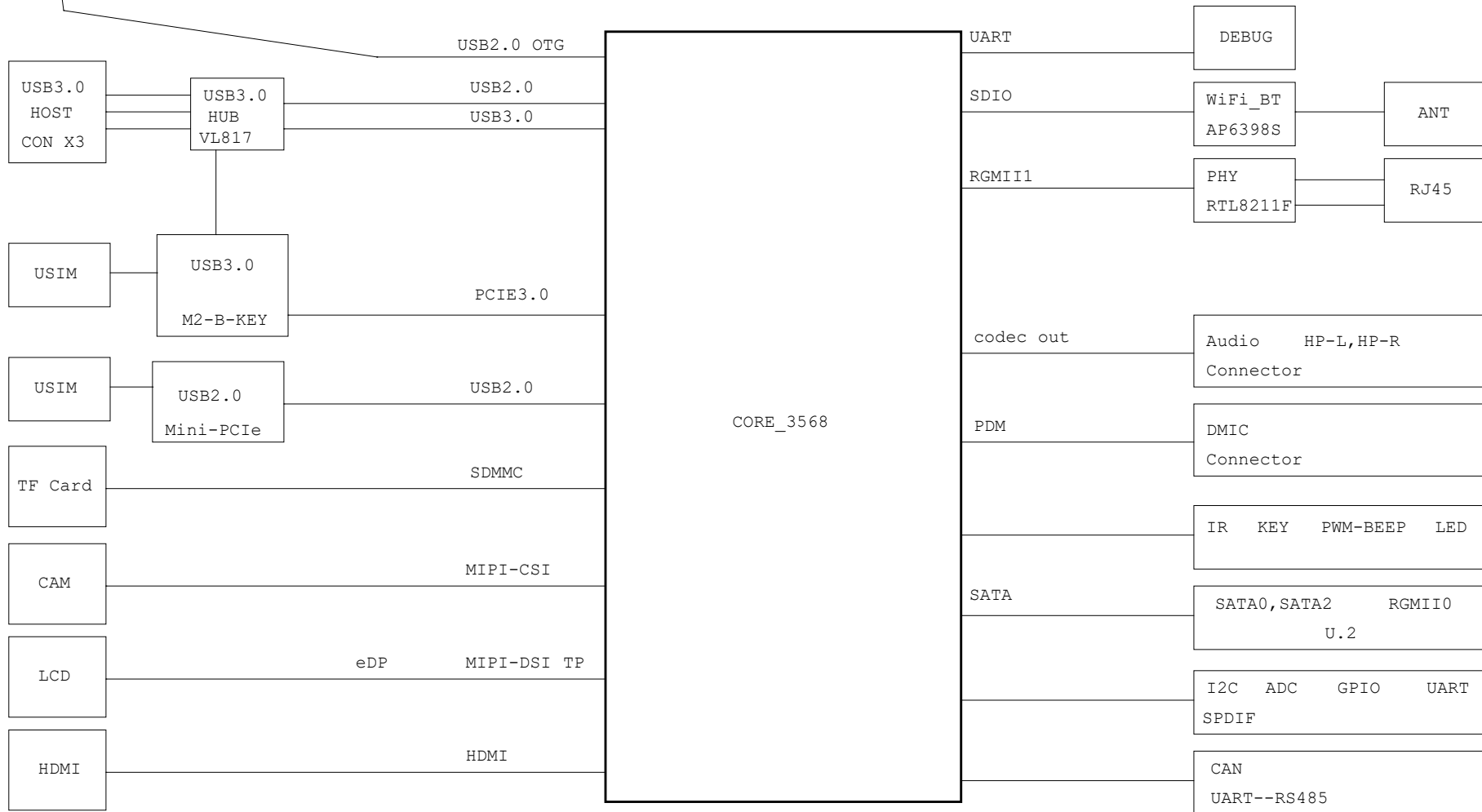


Revision History

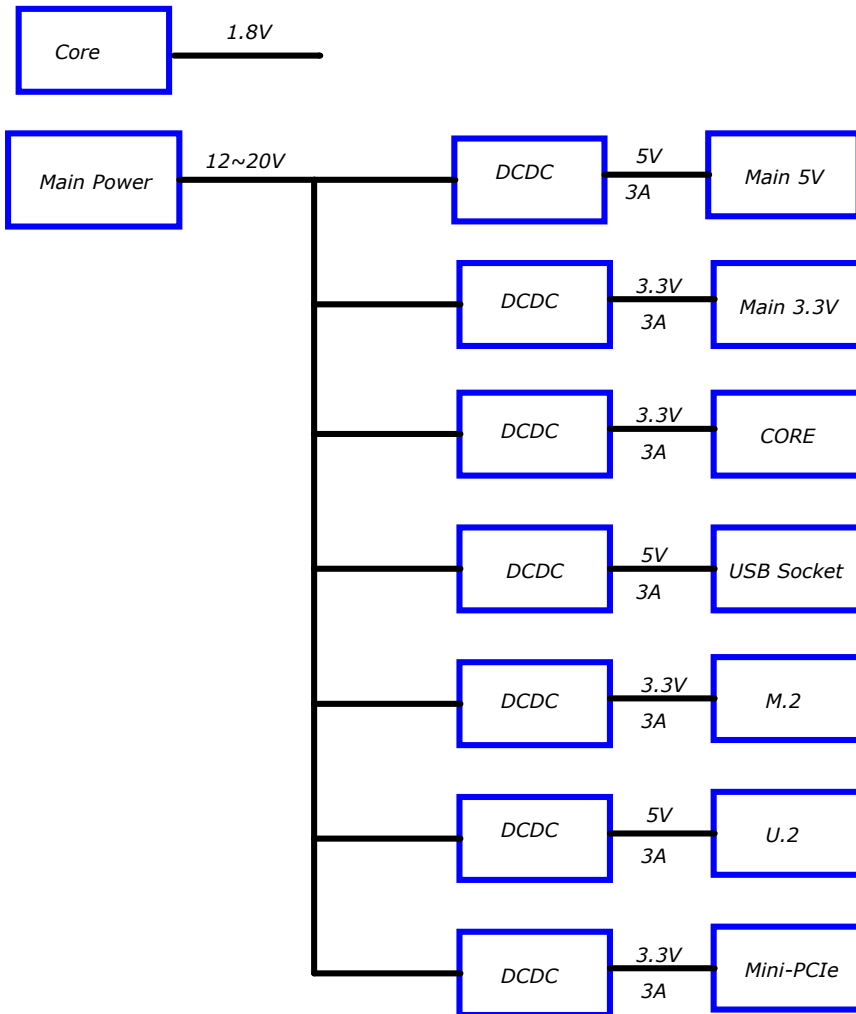
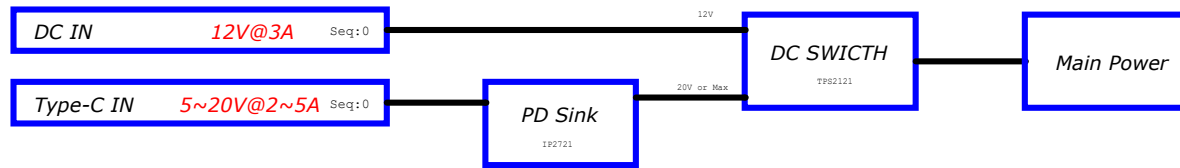
Version	Date	By	Change Description	Approved
V1.0	2021-02-02	Phi	1:Revision preliminary version	
V2.0	2021-07-08	Phi	1TPS2121改成MOS管加保险丝TPS2121价格高涨，更换方案已飞线小板验证 2增加4个螺丝孔，用于固定散热器或风扇，也可用于测试夹具，其中核心板外围避开元件4mm新增散热器，测试夹具需求 3VDC从核心板移到底板用于上电自动开机，其中电压和是否开机启动由底板决定功能不变 4VCC3V3 SYS为常开电源，原来用电再用开关芯片分出供电WIFI模块和RTC，再用开关芯片分出3.3V，用于休眠元件用电 5去掉VCC5V CPU开关限流影响CPU电源响应，加强CPU VDD稳定性飞线验证了 6U2 5V，更换控制IO因休眠唤醒IO调换，mini-PCIE和M.2电压要求，这个开关IO调换IO调换。 7USB-HUB去掉复位芯片IO不够，这个IO没有使用已验证不用IO可用 8 去掉CAM1的复位和使能，更换CAM0复位脚IO不够，有两个摄像头口，这里只用CAM0一个，复位脚更换成1.8V，不用电压转换。 9EDP使用30PIN面板定义兼容多款4K面板定义，2K或4K面板一般只有EDP，1080P用2lanes或LVDS接口 10两个MIPI屏都用一样的接口，共用一路TP，不用背光正常使用有背光，无TP，实际上还是要转，对不到通用屏上去。现在完全与开发板相同。 11蜂鸣器IO与M.2唤醒调换可休眠唤醒IO更换 12更新以太网网线顺序，灯正负极线序第一版有问题，灯正负有问题已飞线验证。休眠唤醒不能搞，休眠时芯片是断电的。 13MIC和SPK偏置与滤波元件放在底板减少核心板面积，在底板可根据外围作调整功能不变 14耳机检测脚更换唤醒和电平需求，调换IO 15蜂鸣器换电阻声音调大飞线验证 16M.2去掉I2C，更换复位IO，更换PCIE差分信号收和发调换，唤醒IO更换I2C没用，复位改成1.8V的 I O，唤醒改成可休眠唤醒的IO，差人线的收和发不对 17M.2电源使用休眠可用IO，同时增加到470uF电容休眠IO不会断电，电容按规格书要求 18天线增加夹线座子共6个天线，6个夹线座子，座子与夹子同面 19mini-pcie增加SIM卡座，输入与输出中断，更换复位电压，电源独立供电且增加470uF电容，引出一个网络灯新增4G要求，增加IO，且可用于休眠唤醒 20更换灯限流电阻，调低亮度蓝灯调暗已飞线验证 21所有贴片座子，更换成插件，2.0间距接线端子座子都放板边 22版本号ADC改成2.0ADC值改成对应第二版 23485光耦电阻改小R352改成1K已飞线验证 24WIFI线序更正D0和D1改正已飞线验证 25.增加8个天线夹子 26.耳机口改成CTIA标准 27.M2的PCIE3.0 2X改成1X+USB3.0，其中从U.2的USB3.0与M.2的USB2.0交换。	
V1.2.0	2021-09-28	Phi	1.更换蜂鸣器IO 2.更新M.2和MiniPCIE定义：去掉飞行模式，去掉中断输入。保留中断输出，按标准和5G模块调整。 3.增加高速复用切换芯片：CBTL02043A，USB与PCIE二选一 4.M.2和MINI-PCIE的复位，时钟，增加上拉，休眠后可用，按规格书做。 5.EDP按现有1080P的屏做调整。只出21an信号。移动空白位置，把剩下的21an也加进来，做线时只需要把有用的线按线序排出，然后空出排线的空白就可以了。 6.加密芯片更换成DX83 7.根据认证测试增加电阻，电容，共模电感。	

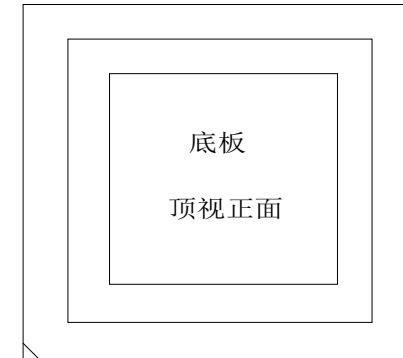
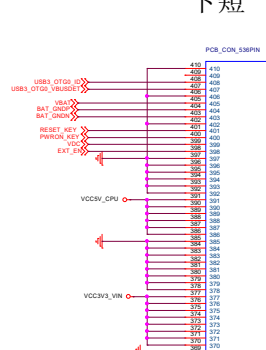
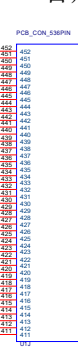
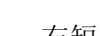
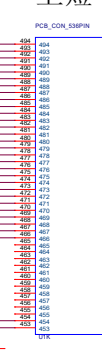
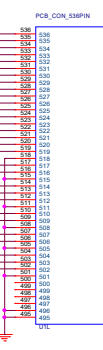
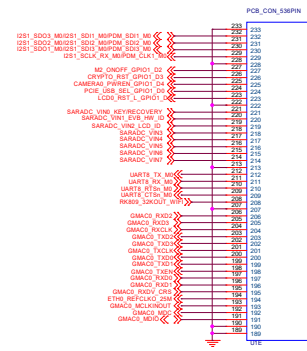
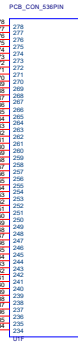
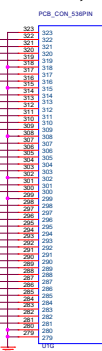
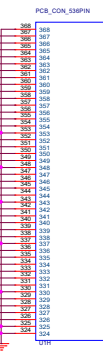
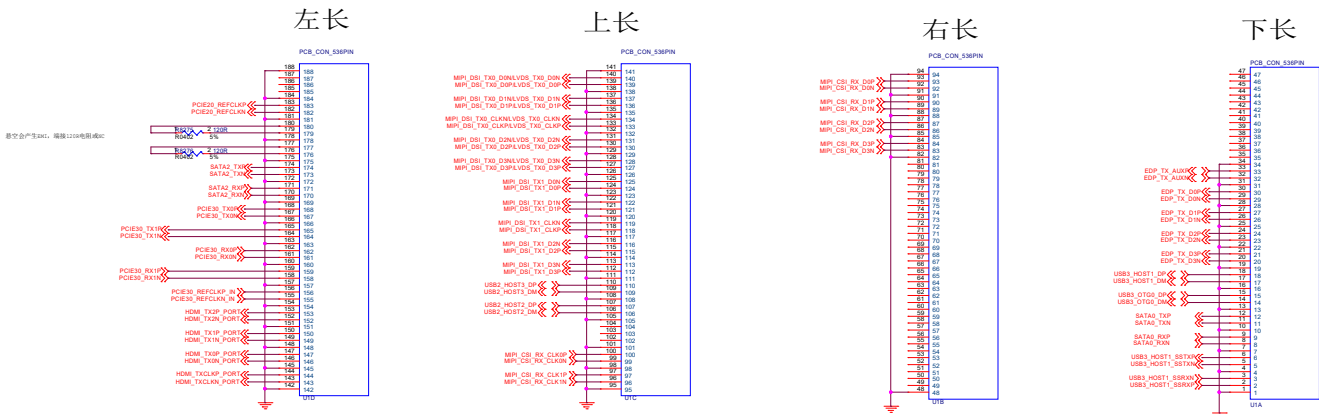


EDGE2



Power Diagram



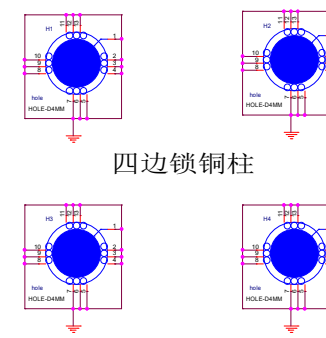


所有位置与核心板相同，但引脚号不同



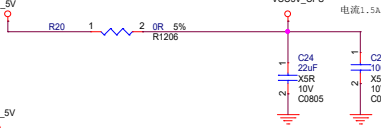
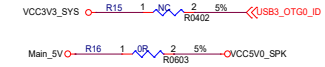
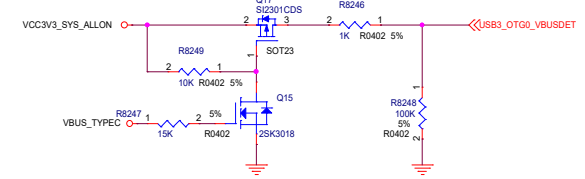
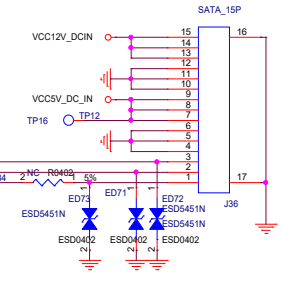
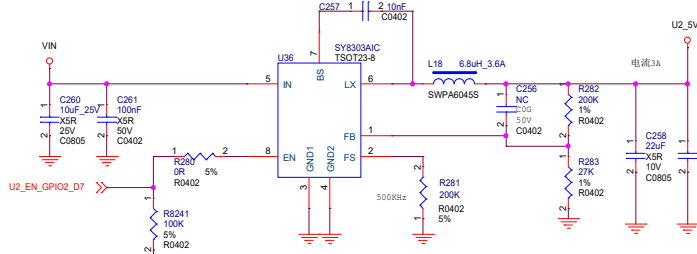
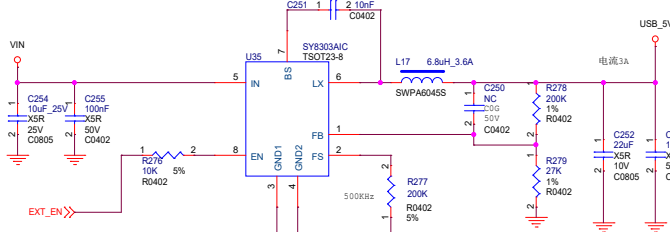
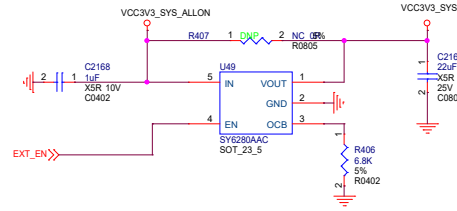
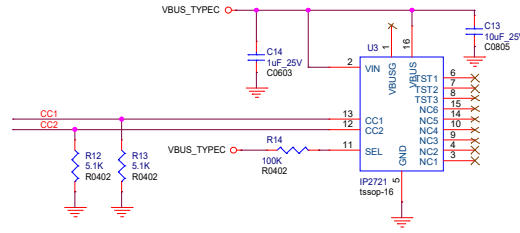
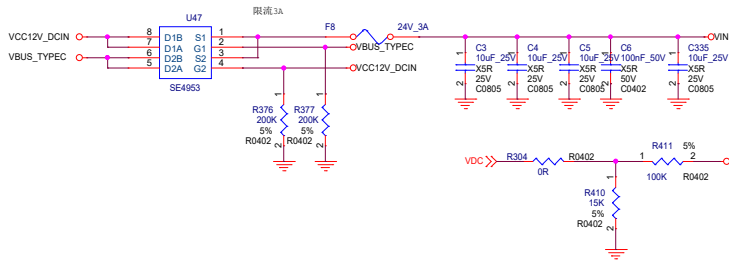
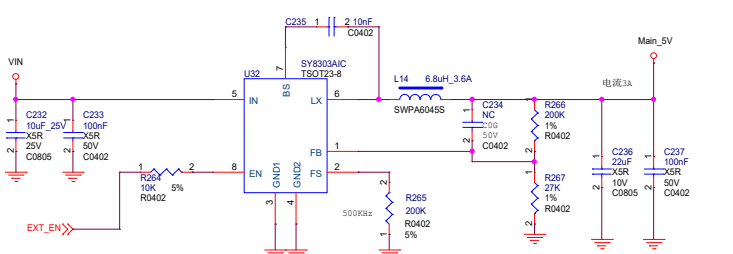
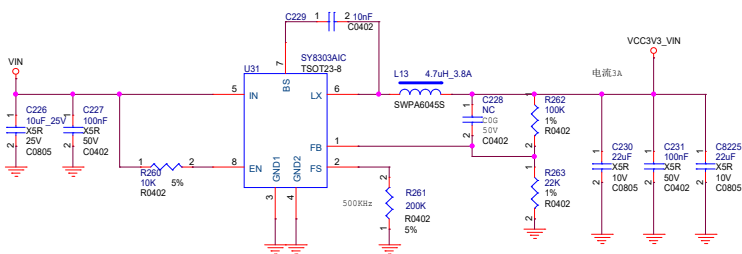
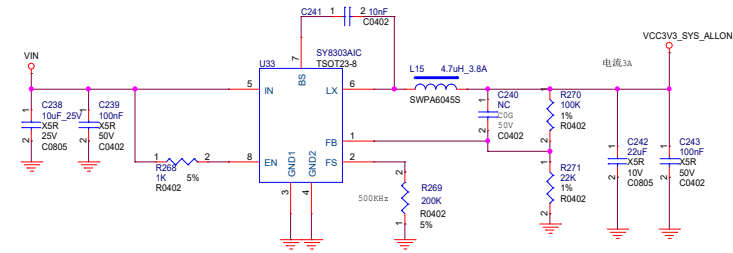
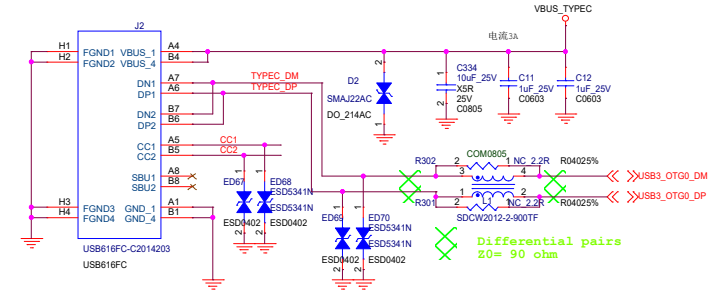
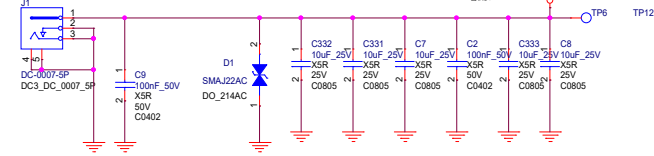
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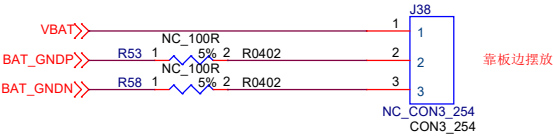
固定风扇或测试架



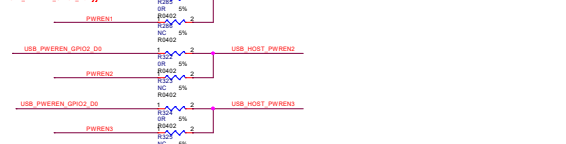
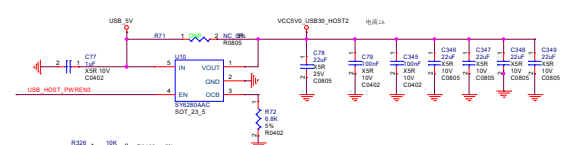
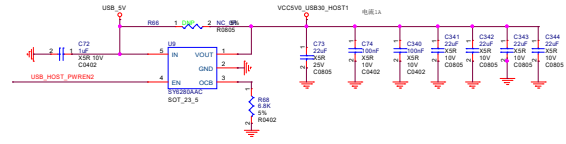
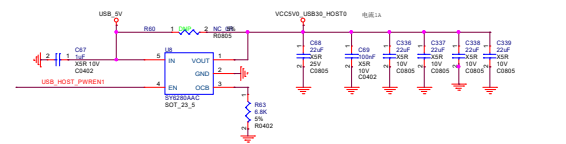
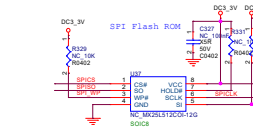
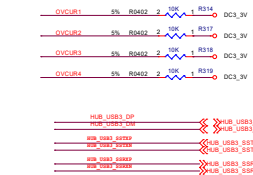
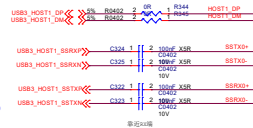
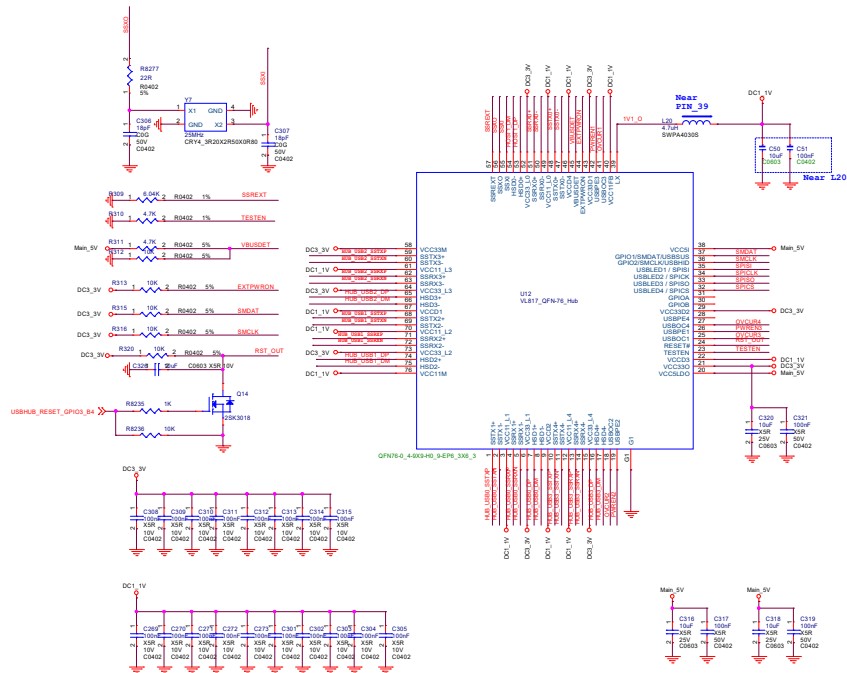
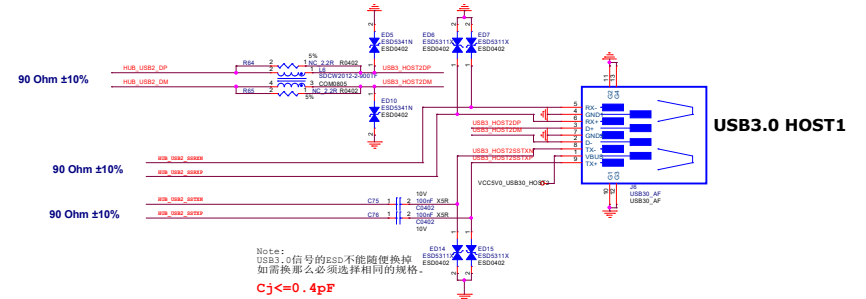
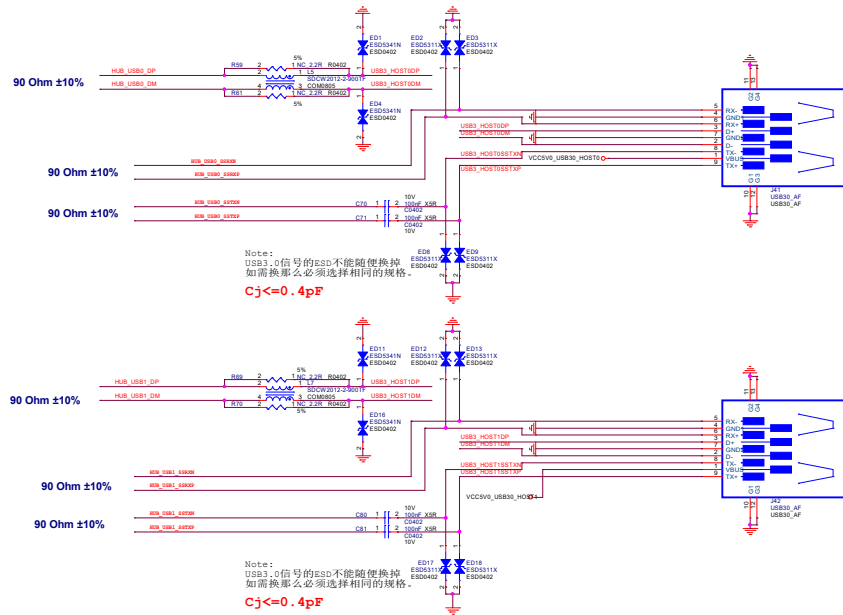
四边锁铜柱

12V/3A DCIN





测试电池电压与电流，用于pxu电量统计，不焊。



MIPI-CSI_RX CON

<< MIPI_CSI_RX_D0P
 << MIPI_CSI_RX_D0N
 << MIPI_CSI_RX_D1P
 << MIPI_CSI_RX_D1N
 << MIPI_CSI_RX_D2P
 << MIPI_CSI_RX_D2N
 << MIPI_CSI_RX_D3P
 << MIPI_CSI_RX_D3N
 << MIPI_CSI_RX_CLK0P
 << MIPI_CSI_RX_CLK0N
 << MIPI_CSI_RX_CLK1P
 << MIPI_CSI_RX_CLK1N

>> CIF_CLKOUT
 >> REFCLK_OUT_CAM
 << >> I2C4_SDA_M0
 << >> I2C4_SCL_M0

>> CAMERA0_PDN_L_GPIO4_B4
 >> CAMERA0_RST_L_GPIO4_B5

>> CAMERA0_PWREN_GPIO1_D4

>> PWM14_M0
 VCCIO5 Domain
 3.3V

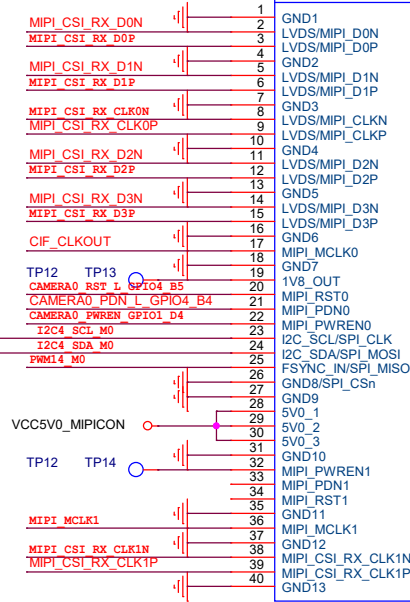
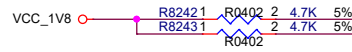
100 Ohm $\pm 10\%$

100 Ohm $\pm 10\%$

100 Ohm $\pm 10\%$

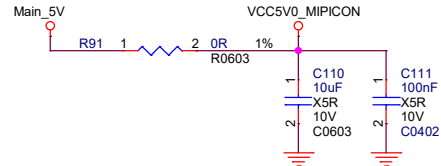
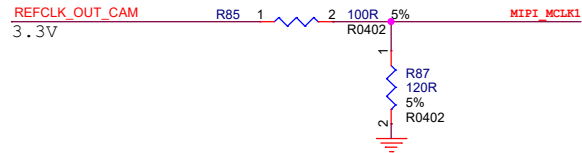
100 Ohm $\pm 10\%$

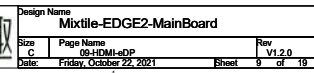
100 Ohm $\pm 10\%$



FPC Pin List

Pin1	:GND	
Pin2	:D0N	
Pin3	:D0P	
Pin4	:GND	
Pin5	:D1N	
Pin6	:D1P	
Pin7	:GND	
Pin8	:CLK0N	
Pin9	:CLK0P	
Pin10	:GND	
Pin11	:D2N	
Pin12	:D2P	
Pin13	:GND	
Pin14	:D3N	
Pin15	:D3P	
Pin16	:GND	
Pin17	:MIPI_MCLK0	1.8V
Pin18	:GND	
Pin19	:1V8_OUT	
Pin20	:MIPI_RST0	1.8V
Pin21	:MIPI_PDN0	1.8V
Pin22	:MIPI_PWREN0	1.8V-3.3V
Pin23	:I2C_SCL	1.8V
Pin24	:I2C_SDA	1.8V
Pin25	:GND/FSYNC_IN	1.8V
Pin26	:GND	
Pin27	:GND	
Pin28	:5V0_IN	
Pin29	:5V0_IN	
Pin30	:5V0_IN	
Pin31	:GND	
Pin32	:MIPI_PWREN1	1.8V-3.3V
Pin33	:MIPI_PDN1	1.8V
Pin34	:MIPI_RST1	1.8V
Pin35	:GND	
Pin36	:MIPI_MCLK1	1.8V
Pin37	:GND	
Pin38	:CLK1N	
Pin39	:CLK1P	
Pin40	:GND	



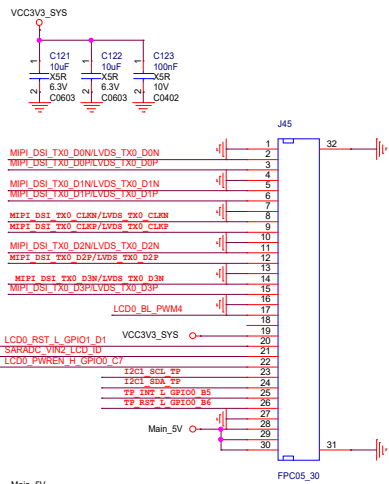


Single-MIPI0 LCM

- >>>MIPI_DSI_TX0_D0PILVDS_TX0_D0P 100 Ohm $\pm 10\%$
- >>>MIPI_DSI_TX0_D0NVLVDS_TX0_D0N 100 Ohm $\pm 10\%$
- >>>MIPI_DSI_TX0_D1PILVDS_TX0_D1P 100 Ohm $\pm 10\%$
- >>>MIPI_DSI_TX0_D1NVLVDS_TX0_D1N 100 Ohm $\pm 10\%$
- >>>MIPI_DSI_TX0_D2PILVDS_TX0_D2P 100 Ohm $\pm 10\%$
- >>>MIPI_DSI_TX0_D2NVLVDS_TX0_D2N 100 Ohm $\pm 10\%$
- >>>MIPI_DSI_TX0_D3PILVDS_TX0_D3P 100 Ohm $\pm 10\%$
- >>>MIPI_DSI_TX0_D3NVLVDS_TX0_D3N 100 Ohm $\pm 10\%$
- >>>MIPI_DSI_TX0_CLKPILVDS_TX0_CLKP 100 Ohm $\pm 10\%$
- >>>MIPI_DSI_TX0_CLKNVLVDS_TX0_CLKN 100 Ohm $\pm 10\%$

- >>>LCD0_BL_PWM4
- >>>LCD0_PWREN_H_GPIO0_C7

- >>>LCD0_RST_L_GPIO1_D1
- >>>SARADC_VIN2_LCD_ID

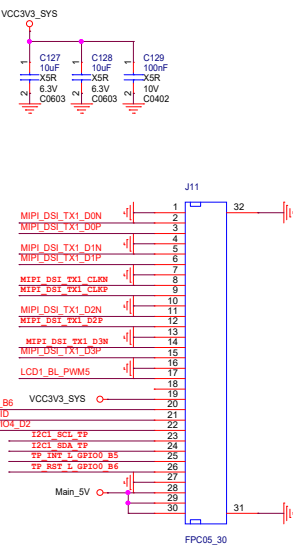
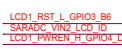


FPC Pin List	
Pin1	:GND
Pin2	:DON
Pin3	:DOP
Pin4	:GND
Pin5	:DIN
Pin6	:DIP
Pin7	:GND
Pin8	:CLKN/AUXN
Pin9	:CLKP/AUXP
Pin10	:GND
Pin11	:D2N
Pin12	:D2P
Pin13	:GND
Pin14	:D3N
Pin15	:D3P
Pin16	:GND
Pin17	:LCD_PWM_BL
Pin18	:LCD_TE
Pin19	:VCC3V3_LCD
Pin20	:LCD_RST
Pin21	:LCD_ID
Pin22	:LCD_PWREN
Pin23	:TP_I2C_SCL
Pin24	:TP_I2C_SDA
Pin25	:TP_INT
Pin26	:TP_RST
Pin27	:GND
Pin28	:5V0
Pin29	:5V0
Pin30	:5V0

Single- MIPI1 LCM

- >>>MIPI_DSI_TX1_D0P 100 Ohm $\pm 10\%$
- >>>MIPI_DSI_TX1_D0N 100 Ohm $\pm 10\%$
- >>>MIPI_DSI_TX1_D1P 100 Ohm $\pm 10\%$
- >>>MIPI_DSI_TX1_D1N 100 Ohm $\pm 10\%$
- >>>MIPI_DSI_TX1_D2P 100 Ohm $\pm 10\%$
- >>>MIPI_DSI_TX1_D2N 100 Ohm $\pm 10\%$
- >>>MIPI_DSI_TX1_D3P 100 Ohm $\pm 10\%$
- >>>MIPI_DSI_TX1_D3N 100 Ohm $\pm 10\%$
- >>>MIPI_DSI_TX1_CLKP 100 Ohm $\pm 10\%$
- >>>MIPI_DSI_TX1_CLKN 100 Ohm $\pm 10\%$

- >>>I2C1_SCL_TP
- >>>I2C1_SDA_TP
- >>>TP_INT_L_GPIO0_B5
- >>>TP_RST_L_GPIO0_B6
- >>>LCD1_BL_PWM5
- >>>LCD1_PWREN_H_GPIO4_D2
- >>>LCD1_RST_L_GPIO3_B6

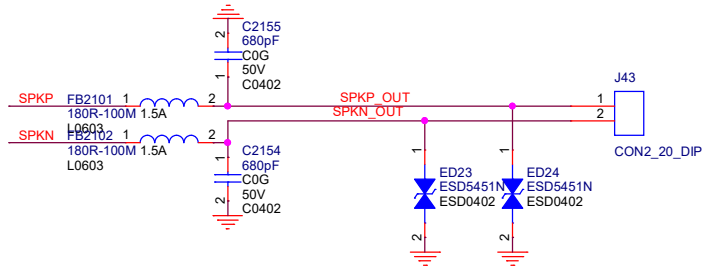


FPC Pin List	
Pin1	:GND
Pin2	:DON
Pin3	:DOP
Pin4	:GND
Pin5	:DIN
Pin6	:DIP
Pin7	:GND
Pin8	:CLKN/AUXN
Pin9	:CLKP/AUXP
Pin10	:GND
Pin11	:D2N
Pin12	:D2P
Pin13	:GND
Pin14	:D3N
Pin15	:D3P
Pin16	:GND
Pin17	:LCD_PWM_BL
Pin18	:LCD_TE
Pin19	:VCC3V3_LCD
Pin20	:LCD_RST
Pin21	:LCD_ID
Pin22	:LCD_PWREN
Pin23	:TP_I2C_SCL
Pin24	:TP_I2C_SDA
Pin25	:TP_INT
Pin26	:TP_RST
Pin27	:GND
Pin28	:5V0
Pin29	:5V0
Pin30	:5V0

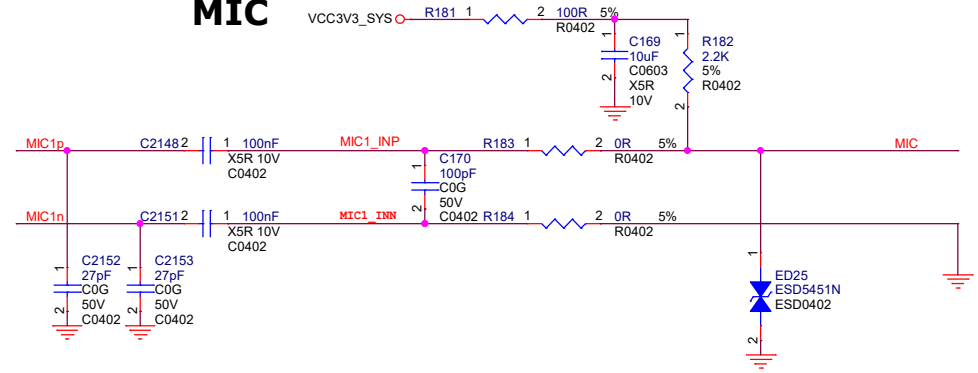
>>>HPL_OUT
 >>>HP_SNS
 >>>HPR_OUT
 >>>SPKN
 >>>SPKP
 <<<MIC1p
 <<<MIC1n

SPK

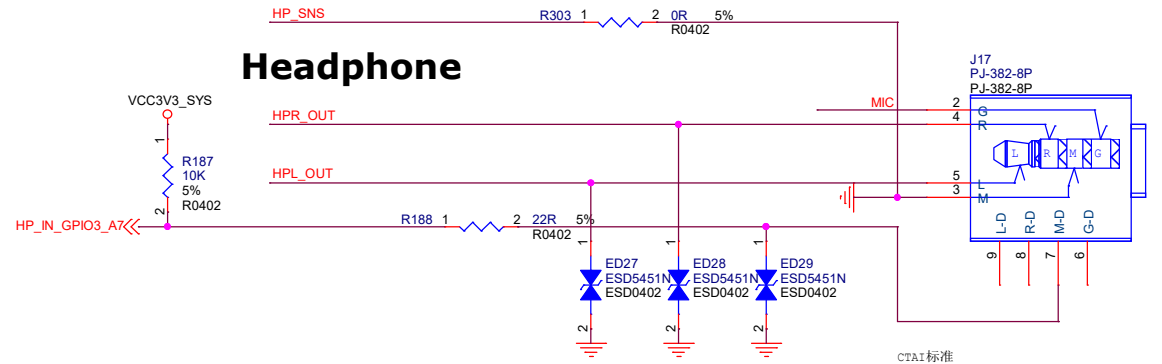
Note:8ohm/1.3W
Speaker Output



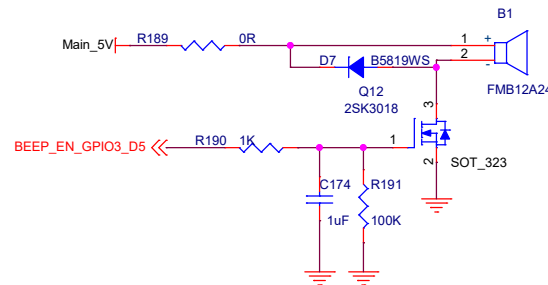
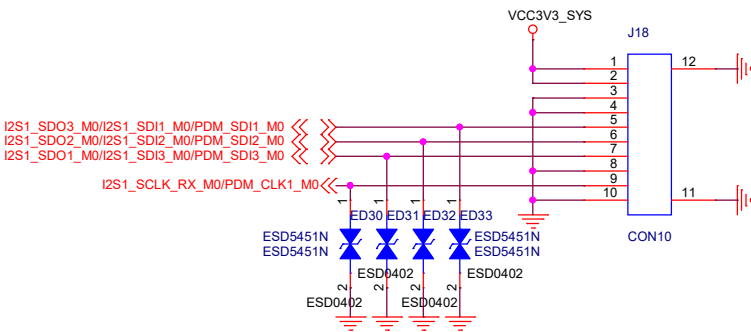
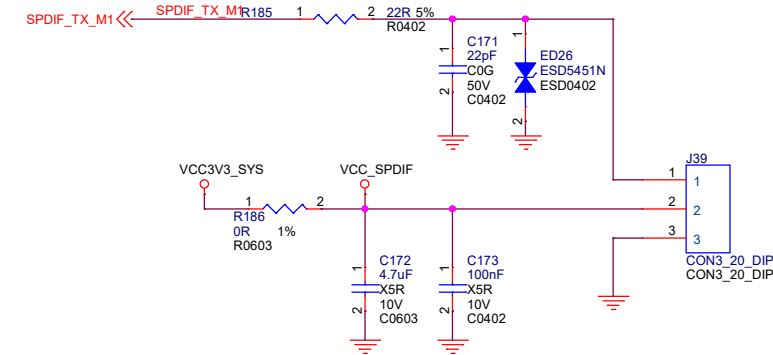
MIC



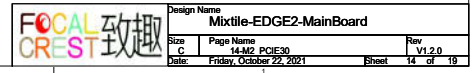
Headphone



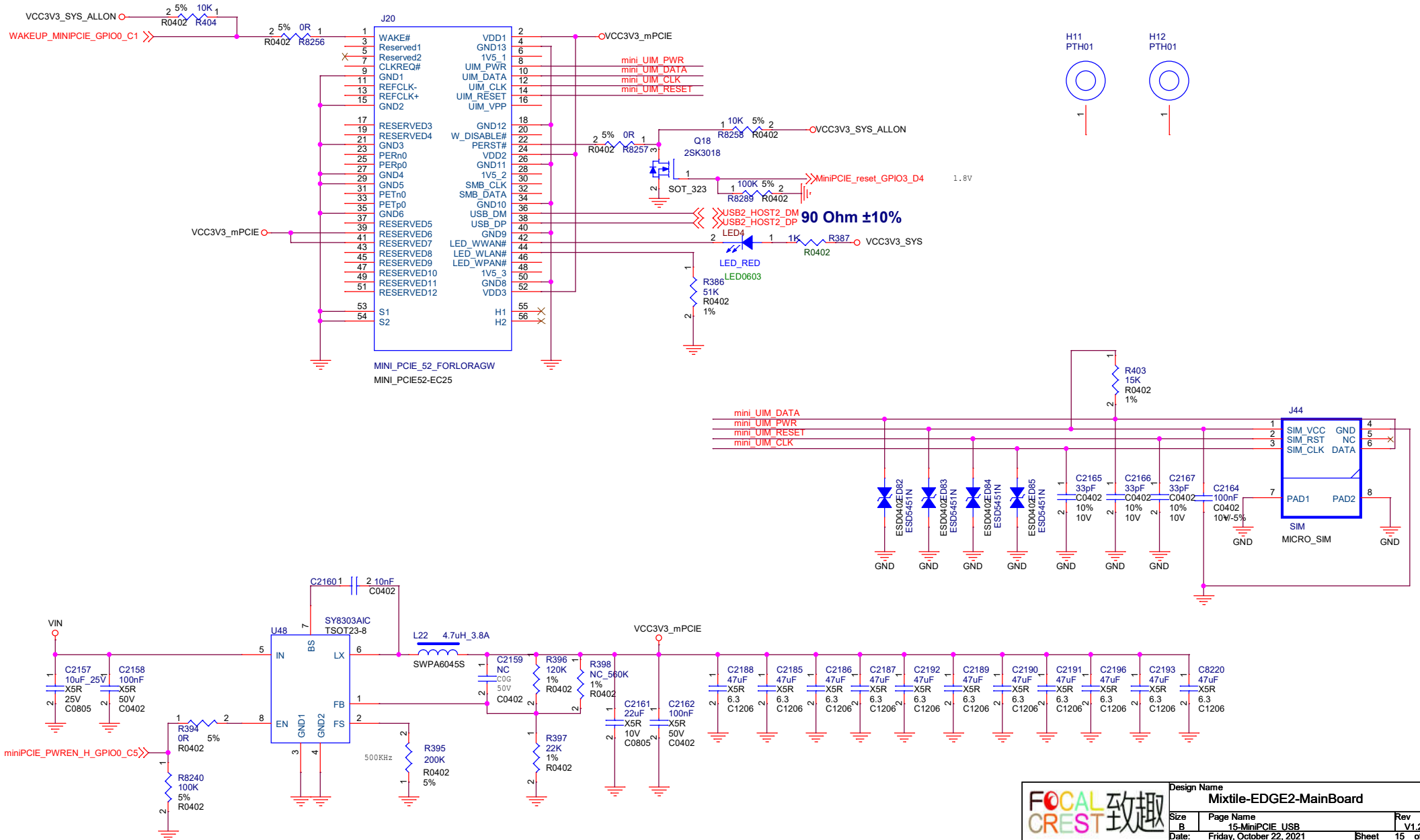
CTAI标准



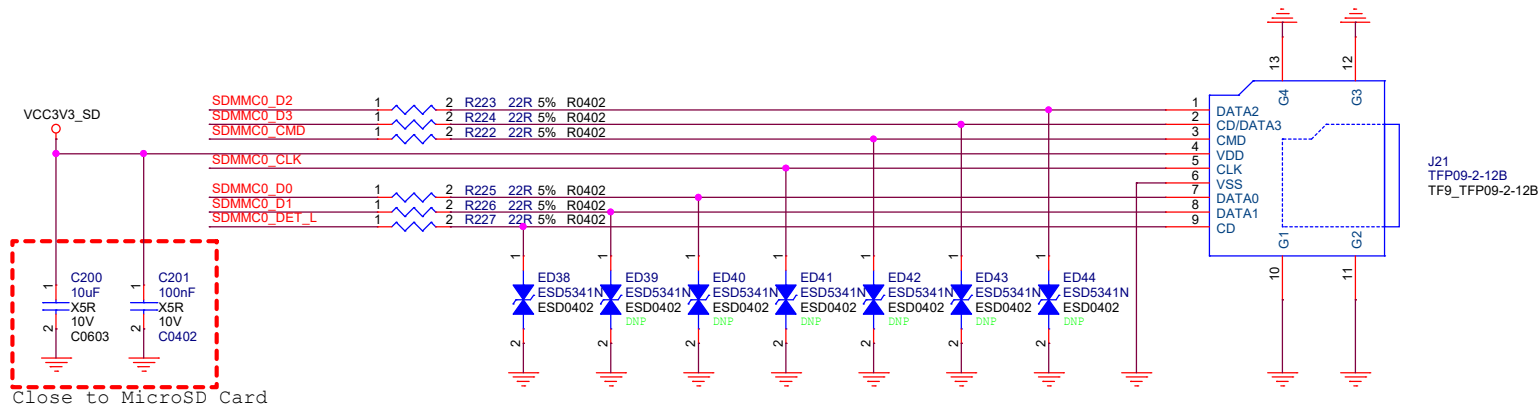
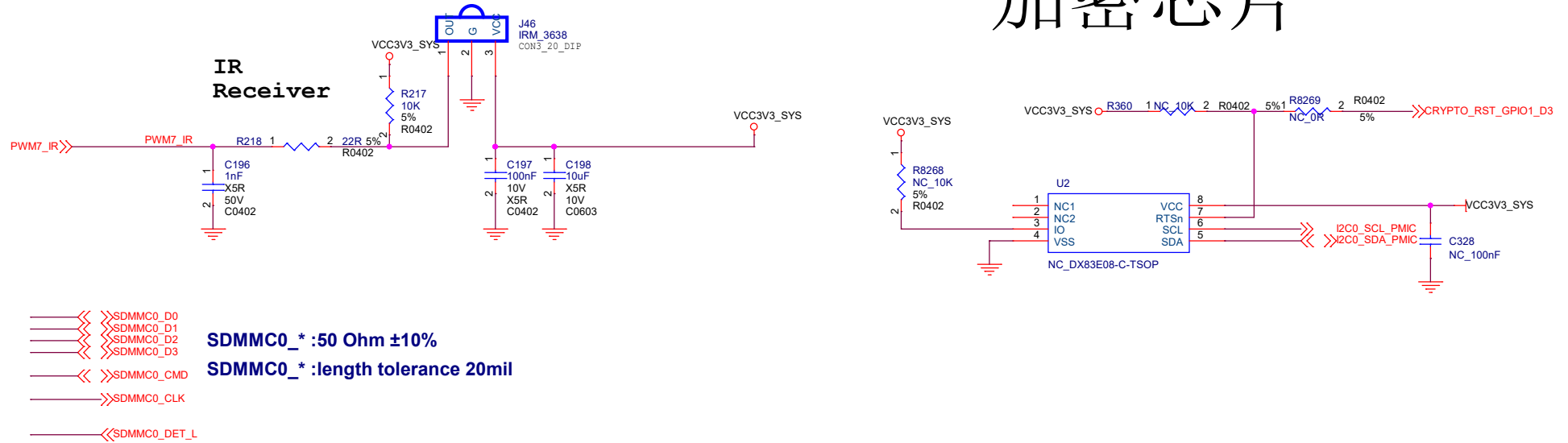
FOCAL CREST 致趣		Design Name	
		Mixtile-EDGE2-MainBoard	
Size	B	Page Name	13-Audio
Date:	Friday, October 22, 2021	Rev	V1.2.0
		Sheet	13 of 19



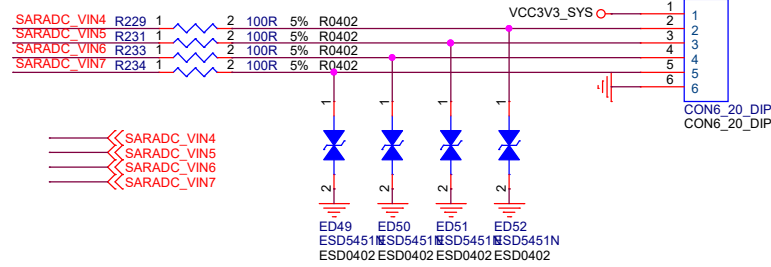
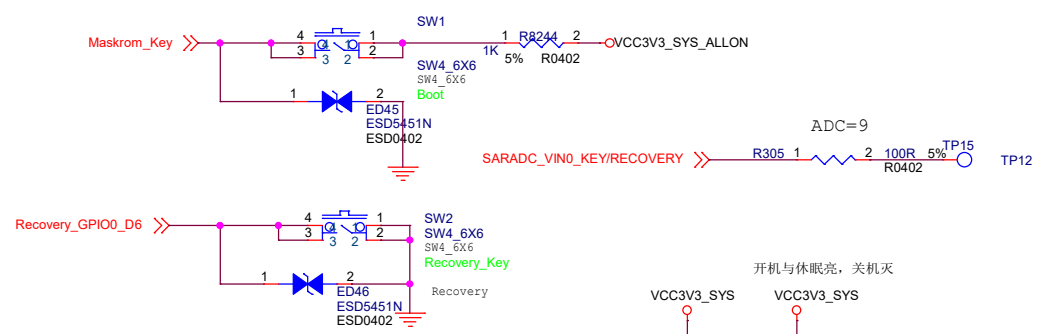
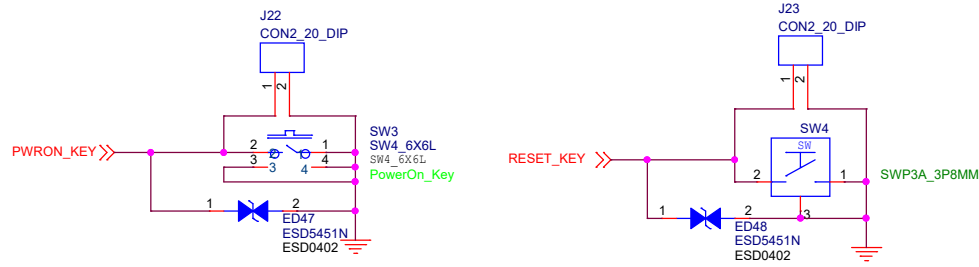
MiniPCIE



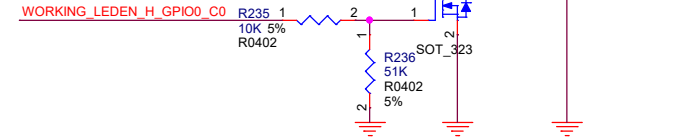
加密芯片



MicroSD Card



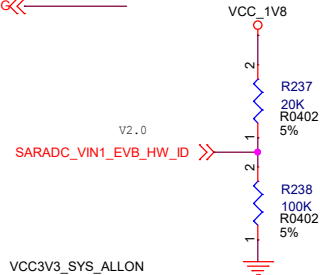
Working LED



I2C3_SCL_M0
I2C3_SDA_M0

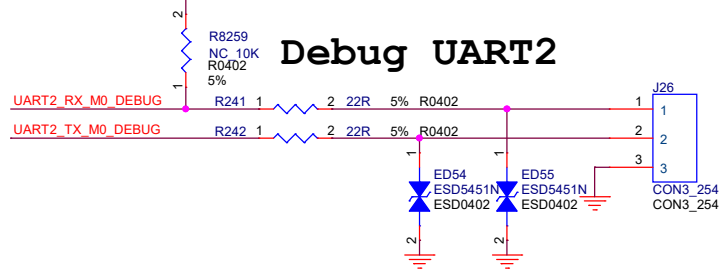
WORKING_LEDEN_H_GPIO0_C0

UART2_RX_M0_DEBUG
UART2_TX_M0_DEBUG

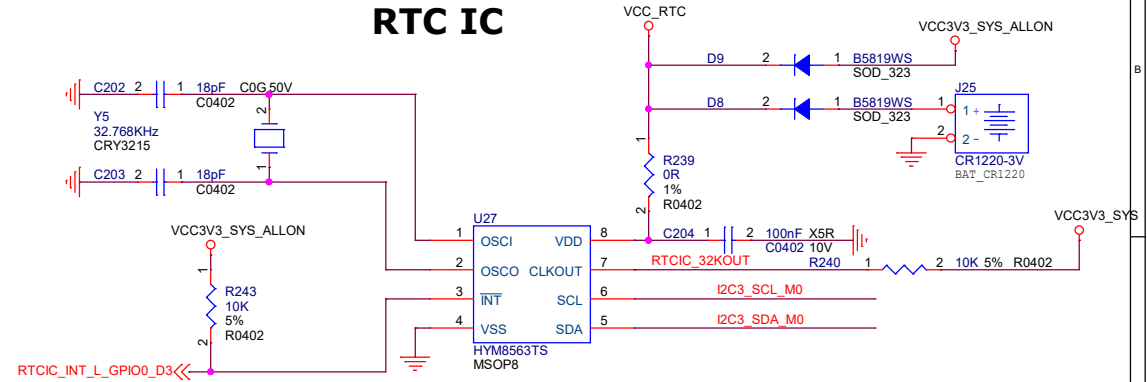


SARADC_VIN1_EVB_HW_ID	Rup	Rdown	ADC
EVB1	10K	DNP	1023
EVB2	20K	100K	852
EVB3	10K	20K	681
EVB4	51K	51K	512
EVB5	20K	10K	340
EVB6	100K	20K	170
EVB7	DNP	10K	0
EVB8			

Debug UART2

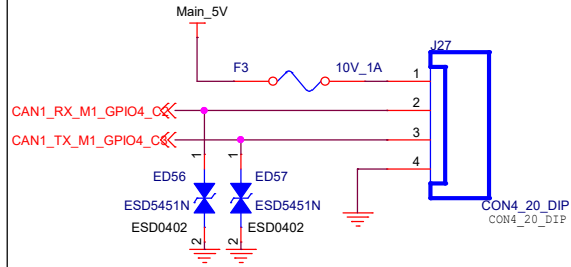


RTC IC

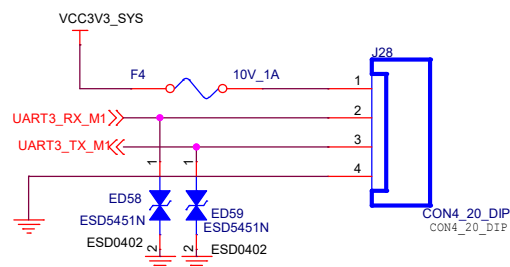


Address:Read A3H,Write A2H

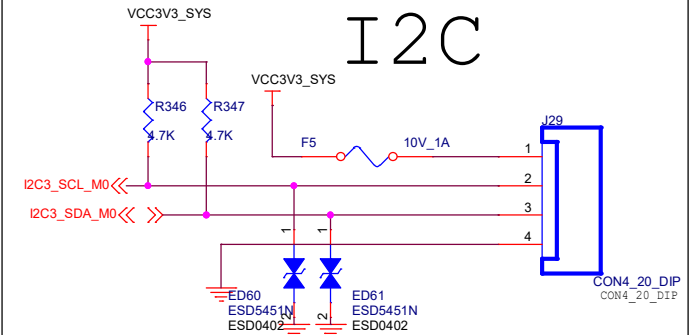
CAN



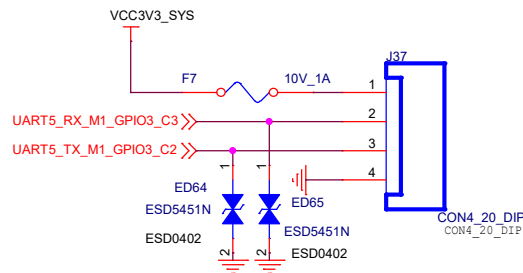
TTL



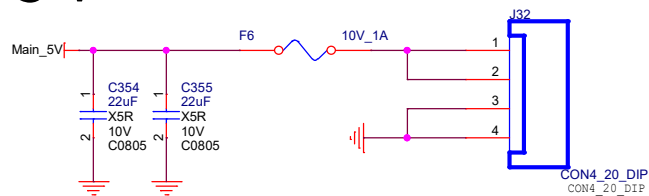
I2C



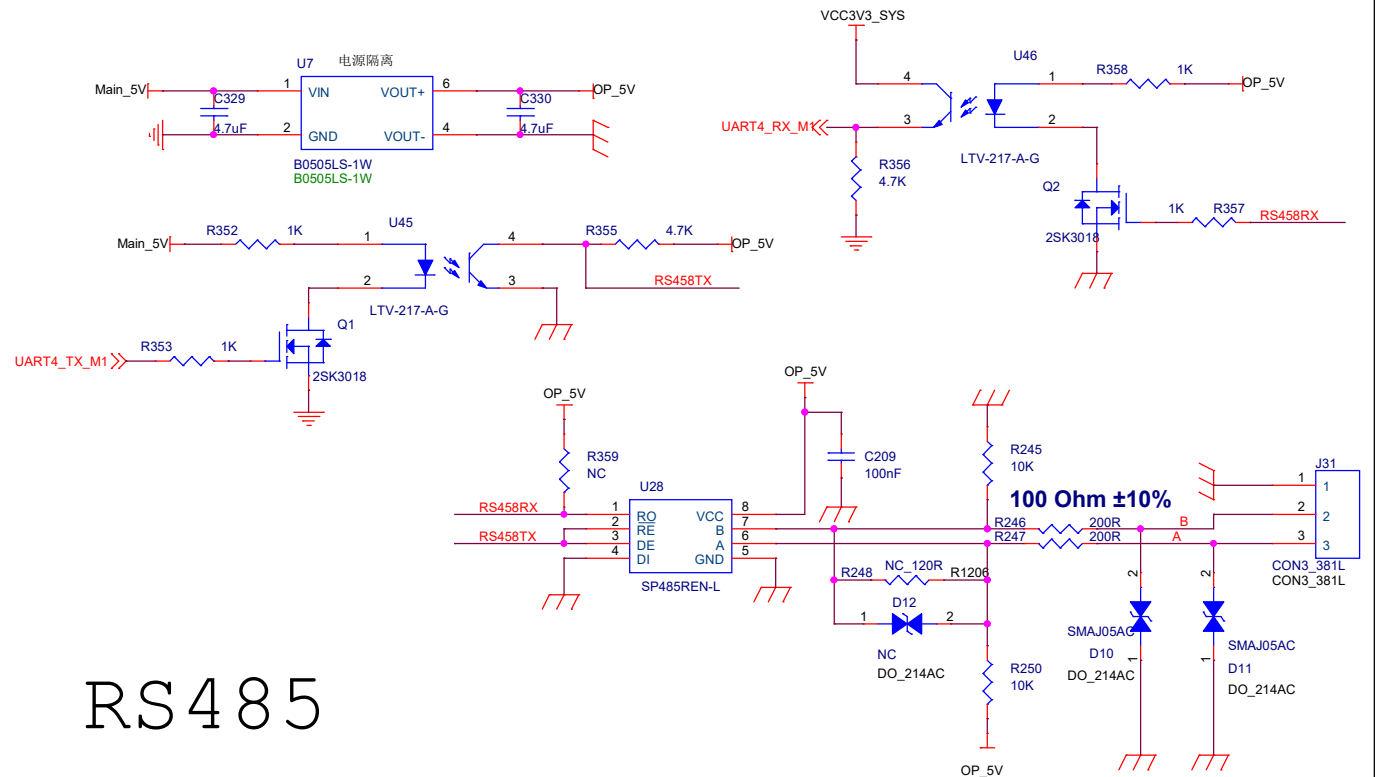
UART5



5V



RS485



设备端使用U.2 PLUG

