PCB Layout Information

项目名称：	吉利ZCU_R技术研发项目		
项目编号：	AP238018	项目经理：	王雅琨 张红玲
LAYOUT工程师：	董慧	应用工程师：	余康/冯文基/李森

输入信息：
Input Information:

输入时间： Input Time:	2023-11-27	PCB ERP Number:	825503205
原理图名称： Shematics Name :	825503205_ZCU_SCH.DSN	版本： Version:	V1.1A
DXF文件名称： DXF File Name:	825503205_ZCU_PCB限位图.dxf	DXF状态： DXF State:	已确认
PCB层数： PCB Layer Number:	6 Layers	PCB基材： PCB Base Material:	FR4
表面处理： Surface Handing:	HASL	板厚： Thickness:	1.6mm+/-0.14
外层铜厚： Finished Copper Thickness:	50um	1和2层间距： Layer1 to Layer2 :	0.16mm
2和3层间距： Layer2 to Layer3 :	0.5mm	3和4层间距： Layer3 to Layer4 :	0.24mm
其他要求： Other :	-		

输出信息：
Output Information:

LAYOUT文件名称： LAYOUT File Name:	82XXXXXXX_BBB_Layout.brd	版本： Version:	V1.1
DXF文件名称： DXF File Name:	82XXXXXXX_BBB_PCB2D.dxf		
emp/emn文件名称： emp/emn File Name:	82XXXXXXX_BBB_PCB3D.emn/emp	注意：导出三维信息时， 输入和输出文件都应为英文字符，否则不能正确生成。	
Gerber文件名称： Gerber File Name:	TOP.art GND.art PWR.art BOT.art Soldermask_Top.art Soldermask_Bot.art Silkscreen_Top.art Silkscreen_Bot.art Assembly_Top.art Assembly_Bot.art Drill_Dimention.art Drill_Dimention.pdf		
Drill文件名称： Drill File Name:	Ger_Con_Drill.drl		
Route文件名称： Route File Name:	Ger_Con_Route.rou	注意：如果PCB上有异形孔，请生成ROUTE文件。	
其他输出： Other :	-		

需要注意的问题：
Need to Attention ！：

敏感信号线： Sensitive Signal Line:	XXXXXXXXXXXXXXXXXXXXXXXXX。
易干扰信号线： Interference Signal Line:	XXXXXXXXXXXXXXXXXXXXXXXXX。
射频信号线： RF Signal Line:	XXXXXXXXXXXXXXXXXXXXXXXXX。
等长信号线： Same Delay Signal Line :	XXXXXXXXXXXXXXXXXXXXXXXXX。
差分对： Differetial Signal Line:	XXXXXXXXXXXXXXXXXXXXXXXXX。
大电流： High Current:	XXXXXXXXXXXXXXXXXXXXXXXXX。
其他： Other :	
其他： Other :	

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其他详见原理图内部信息。
如有未尽事宜，请和应用工程师沟通。

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Size	Designer / Date	Check / Date	Confirm / Date
	Kang.Yu/2023.11.15	Jianwei.Yao/2023.11.15	Qinghua.Diao/2023.11.15

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Debug Information

位号	网络名称	描述
DP4000	UBD3	Power_Exterior Light3
DP4001	GND	GND
DP4002	GND	GND
DP4003	GND	GND
DP4004	UBD1	Power_Window
DP4005	UBD4	Power_Seat
DP4006	UBD5	Power_Cinch
DP4007	UBD2	Power_Exterior Light2
DP4008	UB-PR	12V Logic Power
DP4009	VCC5V0	5V Logic Power
DP4010	VCC1V5	1.5V Logic Power

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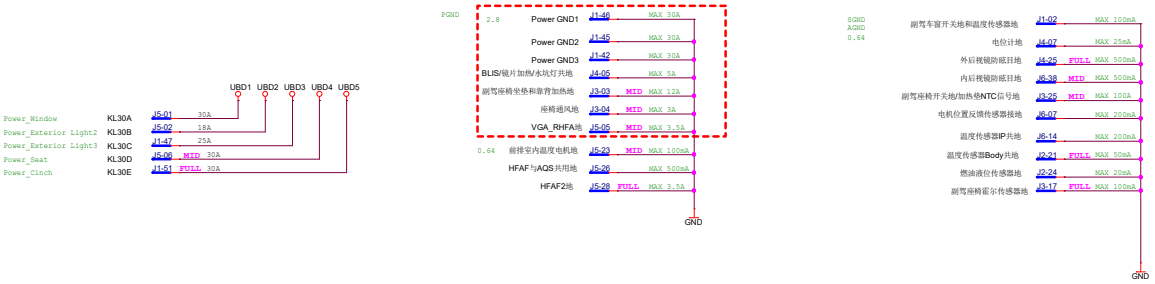
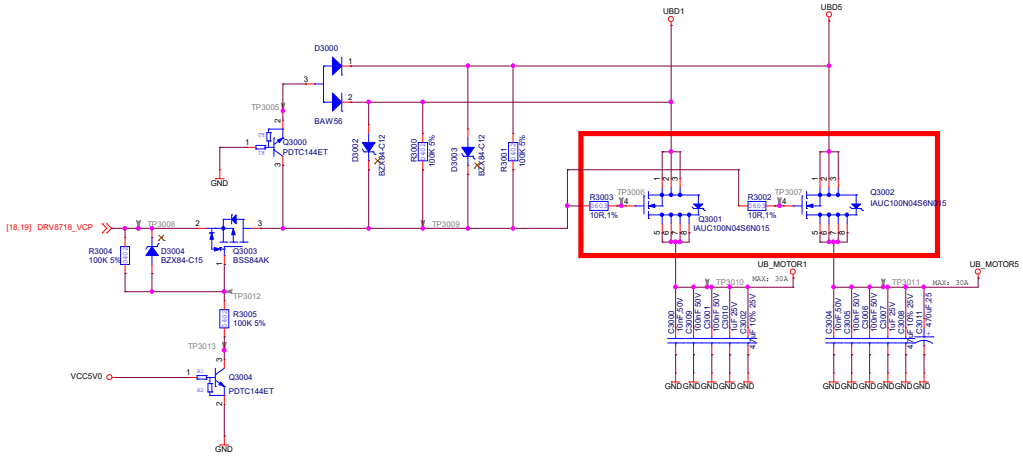
电源&地

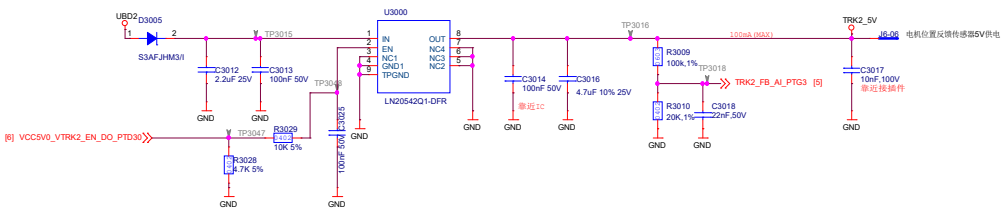
PCB
825503205



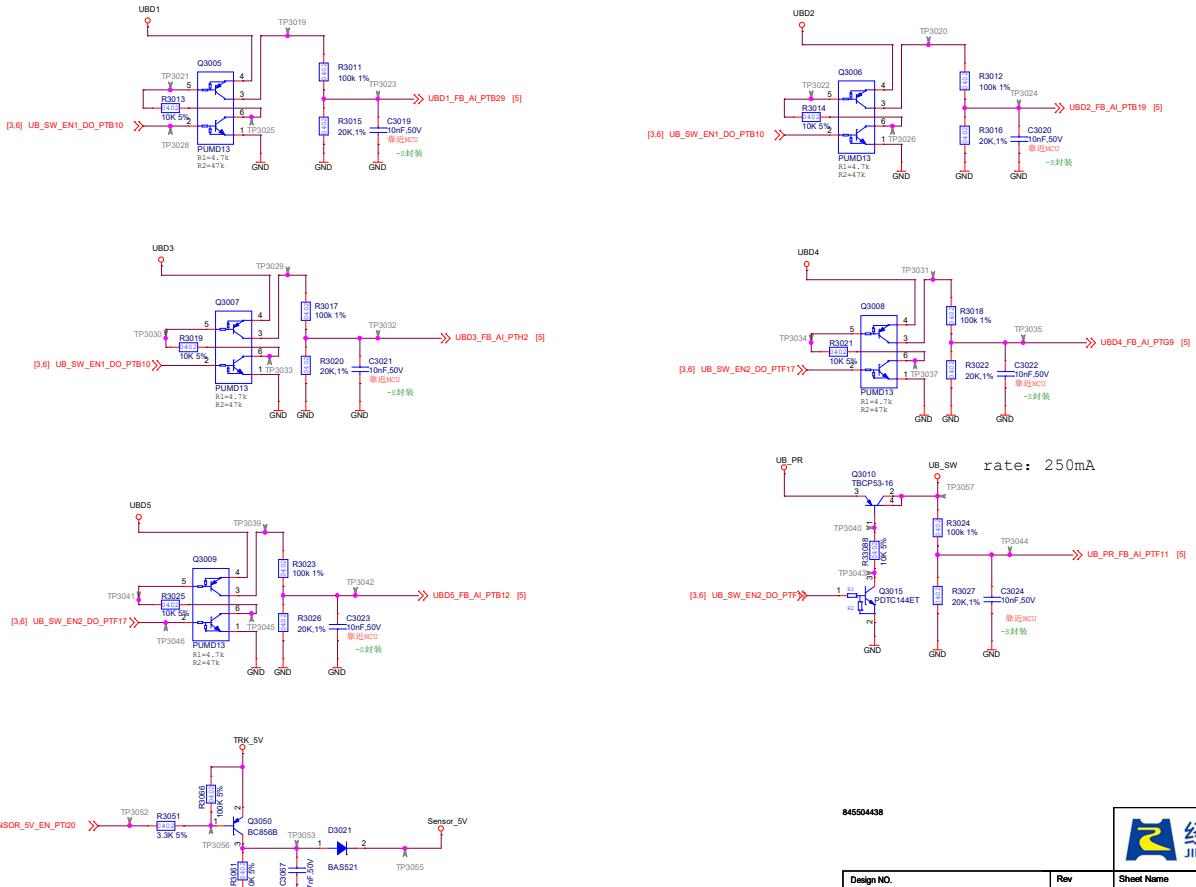
功率防反



TRK_5V



电源监控



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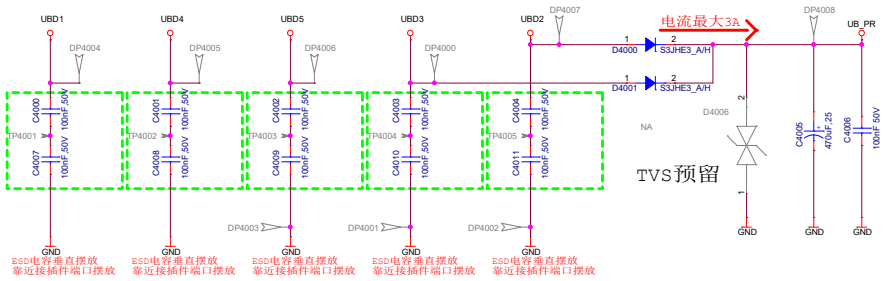

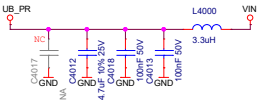

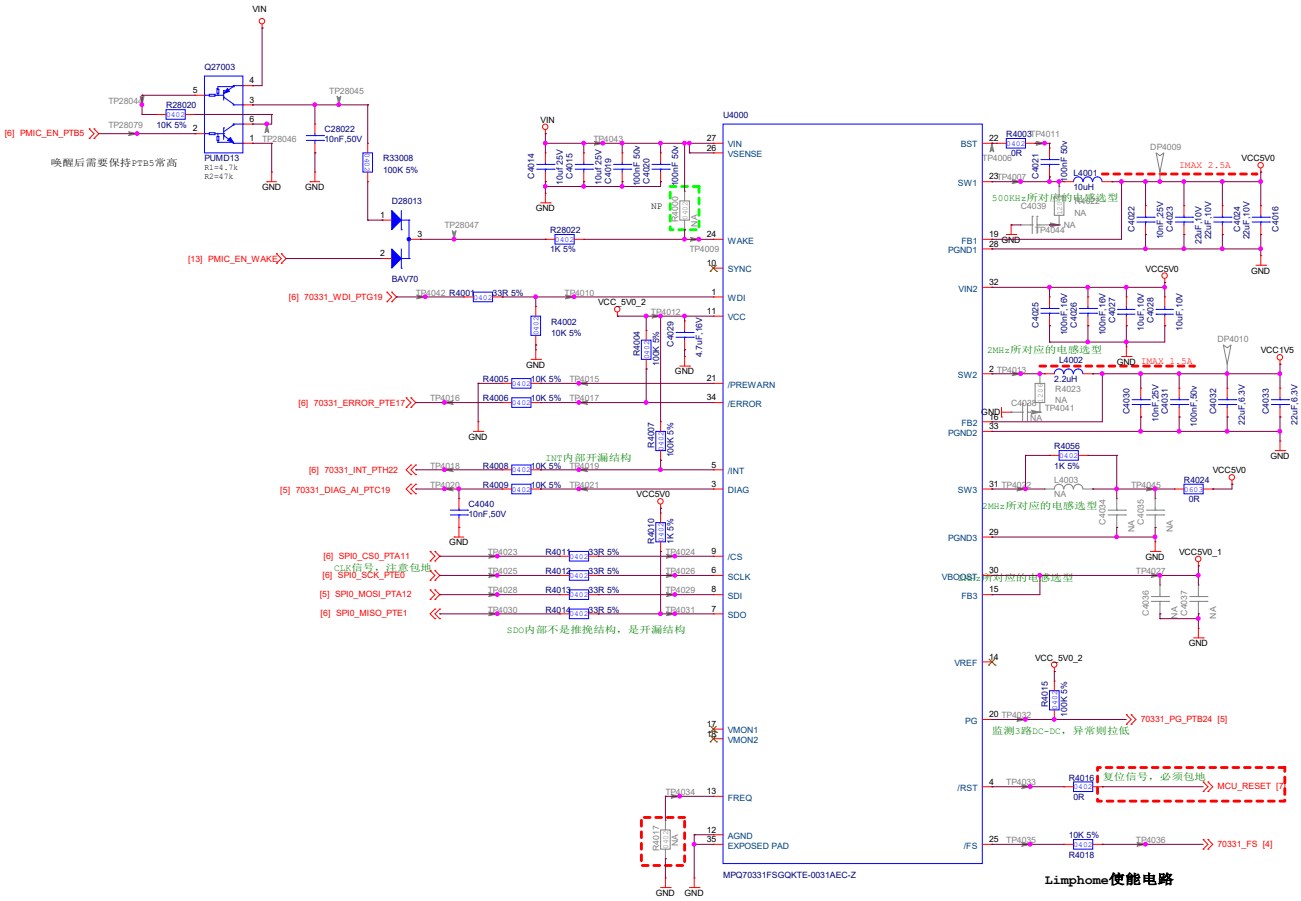

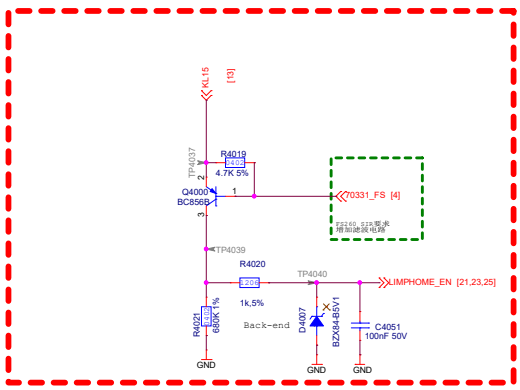

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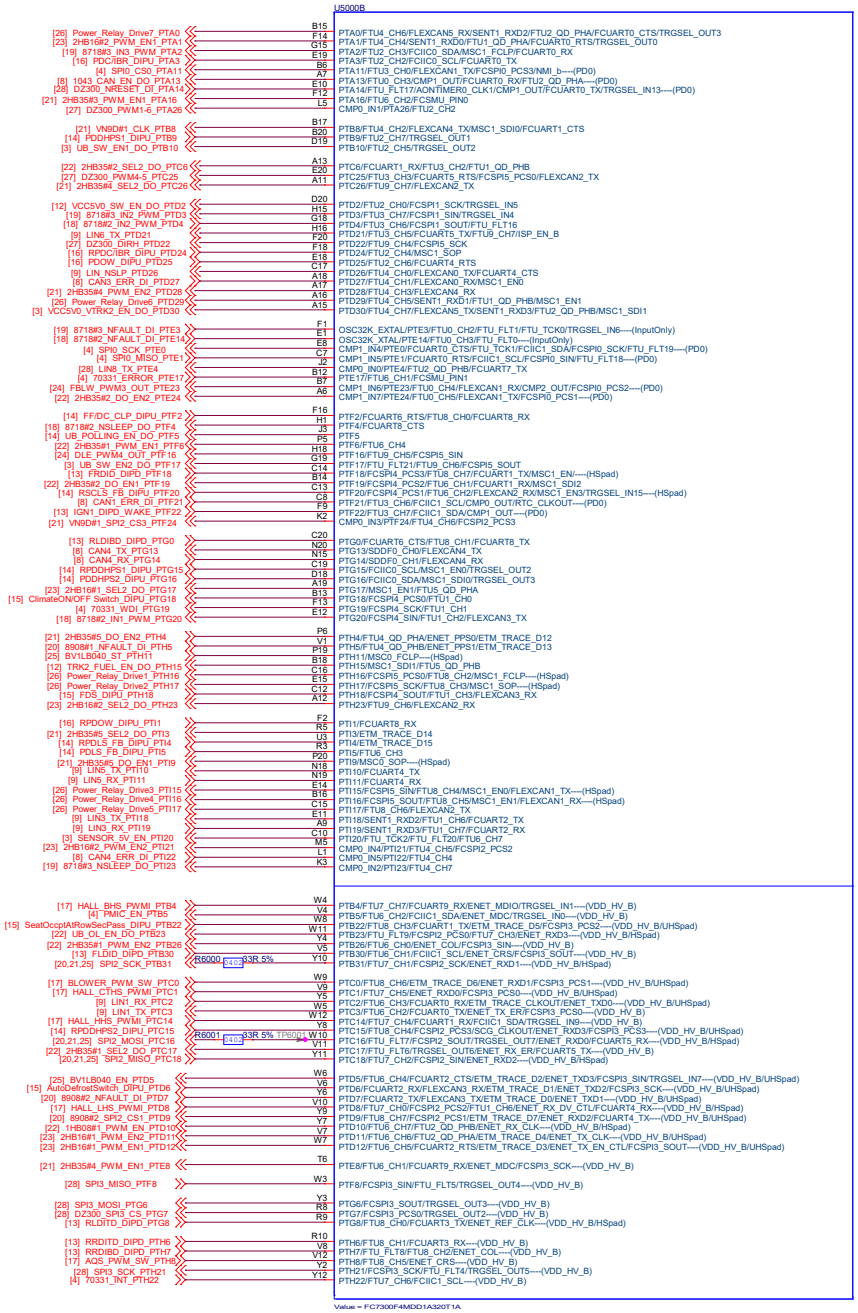

MCU 32bit FC7300F4MDD1A320T1A 2*M7 BGA320 300MHz 4MB flash ASIL-D

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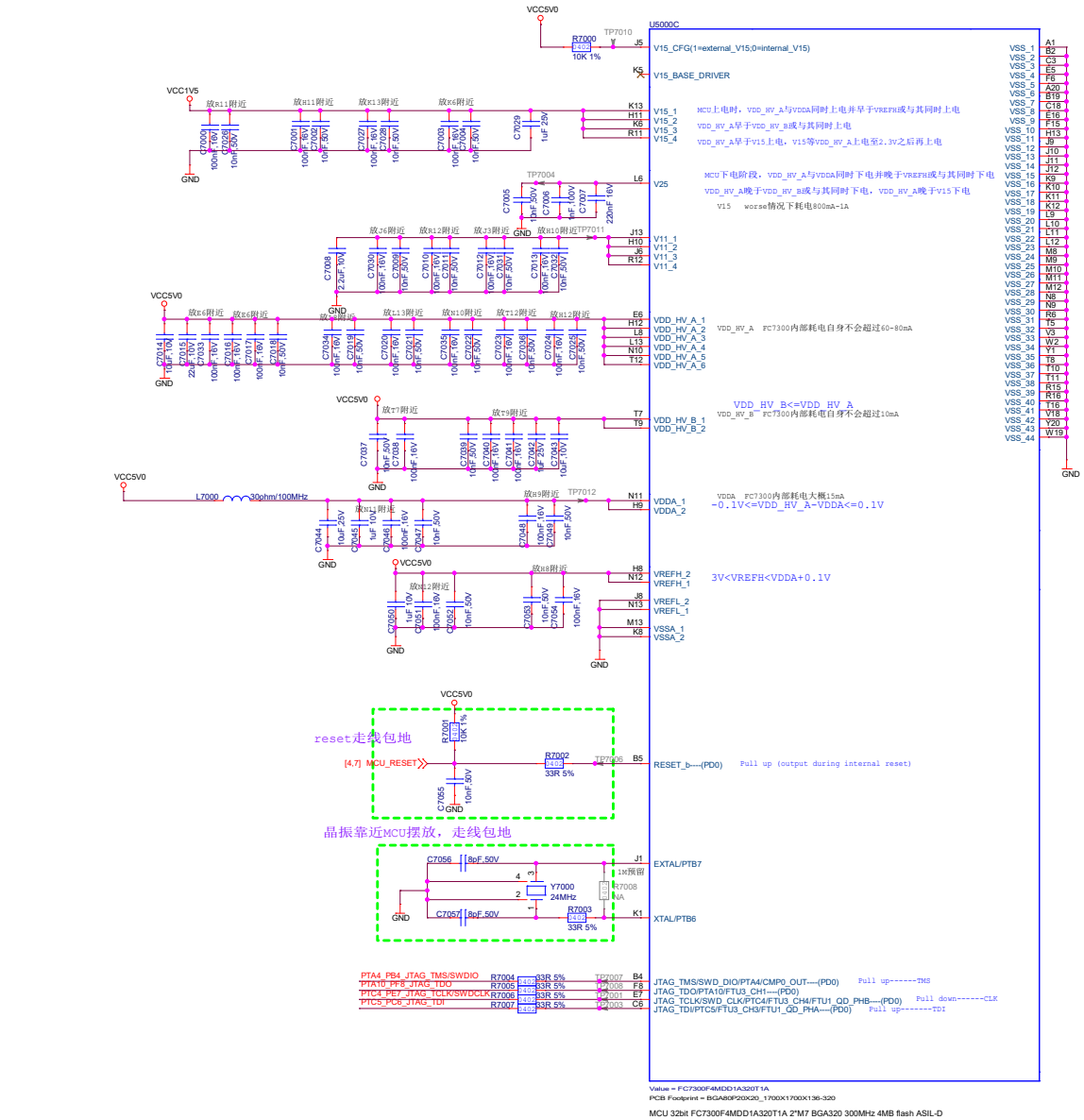

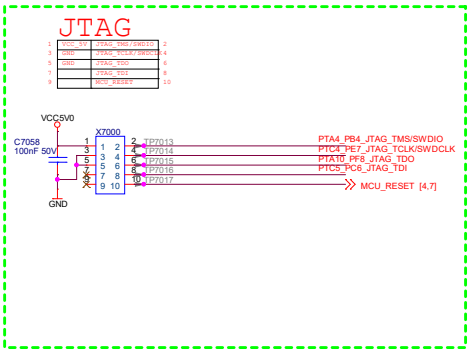

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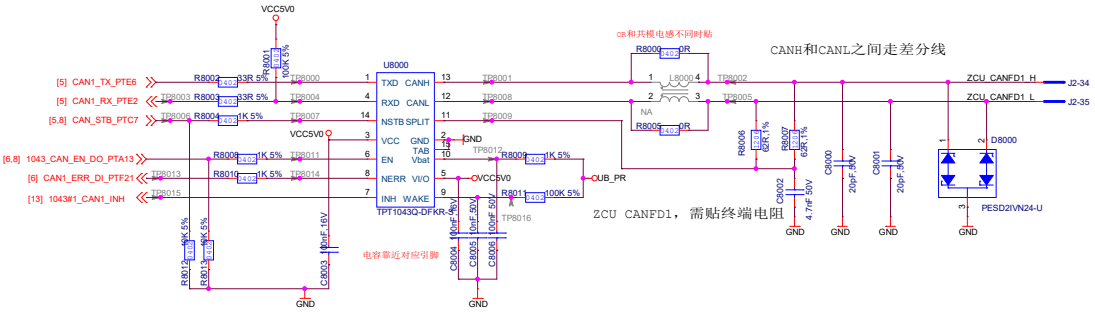

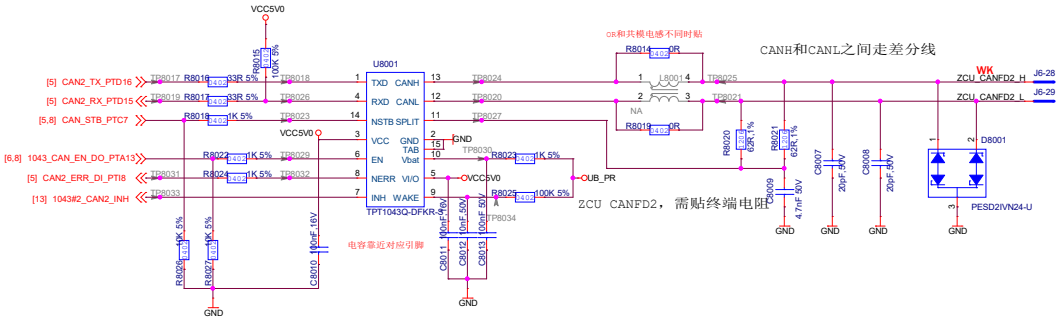

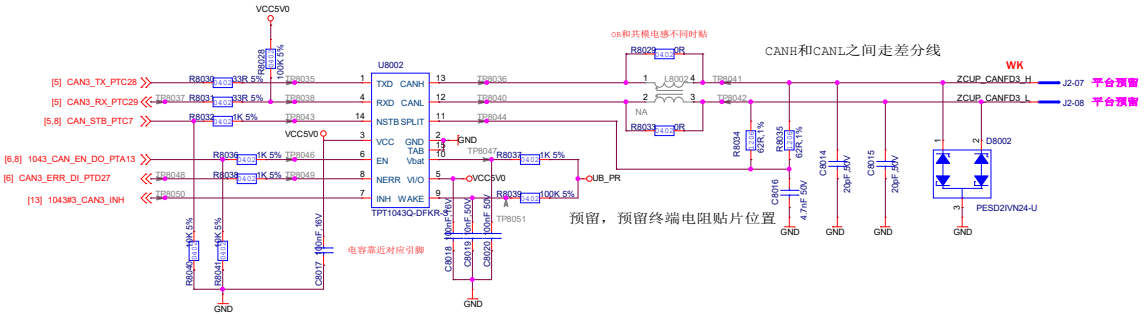

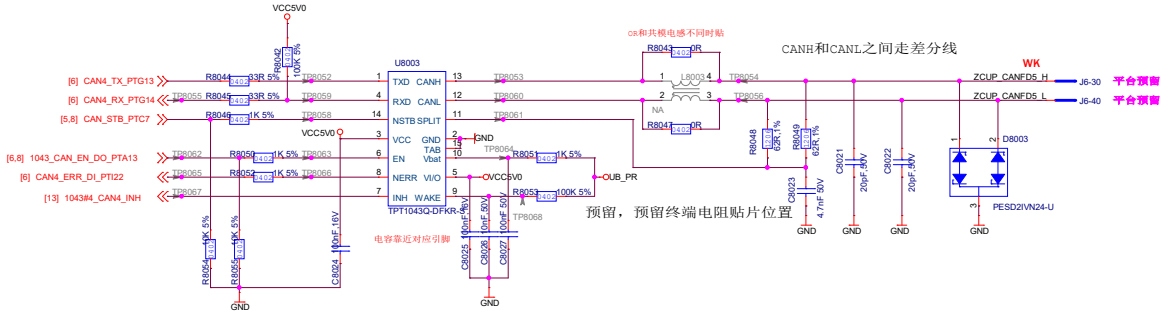

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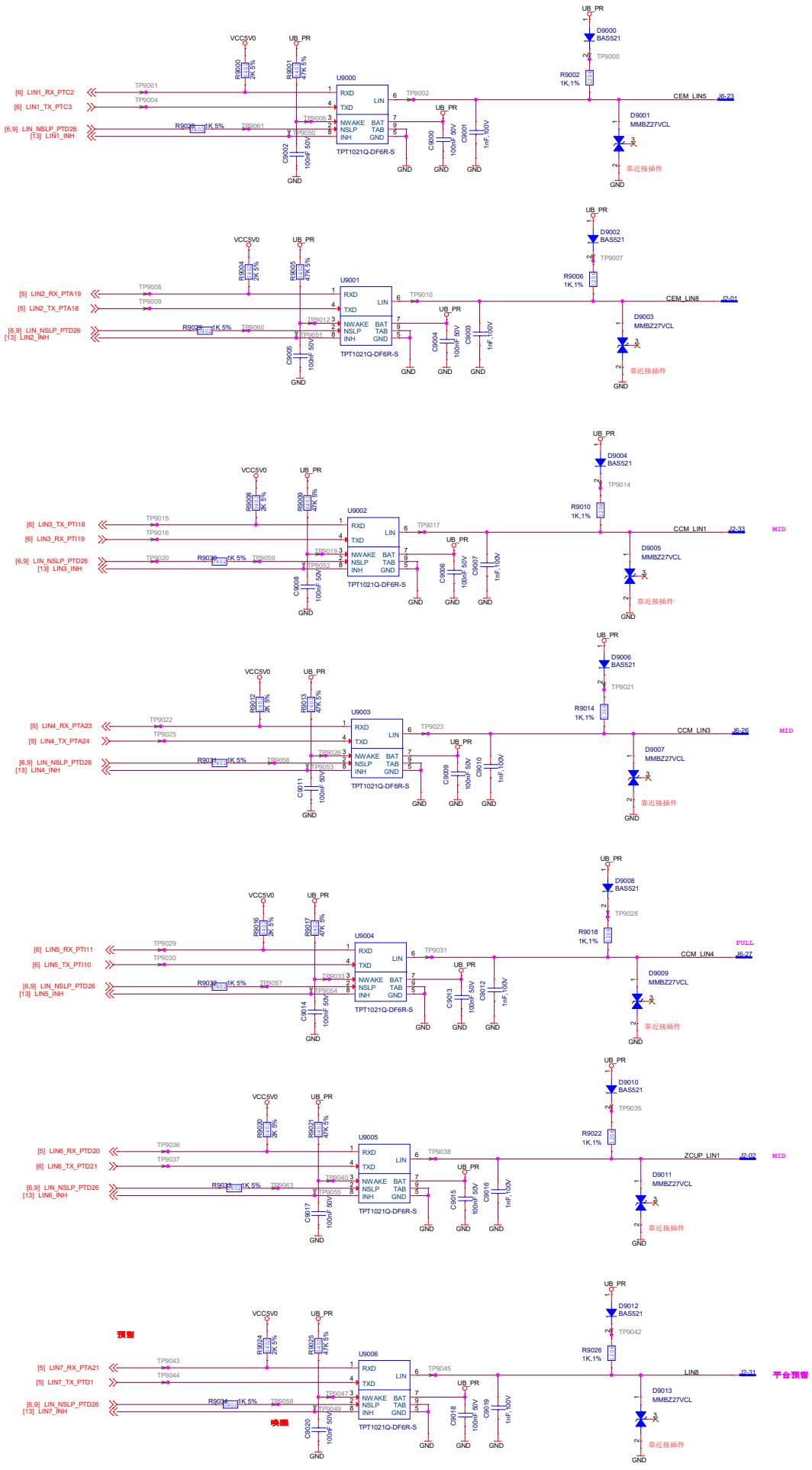

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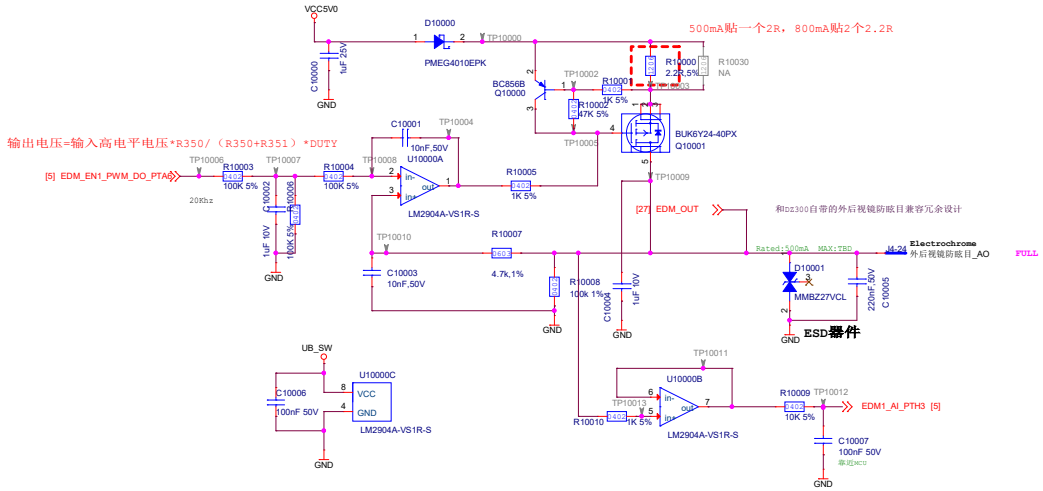

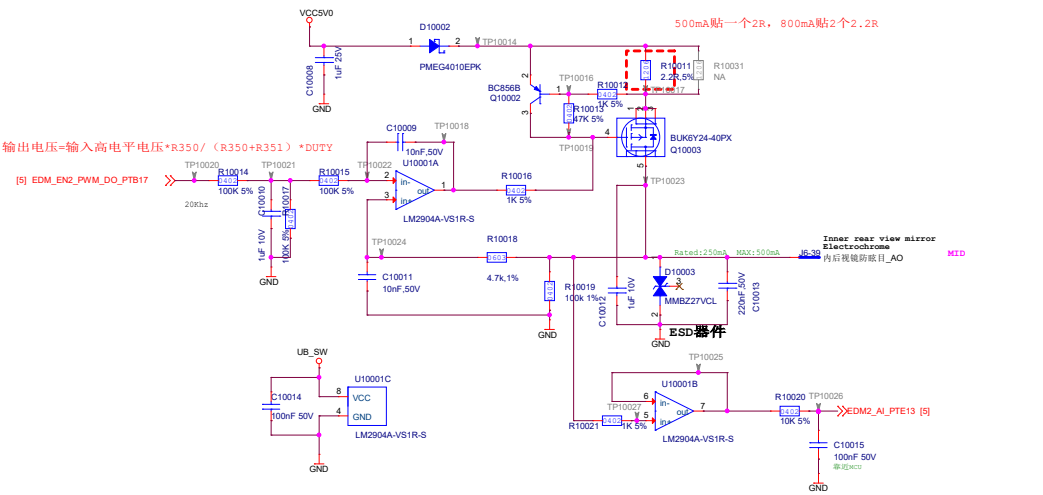

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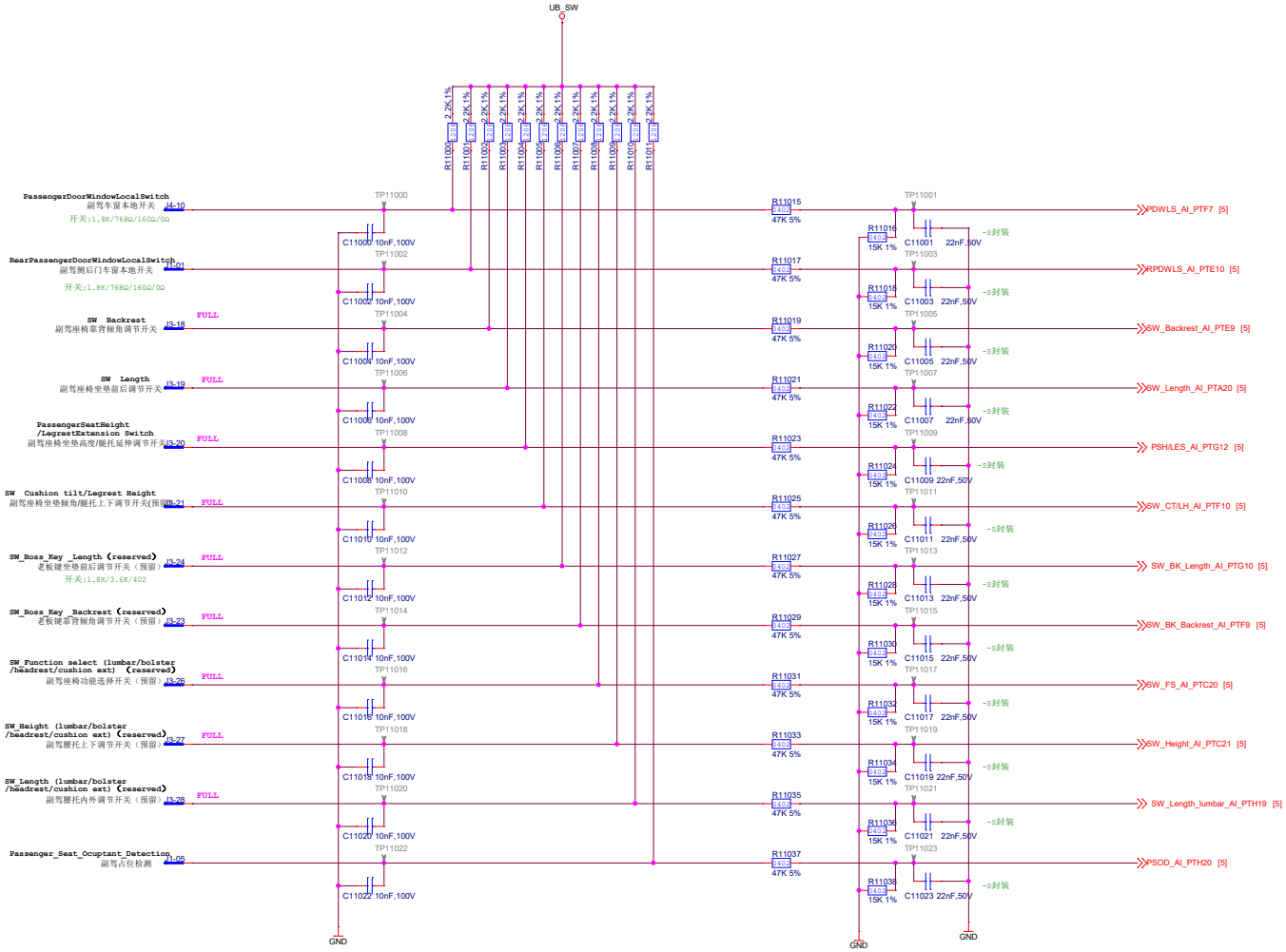
AI12V



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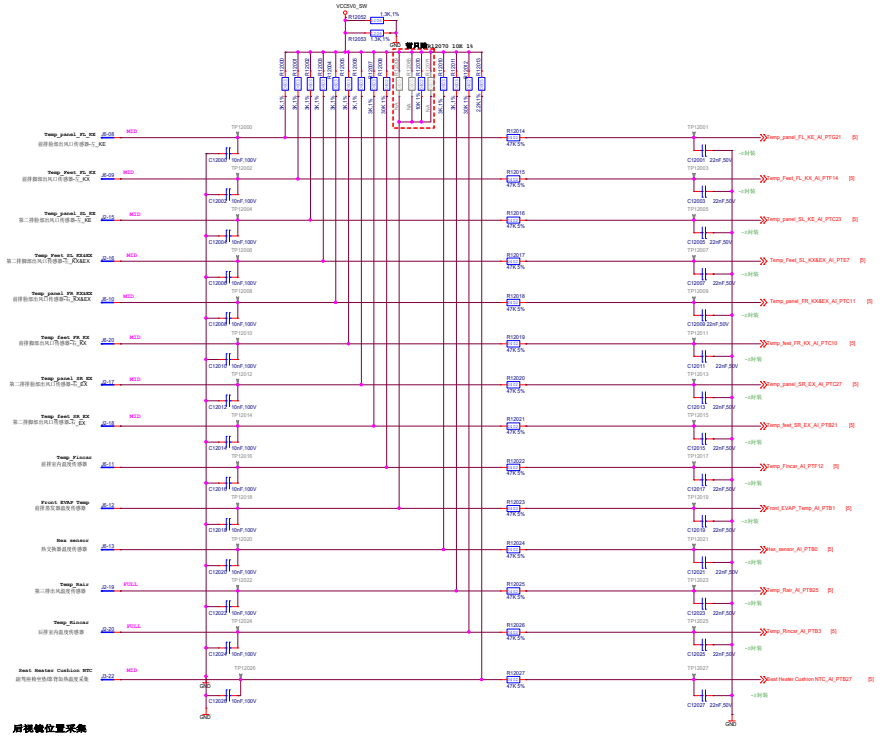
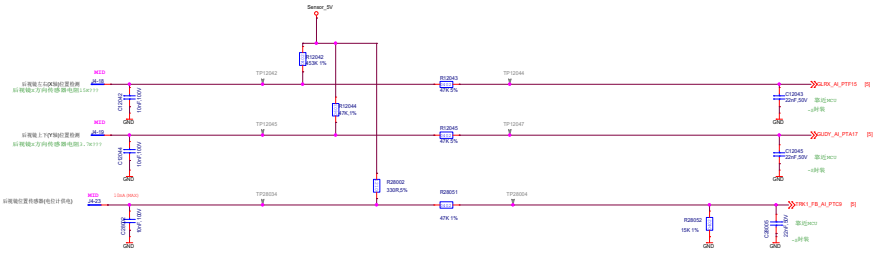
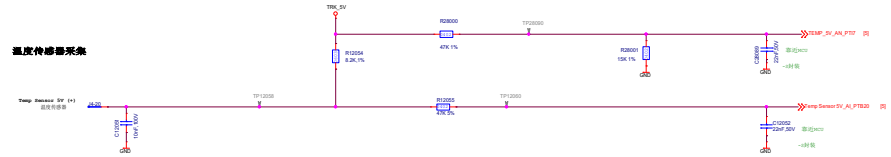
空调温度采集



后视镜位置采集

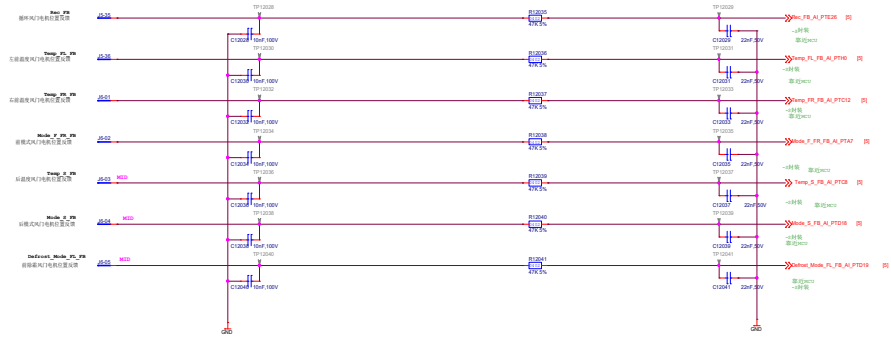


温度传感器采集

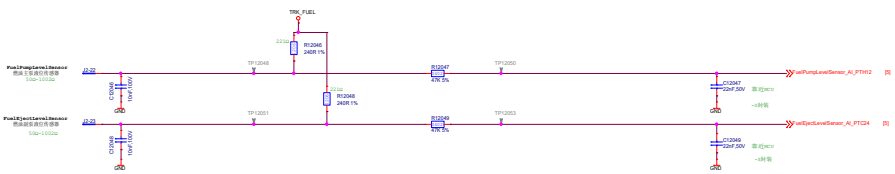


空调位置反馈采集

AI5V输入



燃油泵液位采集



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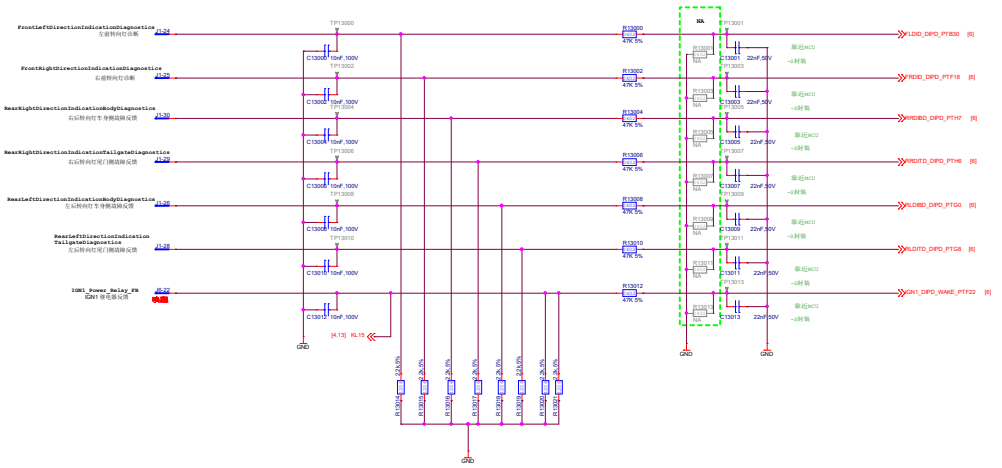
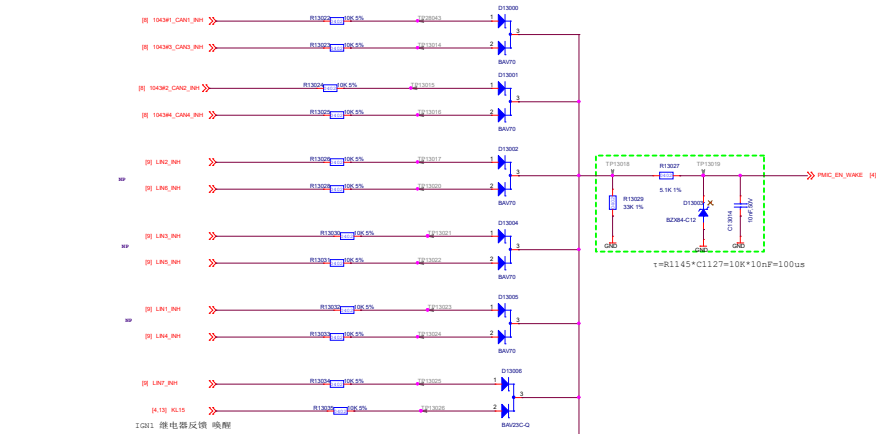
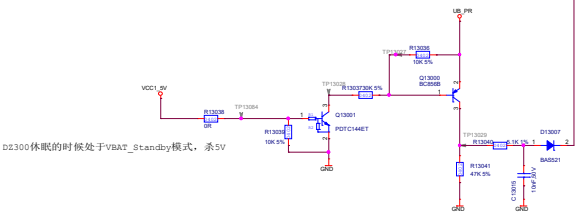
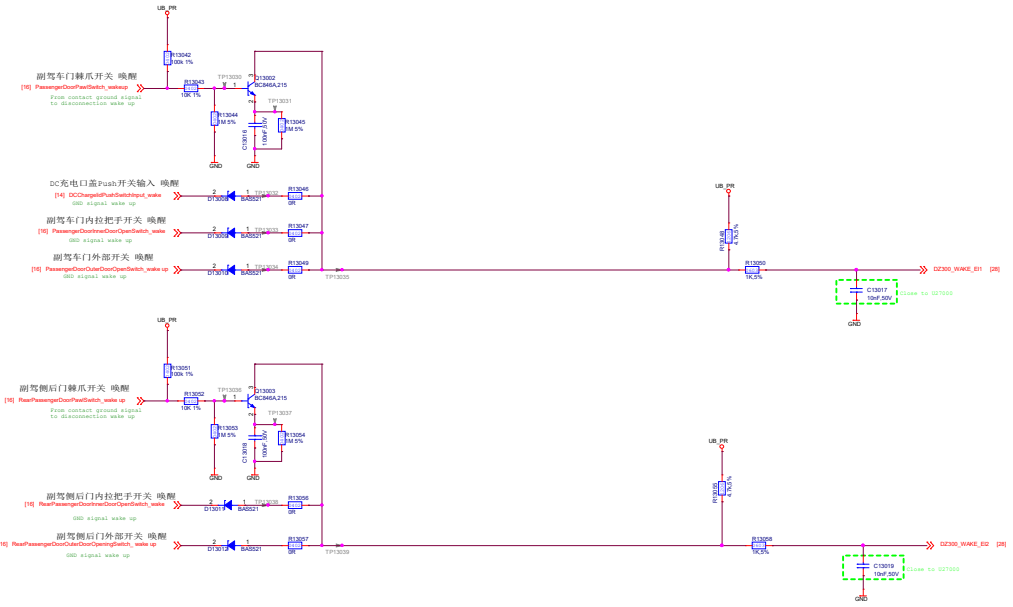
DIPD_外灯









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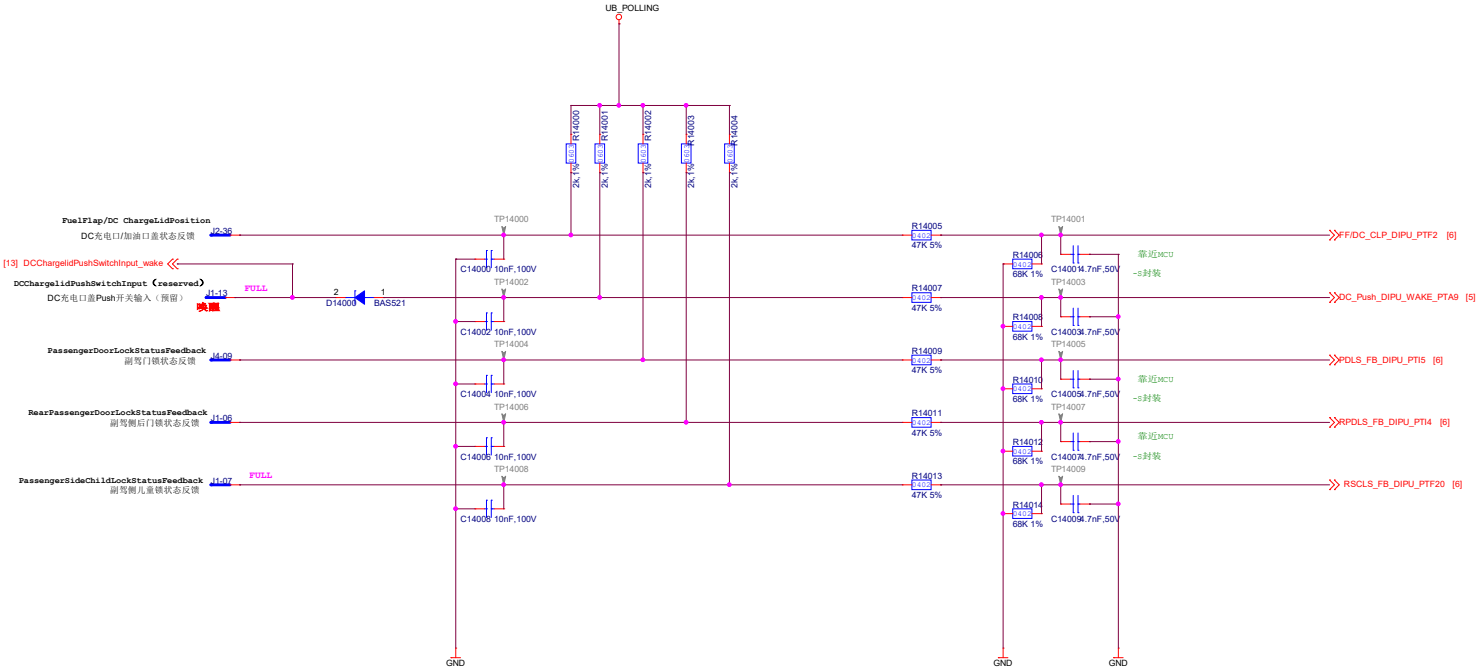
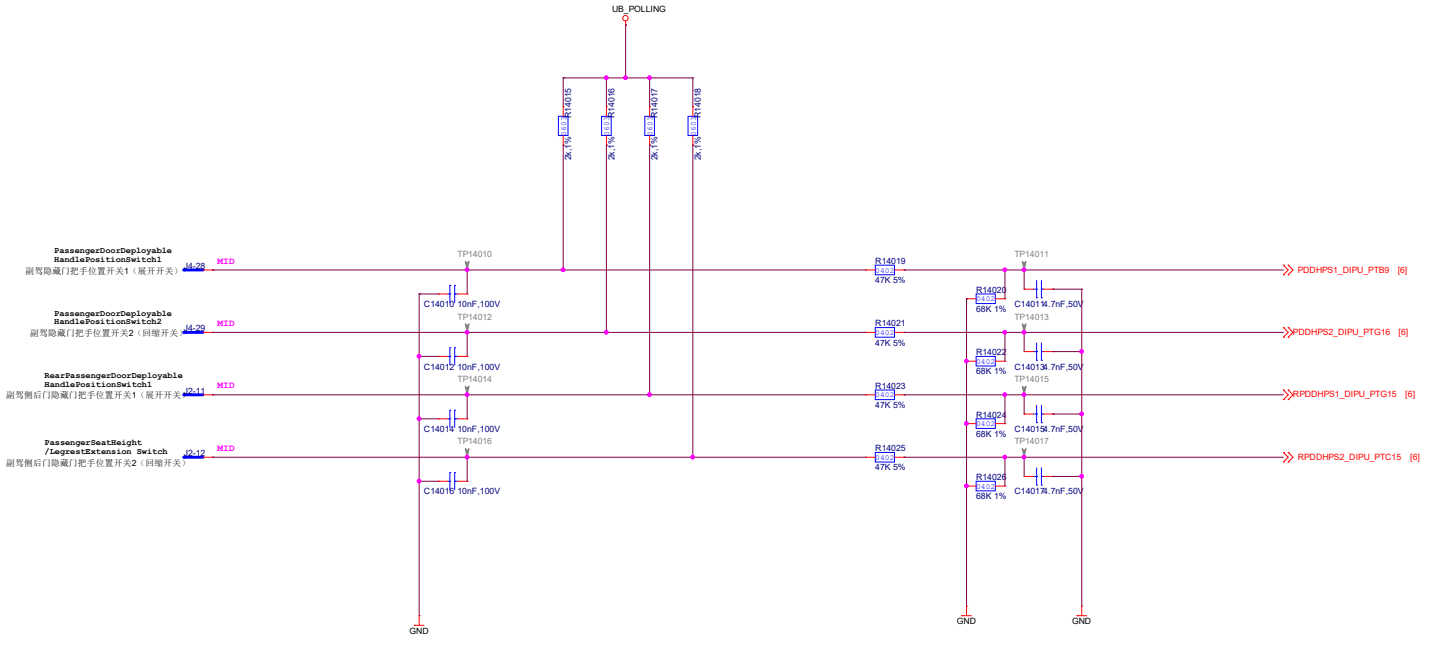
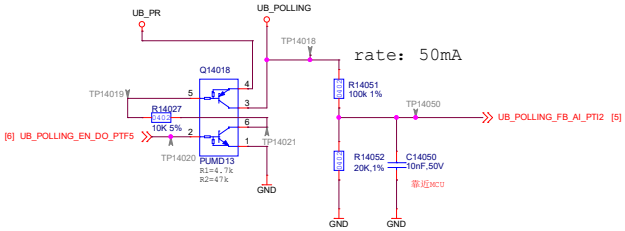
DIPU_门锁



DIPU_隐藏门把手





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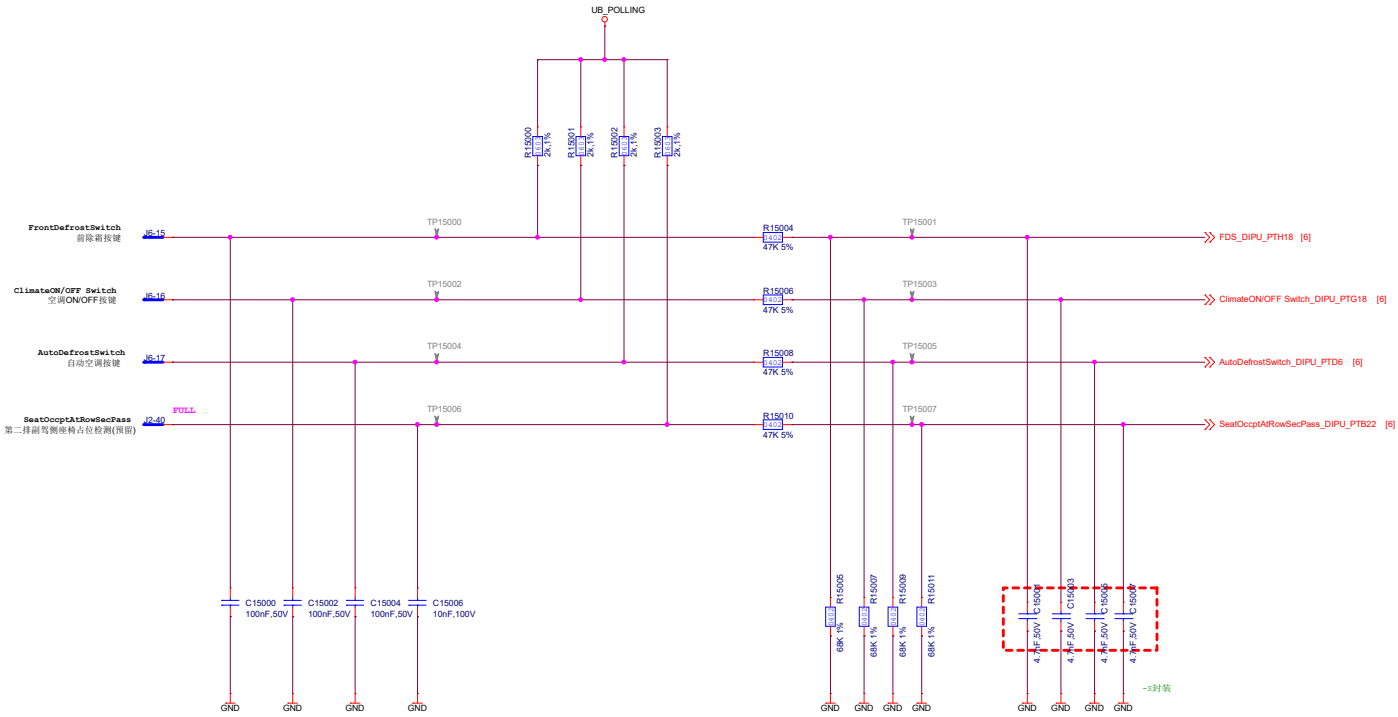
DIPU_空调



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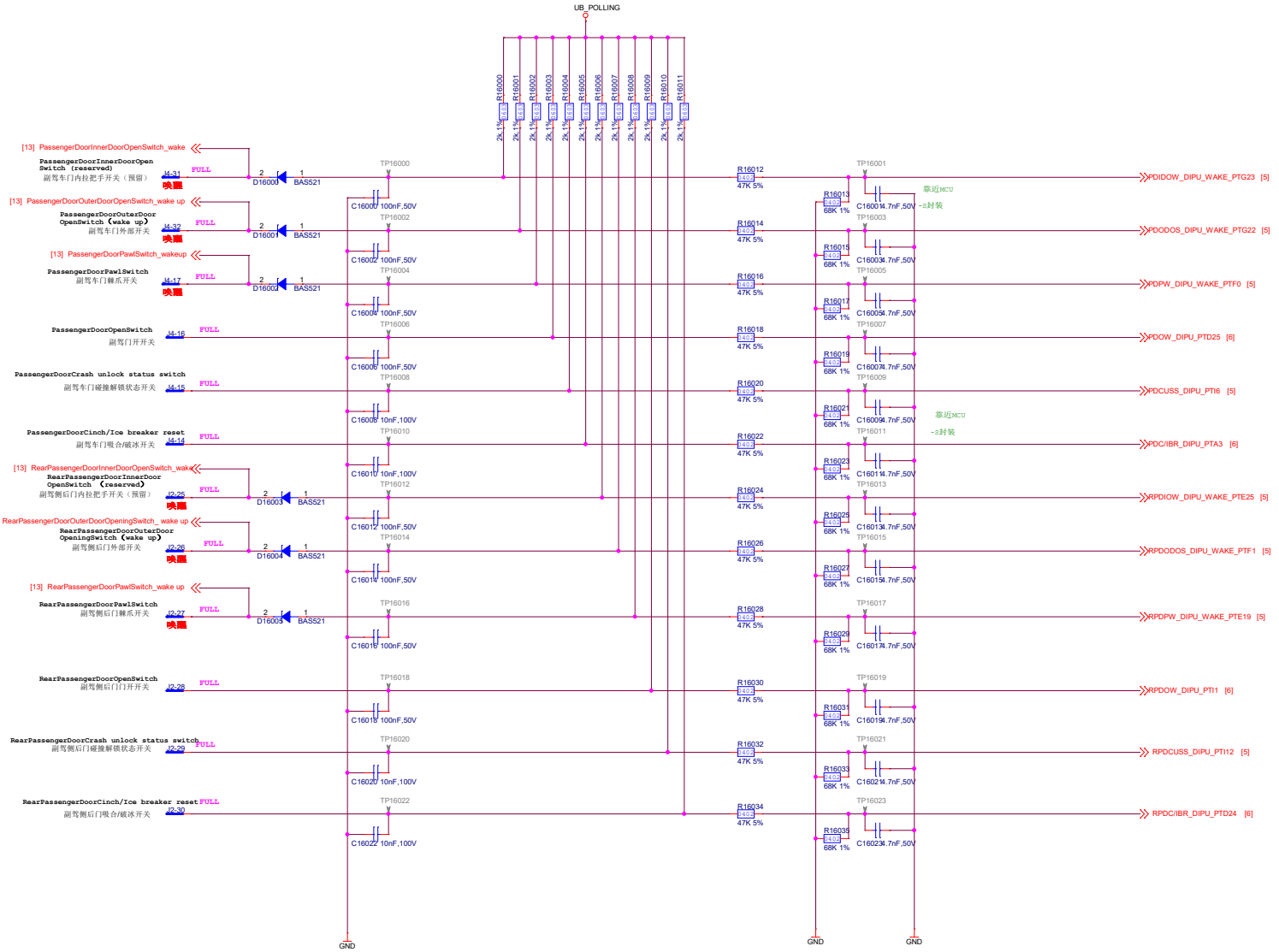
DIPU_电吸合释放



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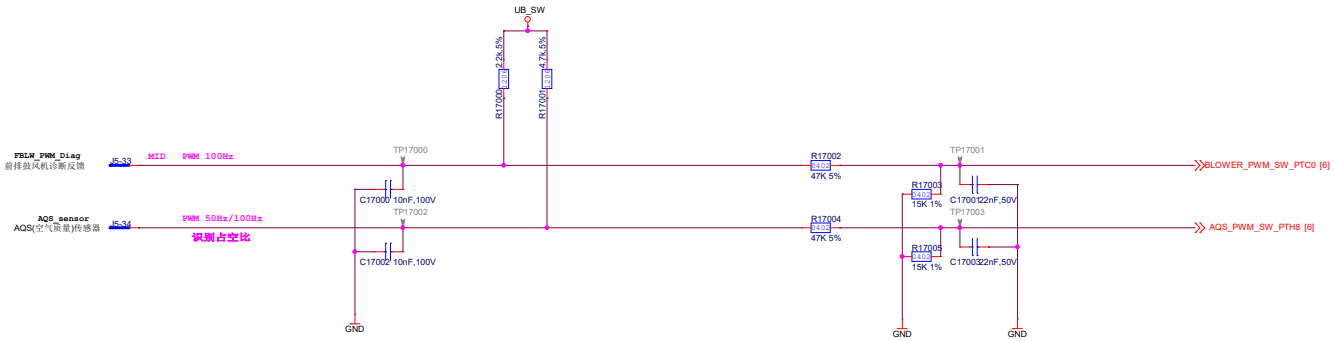
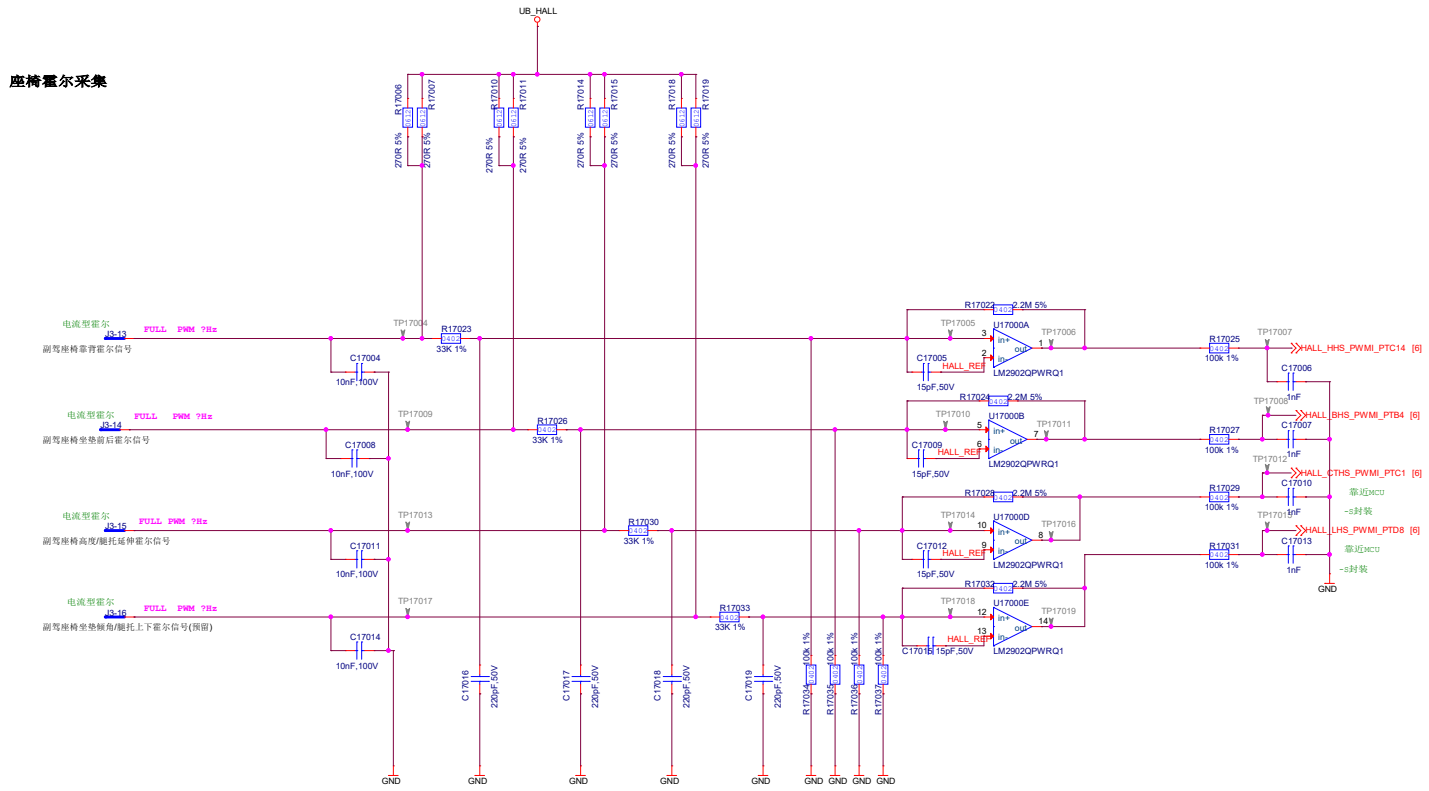
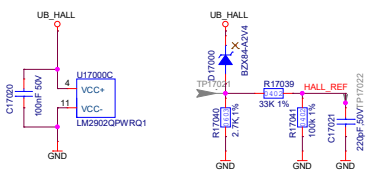
空调PWM采集



座椅霍尔采集





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Size Custom	Designer / Date Kang.Yu/2023.11.15	Check / Date Jianwei.Yao/2023.11.15	Confirm / Date Qinghua.Diao/2023.11.15
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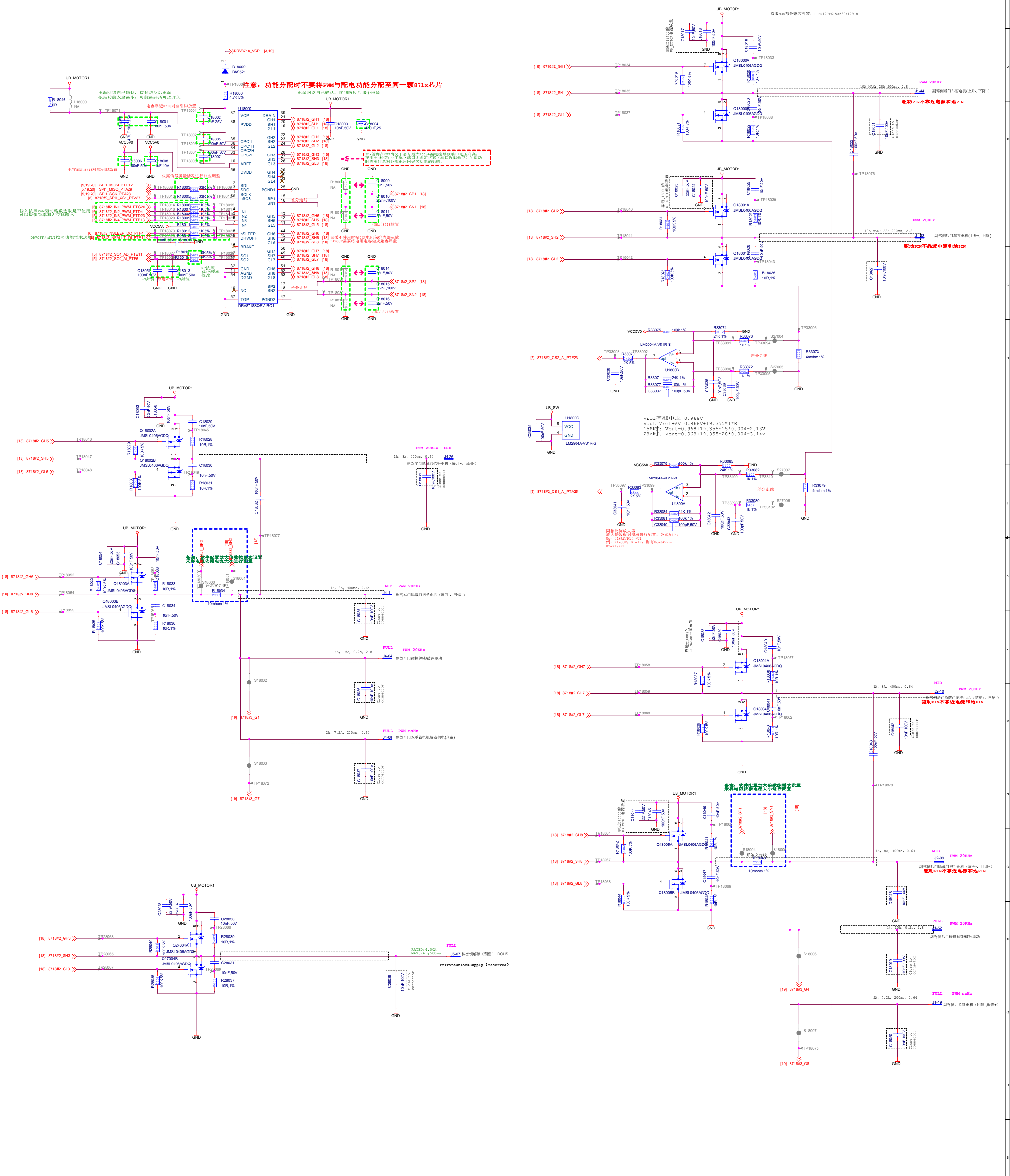
经纬恒润 JINGWEI HIRAIN

DRV8718#2



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经纬恒润 JINGWEI HIRAIN

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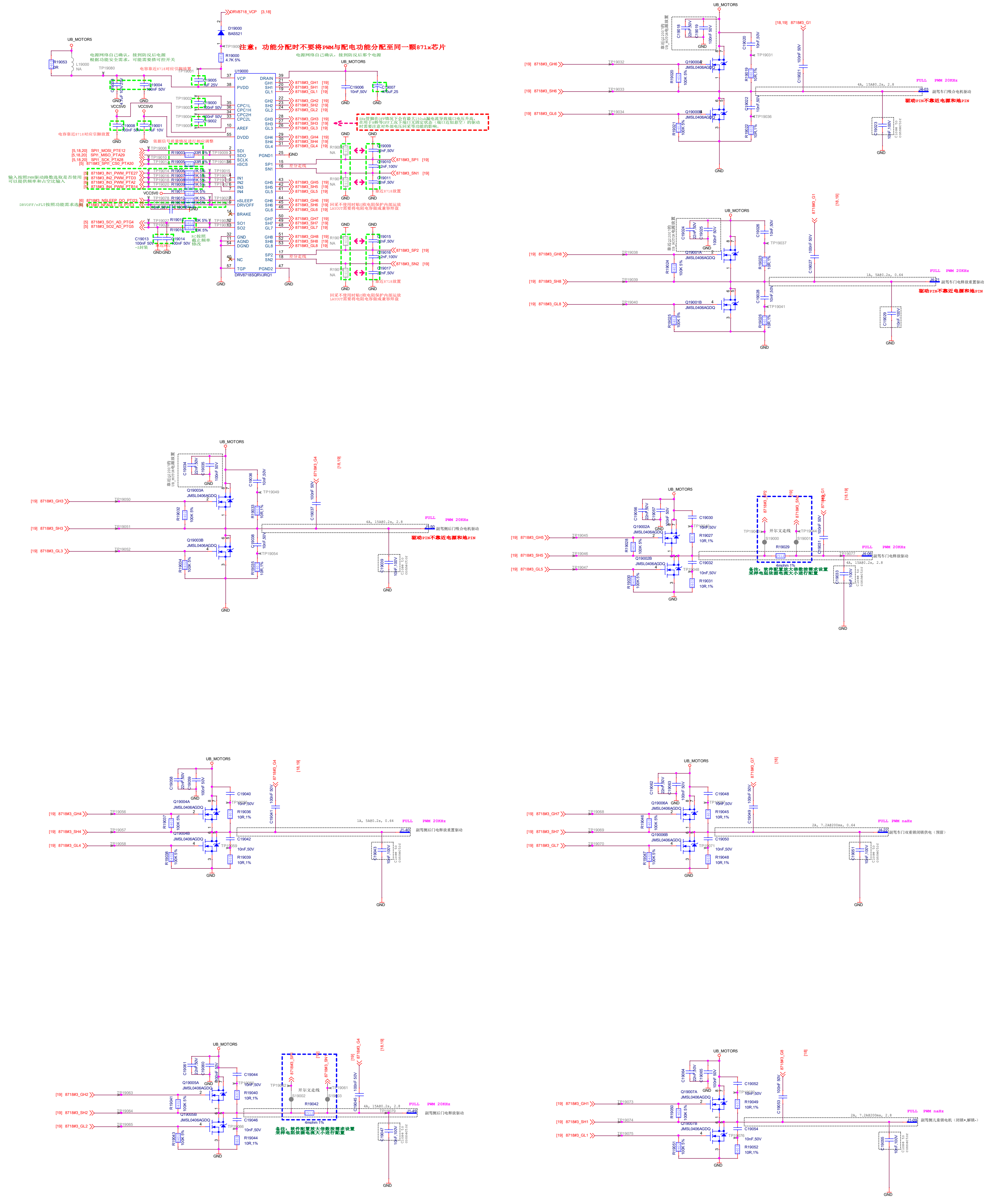
DRV8718#3



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Design NO.	Rev	Sheet Name
825503205_ZCUP_SCH	V1.0	GATE DRIVER2

Size	Designer / Date	Check / Date	Confirm / Date
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经纬恒润 JINGWEI HIRAIN

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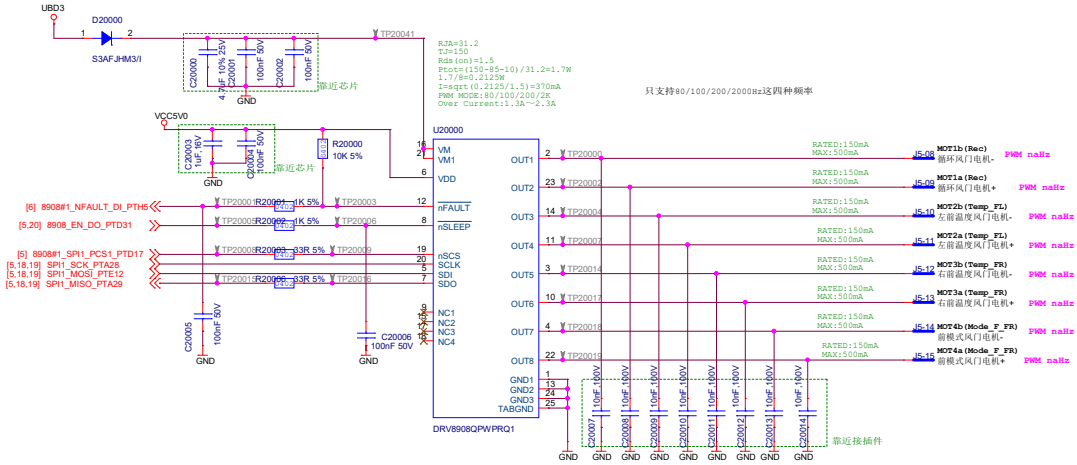

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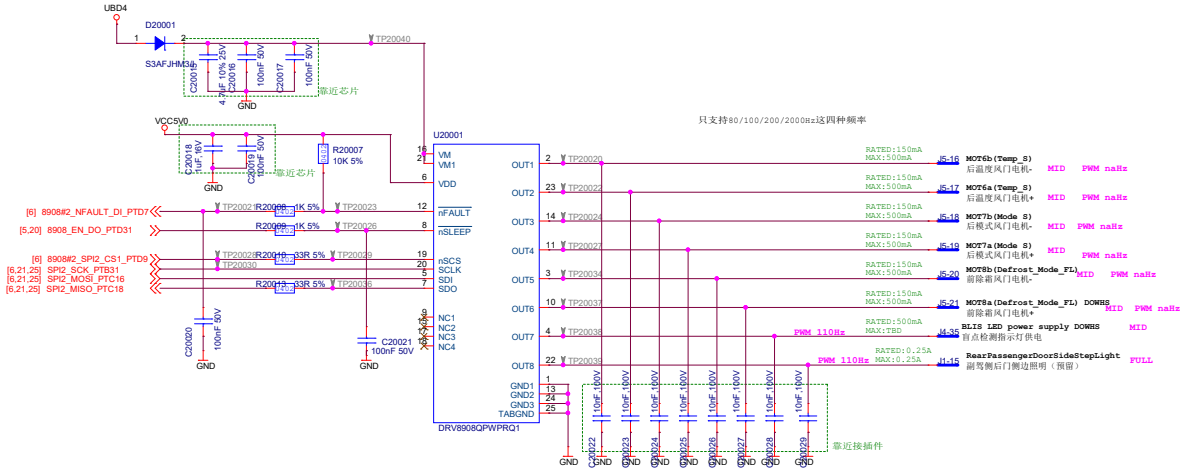

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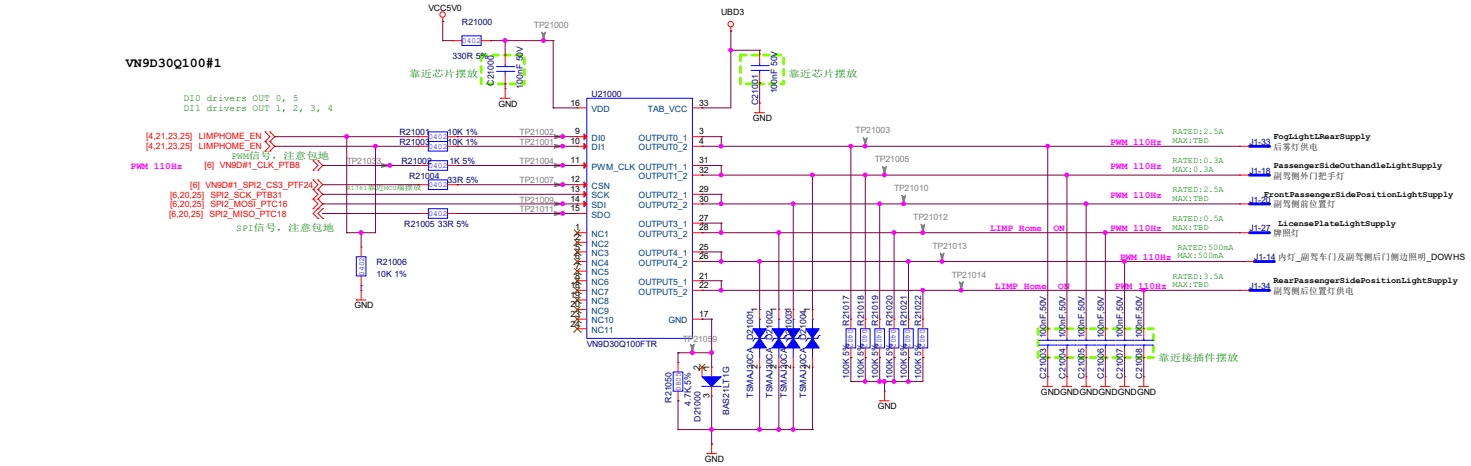

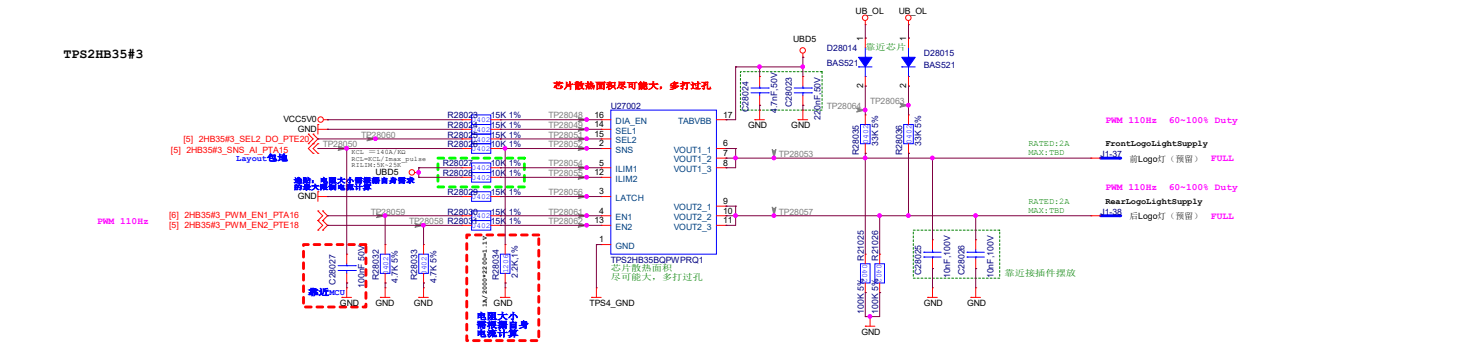

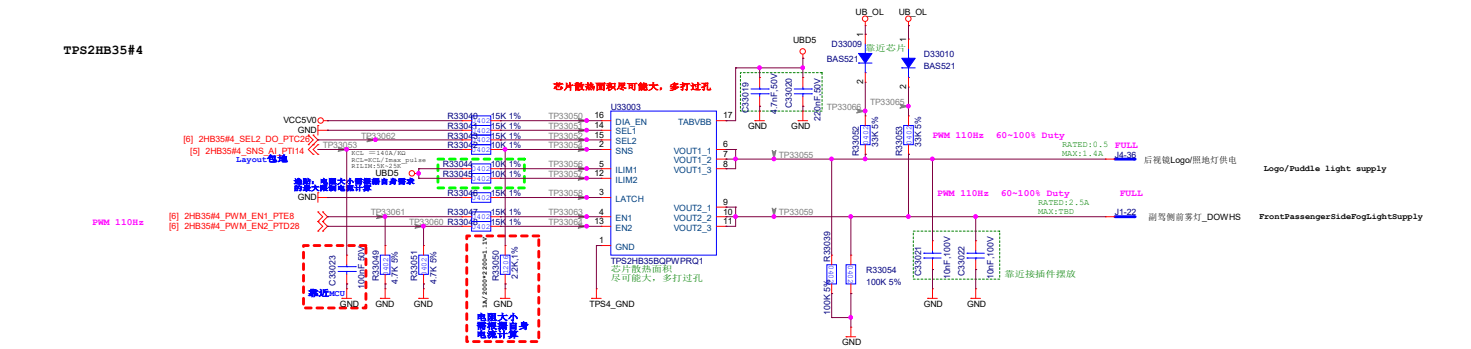

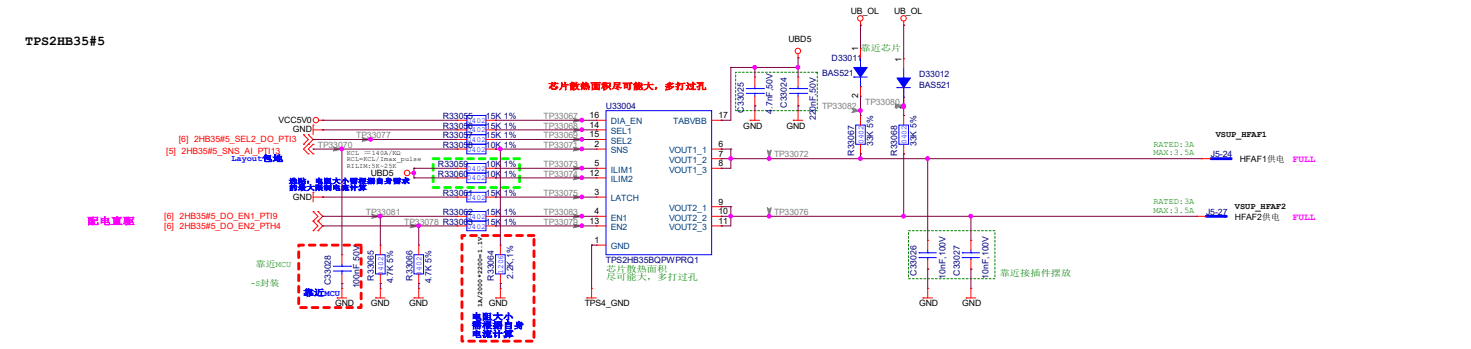

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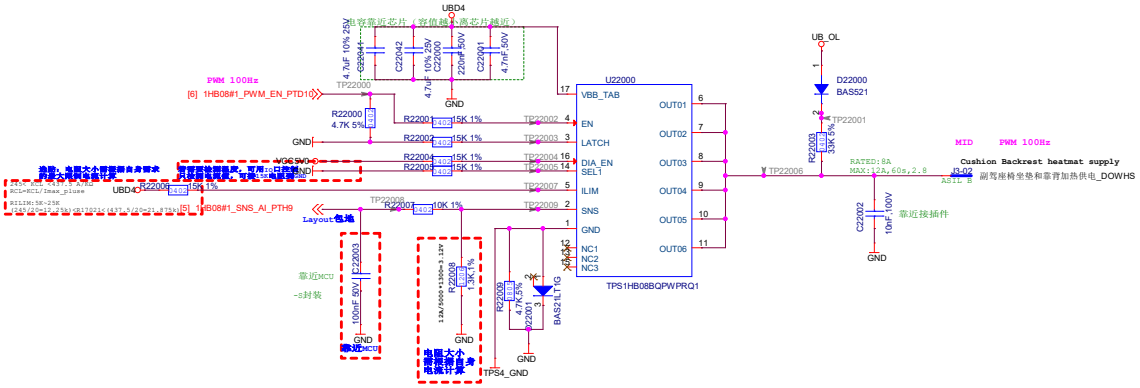
TPS1HB08#1



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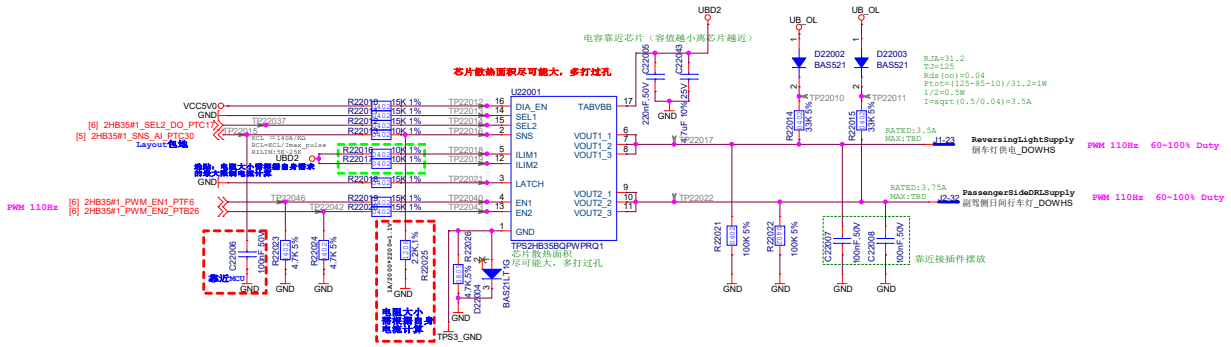

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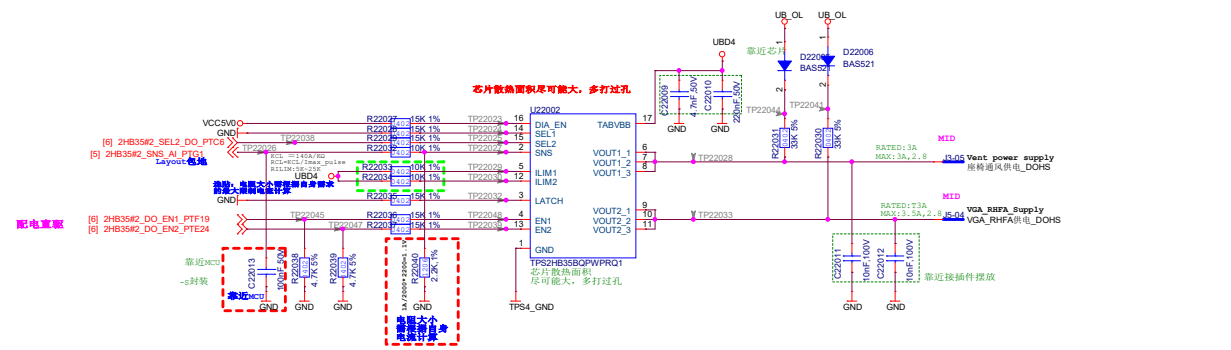

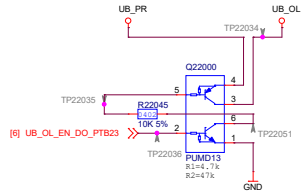

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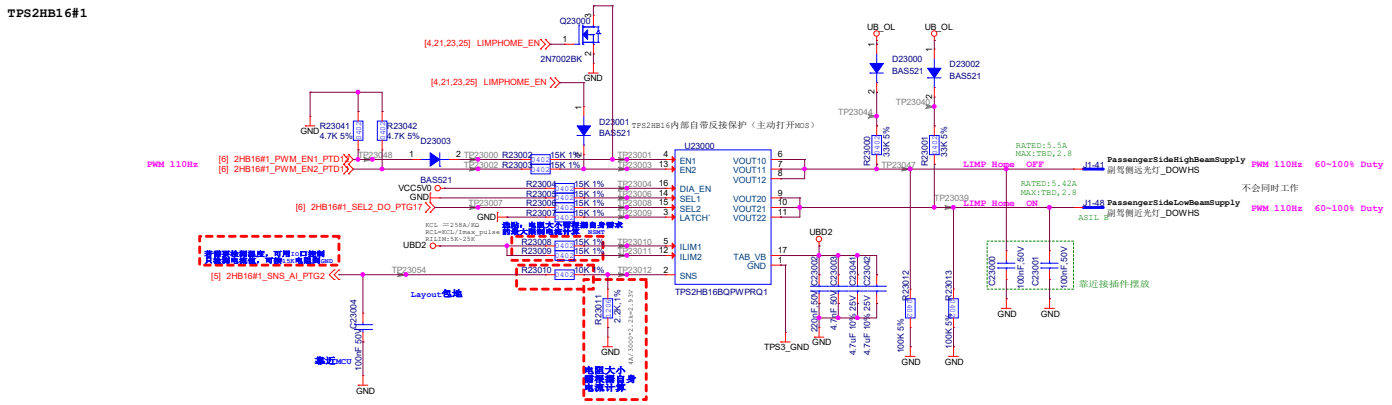
TPS2HB16#1



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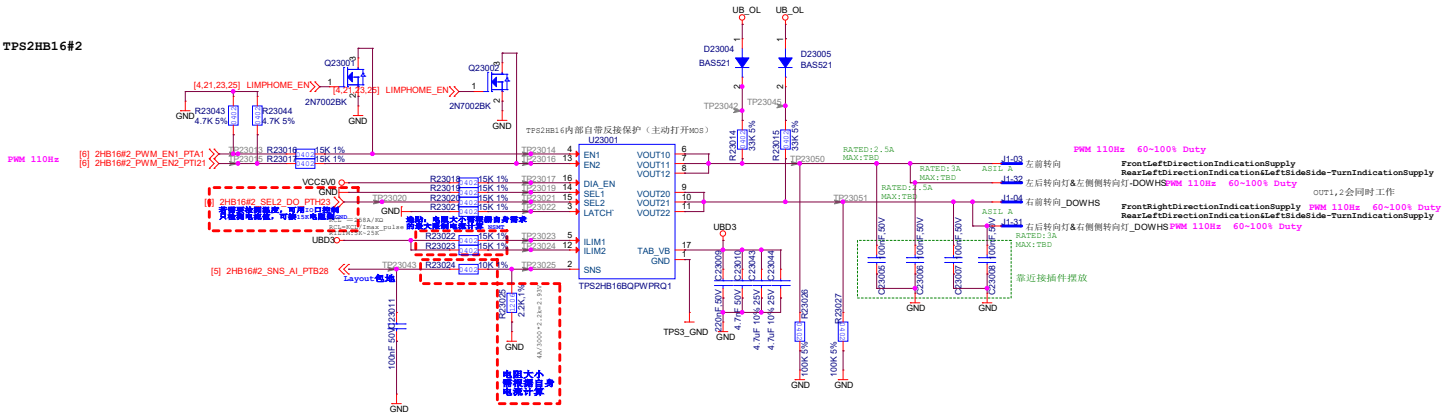

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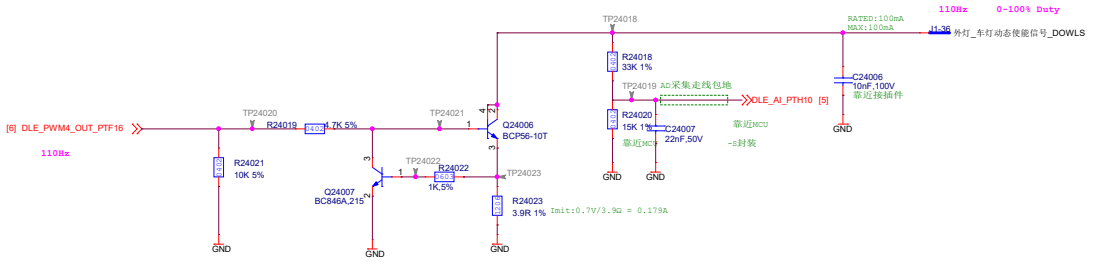
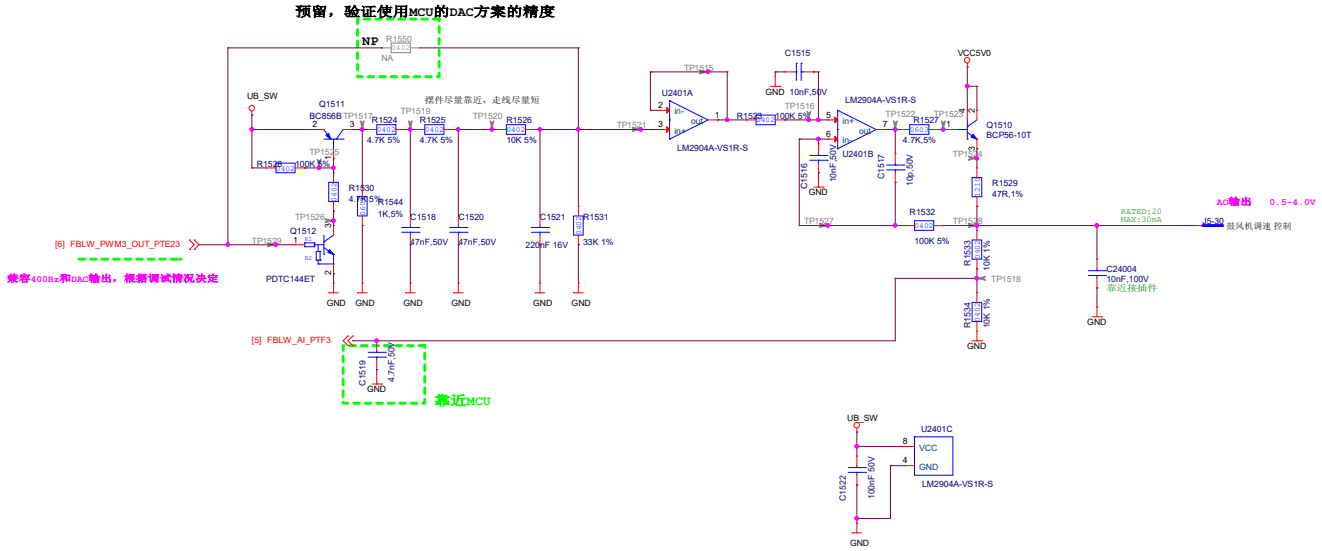
#1



预留，验证使用MCU的DAC方案的精度



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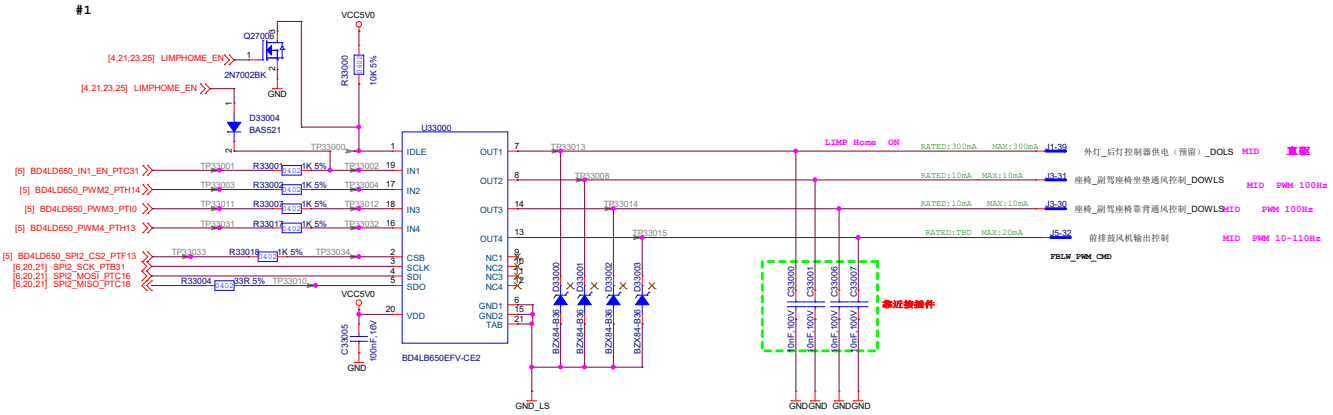

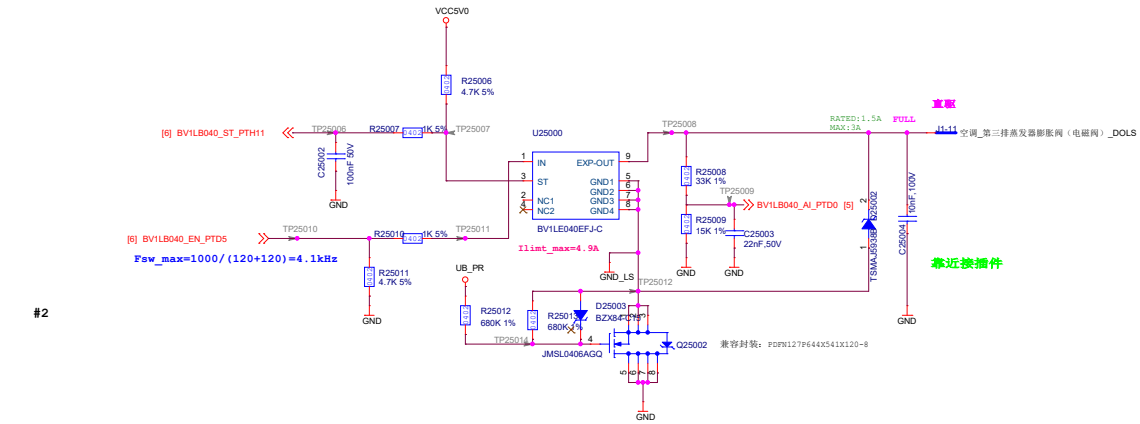

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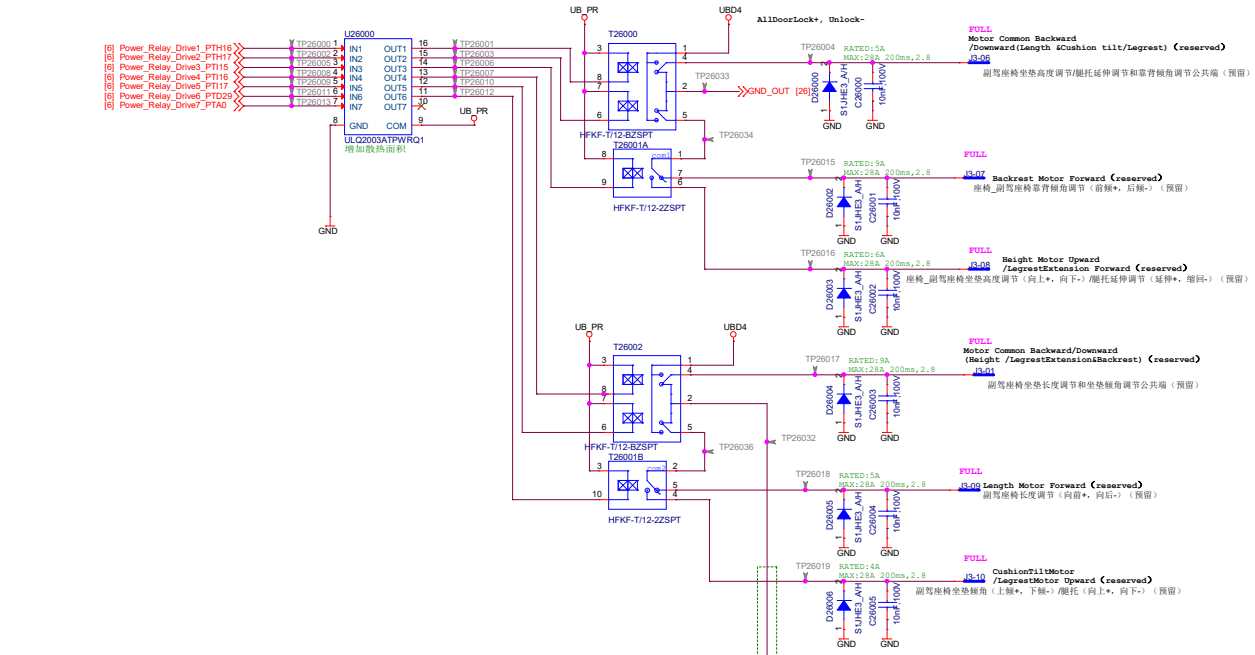
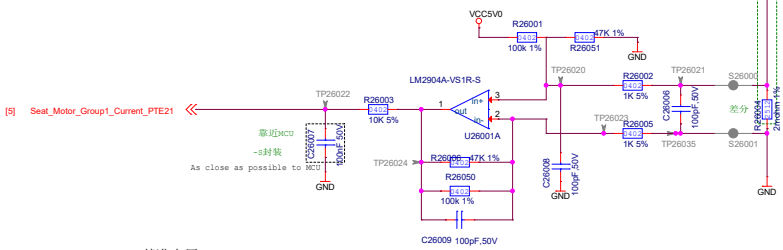
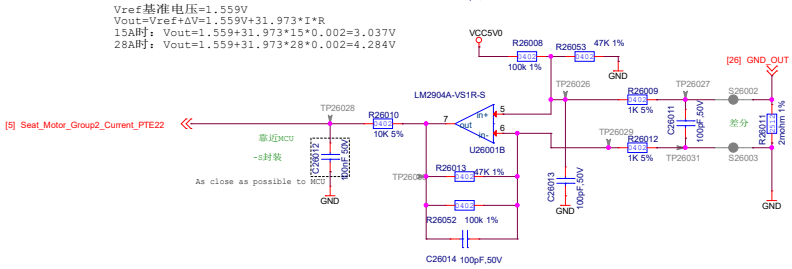
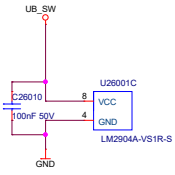
继电器模块短电源需要串30A的保险丝





Vref基准电压=1.559V
Vout=Vref+ΔV=1.559V+31.973*I*R
15A时：Vout=1.559+31.973*15*0.002=3.037V
28A时：Vout=1.559+31.973*28*0.002=4.284V





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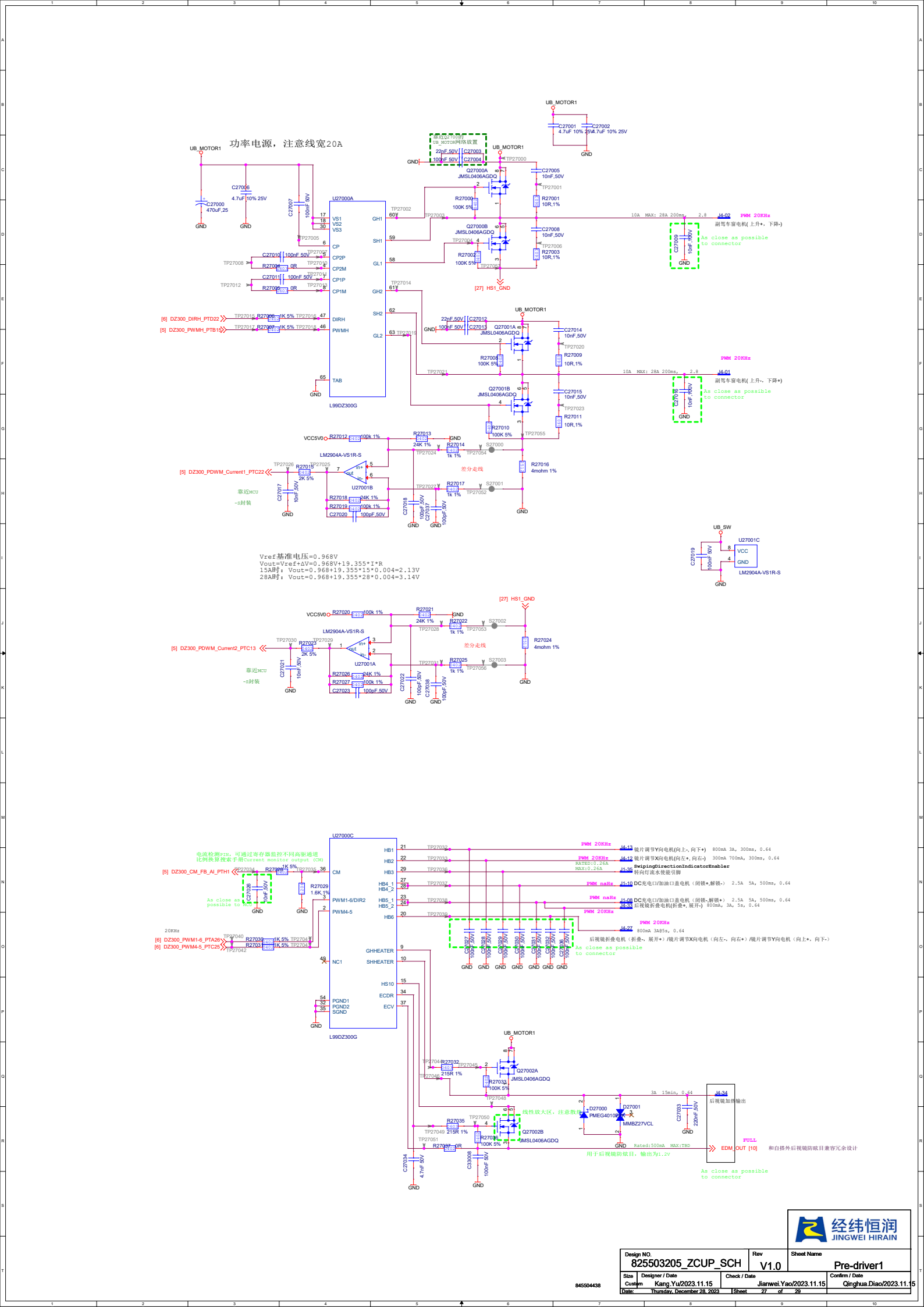

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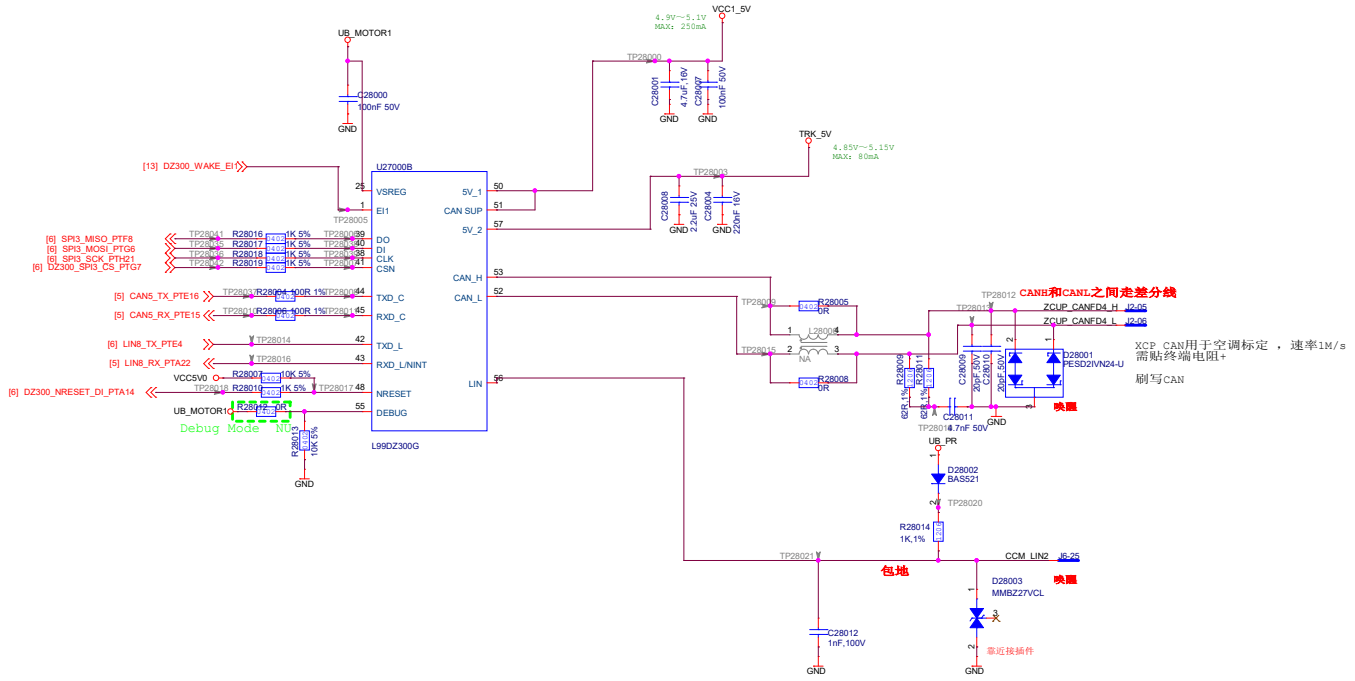

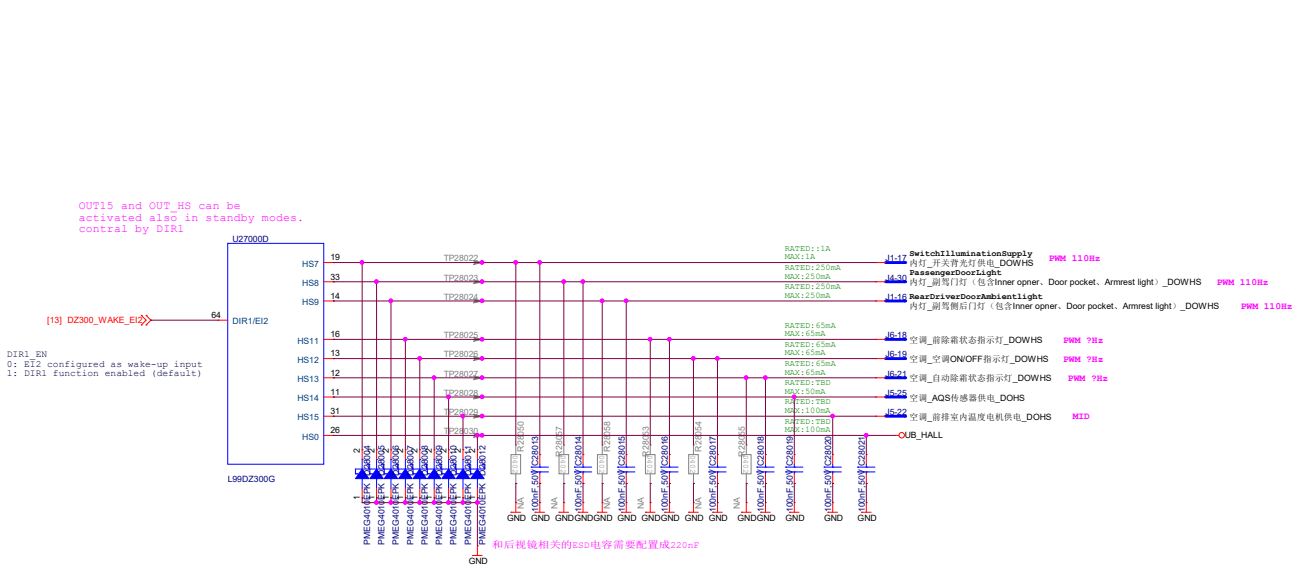

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Revision History:

Date	Author	Description	SCH Version	PCB Version	PCBA Version
2023-10-01	Wenji.Feng	Inital Revision	V1.0A	V1.0	V1000
2023-11-07	kang.yu	1.CAN替换成TPT1043Q，CAN和LIN的唤醒改到U4000的WAKE 2.IGN1唤醒信号改到4000的WAKE 3.7路DIPU唤醒信号接到L99DZ300的EI1/2上	V1.0A	V1.0	V1000
2022-11-08	kang.yu	1.将J1-12修改改成J2-36	V1.0C	V1.0	V1000
2023-11-14	kang.yu	1.将J1-35 转向灯流水使能引脚和J1-14 内灯_副驾车门及副驾侧后门侧边照明分配的驱动资源互换	V1.1A	V1.1	V1000
2023-11-21	kang.yu	1.修改J5-30鼓风机驱动电路	V1.1A	V1.1	V1000
2023-12-11	kang.yu	1.将LIN的上拉有2*2.2K修改成1.0K上拉	V1.1A	V1.1	V1000
2023-12-13	kang.yu	1.将J3-01和J3-06互换位置。	V1.1A	V1.1	V1000
2023-12-22	kang.yu	1.增加C4051,R10030,R10031,R28060-R28055 2.D4006由SMAJ30CAHE3_A/H改成SMBJ30CAHE3_A/H 3.CAN上的负载电容由47pF改成20pF	V1.1A	V1.1	V1000

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