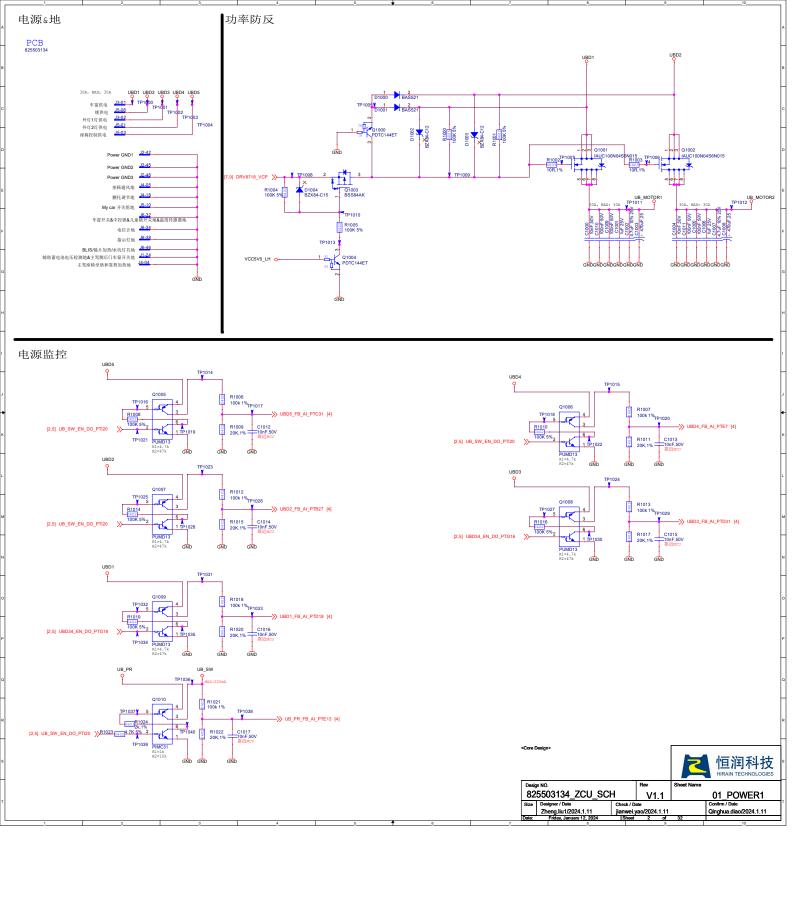
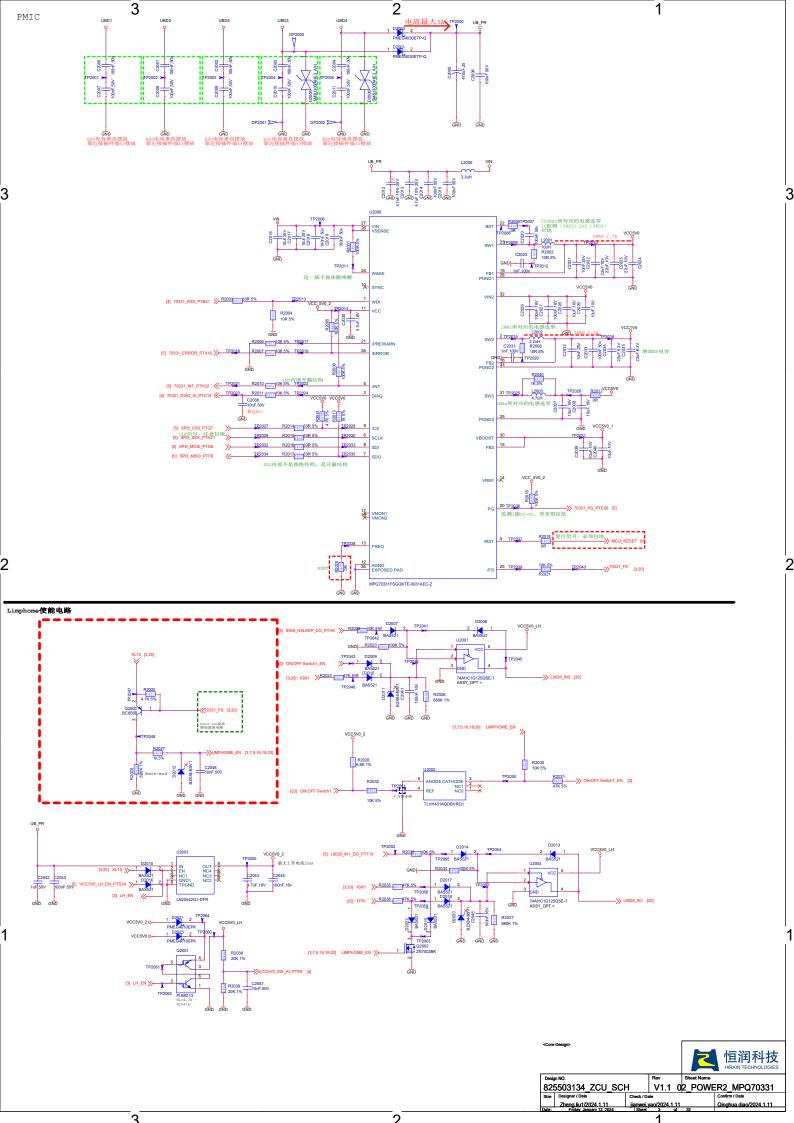
PCB Layout Information							
项目名称:	吉利zcu_Lt	大研发项目					
项目编号:	AP238018 项		页目经理:	张红玲			
LAYOUT工程师:	付晶晶		应用工程师:		刘铮/冯成民		
×××××××××××××××××××××××××××××××××××××	(XXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	(XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	×××××××××××××××××××××××××××××××××××××××	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX		
Input Information:							
输入时间:	0004 01 11			005502124			
Input Time:	2024-01-11		PCB ERP Number:	825503134			
原理图名称: Shematics Name :	825503134 <u>z</u>	CU_SCH		版本: Version:	V1.1		
DXF文件名称:	005500104 5	OM DVE		DXF状态:			
DXF File Name:	825503134_B	CM_DXF		DXF Stat	e:		
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:	50um	5011加 1和		0 16mm	0.16mm		
Finished Copper Thickness: 2和3层间距:	3 o am	Laye		O. I Ghan			
Layer2 to Layer3 :	0.5mm		3和4层间距: Layer3 to Layer4:	0.24mm	0.24mm		
其他要求:	_	,					
Other :		************	************	*****	******		
输出信息:							
Output Information:							
LAYOUT文件名称:	825503134 B	CM LAYOUT brd		版本:	V1.1		
LAYOUT File Name: DXF文件名称:	020000101_1			Version:	****		
DXF File Name:	825503134_E	CM_DXF					
emp/emn文件名称:	NA			注意: 导出三维信	息时, 输入和输出文件 符,否则不能正确生成。		
emp/emn File Name:				<i>都巡对央乂子</i>	<i>付,省则个能比哪生风。</i> ————————————————————————————————————		
	TOP.art GND.art	<pre>Soldermask_Top.art Soldermask Bot.art</pre>	-				
Gerber文件名称:	PWR.art	Silkscreen_Top.art		- · · · · ·			
Gerber File Name:	BOT.art	Silkscreen_Bot.art					
		Assembly_Top.art Assembly Bot.art					
		* _					
Drill文件名称:	Ger_Con_Dr	ill.drl					
Drill File Name: Route文件名称:							
Route File Name:	Ger_Con_Ro	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:							
易干扰信号线:	LIN BUS						
Interference Signal Line: 射频信号线:	HIN BOS						
別が信与数: RF Signal Line:	LF driver a	ntenna terminal					
等长信号线:	_						
Same Delay Signal Line : 差分对:							
Differetial Signal Line:	CAN BUS						
大电流:							
High Current: 其他:							
Other :	NA						
其他:	NA						
Other :		*****	*****	******	******		
			«Coro Doolero»				
			<core design=""></core>				
					恒润科技 HIRAIN TECHNOLOGIES		
其他详见原理图内部信息。 如有未尽事宜,请和应用工	المعاري والمعارية		Design NO.	Rev	Sheet Name		
<i>则有木尽事宜,请和应用工</i>	程则沟通。		825503134_ZC	CU_SCH V1.1	00_INFORMATION		
			Zheng.liu1/2024.1.	11 jianwei.yao/2024.1.1			
1 2	3	4 5	Date: Friday, January 12,	2024 Sheet 1 c	<u>σι 3∠ </u> 9 10		





U3000-1 ADC0_SE0/PTG1/FTU10_CH0/FLEXCAN5_TX
ADC0_SE1/PTA22/FTU12_CH3/FTU2_OD_PHA/FCUART7_RX
ADC0_SE2/PTA21/FCUART8_TX/FTU10_CH3
ADC0_SE3/PTC2/FTU10_CH3
ADC0_SE3/PTC2/FTU10_CH3
ADC0_SE3/PTC2/FTU10_CH3
ADC0_SE3/PTC2/FTU10_CH3
ADC0_SE3/PTC2/FTU10_CH3
ADC0_SE3/PTC1/FCUART1_CTS/FLEXCAN5_RX
ADC0_SE3/PTC1/FCUART1_CTS/FLEXCAN5_RX
ADC0_SE3/PTC1/FCUART1_CTS/FLEXCAN5_RX
ADC0_SE3/PTC1/FCUART1_CTS/FLEXCAN5_RX
ADC0_SE3/PTC1/FCUART1_CTS/FLEXCAN5_RX
ADC0_SE3/PTC1/FCUART1_CTS/FLEXCAN5_RX
ADC0_SE3/PTC1/FCUART3_RTS/FTU10_CH4/FCS9/E_SD1/FC [28] HALL ITO PWMI PTG1
[13] LINĀ RX PTA22
[13] LINĀ RX PTA22
[13] LINĀ RX PTA22
[13] LINĀ RX PTA22
[28] HALL CTHS PWMI PTI2
[28] HALL HS PWMI PTG2
[12] CANĞ RX PTE15
[13] LINĀ LR PTE10
[28] HALL SR WMI PTTS
[18] HALL SR WMI PTE10
[19] LINĀ RX PTA25
[17] HALL SR WMI PTE10
[18] LINĀ RX PTA26
[19] SPH CSO PTA27
[19] LINĀ RX PTA26
[19] LINĀ RX PTA26
[19] SPH CSO PTA27
[19] LINĀ RX PTA26
[19] SPH CSO PTA27
[19] LINĀ PTB13
[18] LINĀ PTB14
[19] LINĀ PTB15
[19] SPH CSC PTA30
[10] RAP LINĀ PTB15
[14] EDM AI PTB15
[15] LINĀ RX PTA30
[16] CANZ RX PTD15
[17] CANZ RX PTD15
[18] CANZ RX PTD15
[19] CANZ RX PTD15
[19] CANZ RX PTD15
[19] CANZ RX PTD15
[19] CANZ RX PTD15
[10] CANZ RX PTD15
[10] CANZ RX PTD15
[10] LANG RX LINĀ RIBB1
[16] 2HB16 SNS AI PTB18 R3000 0402 33R 5% TP300 R3001 0402 33R 5% TP300 [16] 2HB16_SNS_AL_PTB19

[29] 8718#1 CS8_AL_PTI0
[29] D2300_CM_FB_PTH1
[12] CANS_TX_PTE16
[13] LIN2_RX_PTA18
[23] EXTIVO_STORGE_PTH0
[23] EXTIVO_TA2_PTA20
[24] EXTIVO_TA2_PTA20
[25] EXTIVO_TA2_PTA20
[26] EXTIVO_TA2_PTA20
[27] EXTIVO_TA2_PTA20
[28] EXTIVO_TA2_PTA20
[29] EXTIVO_TA2_PTA20
[21] SPIO_CSI_PTC21
[24] DDDOS_DI_WAKE_PTE20
[24] TLRS_DI_WAKE_PTA20
[24] DDDOS_DI_WAKE_PTA20
[24] TLRS_DI_WAKE_PTA20
[24] RDDDOS_DI_WAKE_PTA20
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[24] RDDDOS_DI_WAKE_PTE20
[24] RDDDOS_DI_WAKE_PTE20
[25] RTA3_PTA12
[26] RTA3_PTA12
[27] RTA3_PTA12
[27] RTA3_PTA12
[28] RTA3_PTA12
[29] RTA3_PTA12
[20] RTA3_PTA12
[20] RTA3_PTA12
[21] CANI_TX_PTE2
[22] RDWIS_AL_PTE18
[22] RDWIS_AL_PTE18
[22] RDWIS_AL_PTE18
[22] CRUS_AL_PTE18
[22] CRUS_AL_PTE18
[22] CRUS_AL_PTE18
[22] CRUS_AL_PTE18
[22] CRUS_AL_PTE18
[22] CRUS_AL_PTE18
[22] CRUS_AL_PTE18 R3007 1K 5%TP3009 R3004 1K 5%TP3007 R3006 0402 1K 5%TP3004 R3005 0402 1K 5%1P3006 R3003 47K 5% TP3010 R3002 0402 1K 5% TP3005 A14 E13 [22] DOD AL PTC23
[24] GLRX AI PTH9
[19] BVC AL PTC24
[21] Seat_Motor_Group1_Current_PTC10
[30] TRK1+FB AL_PTF7
[77] TPS2HB35#5 SNS AI PTH10
[74] GUDY_AI_PTC11
[15] SPI2_CS1_PTC27
[30] SPI4_SCK_PTC9
[30] SPI4_CSC_PTC9
[30] SPI4_MSC_PTC9
[30] SPI4_MSC_PTA7
[30] SPI4_MSC_PTA7
[30] SPI4_MSC_PTA7
[30] SPI4_MSC_PTA7
[30] SPI4_MSC_PTA7
[31] SPI4_MSC_PTA7
[32] UBD5_FB AL_PTC18
[32] UBD5_FB AL_PTC18
[33] SPI4_MSC_PTA7
[34] UBD5_AI_PTA7
[35] WILLIS_AI_PTA7
[36] WILLIS_AI_PTA7
[37] SPI4_MSC_PTA7
[38] SPI4_MSC_PTA7
[39] SPI4_MSC_PTA7
[30] SPI4_MSC_PTA7
[31] SPI4_MSC_PTA7
[32] DWSC_PTB18_SPI4_PTB18_[32]
[32] SW_LUMBA_PTB18_[32]
[33] LING_RX_PTD20
[37] SPI4_MSC_PTO20
[37] SPI4_MSC_PTO20 [16] ZHB16, FB1, AI PTB29
[26] CLP, AI PTC12
[12] CAN9, TX, PTC20
[12] CAN9, TX, PTC20
[13] CAN6, TX, PTC11
[16] ZHB16, FB2, AI, PTC13
[3] 70331, DIAG, AI, PTC19
[12] CAN9, RX, PTC21
[12] CAN9, RX, PTC31
[17] TPS2HB3S#1, SNS, AI, PTG10
[26] RDDLF, AI, PTG11
[18] TPS2HB3S#1, SNS, AI, PTG10
[26] RDDLF, AI, PTG11
[27] VIS, BEACKET, AI, PTI3
[27] TFS2HB3S#4, SNS, AI, PTI4
[28] SW, 1st, Cushlon, Tik, AI, PTF12
[29] VIS, Cushlon, Tik, AI, PTB1
[29] TEMP, AI, PTF12
[21] DDL3, AI, PTB1
[21] DDL3, AI, PTB1
[21] SDL2, AI, SNS, AI, PTB0
[25] VIS, SNS, AI, PTB0
[26] CAN3, TX, PTC28
[16] LHB16, AI, STE10
[16] SPLB16, AI, STE10
[16] TS, SNS, AI, PTB1
[27] SW, 1st, Length, AI, PTB1
[28] SW, 1st, Length, AI, PTB1
[29] SW, 1st, Length, AI, PTB1
[21] Seat, Motor, Group, Current, PTI7
[24] SS, AI, PTB20
[25] SW, 1st, Height, AI, PTB1
[26] SSS, AI, PTB20
[27] SW, 1st, Height, AI, PTB1
[28] SS, AI, PTB20
[29] SW, 1st, Height, AI, PTB1
[29] SW, 1st, Height, AI, PTB1
[29] SS, AI, PTB20
[20] DDL1, AI, PTB20 FC7300F8MDT1A320T1B

<Core Design



U3000-2 B15
FT40/FTU4_CH6/FLEXCAN5_RX/SENT1_RXD2/FTU2_OD_PHA/FCUART0_CTS/TRGSEL_OUT3
FT41/FTU4_CH4/FCUART15_RX/SENT1_RXD0/FTU4_OD_PHA/FCUART0_RTS/TRGSEL_OUT0
FT41/FTU4_CH4/FCUART15_RX/SENT1_RXD0/FTU4_OD_PHA/FCUART0_RTS/TRGSEL_OUT0
FT42/FTU2_CH3/FCIICO_SCL/FCUART0_TX
A7
FT41/FTU3_CH9/FCUART0_TX/FCSPI0_PCS3/NMI_b_____(PD0)
FT41/FTU3_CH9/FCUART0_TX/FCSPI0_PCS3/NMI_b_____(PD0)
FT41/FTU4_CH3/CMP1_OUT/FCUART0_RX/FTU2_OD_PHA-___(PD0)
FT41/FTU5_CH2/FCSMU_PINO
CMP0_IN1/PT426/FTU2_CH2 VDD HV A B17 PTB8/FTU4_CH2/FLEXCAN4_TX/FCUART11_RX/MSC1_SDI0/FCUART1_CTS
D19 PTB9/FTU4_CH2/FLEXCAN4_TX/FCUART12_TX/TRGSEL_OUT1
PTB10/FTU2_CH5/TRGSEL_OUT2/FLEXCAN7_RX [25] CLP_DI_PTB8 [21] Length_Motor_Relay_Drive_PTB9 [23] DO_RESET_12400_PTB10 PTC6/FCUART1_RX/FTU3_CH2/FTU1_QD_PHB PTC25/FTU3_CH3/FCUART5_RTS/FCSPI5_PCS0/FLEXCAN2_TX PTC26/FTU9_CH7/FLEXCAN2_TX [23] 74HC15_SW1_PTC25 [3] 70331_PG_PTC26 | 29 | DZ300 HS DIR2 PTD2 | 9 | 871883 NFAULT DI PTD3 | 9 | 871883 NFAULT DI PTD3 | 23 | 744C15 SW2 PTD4 | 131 LIN6 TX, PTD21 | 129 | DZ300 DIRH PTD22 | 3 | V2CSV0 LH EN PTD24 | 13 | LIN NSLP PTD26 | 14 | 13 | LIN NSLP PTD26 | 19 | WPC DO OUT PTD27 | 19 | WPC DO OUT PTD28 | 19 | WPC DO OUT PT 0V TP4000 [25] Power Relay Divisé PTD29

174000 [27] Power Relay Divisé PTD29

25] DDC_DL_PTD30

24000 [28] DDC_DL_PTD30

24000 [28] DDC_DL_PTD30

24000 [28] DDC_DL_PTD30

25] DDC_DL_PTD30

26] DDC_DL_PTD30

27] DDC_DL_PTD30

27] DDC_DL_PTD30

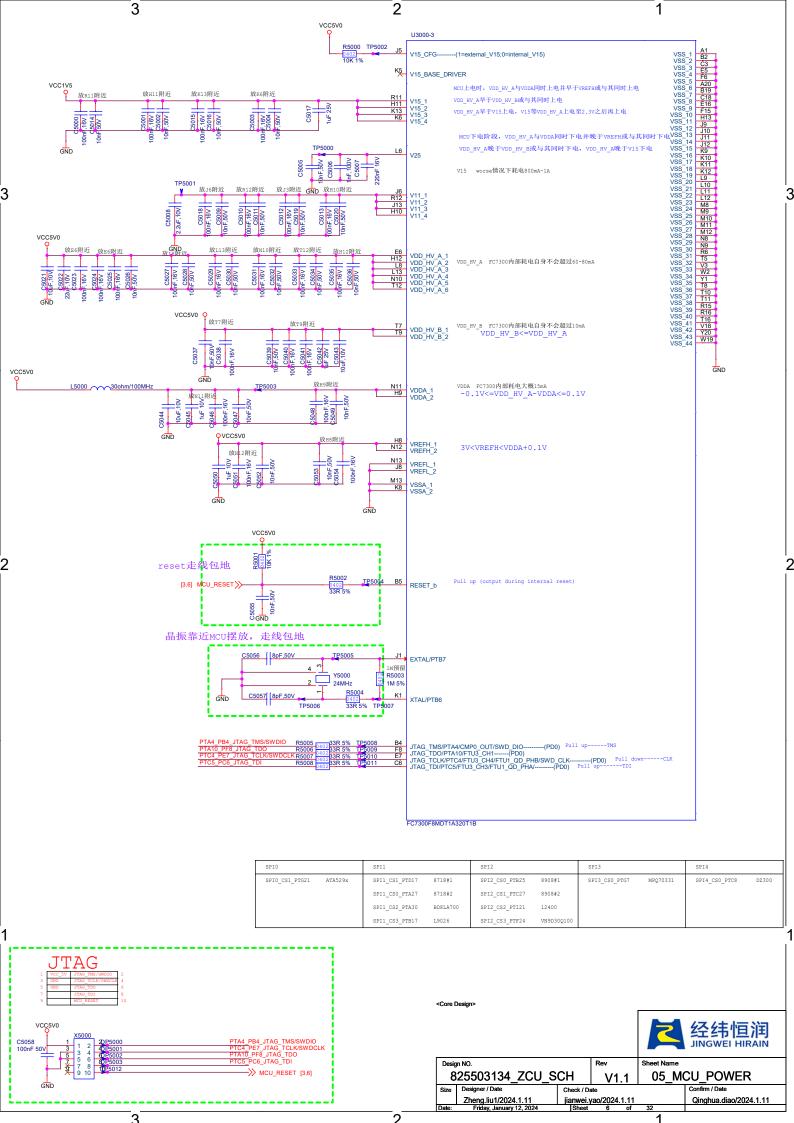
28] DDC_DL_PTD30

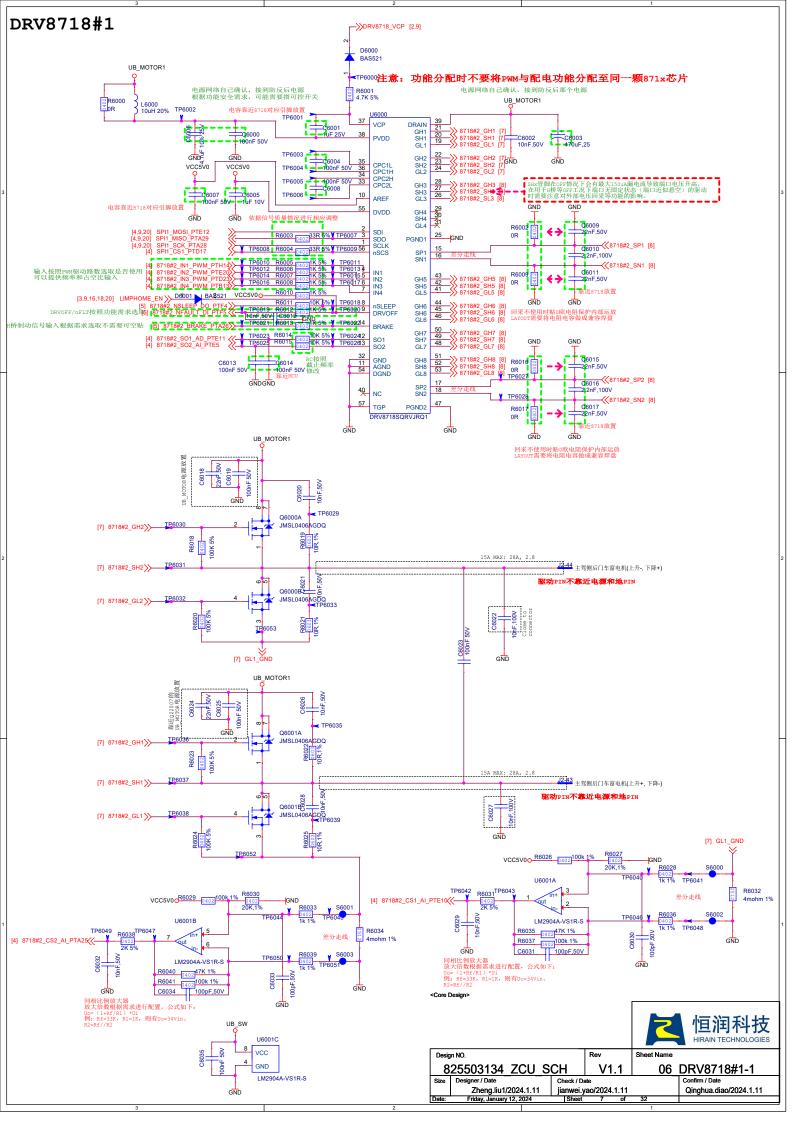
28 C4000 | 8pF,50V GND 04001 8pF.50V R4001 0402 [11] SPI0_SCK_PTE0 [11] SPI0_MISO_PTE1 [13] LIN8_TX_PTE4 [20] A700_RSTB_DO_PTE17 [12] CAN6_WAKE_PTE23 [12] CAN7_WAKE_PTE24 TP4001 33R 5% TP4002 [30] LIN9_RX_PTF2 [7] 8718#2 NSLEEP DO PTF4 [7] 8718#2_NFAULT_DI_PTF5 [15] 8908_EN_DO_PTF6 [17] 2HB35#5 DO EN1 PTF17 [25] DDCLR_DI PTF18 [3] L9026_IN1_DO_PTF19 [16] UB OL_EN_DO_PTF20 [12] CANT_WAKE_PTF21 [12,13] DIPD_WAKE_PTF22 [19] SPI2_CS3_PTF24 CMP0_INSPIFEAFI TO__CHOPTO_FIZE_FOSTI CONSTITUTION
PTG0/FCUART6_CTS/FTU8_CH1/FCUART8_TX
N15_PTG13SDDF0_CH0/FTU11_CH4/FLEXCAN4_TX
C19_PTG14/SDDF0_CH1/FTU11_CH4/FLEXCAN4_TX
D18_PTG15/FCUART15_RX/FCIICO_SCLMSC1_ENUTRGSEL_OUT2
A19_PTG16/FCUART15_TX/FCIICO_SDA/MSC1_SDI0/TRGSEL_OUT3
B13_PTG17/FCUART15_CTS/FLEXCAN7_TX/MSC1_ENI/FTU5_QD_PHA
PTG18/FCSP14_SCKFTU1_CH1/FCUART10_TX
PTG18/FCSP14_SCKFTU1_CH1/FCUART10_TX
PTG20/FCSP14_SIN/FTU1_CH2/FCUART10_TX
PTG20/FCSP14_SIN/FTU1_CH2/FCUART10_TX
PT [30] LIN9 TX PTG0 [12] CAN4 TX PTG13 [12] CAN4 TX PTG13 [12] CAN4 TX PTG14 [12] CAN9 NH PTG15 [2] UBD34 EN DO PTG16 [12] CAN7 TX PTG17 [11] HALL DOOR2 PTG19 [11] HALL DOOR3 PTG20 [28] HALL_BP_PWMI_PTH4
[15] 8908#1_NFAULT_DI_PTH5
[12] CAN_EN_DO_PTH15
[12] CAN_EN_DO_PTH15
[21] Power_Relay_Drive1_PTH16
[21] Power_Relay_Drive2_PTH17
[11] HALL_DOOR4_PTH18
[18] 9025_SEL1_DO_PTH23 PO THAIFTUA OD PHAIFTUI1. CHO'ENET. PPSO/ETM. TRACE. D12/FCSPI6. SIN PTHAIFTUA OD PHAIFTUI1. CHO'ENET. PPSO/ETM. TRACE. D13/FCSPI6. SCK PTHAIFTUA OD PHAIFTUI1. CHO'ENET. PPSI/ETM. TRACE. D13/FCSPI6. SCK PTHAIFTUA CHO'ENET. PPSI/ETM. TRACE. D13/FCSPI6. SCK PTHAIFTUA CHO'ENET. PTHAIFTUATATIS. RTS/FLEXCANT. RX/MSCI. SDII/FTUS. OD. PHAIFTUA CHO. PTHAIFTUA CHO. PTHAIFT [28] HALL BHS PWMI PTI1 [18] 9025 PWM EN3 PTB4 [16] 2HB18#2 PWM EN2 PTB5 [23] UB POLLING EN DO PTB22 [23] VN9D CLK PTB23 [17] 2HB35#1 PWM EN2 PTB26 [23] DT_NT_12400_PTB30 [15,19,23] SPI2_SCK_PTB31 PTB4/FTU7_CH7/FCUART9_RX/ENET_MDIO/TRGSEL_IN1
PTB5/FTU6_CH2/FCIIC1_SDA/ENET_MDC/TRGSEL_IN0
PTB2/FTU8_CH3/FCUART1_TX/ETM_TRACE_D5/GSPI_A_IO0/FCSPI3_PCS2--PTB23/FTU F_LT9/FCSPI2_PCS0/FTU7_CH3/ENET_RX/D3--------(HS pad)
PTB26/FTU6_CH1/ENET_COL/FCSPI3_SIN
PTB30/FTU6_CH1/FCIC1_SCL/FCUART12_TX/ENET_CRS/FCSPI3_SOUT
PTB31/FTU7_CH1/FCSPI2_SCK/ENET_RXD1------(HS pad) VDD HV B R4003 0402 100R 1% TP4007 Y10 [18] 9025_RST_DO_PTC0
[18] 9025_PWM_EN2_PTC1
[18] 1.N1_TX_PTC2
[13] 1.N1_TX_PTC3
[17] 2.H835#4_DO_EN1_PTC14
[18] 1.10_TX_PTC3
[15,19,23] SPI2_MOSI_PTC16
[18] 9025_SEN_DO_PTC17
[15,19,23] SPI2_MISO_PTC18 [16] 1HB08#1_PWM_EN_PTD5 [15] 8908#2_NFAULT_DI_PTD7 [18] 9025_PWM_EN1_PTD8 [17] 2HB35#1_PWM_EN1_PTD10 [16] 2HB16_PWM_EN2_PTD11 [16] 2HB16_PWM_EN1_PTD12 T6 PTE8/FTU6_CH1/FCUART9_RX/ENET_MDC/FCSPI3_SCK [16] 2HB16#2_PWM_EN1_PTE8 << W3 PTF8/FTU11_CH5/FCSPI3_SIN/FTU_FLT5/TRGSEL_OUT4 [3] SPI3_MISO_PTF8 PTG6/FTU11_CH6/FCSPI3_SOUT/TRGSEL_OUT3
PTG7/FTU11_CH7/FCSPI3_PCS0/TRGSEL_OUT2
PTG8/FCUART12_CTS/FTU8_CH0/FCUART3_TX/ENET_REF_CLK-------(HS pad) PTH6/FCUART12_RTS/FTU8_CH1/FCUART3_RX PTH7/FTU_FLT8/FTU8_CH2/FCUART12_RX/ENET_COL PTH8/FTU8_CH5/ENET_CRS PTH2/FTU1_CH4/FC5/813_SCK/FTU_FLT4/TRGSEL_OUT5 PTH22/FTU1_CH4/FC5/813_SCK/FTU_FLT4/TRGSEL_OUT5 [3] 8908_NSLEEP_DO_PTH6 [9] 8718#3_BRAKE_PTH7 [17] 2HB35#4_DO_EN2_PTH8 [3] SPI3_SCK_PTH21 [3] 70331_NT_PTH22 FC7300F8MDT1A320T1B

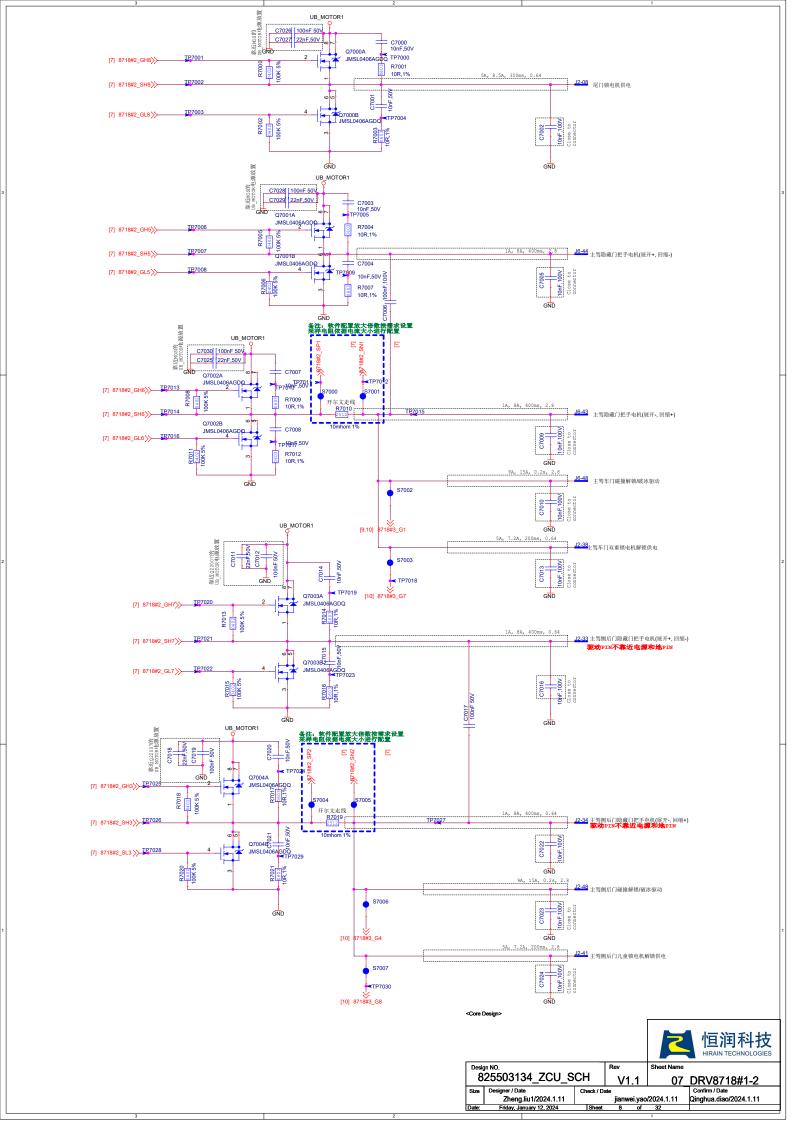
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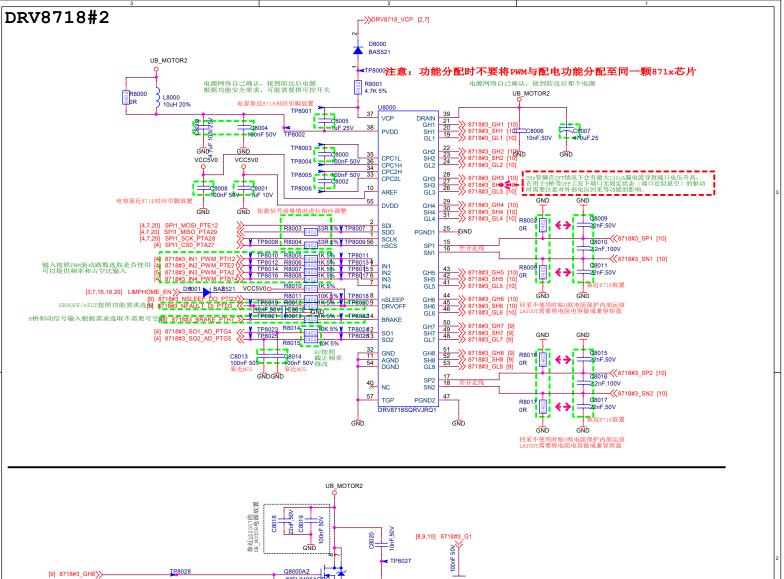


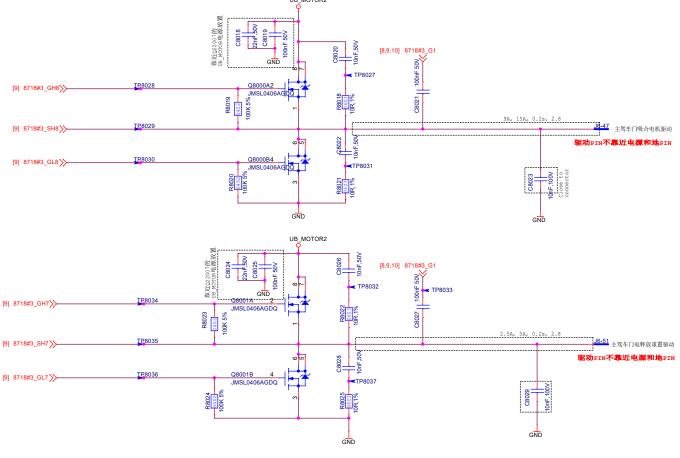
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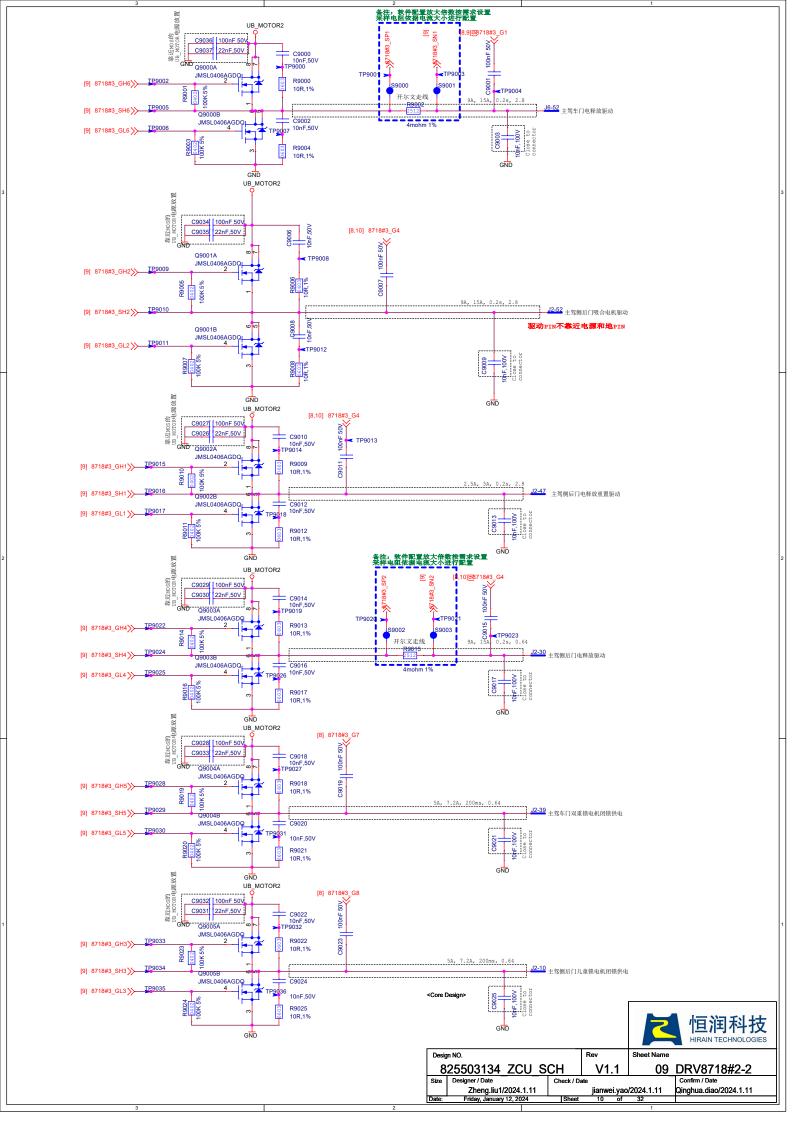


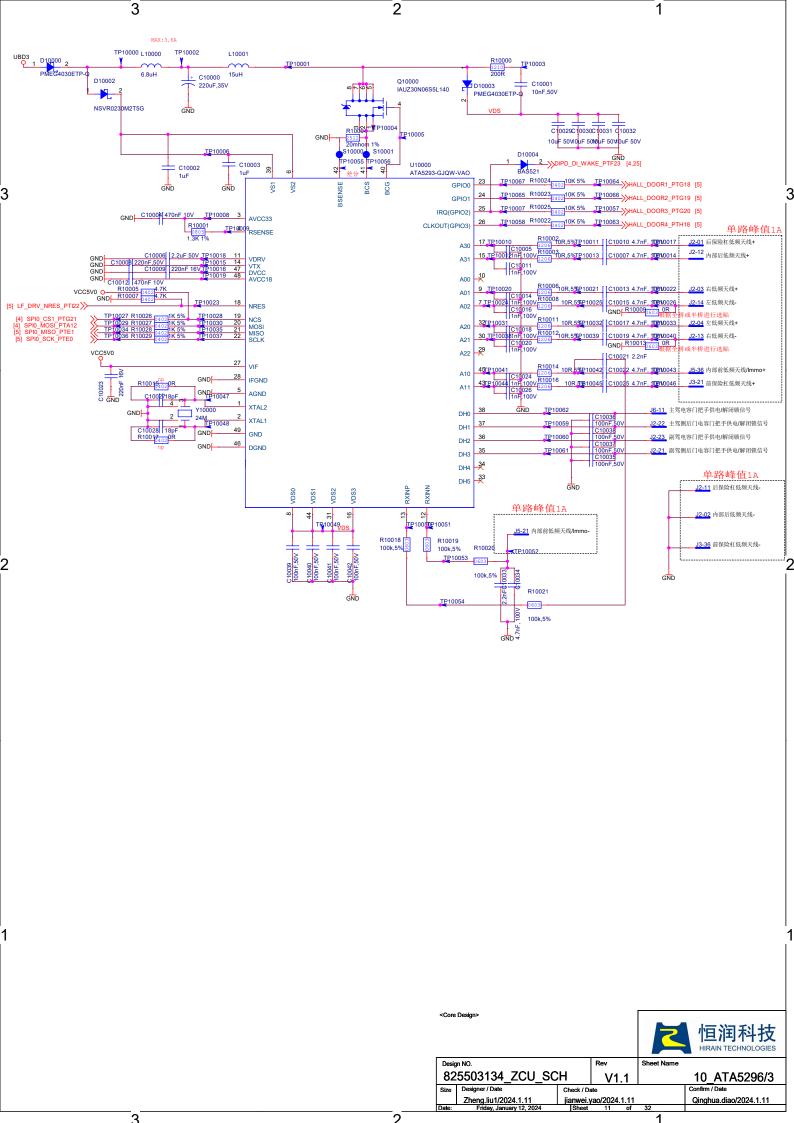


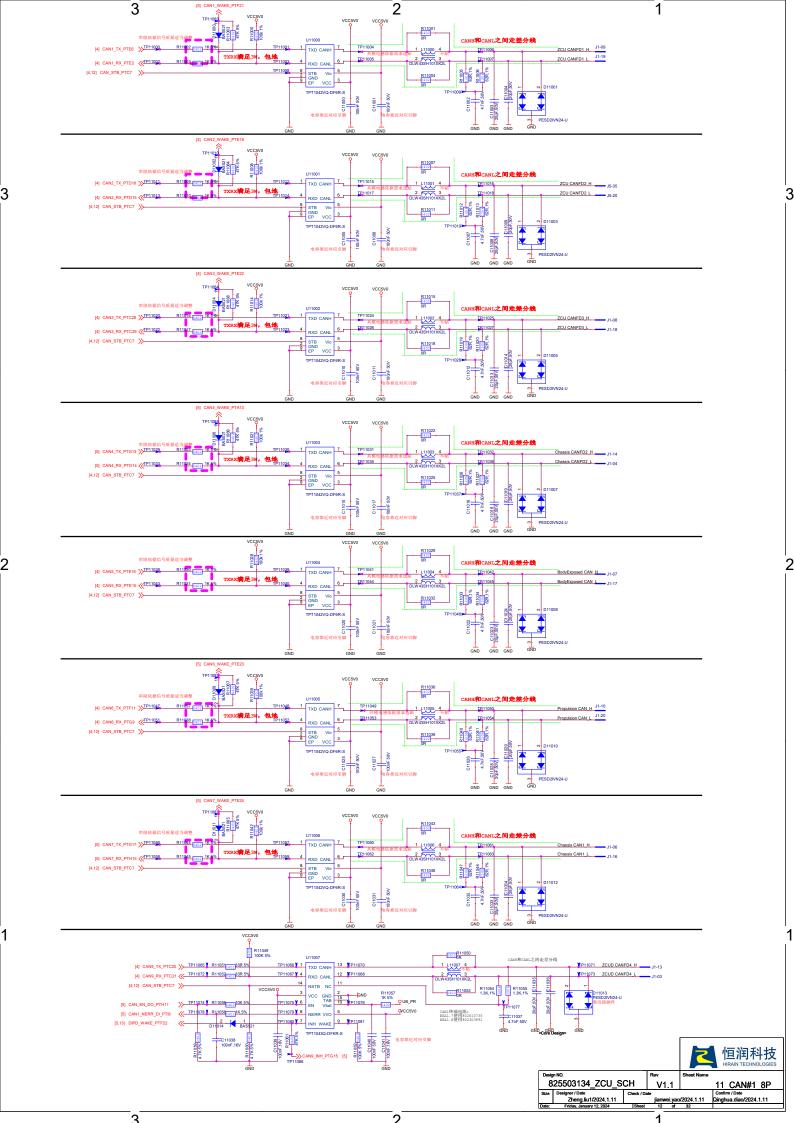


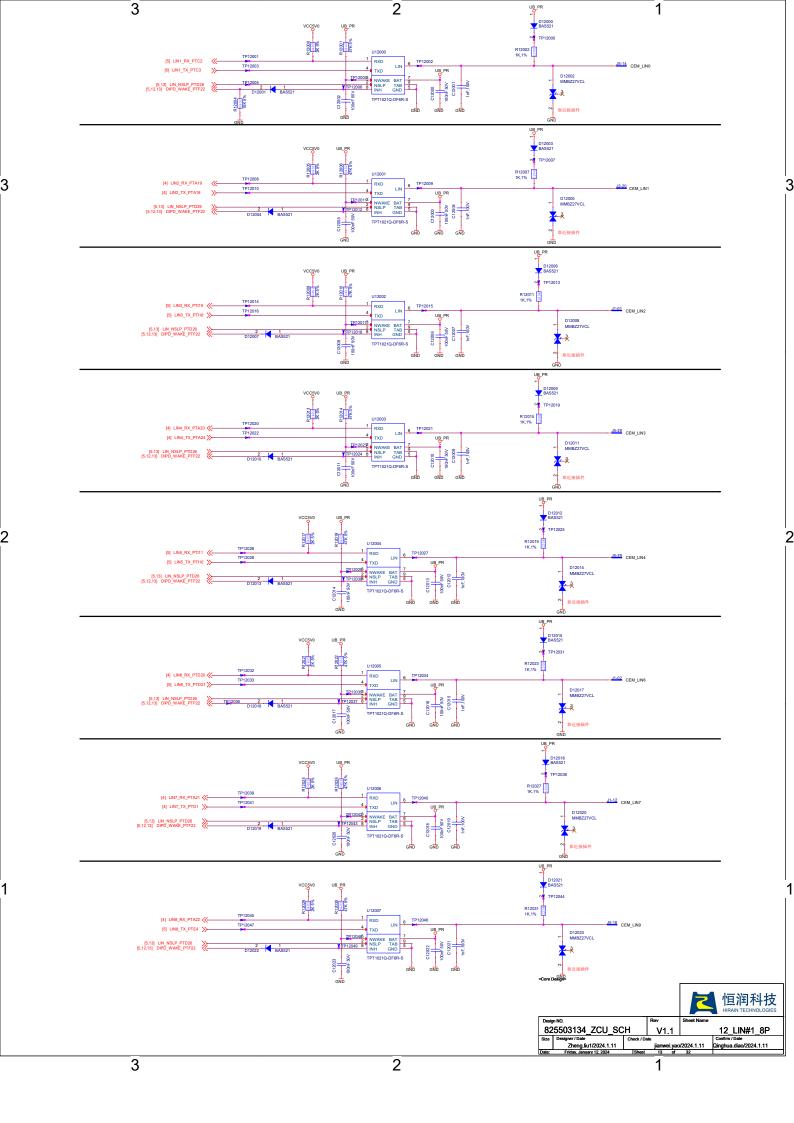
<Core Design

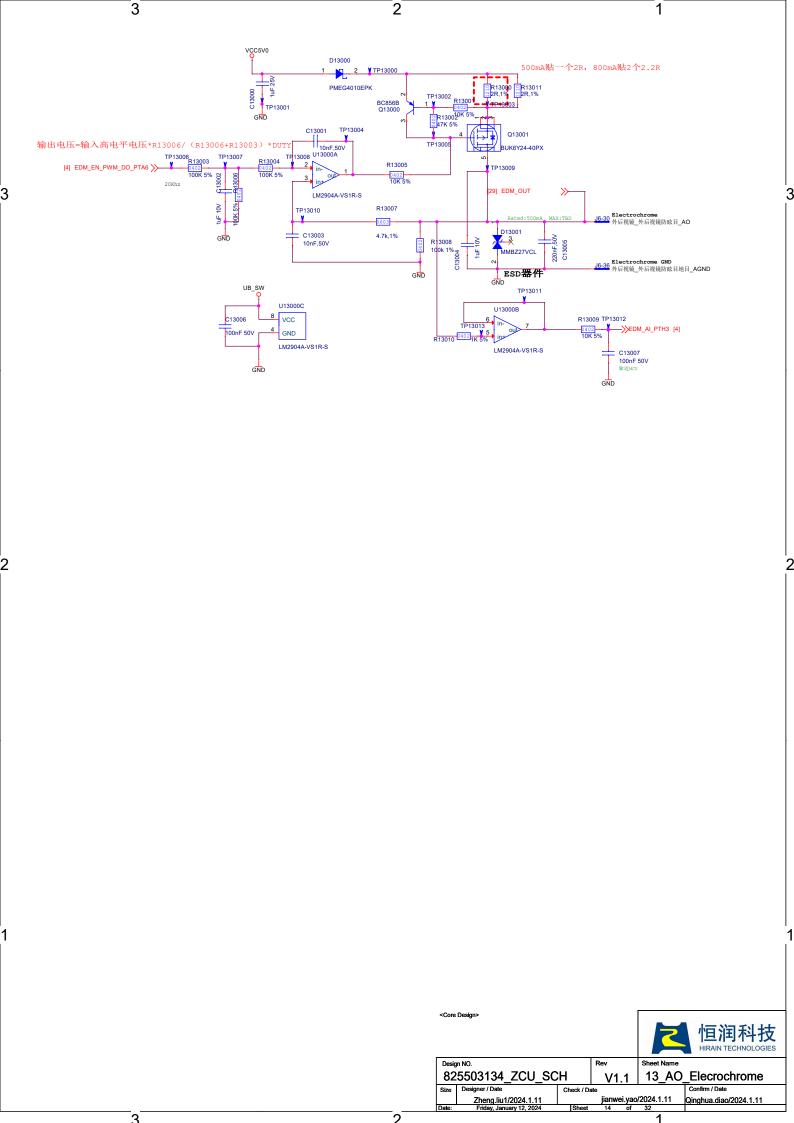


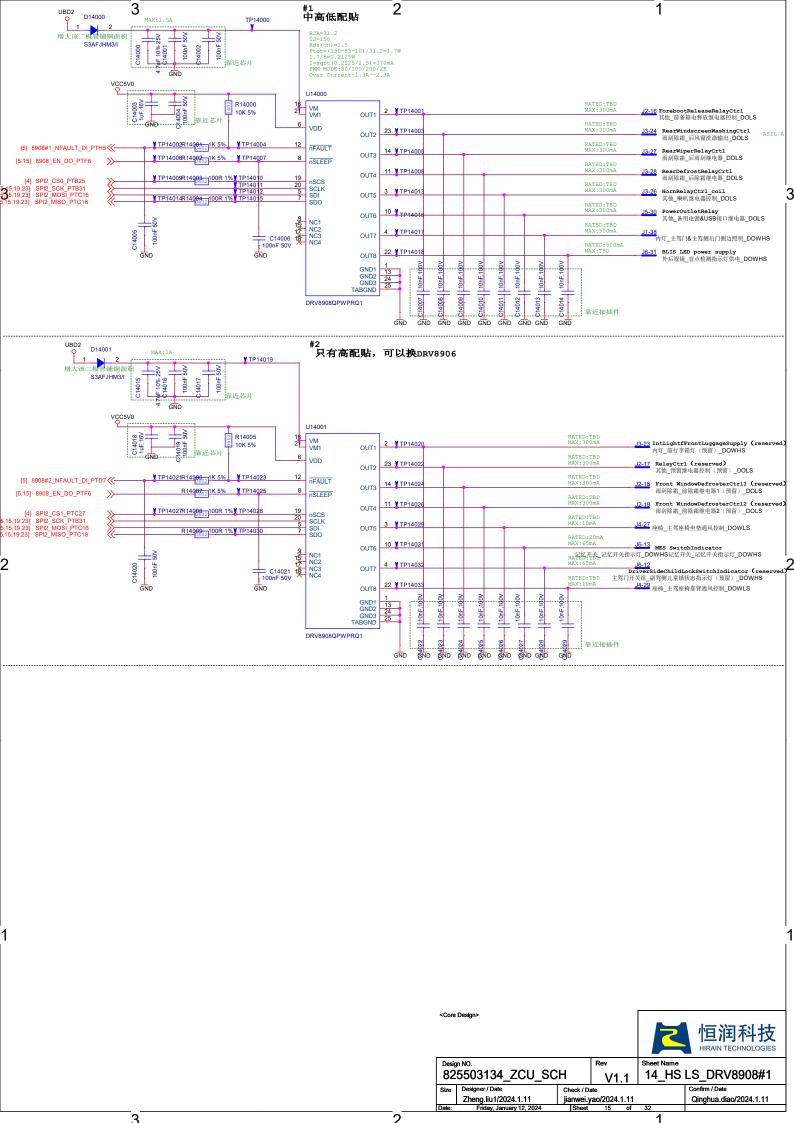


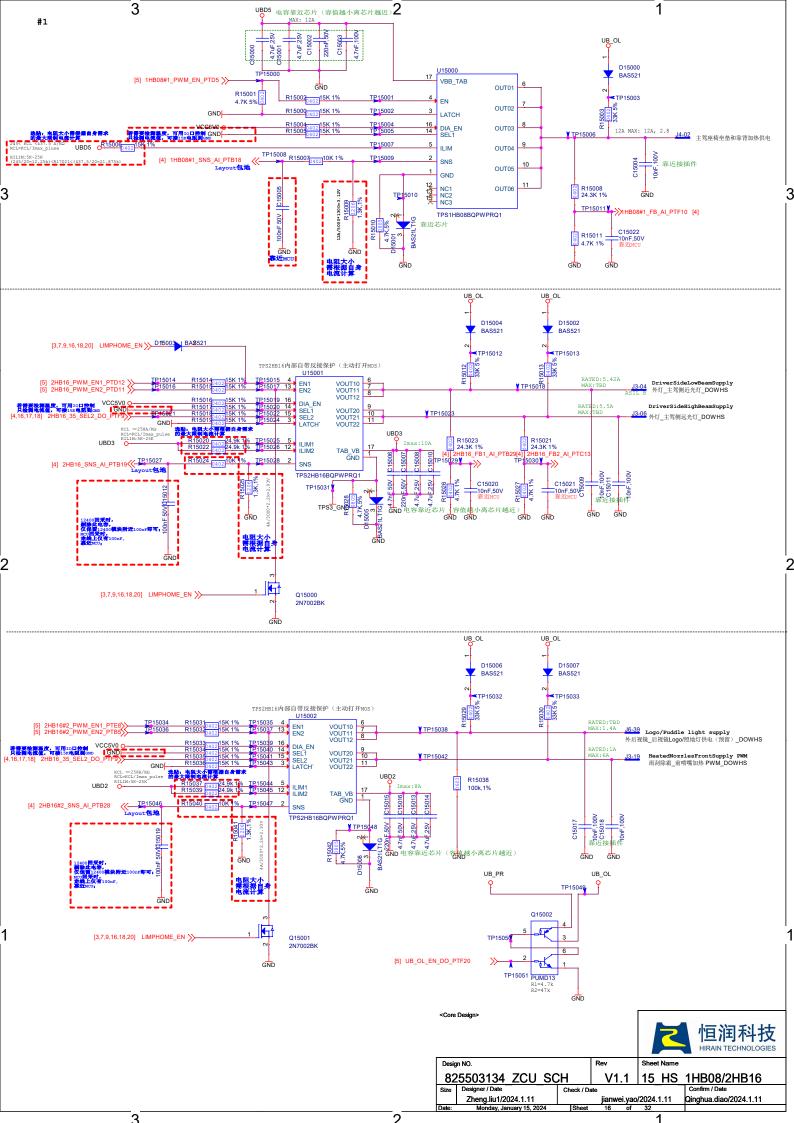


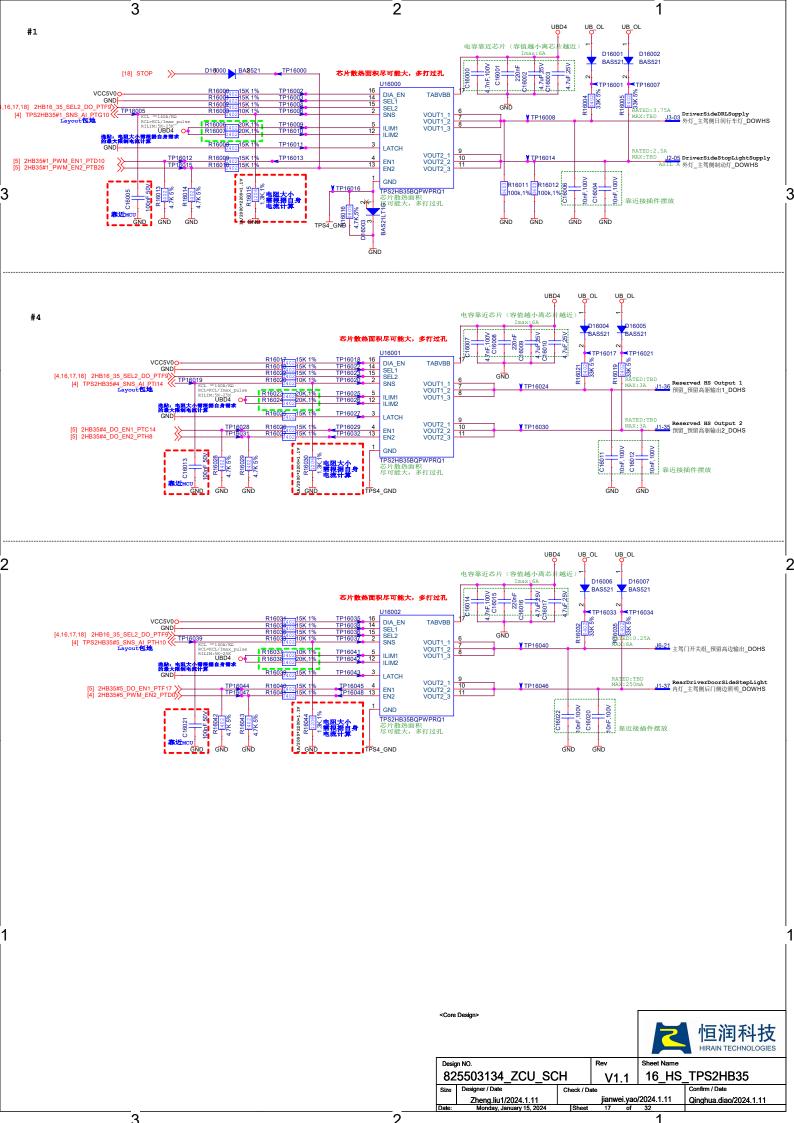


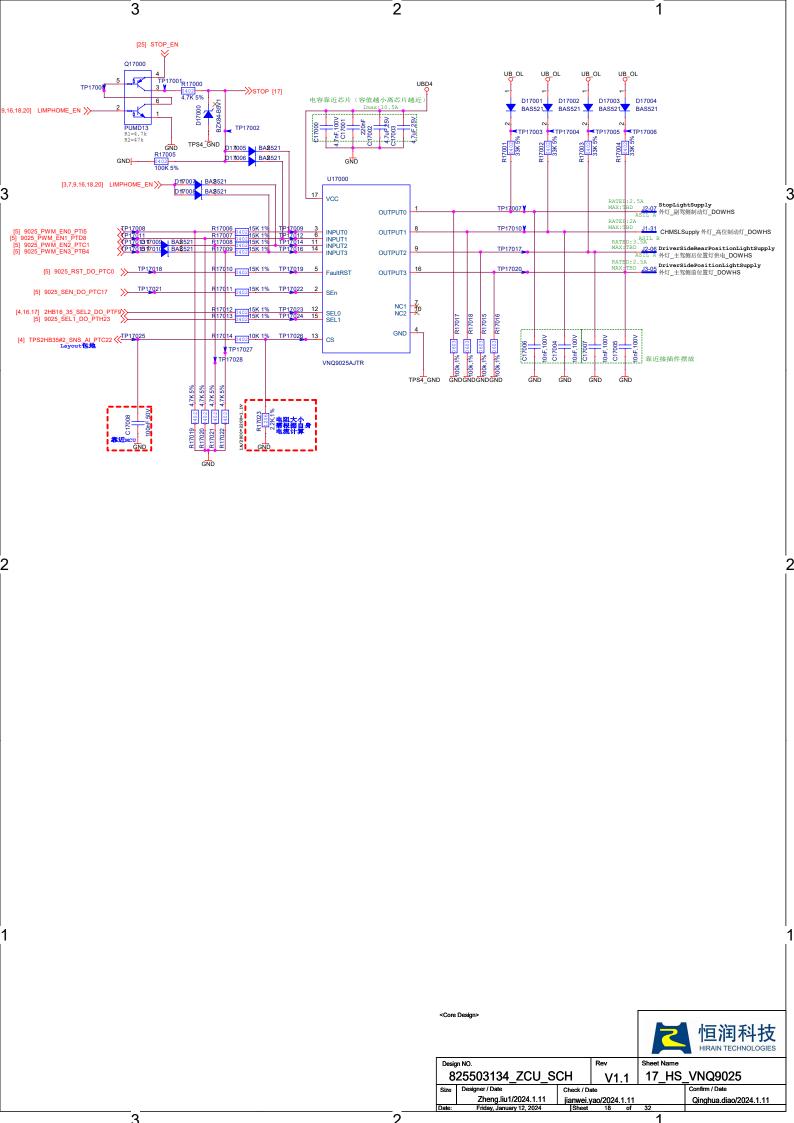


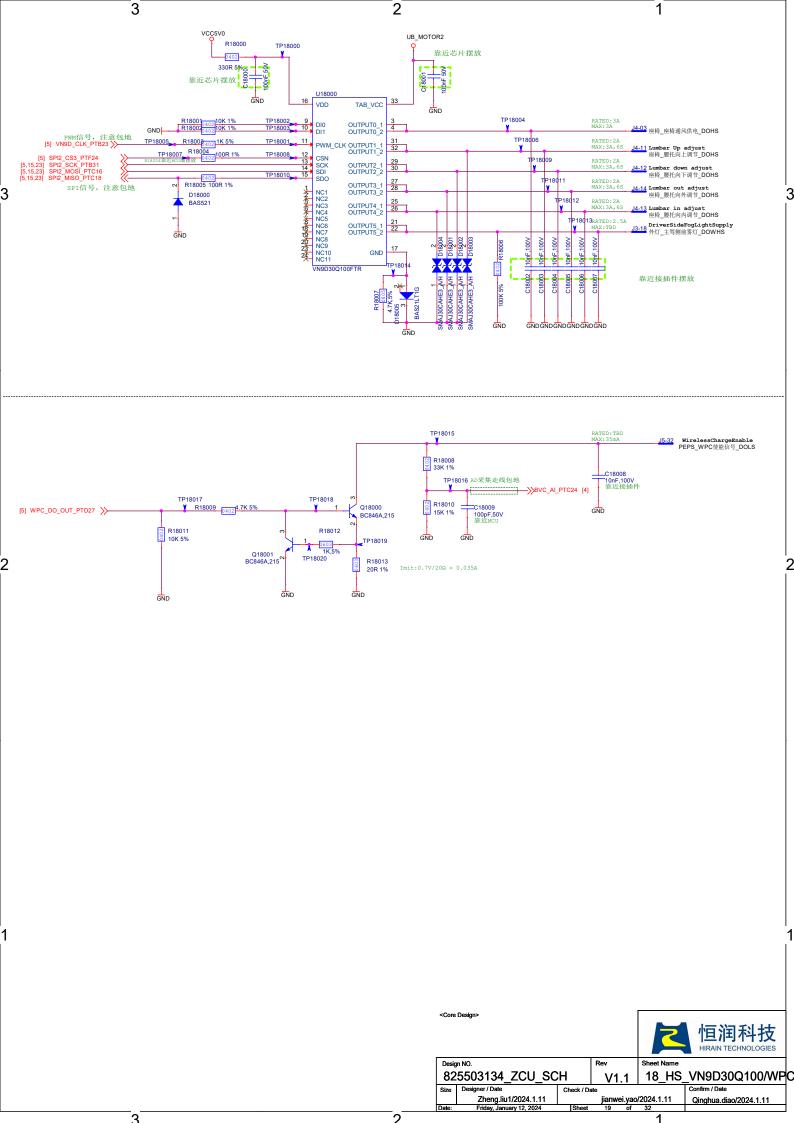


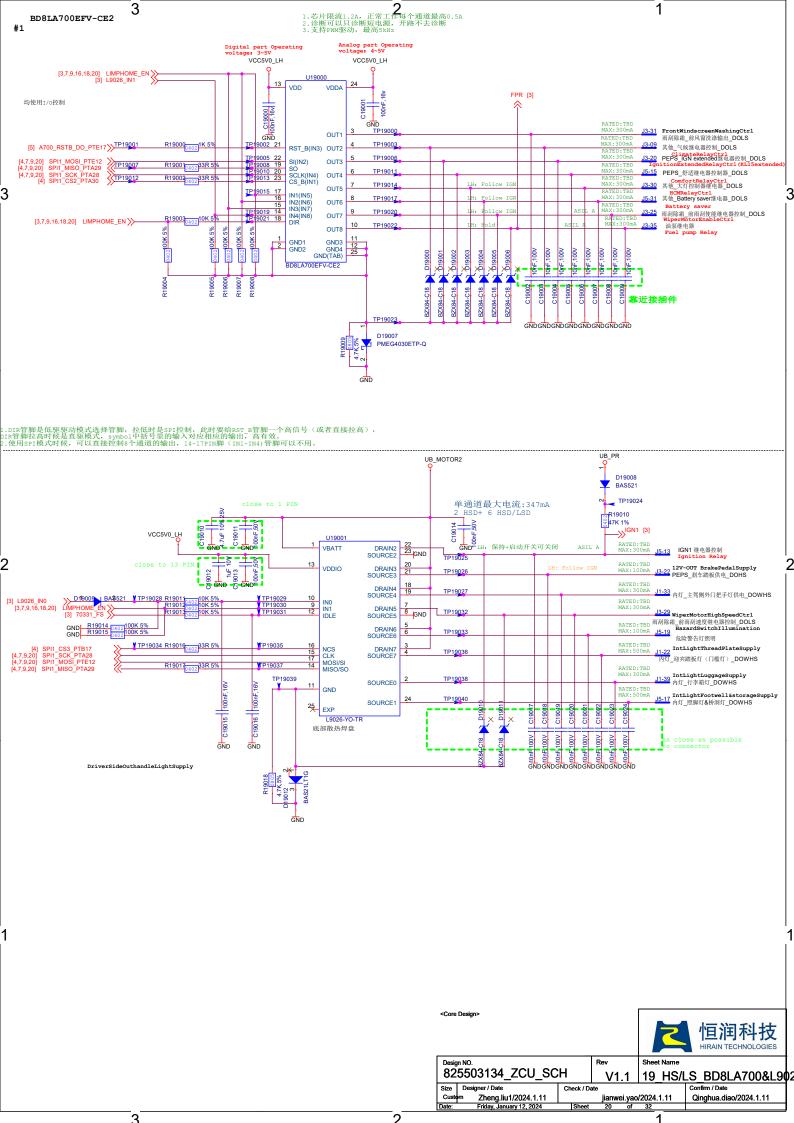


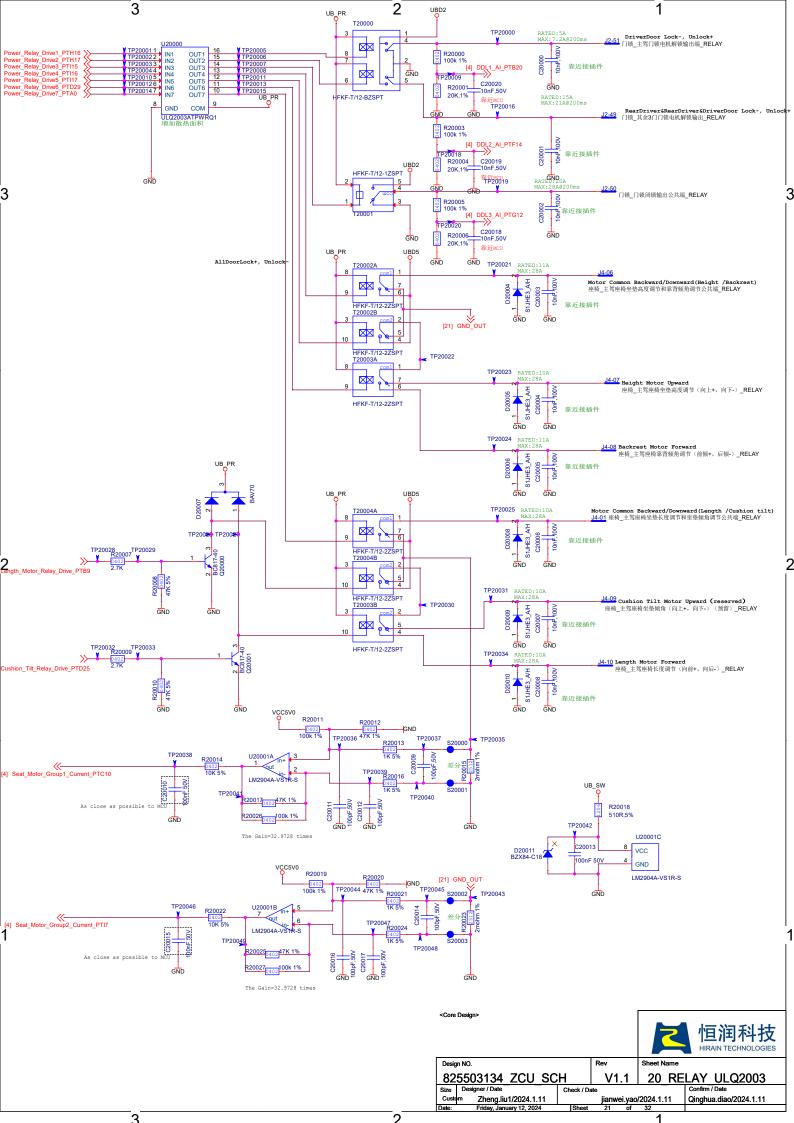


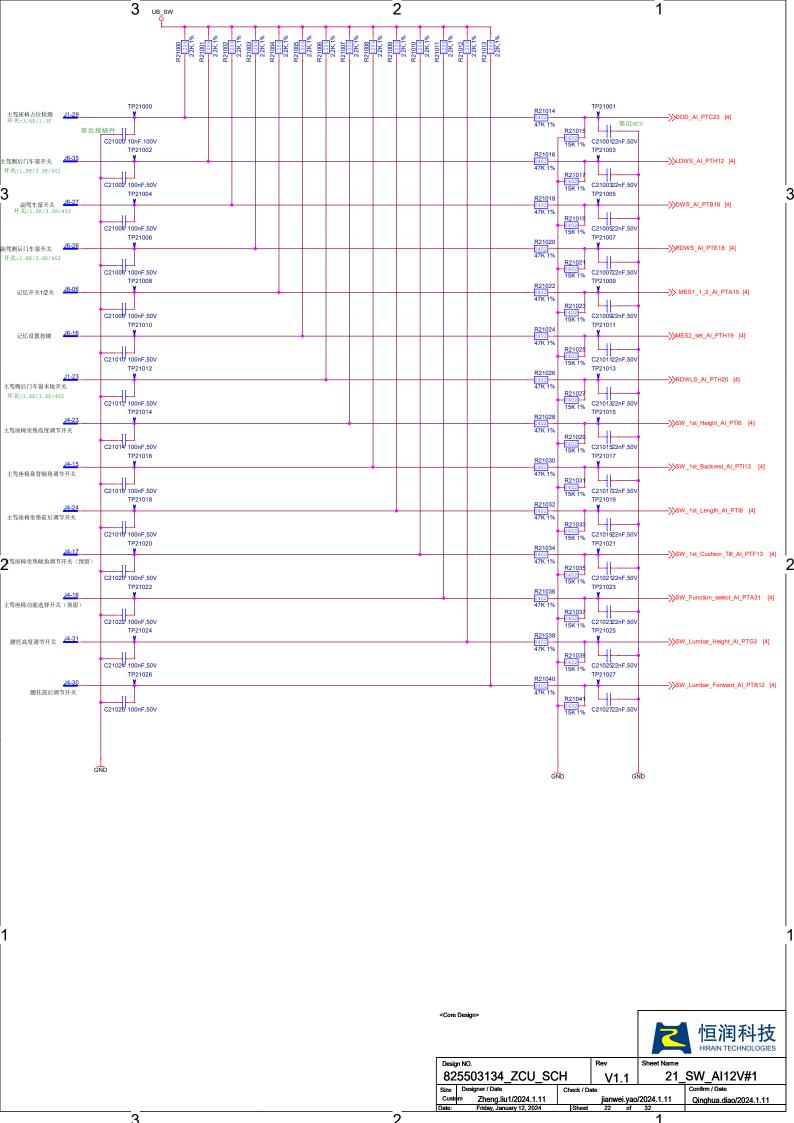


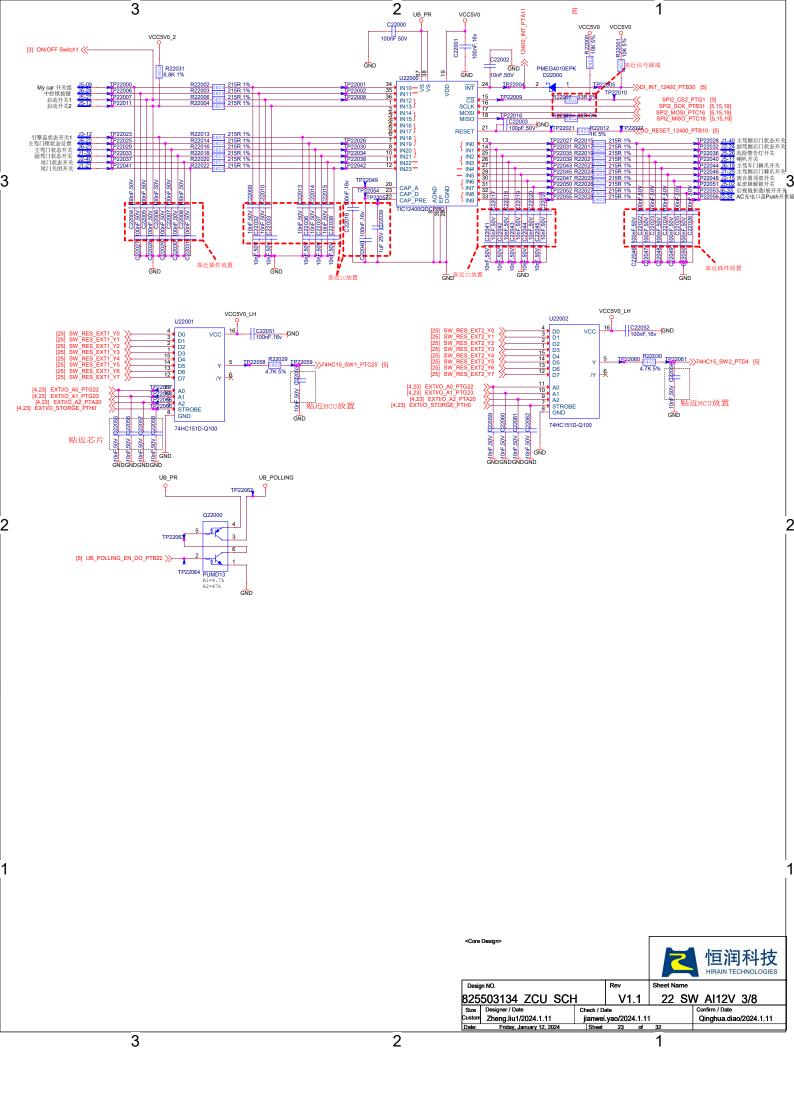


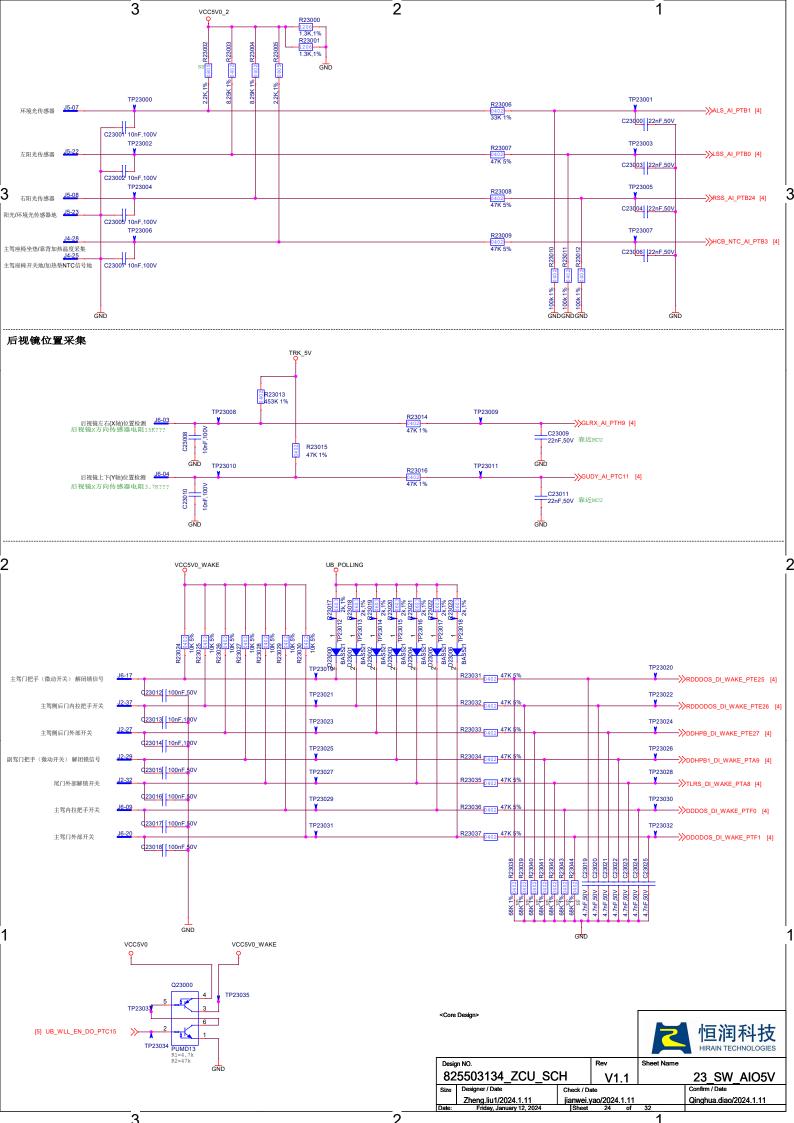


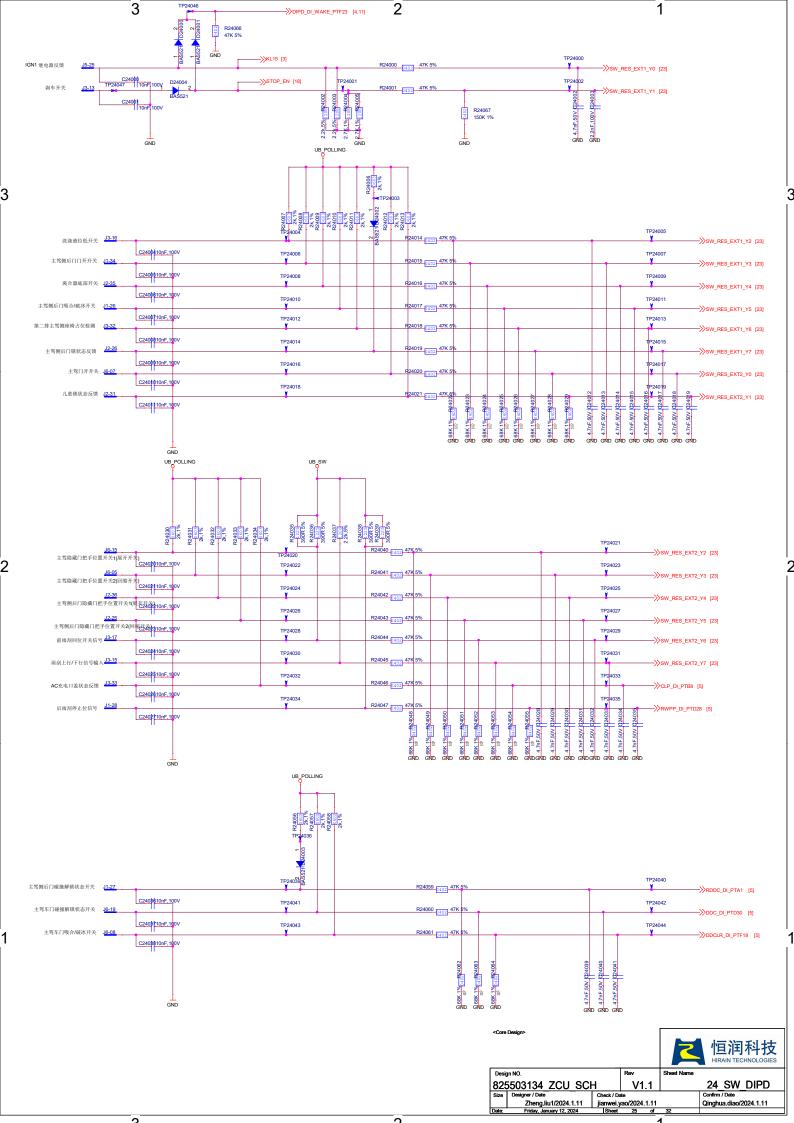


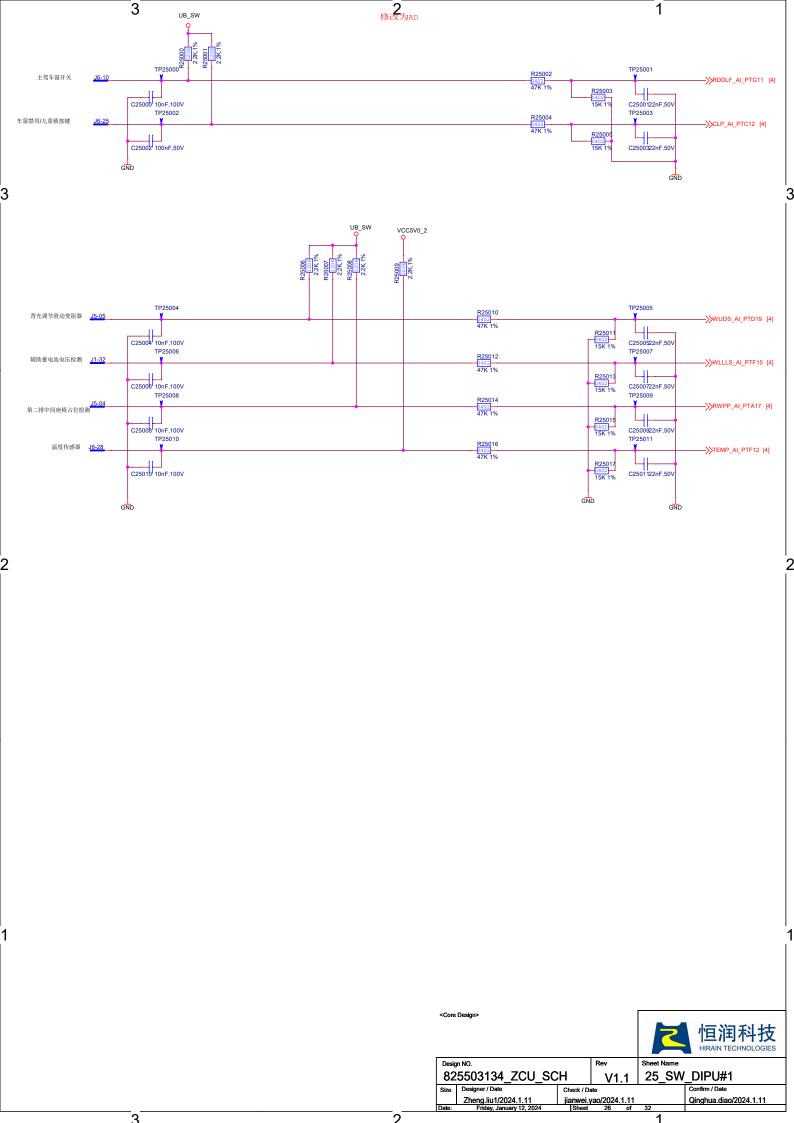








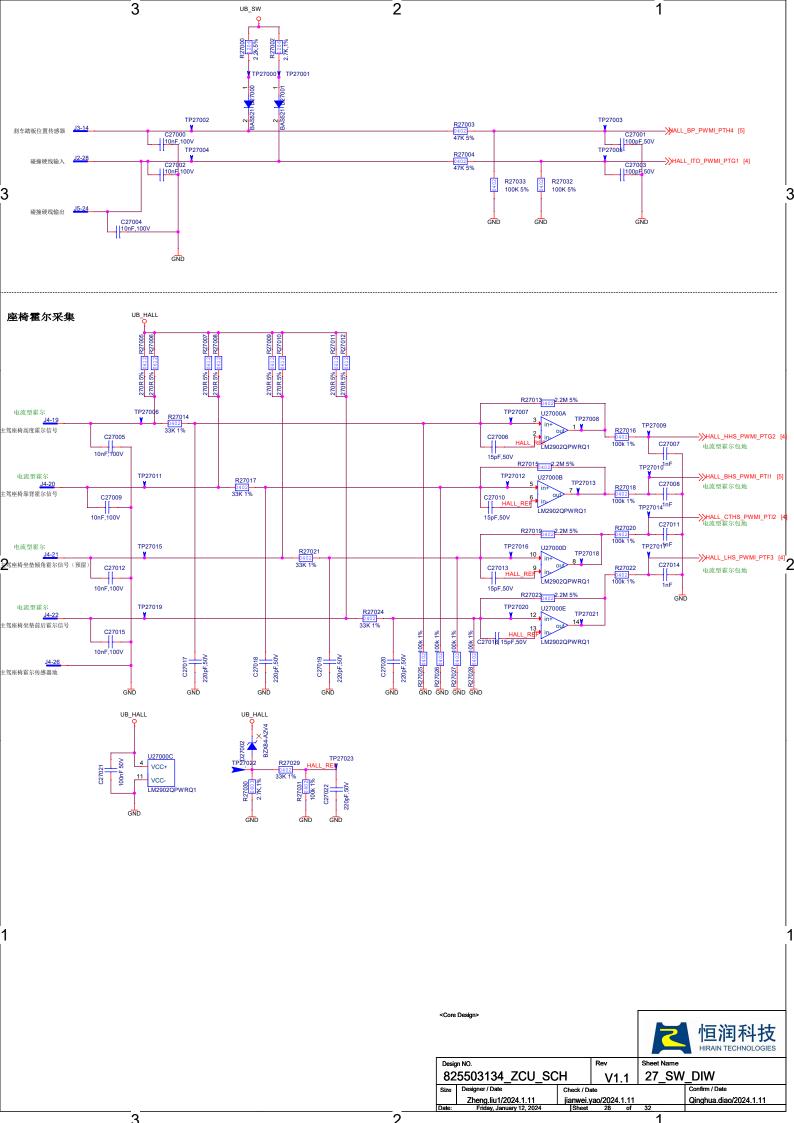


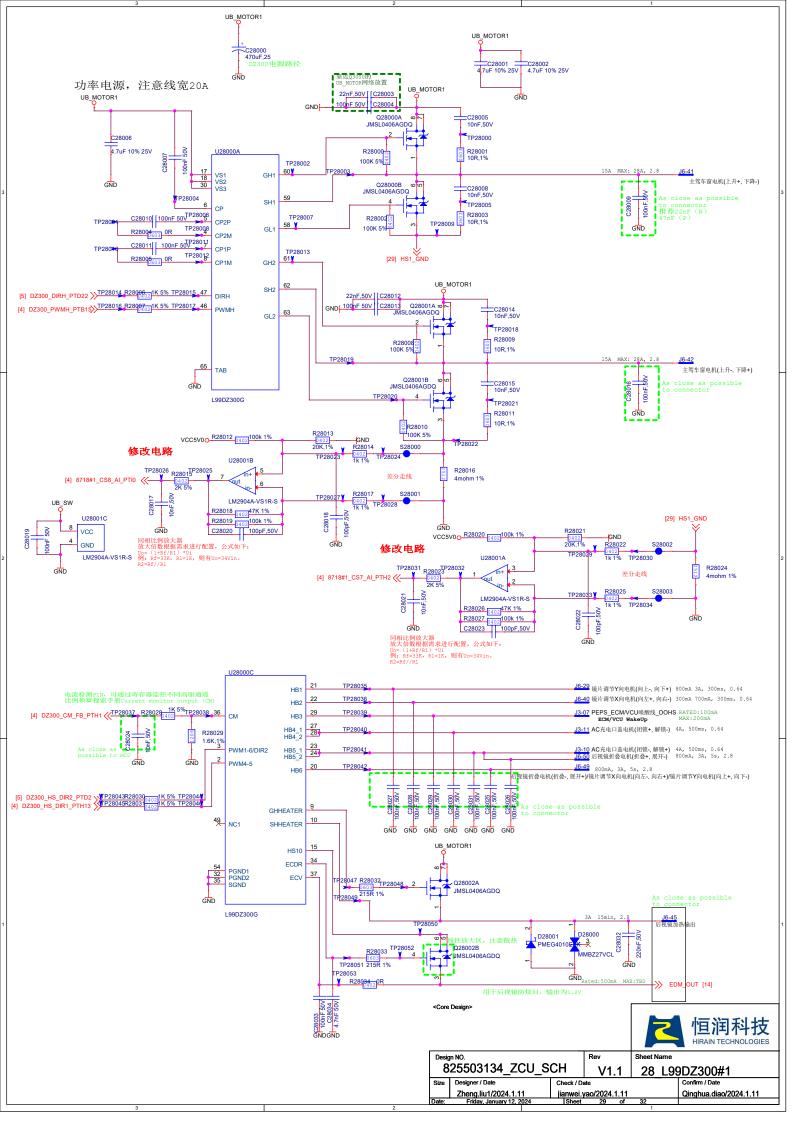


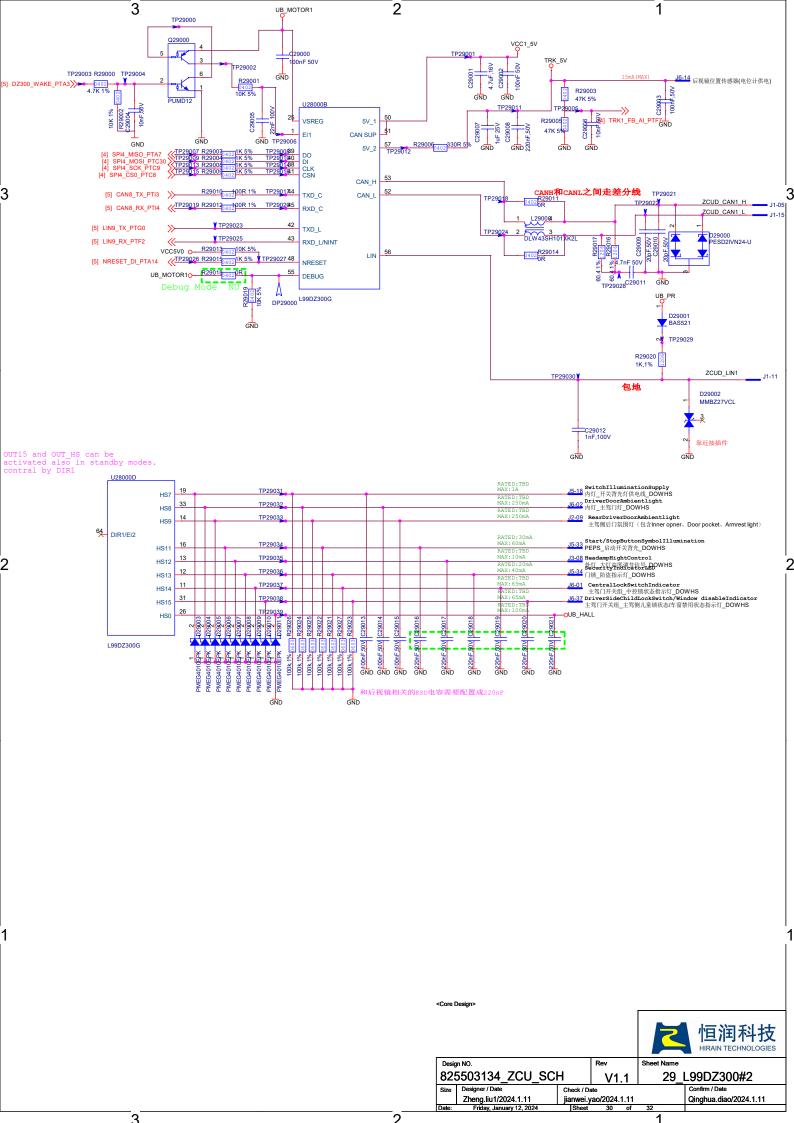
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Revision	History:	3 4 5 4 6 7	8	9	10
Date	Author	Description	SCH Version	PCB Version	PCBA Version
2023-11-10	zheng.liu1	初版	V1.0	V1.0	V1000A
2024-01-11	zheng.liul	1、修改UBD1-UBD5接插件顺序与ICD统一 2、修改逻辑电防反二极管为肖特基二极管 3、修改PMIC SW3管脚供电为VCC5V0同时增加1k电感跳阻 4、更换UB_SW开关管为更大过流能力的PIMC31 5、删除UBD1、2、5的TVS同时更换UBD3、4的TVS为SMB 6、PMIC的CS增加上拉 7、完善LIMPHOME功能电路增加LDO可控及电源合并电路等 8、增加RTC功能电路(晶振电路) 9、修改后门车窗电流采样为运放采集 10、依据供应商要求完善ATAS29x芯片外围电路并增加门把手采集功能 11、更换CAN芯片为小封装器件优化CAN唤醒电路 12、更换LIN上拉电阻为高功率电阻 13、额外并联一颗自搭防炫目限流电阻 14、8908防反二极管及输出续流更换为TVS并增加地防反 16、简化BDBLA700地防反电路 17、更新继电器型号、增加门锁电压回采电路、完善电流回采电路 18、增加12400电路用于唤醒功能替换74HC151 19、删除VCCSVO SW开关电路 20、依据供应商要求更新D2300上的ESD电容容值 21、更新车窗电流采样偏置下拉电阻阻值 22、更新TPS系列芯片电流采样反馈电阻阻值	V1.1	V1.1	V1122A
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		<core design=""></core>			

