

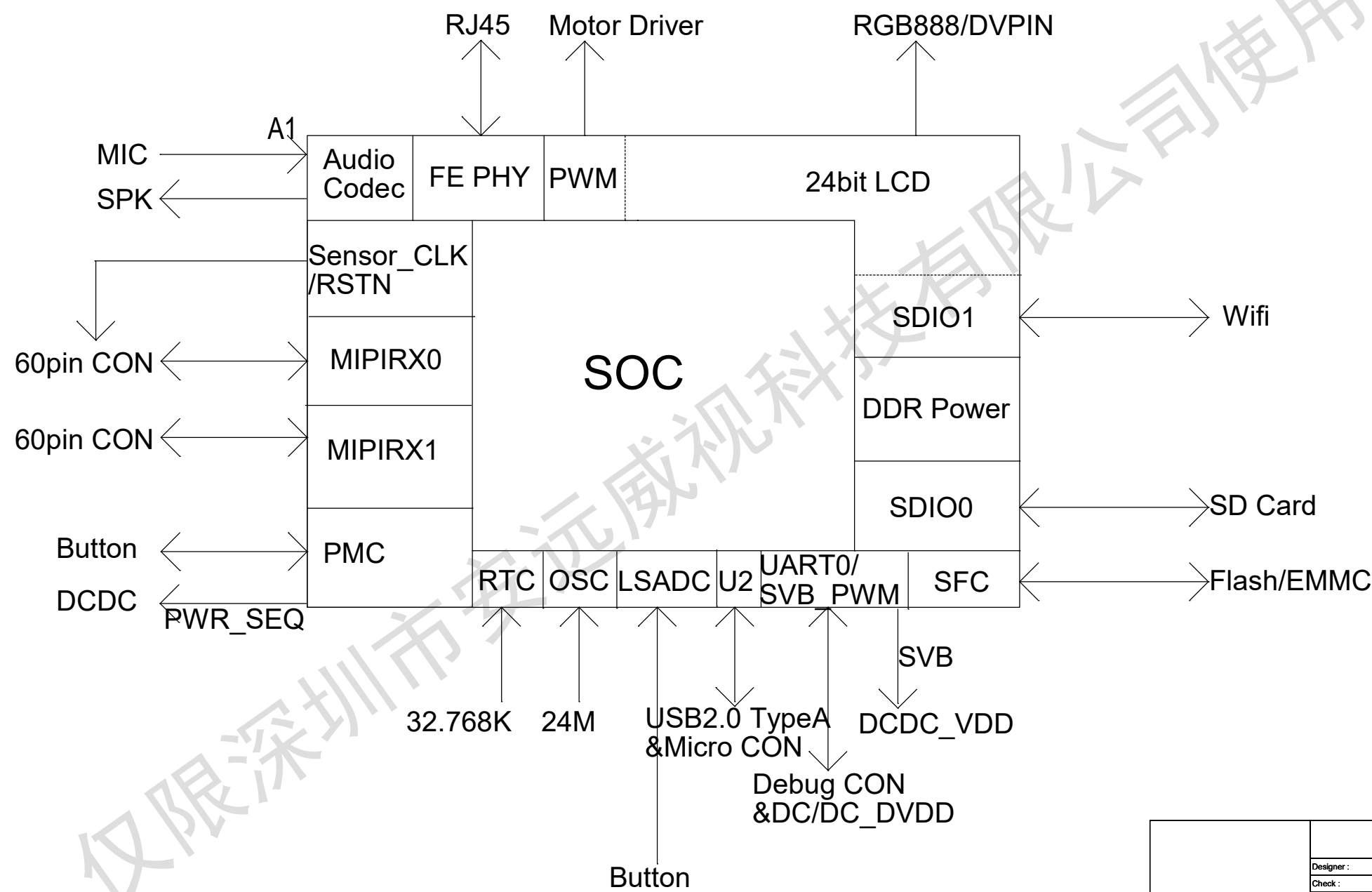
7206V11A_RB_A_VB

4L

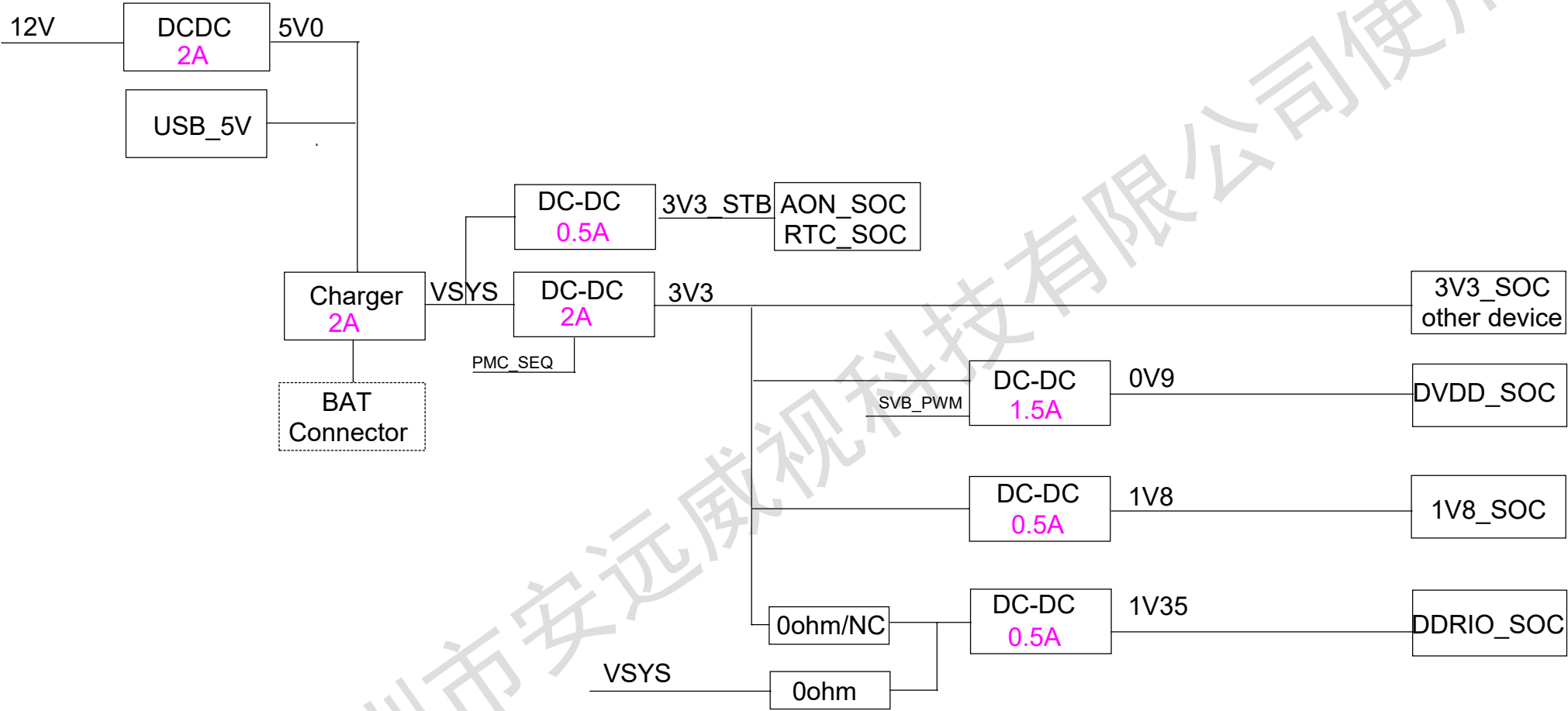
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Block Diagram

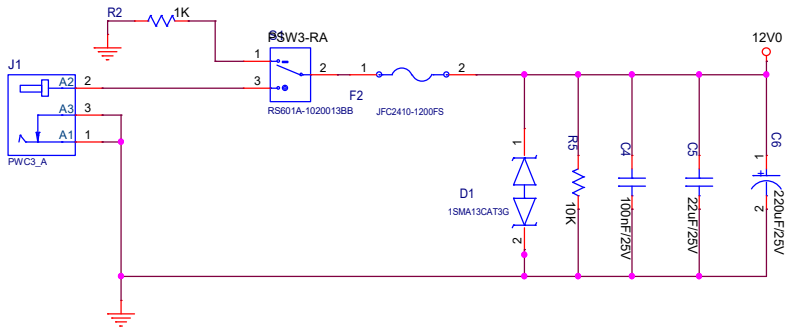


Power Tree

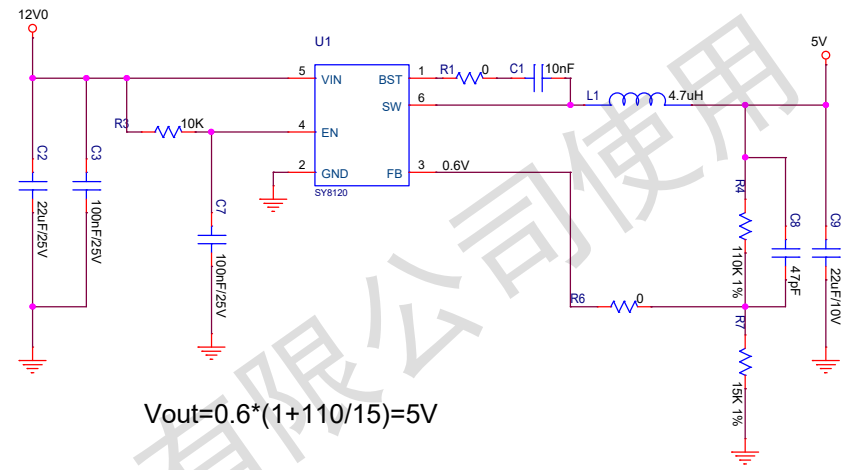


Power1

12V POWER IN

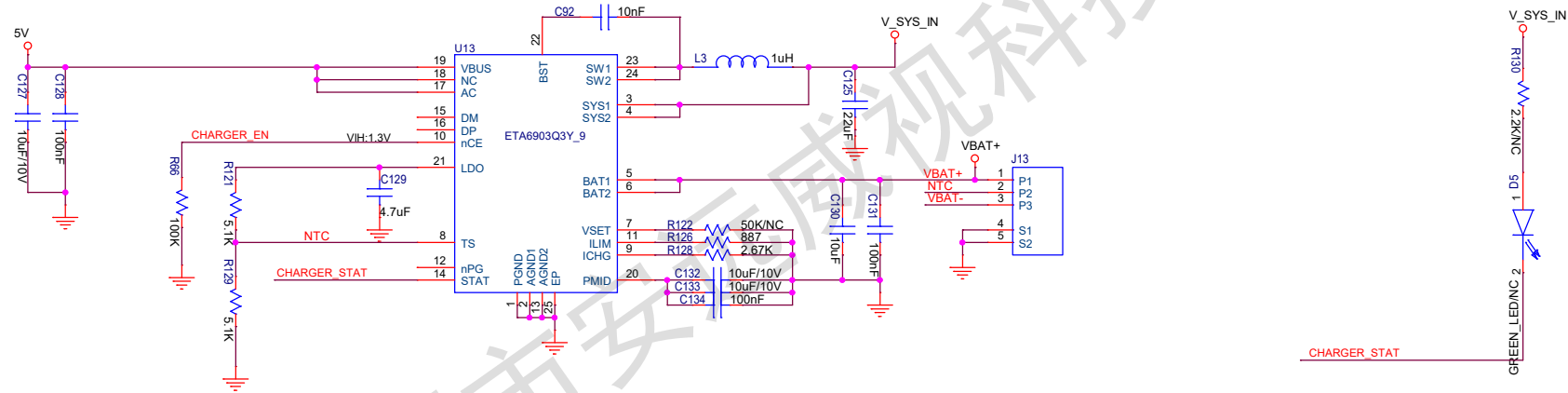


12V-->5V

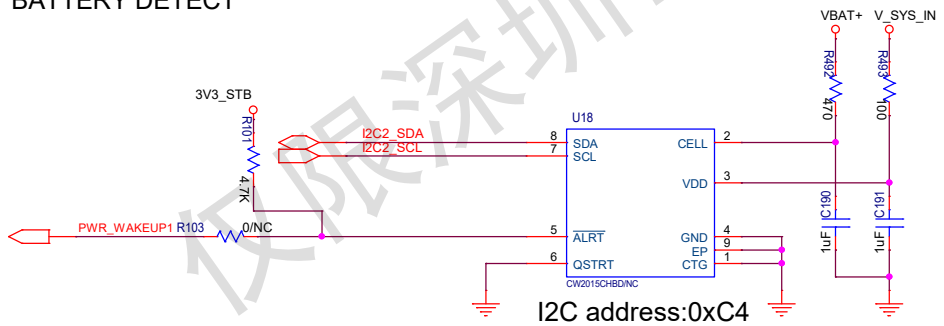


$$V_{out} = 0.6 * (1 + 110/15) = 5V$$

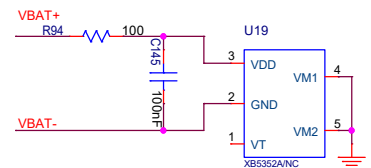
Charger



BATTERY DETECT



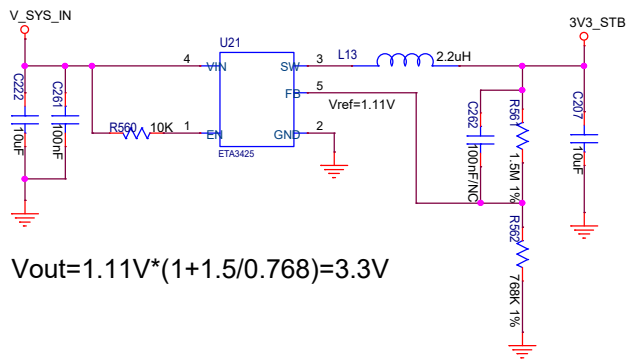
Battery Protection



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Power2

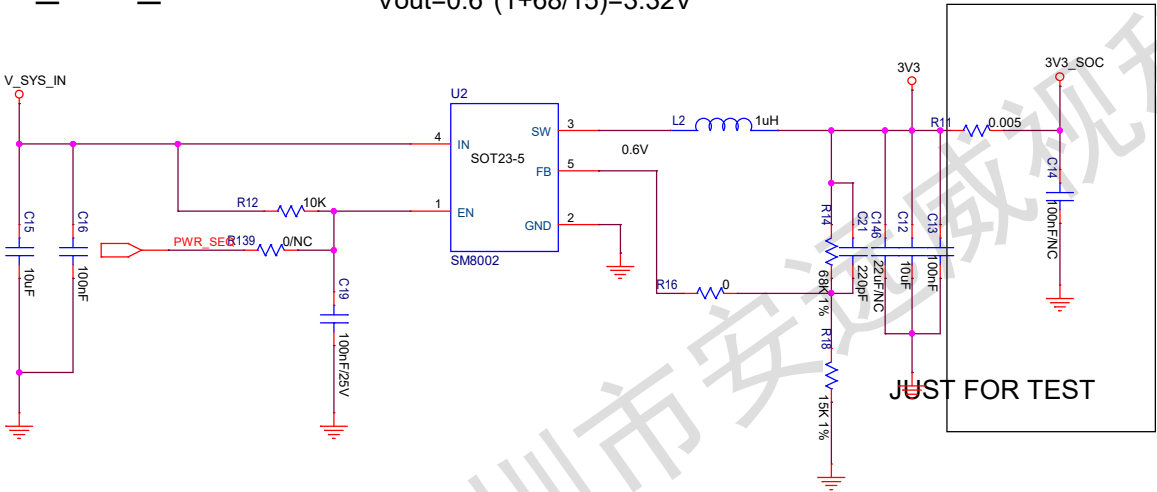
V_SYS_IN-->3V3_STB



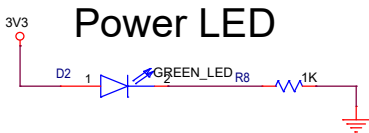
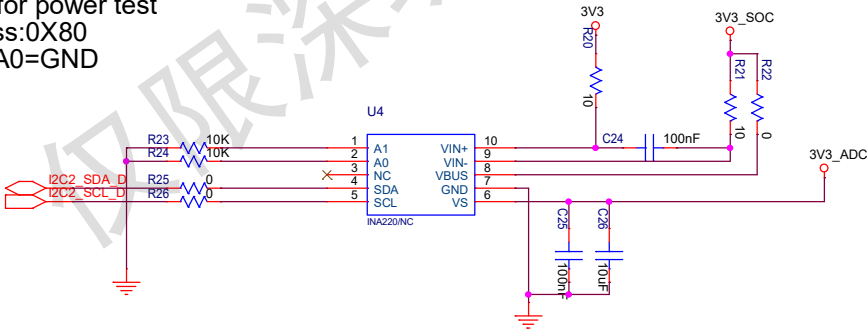
$$V_{out} = 1.11V * (1 + 1.5/0.768) = 3.3V$$

V_SYS_IN-->3V3

$$V_{out} = 0.6 * (1 + 68/15) = 3.32V$$



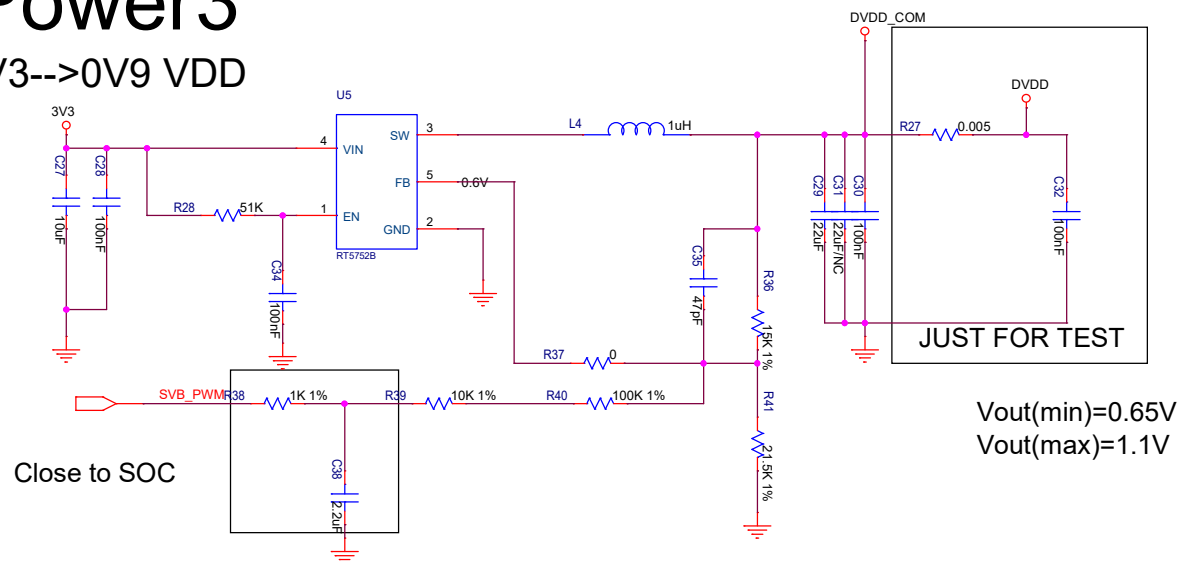
Note: Just for power test
I2C address: 0X80
A1=GND A0=GND



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Check :		Approve :	

Power3

3V3-->0V9 VDD



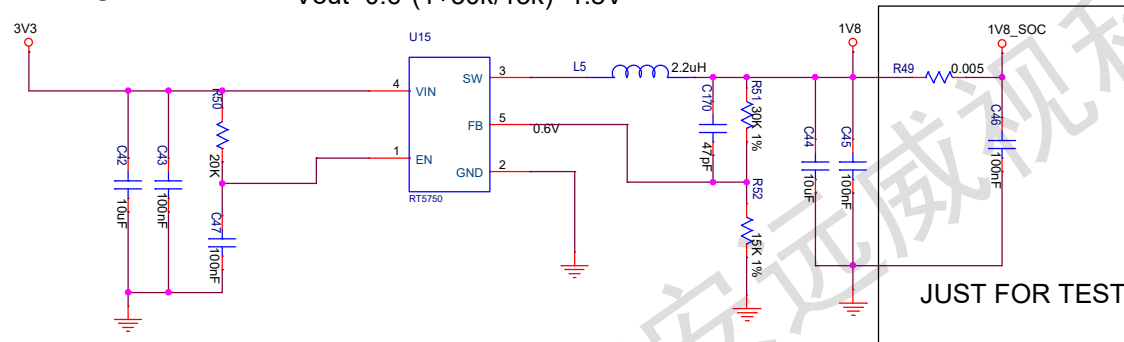
Vout(min)=0.65V
Vout(max)=1.1V

Tdelay=0.452RC=0.452*51k*100n=2.3ms

Close to SOC

3V3-->1V8

Vout=0.6*(1+30k/15k)=1.8V

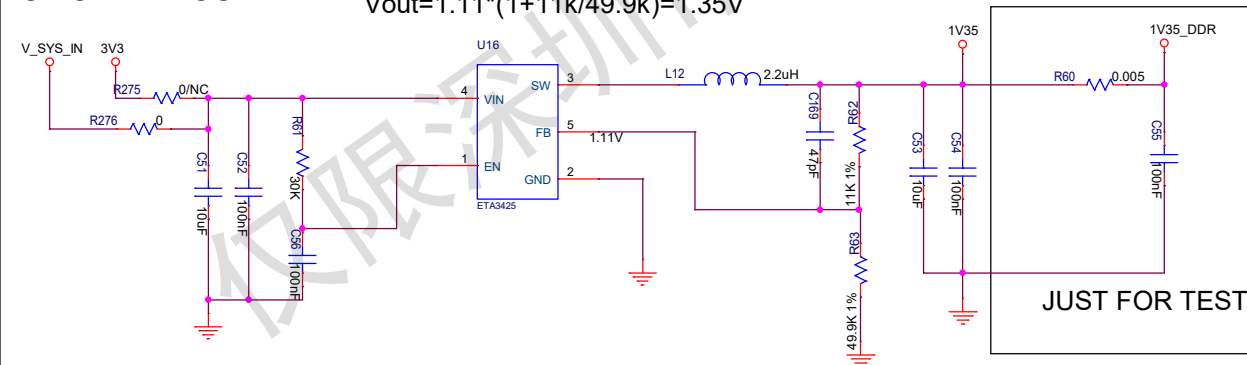


Tdelay=0.452RC=0.452*20k*100n=0.9ms

3V3-->1V35

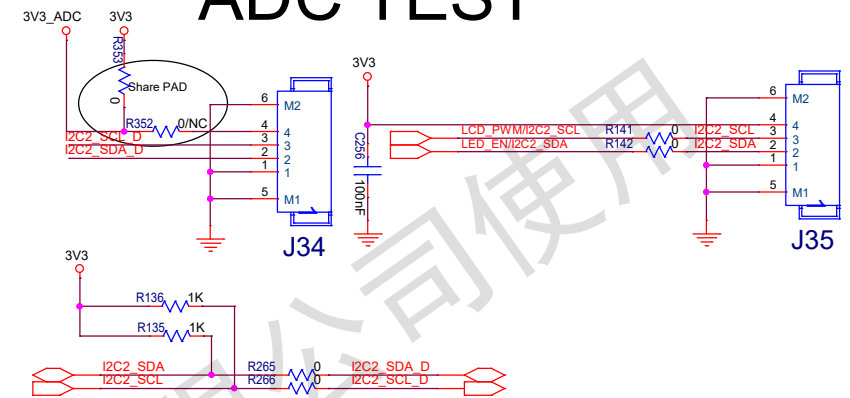
Vout=1.11*(1+11k/30.9k)=1.5V

Vout=1.11*(1+11k/49.9k)=1.35V

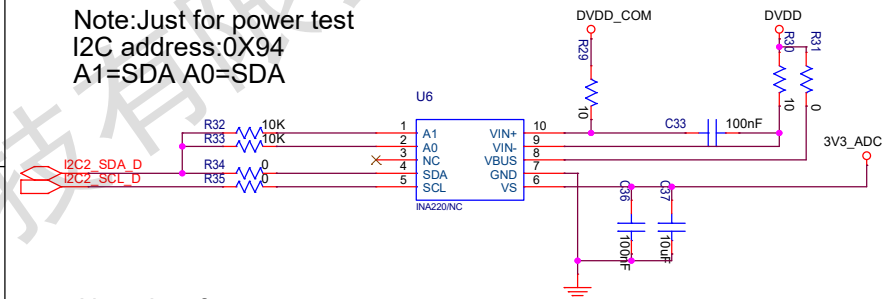


Tdelay=0.452RC=0.452*30k*100n=1.3ms

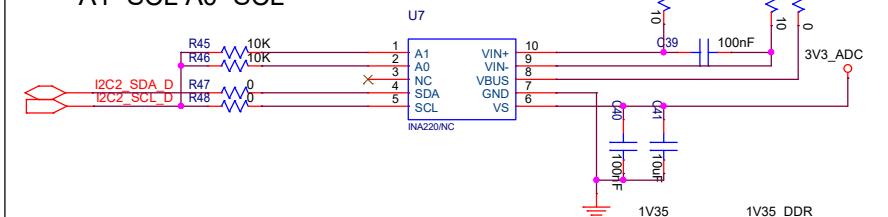
ADC TEST



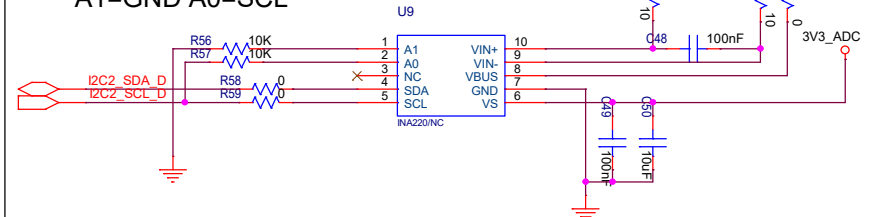
Note:Just for power test
I2C address:0X94
A1=SDA A0=SDA



Note:Just for power test
I2C address:0X9E
A1=SCL A0=SCL

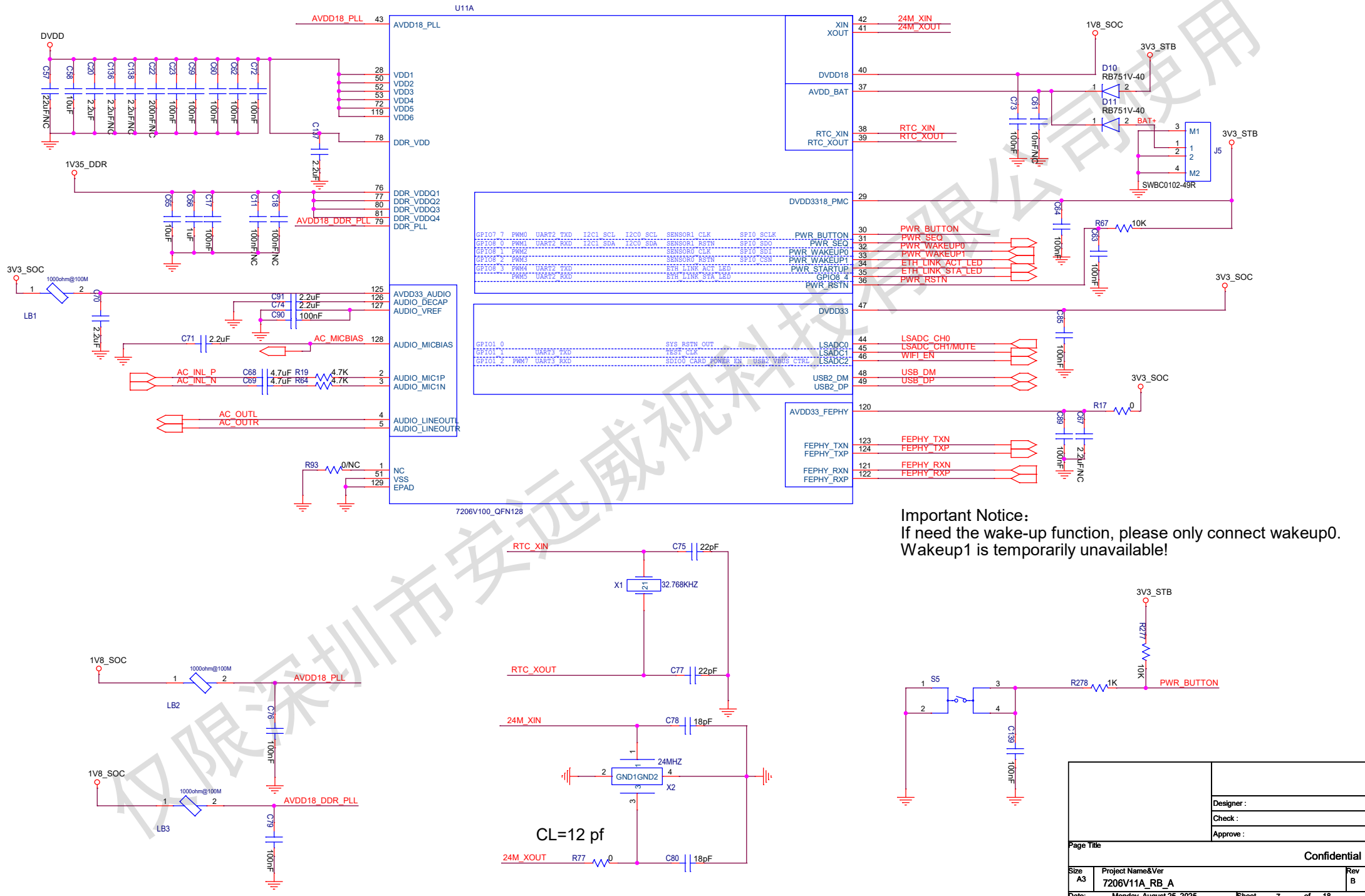


Note:Just for power test
I2C address:0X86
A1=GND A0=SCL

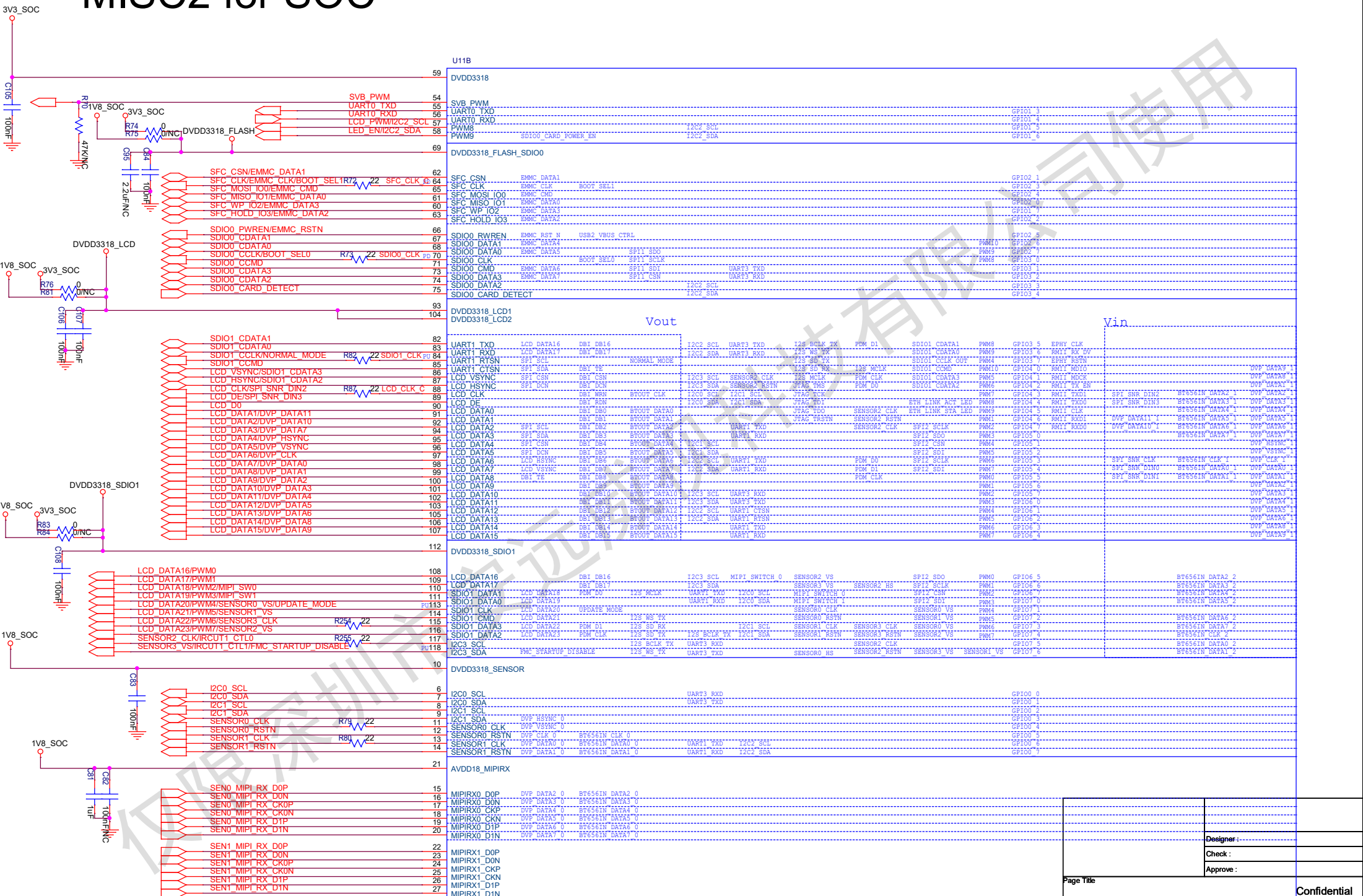


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MISC1 for SOC



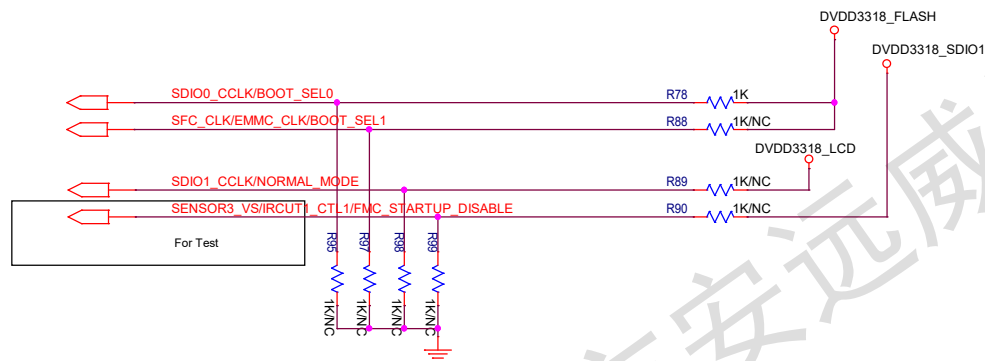
MISC2 for SOC



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POWER ON SETTING of SOC

UPDATE_MODE is internal pull up.

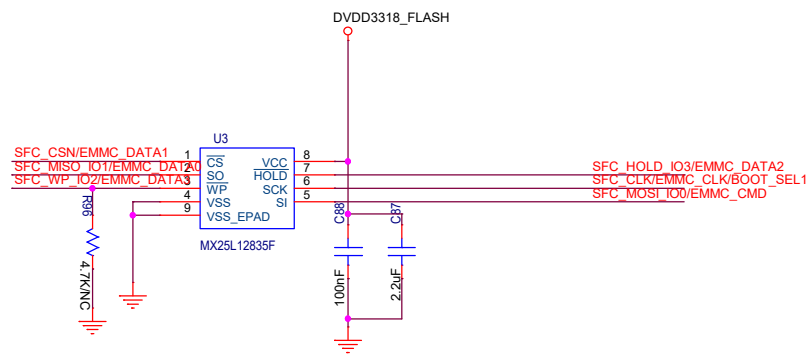


BOOT_SEL0	BOOT_SEL1	FUNCTION
1	0	BOOT FROM SPI NOR FLASH(default)
	1	BOOT FROM SPI NAND FLASH
0	0	BOOT FROM EMMC 4bit
	1	BOOT FROM EMMC 8bit

BOOT_SEL0 is internal pull down.

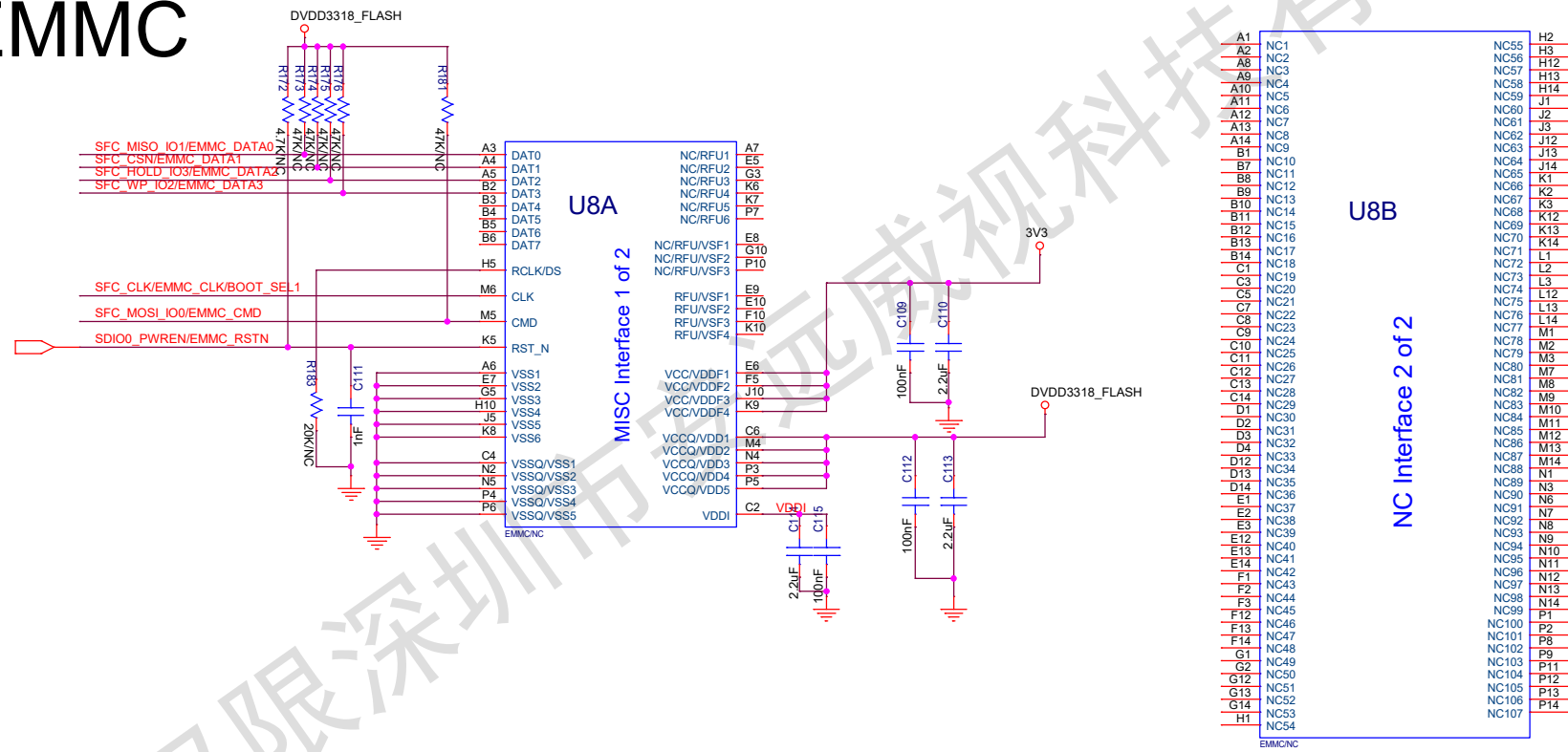
NORMAL_MODE	FUNCTION
0	Test Mode
1	Normal Mode(Default)

SPI FLASH



- SFC_CSN/EMMC_DATA1
- SFC_CLK/EMMC_CLK/BOOT_SEL1
- SFC_MOSI_IO0/EMMC_CMD
- SFC_MISO_IO1/EMMC_DATA0
- SFC_WP_IO2/EMMC_DATA3
- SFC_HOLD_IO3/EMMC_DATA2

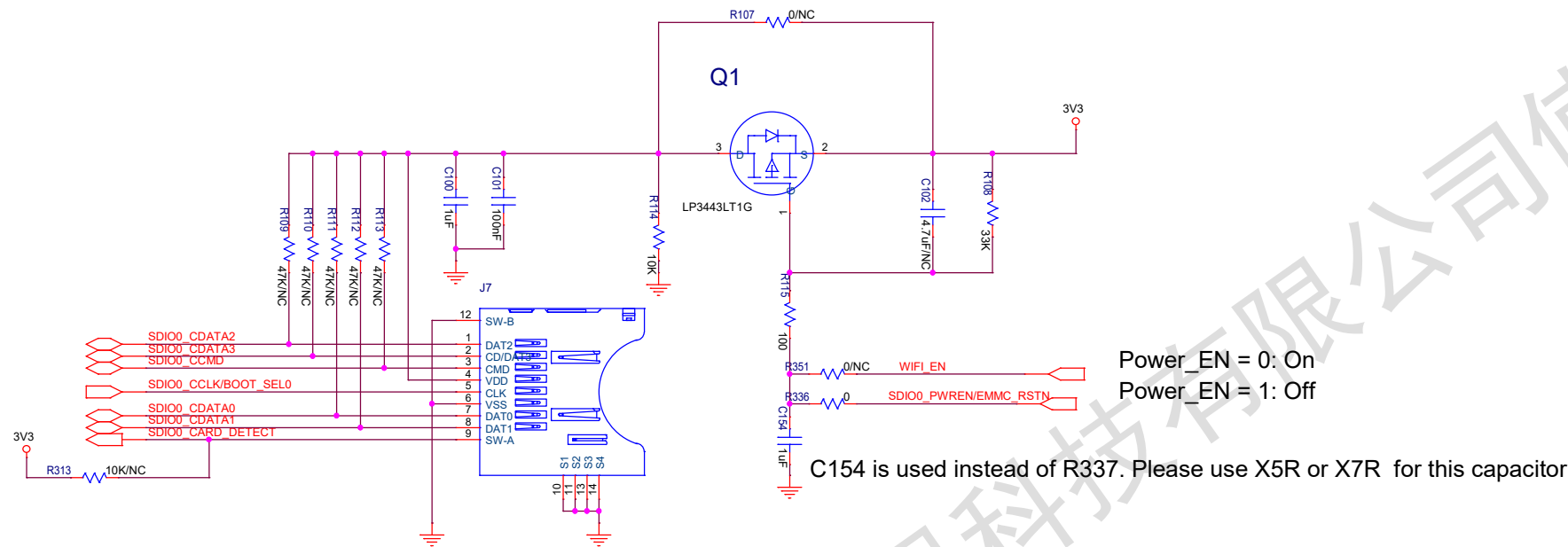
EMMC



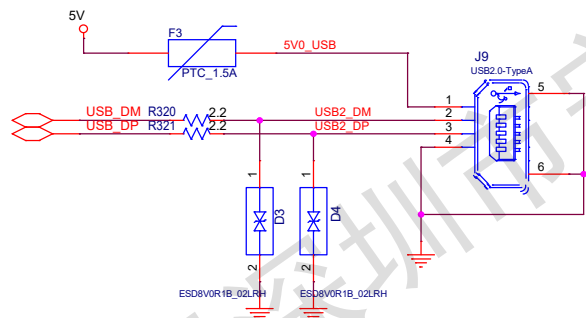
A1	NC1	NC55	H2
A2	NC2	NC56	H3
A8	NC3	NC57	H12
A9	NC4	NC58	H13
A10	NC5	NC59	H14
A11	NC6	NC60	J1
A12	NC7	NC61	J2
A13	NC8	NC62	J3
A14	NC9	NC63	J12
B1	NC10	NC64	J13
B7	NC11	NC65	J14
B8	NC12	NC66	K1
B9	NC13	NC67	K2
B10	NC14	NC68	K3
B11	NC15	NC69	K12
B12	NC16	NC70	K13
B13	NC17	NC71	K14
B14	NC18	NC72	L1
C1	NC19	NC73	L2
C3	NC20	NC74	L3
C5	NC21	NC75	L12
C7	NC22	NC76	L13
C8	NC23	NC77	L14
C9	NC24	NC78	M1
C10	NC25	NC79	M2
C12	NC26	NC80	M3
C13	NC27	NC81	M7
C14	NC28	NC82	M8
D1	NC29	NC83	M9
D3	NC30	NC84	M10
D2	NC31	NC85	M11
D3	NC32	NC86	M12
D4	NC33	NC87	M13
D13	NC34	NC88	M14
D14	NC35	NC89	N1
E1	NC36	NC90	N3
E2	NC37	NC91	N6
E3	NC38	NC92	N7
E12	NC39	NC93	N8
E13	NC40	NC94	N9
E14	NC41	NC95	N10
F1	NC42	NC96	N11
F2	NC43	NC97	N12
F3	NC44	NC98	N13
F12	NC45	NC99	N14
F13	NC46	NC100	P1
F14	NC47	NC101	P2
G1	NC48	NC102	P6
G2	NC49	NC103	P9
G12	NC50	NC104	P11
G13	NC51	NC105	P12
G14	NC52	NC106	P13
H1	NC53	NC107	P14
H11	NC54		

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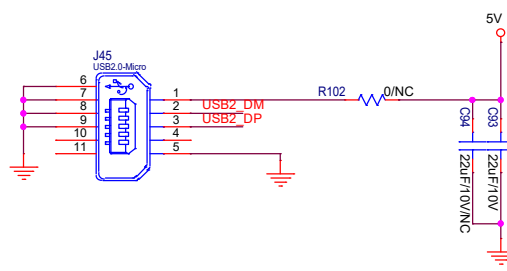
Micro-SD Card



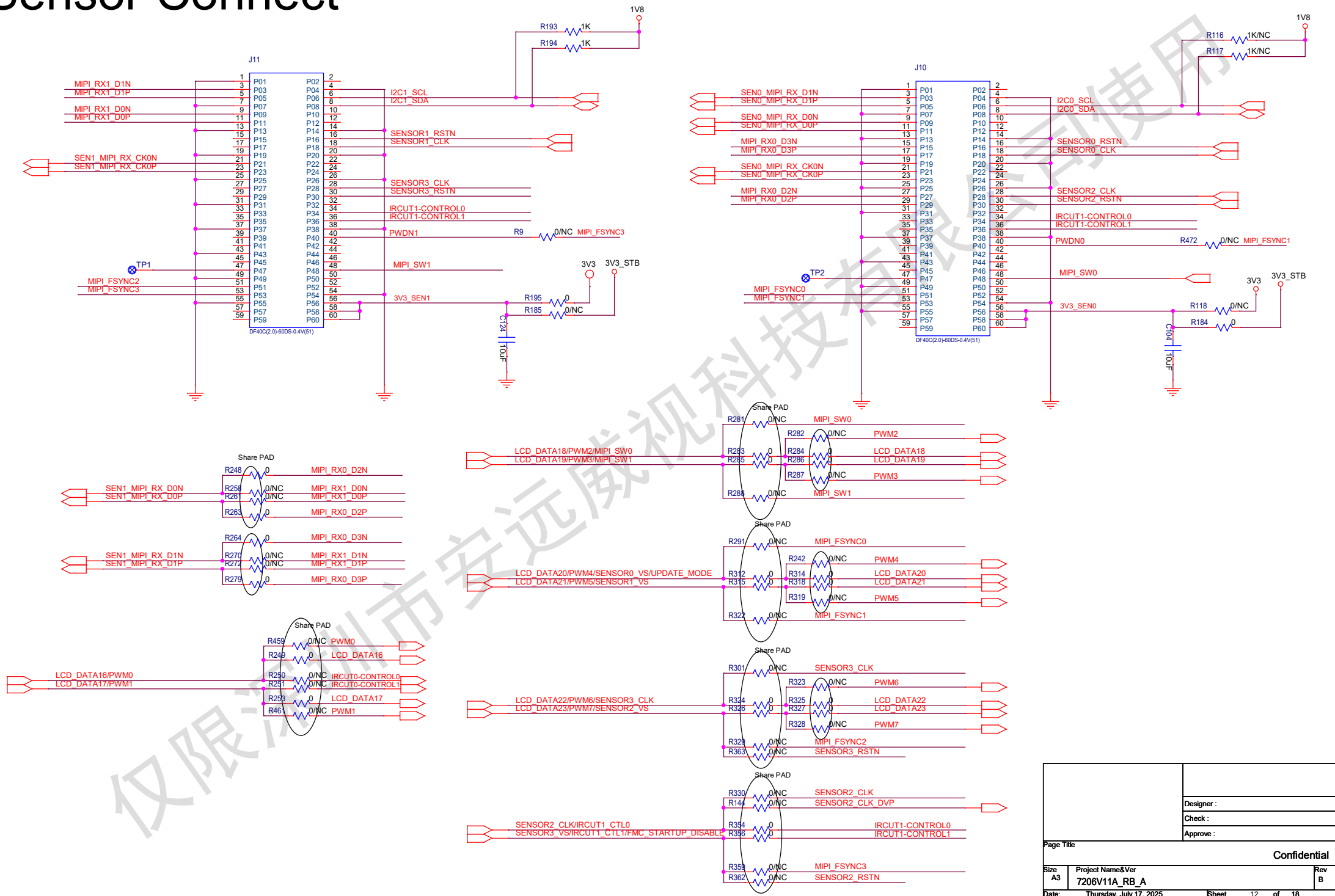
USB Type-A



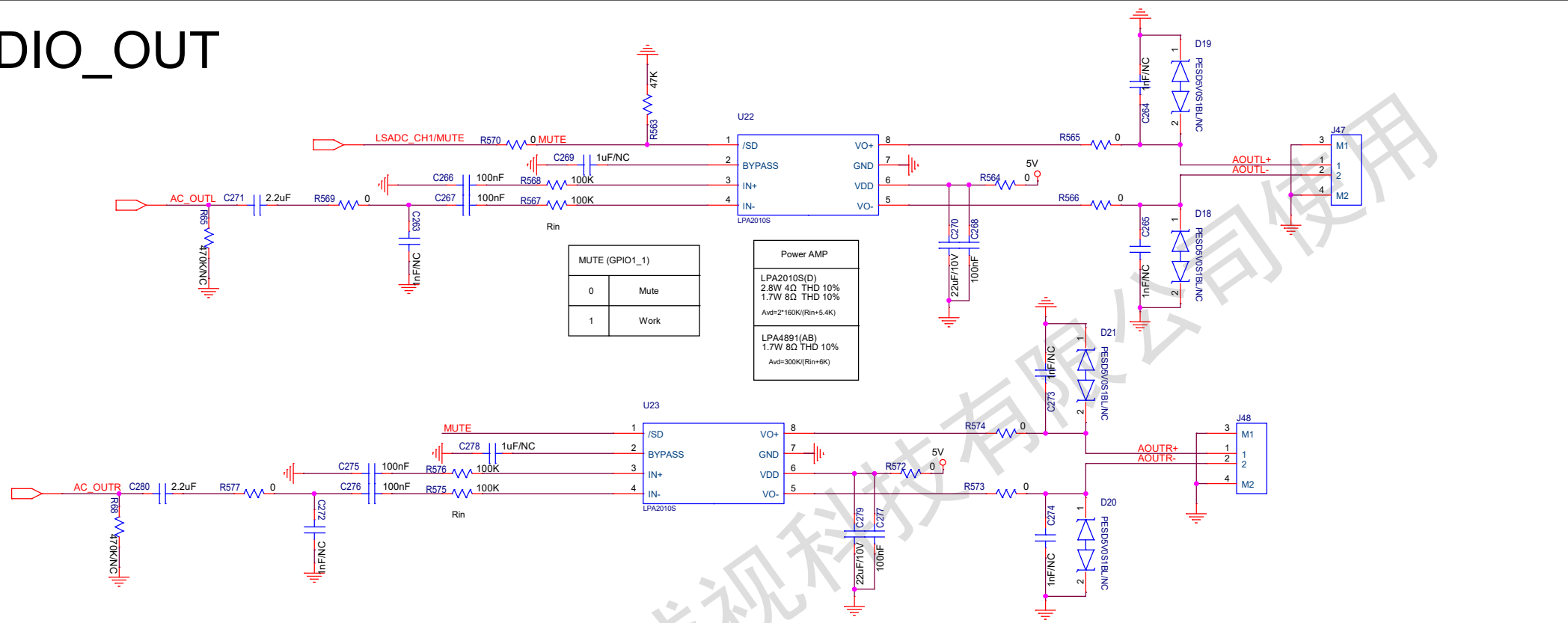
USB Micro



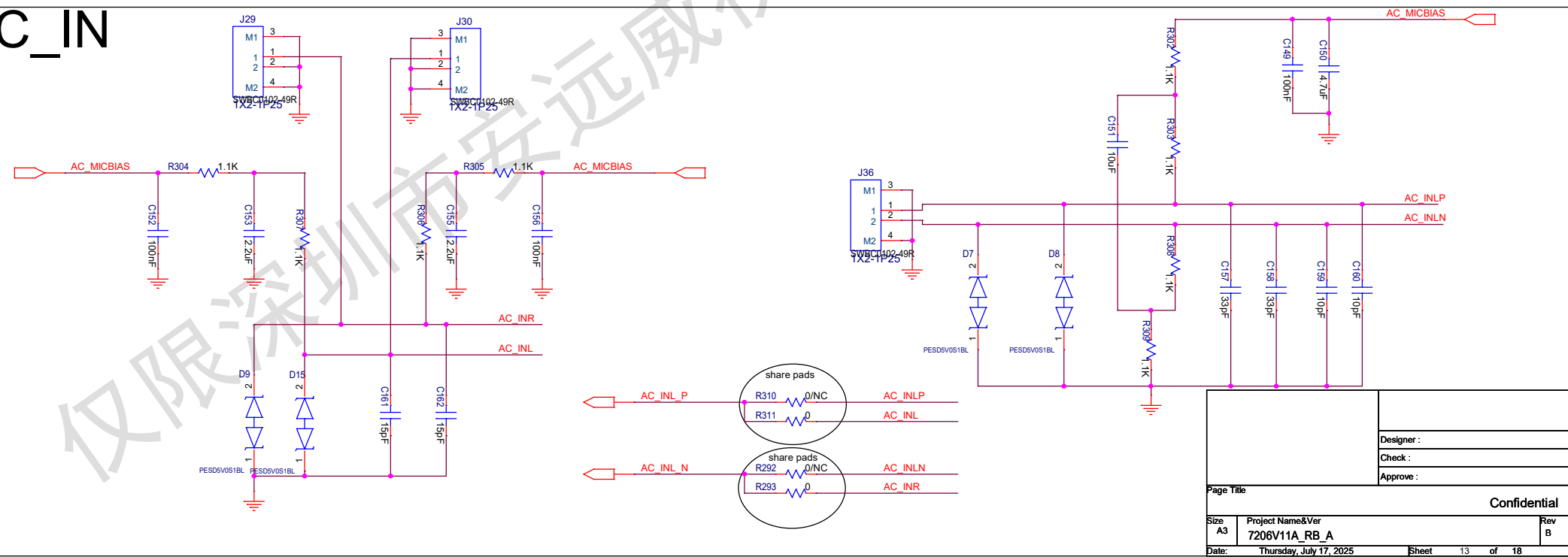
Sensor Connect



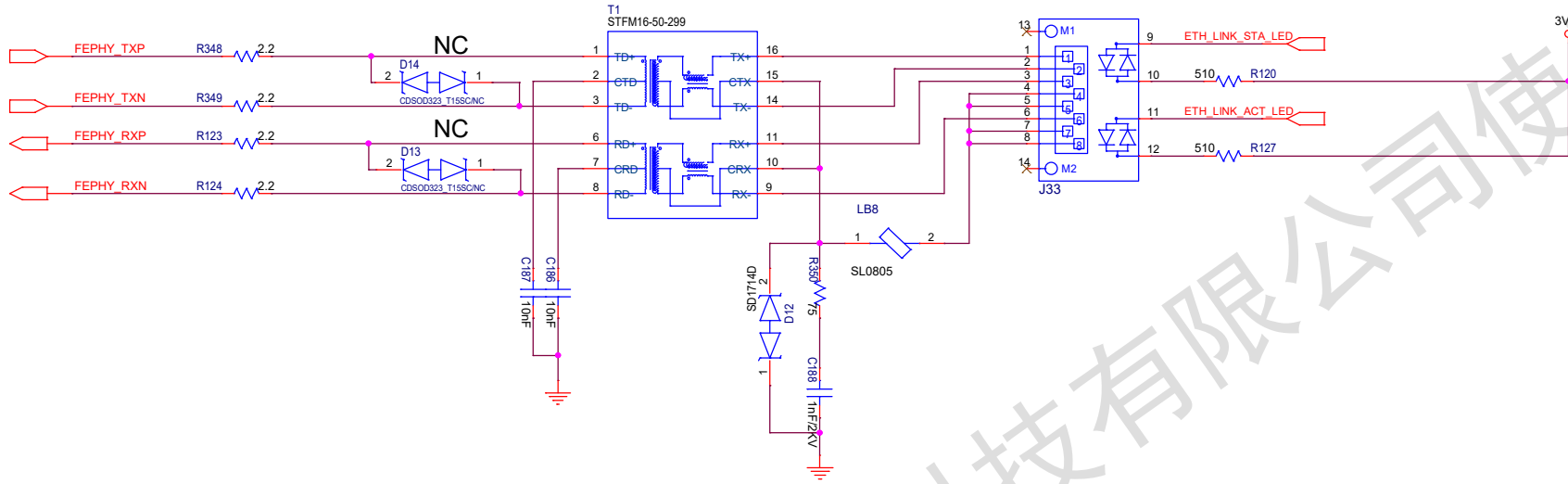
AUDIO_OUT



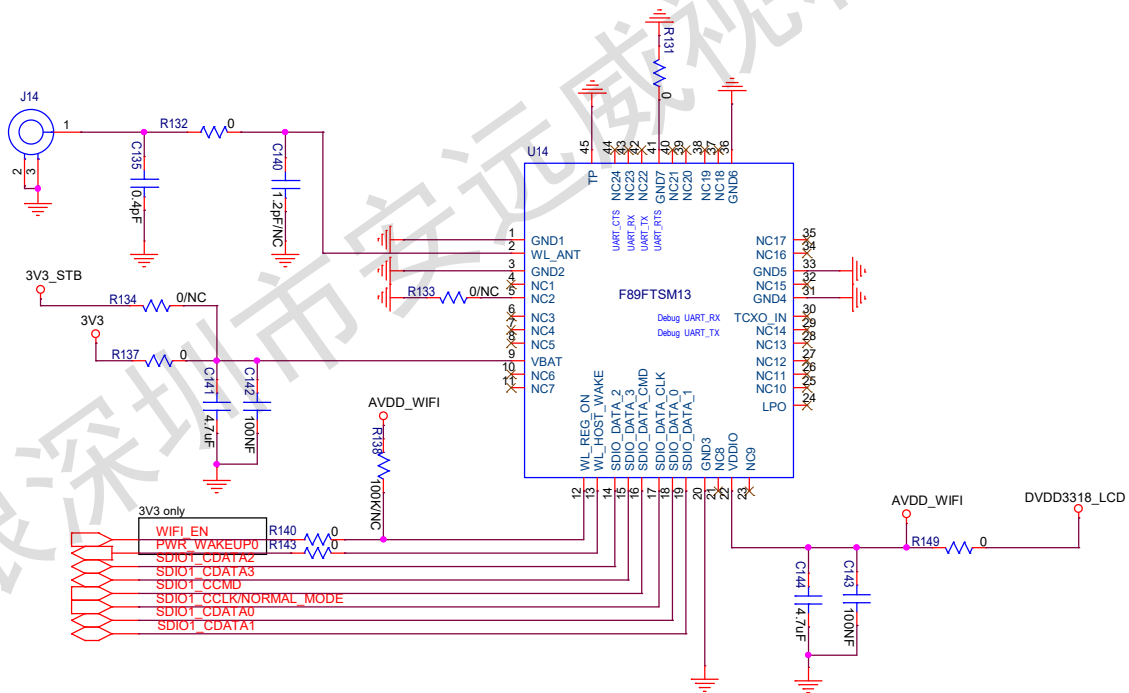
MIC_IN



RJ45

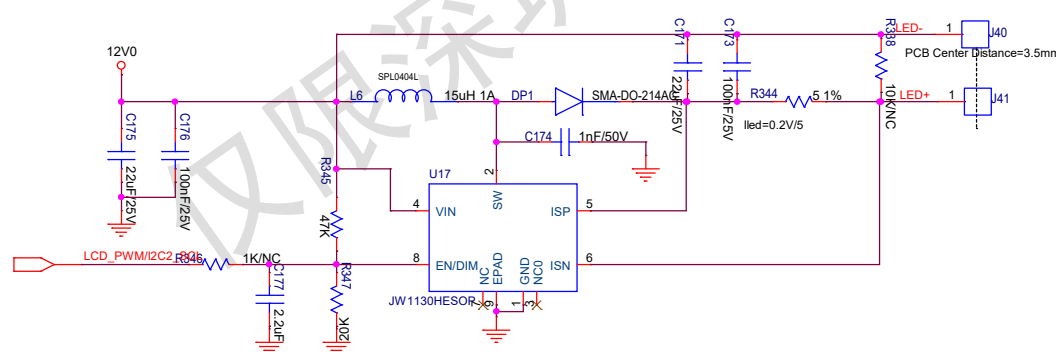
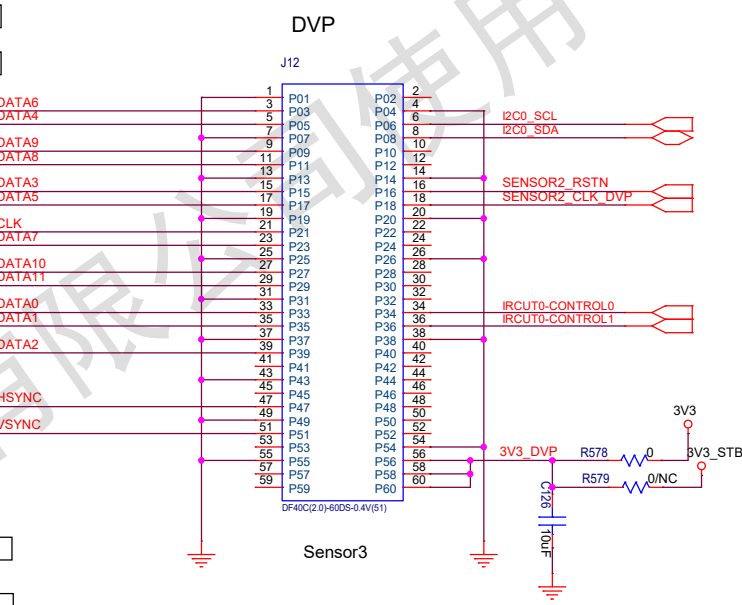
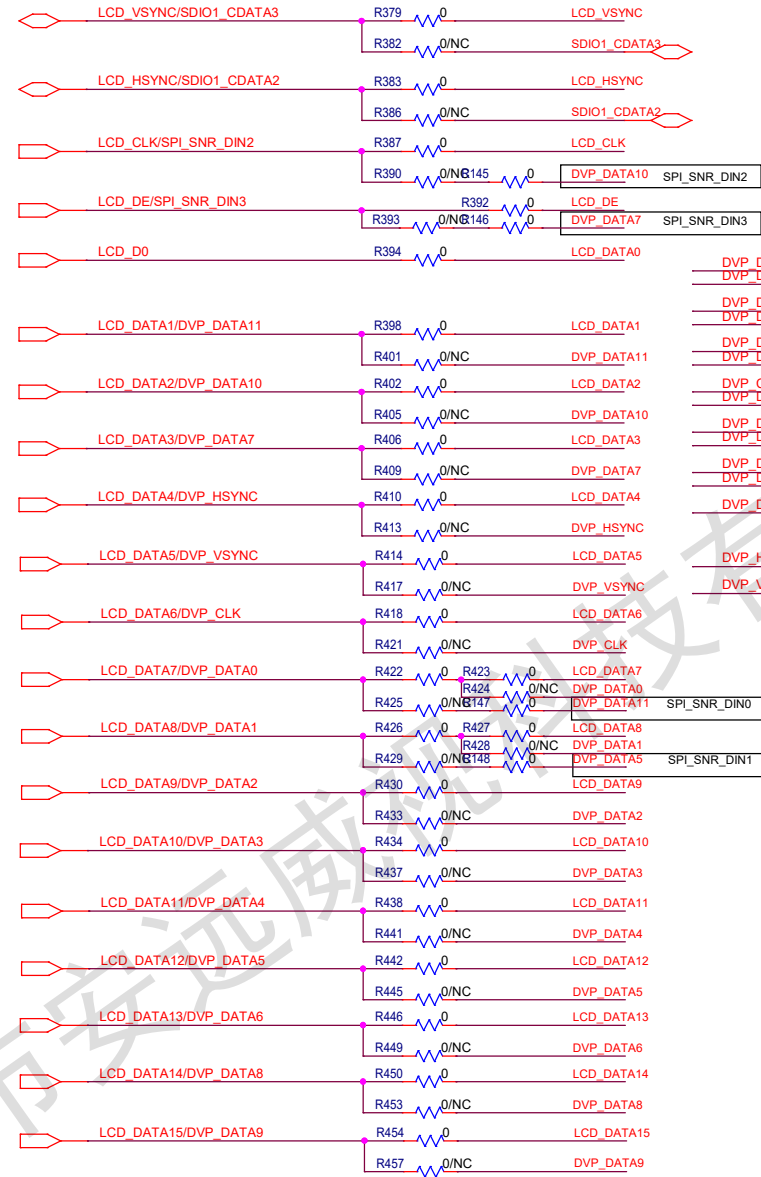
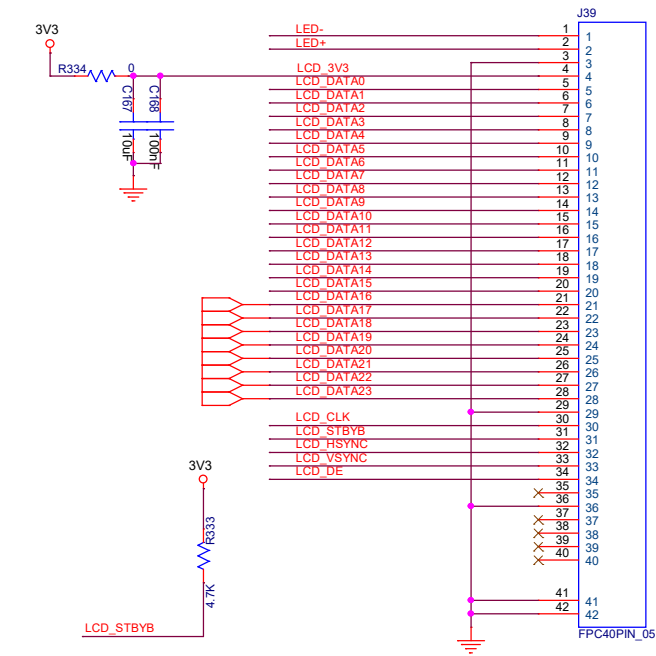


Wifi



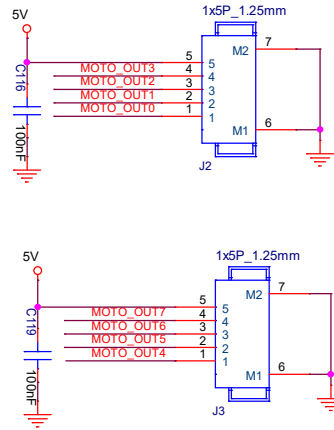
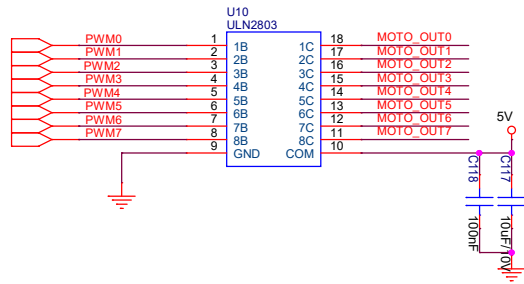
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24bit RGB & DVP

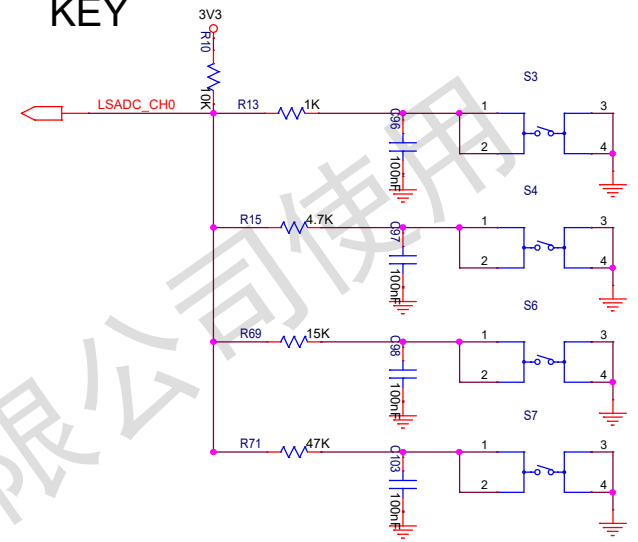


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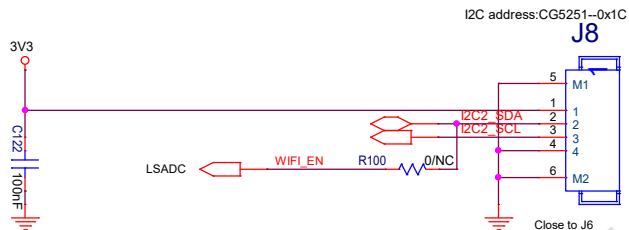
MOTOR



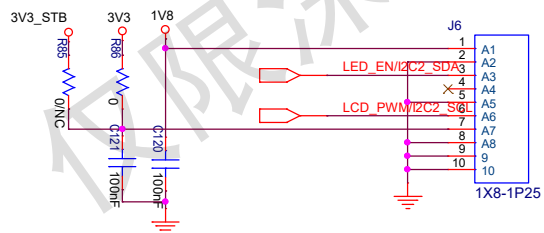
KEY



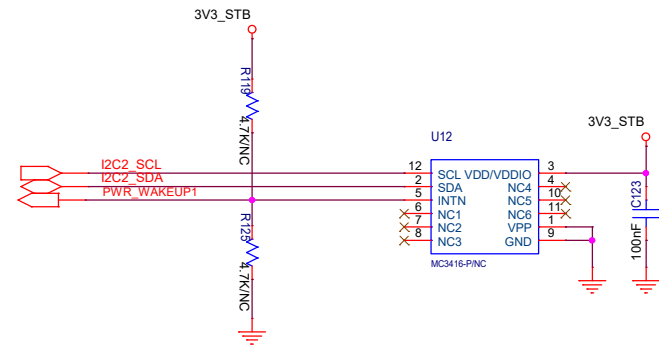
Light Sensor Connector



LED Connector

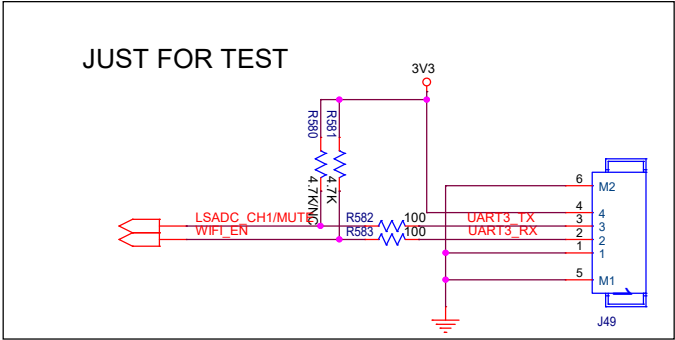


Gsensor

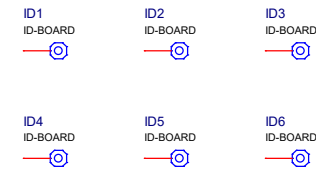
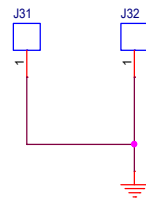
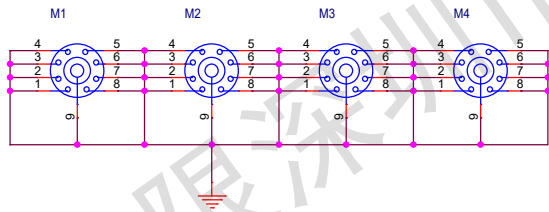


I2C address:
7-bit Device ID:0x4C
8-bit Address- Write:0x98
8-bit Address- Read:0x99

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INSALLNATION HOLES GND TEST PIN PCB MARK POINT



SCH Update Record

Version	Date	Author	Description
A	2025.01	XX	The First Version
B	2025.06	XX	1.Add R337 to solve the problem of configuration errors when powering on with an SD card 2.Add R9/R472 to implement the AOV scheme by the PWDN of the Sensor 3.Device U2 is replaced with a low-voltage input DCDC 4.Change the reference power supply DVDD3318_SDIO1 for pins 108 and 109 of the SOC
	2025.08	XX	1.Optimize the parameters of SM8002:L2→1uH,C21→220pF 2.Delete R104 3.Optimize the circuit parameters of the SD card:C102→NC,R108→33K,R337→C154 1uF

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