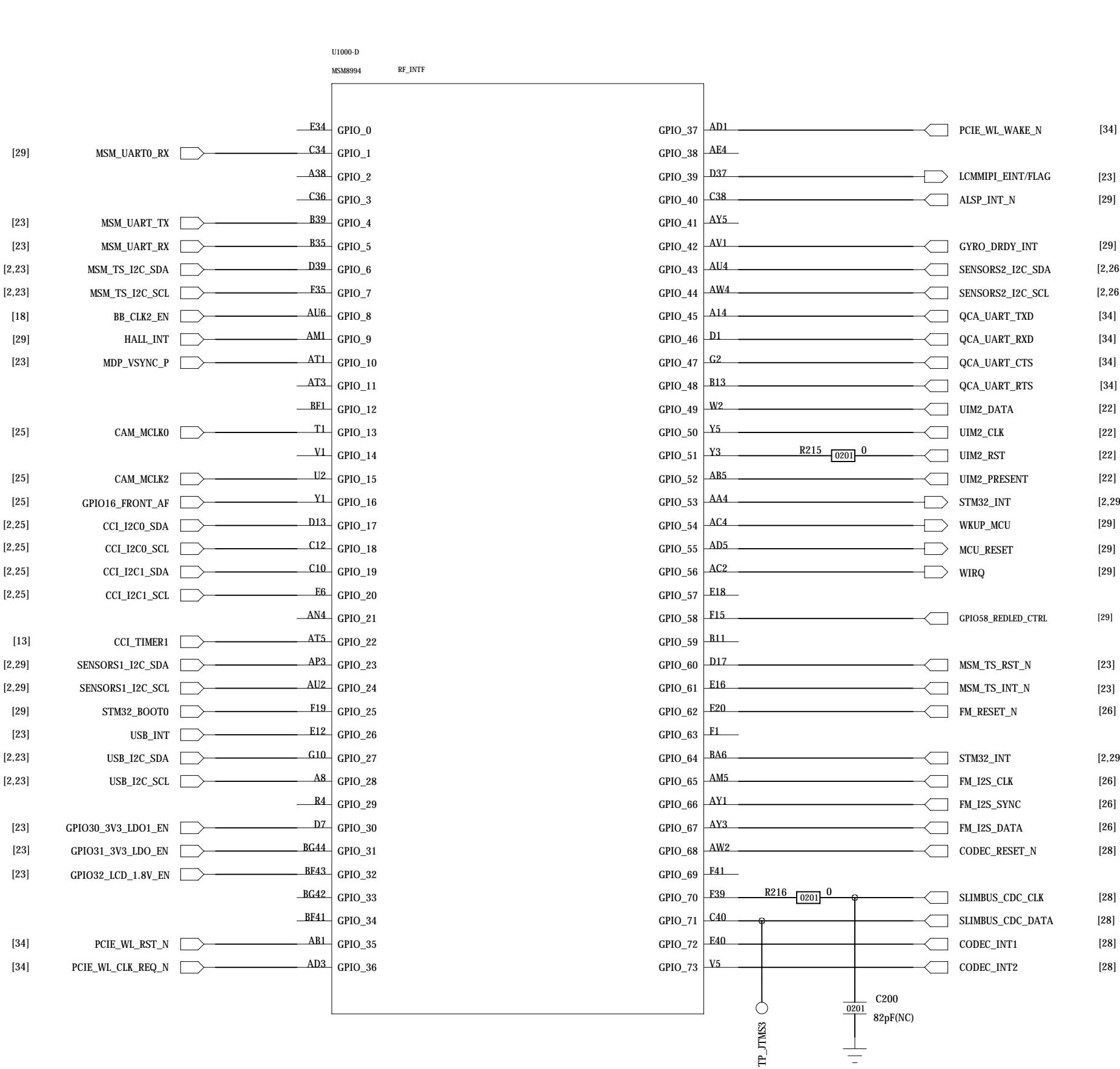




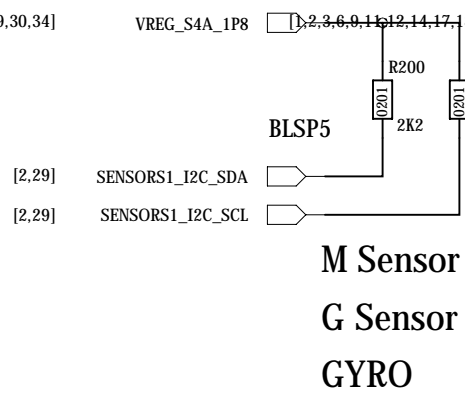
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DRAWN: [Signature]	DATE: 2015-03-12	TITLE: RIMO	
CHECKED:	DATE:	SIZE: D	DRAWING NO: 1--MSM8994_CONTROL_MEMORY_I
DESIGNED:	DATE:	SCALE: 1:1	SHEET: 1 OF 36 REV: V1.0



SIM2

Sensor Hub

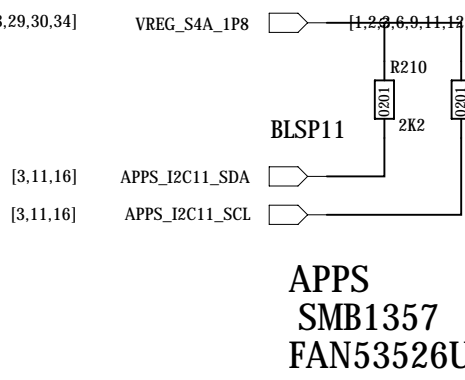
[1,2,3,6,9,11,12,14,17,18,19,21,22,23,26,27,28,29,30,34]



[2,29]

TP

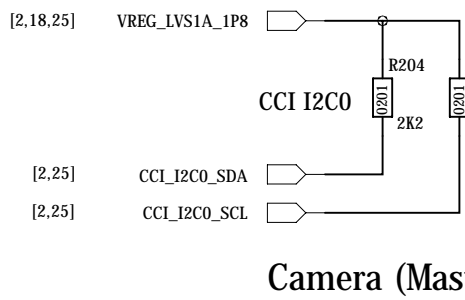
[2,23]



[3,11,16]

ALS Sensor
Breath LED
Pressure sensor
FM

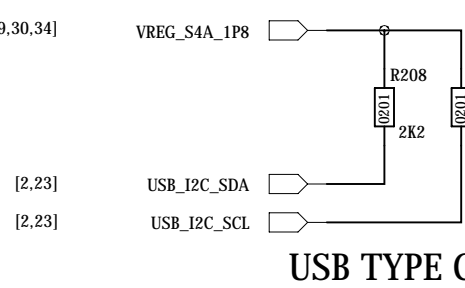
[2,26,29]



[2,18,25]

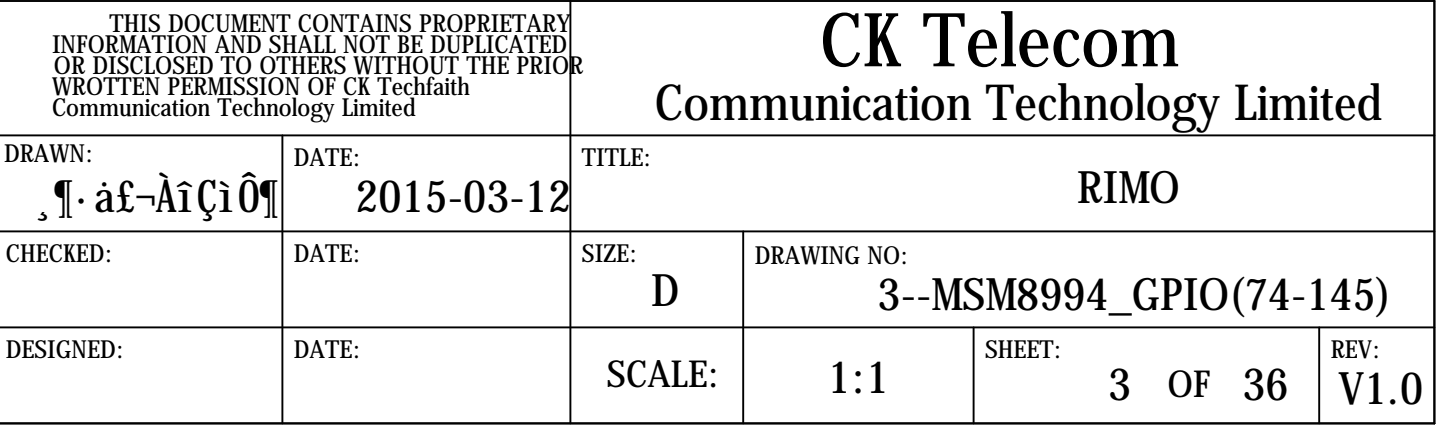
Front camera
Camera (Slave)

[2,25]



[2,23]

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DRAWN: [Signature]	DATE: 2015-03-12	TITLE: RIMO			
CHECKED:	DATE:	SIZE: D	DRAWING NO: 2--MSM8994_GPIO(0-73)_I2C_PULL		
DESIGNED:	DATE:	SCALE: 1:1	SHEET: 2 OF 36	REV: V1.0	



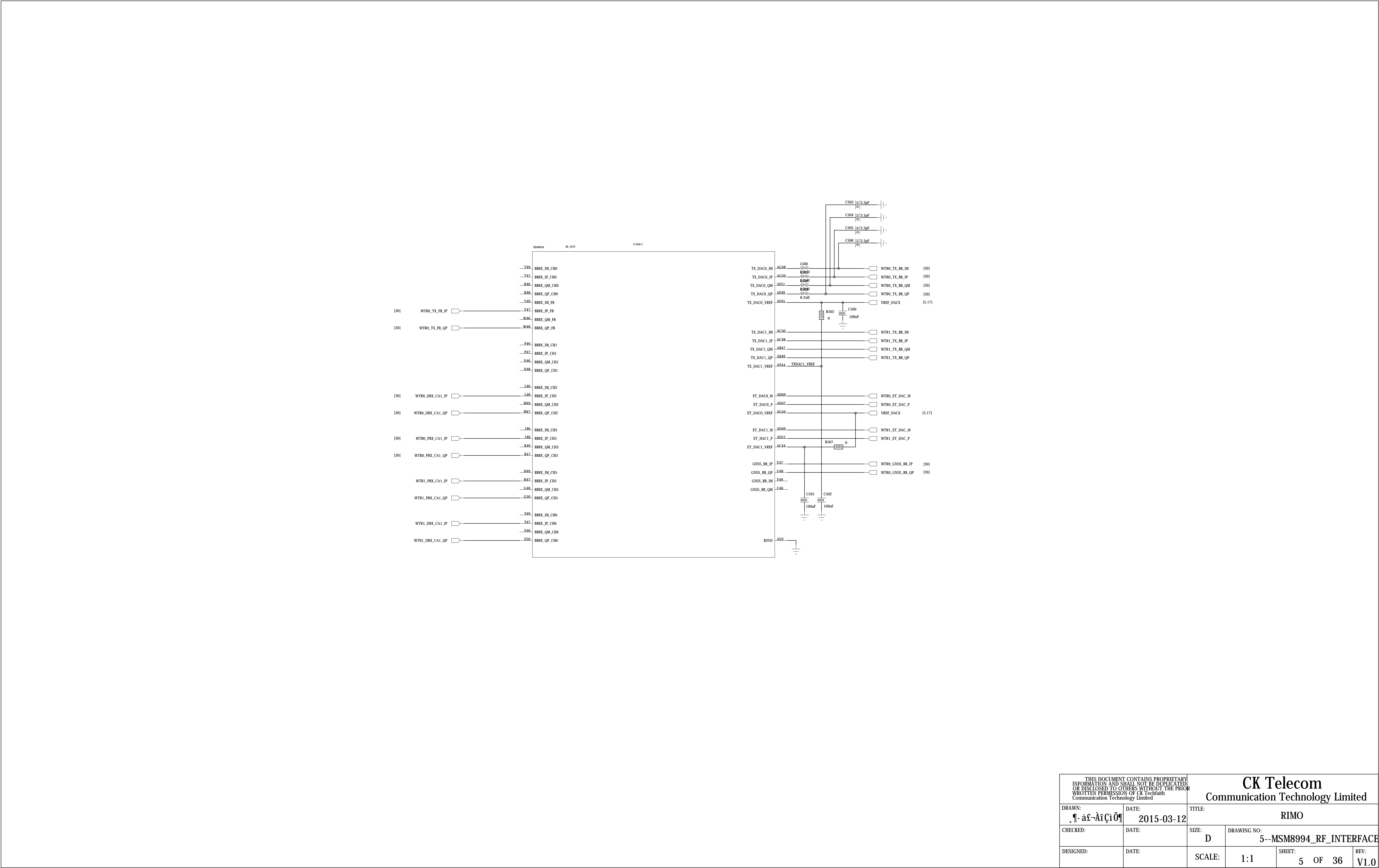
Front Camera

Main Camera

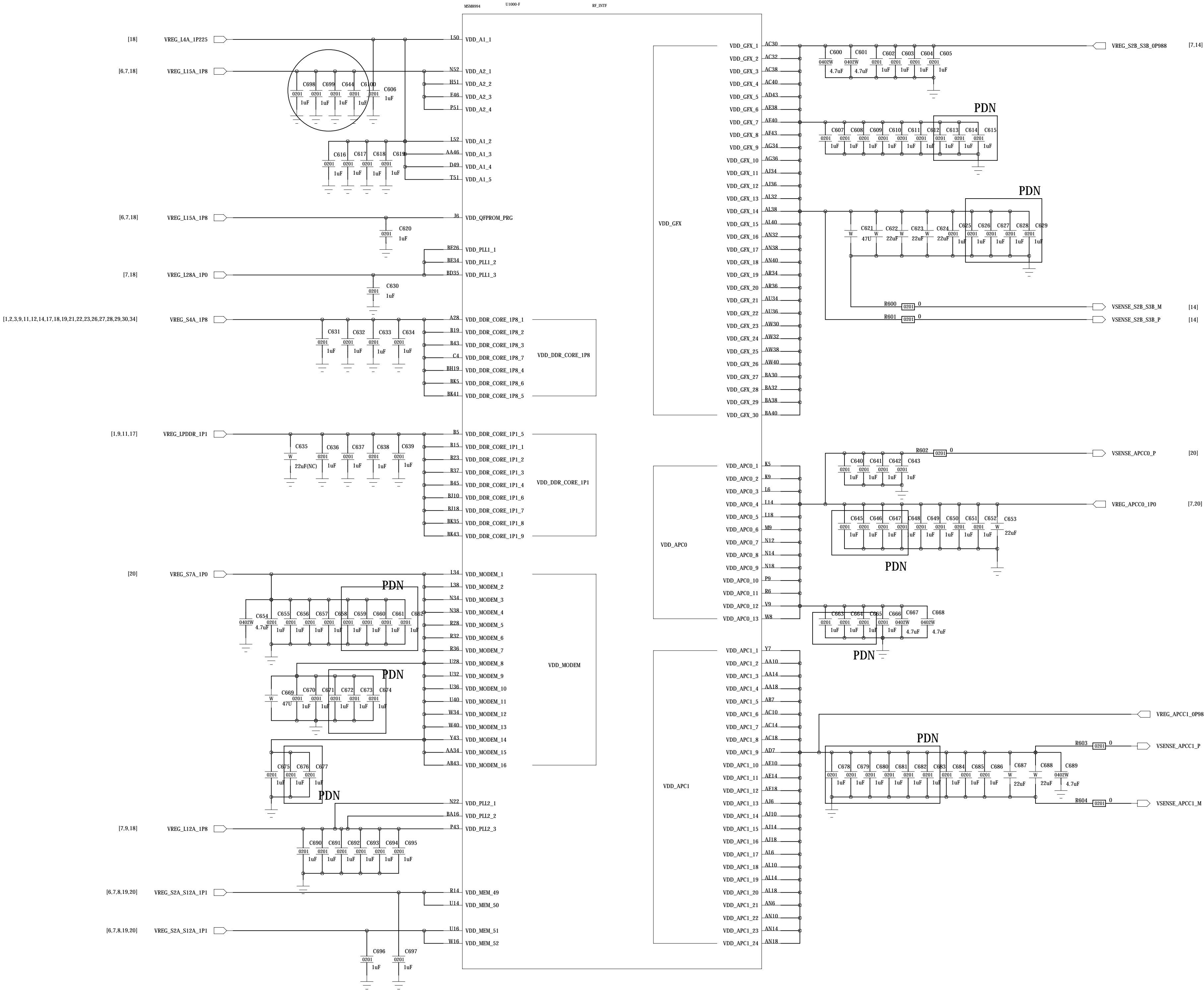
Third Camera

Display

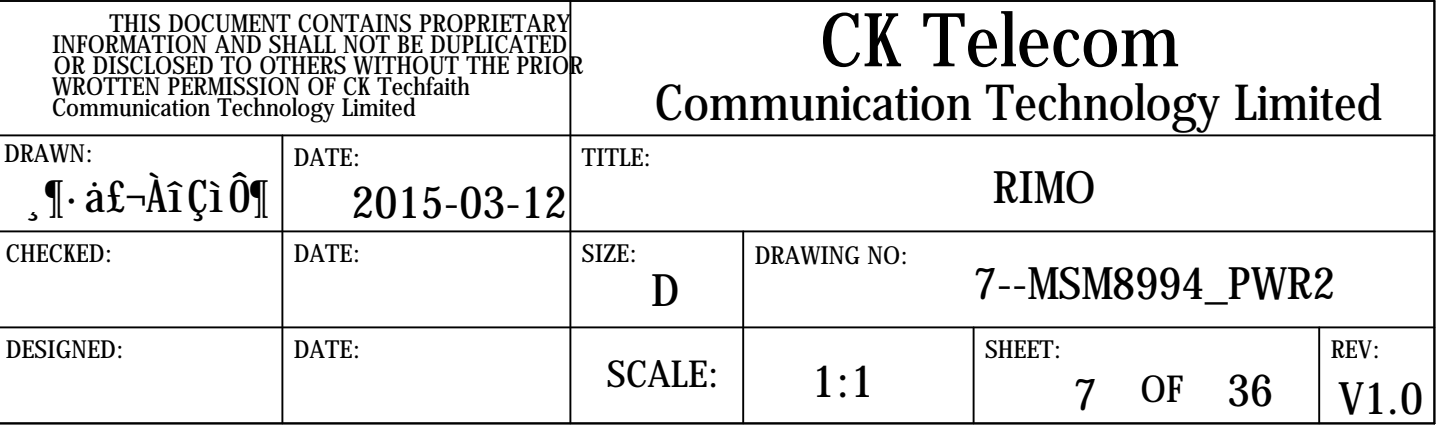
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DRAWN: , 1. aē-ÀiÇiÔJ	DATE: 2015-03-12	TITLE: RIMO		
CHECKED:	DATE:	SIZE: A4	DRAWING NO: 4--MSM8994_MIPI_DSI_CSI_HDMI	
DESIGNED:	DATE:	SCALE: 1:1	SHEET: 4 OF 36	REV: V1.0

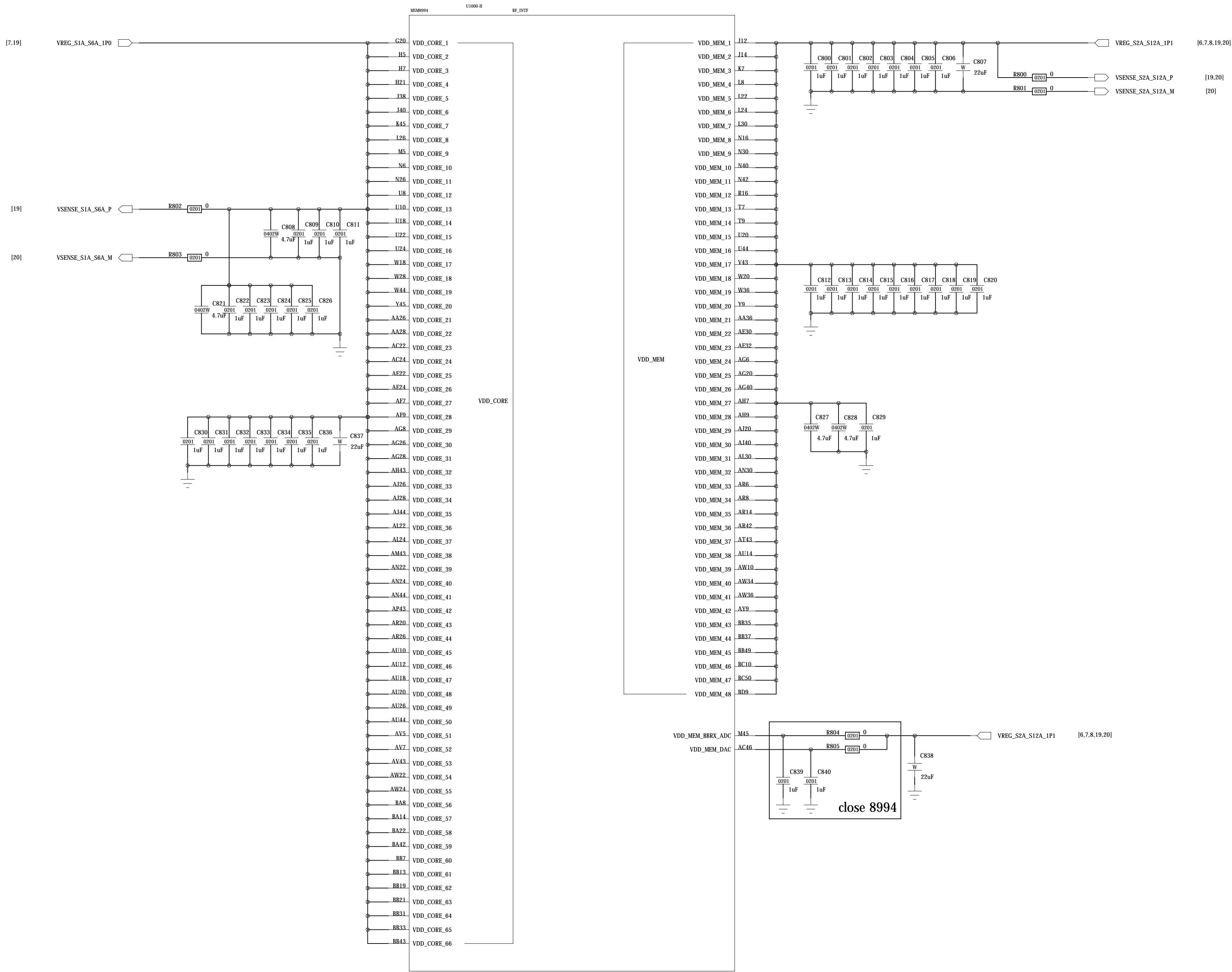


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DRAWN: , İ · aē -Àî Çi Öİ	DATE: 2015-03-12	TITLE: RIMO			
CHECKED:	DATE:	SIZE: D	DRAWING NO: 5--MSM8994_RF_INTERFACE		
DESIGNED:	DATE:	SCALE: 1:1	SHEET: 5 OF 36	REV: V1.0	

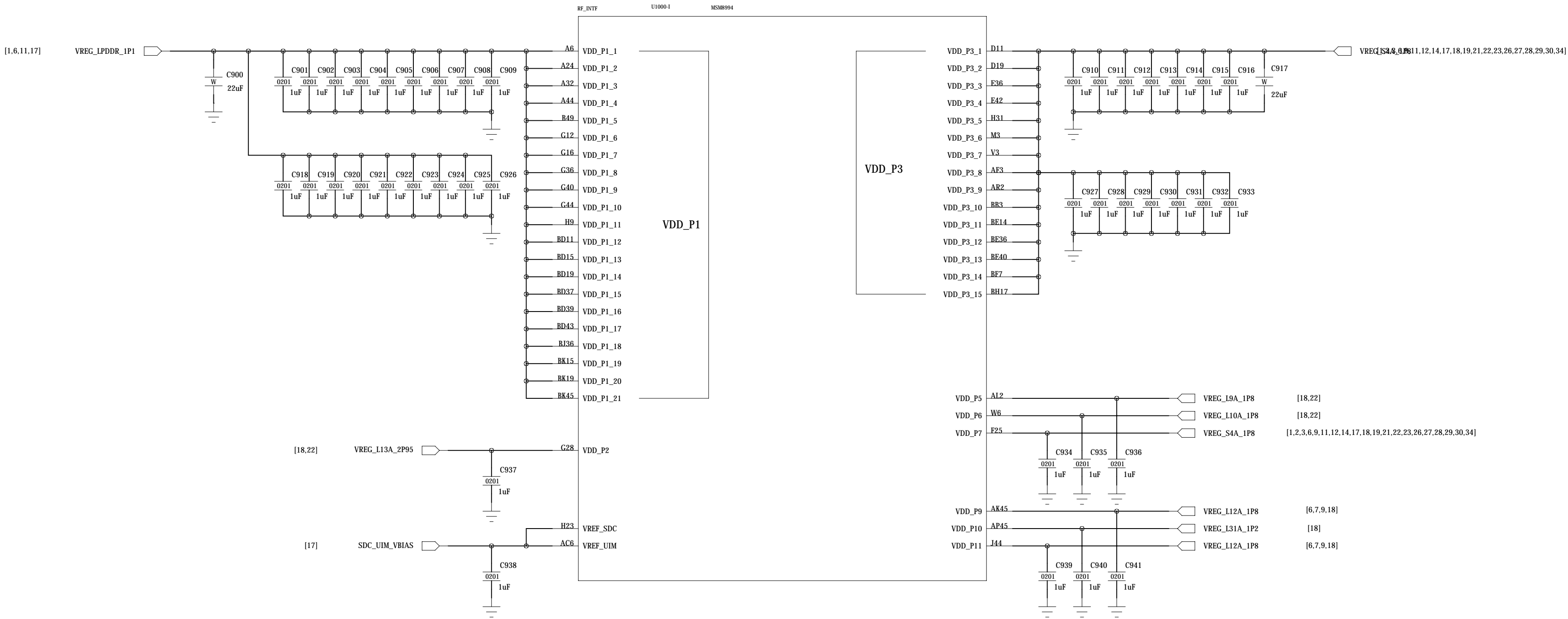


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DRAWN: , ăf-Âi Çi 0	DATE: 2015-03-12	TITLE: RIMO			
CHECKED:	DATE:	SIZE: D	DRAWING NO: 6--MSM8994_PWR1		
DESIGNED:	DATE:	SCALE: 1:1	SHEET: 6 OF 36	REV: V1.0	

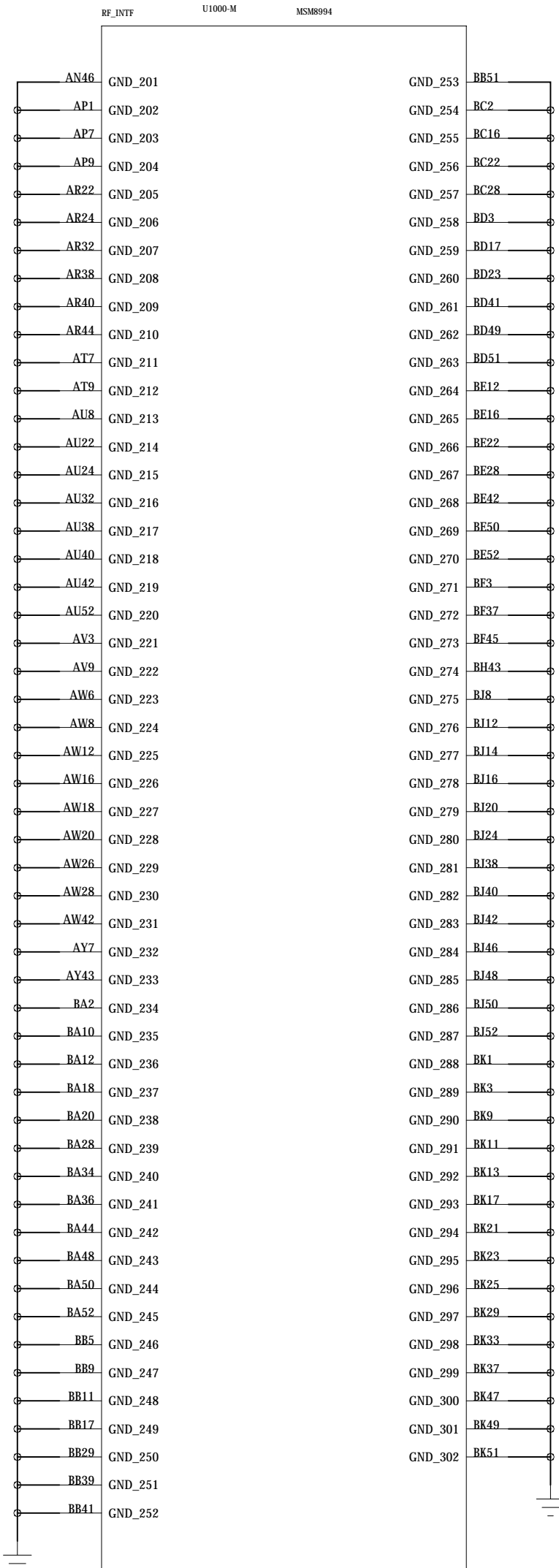
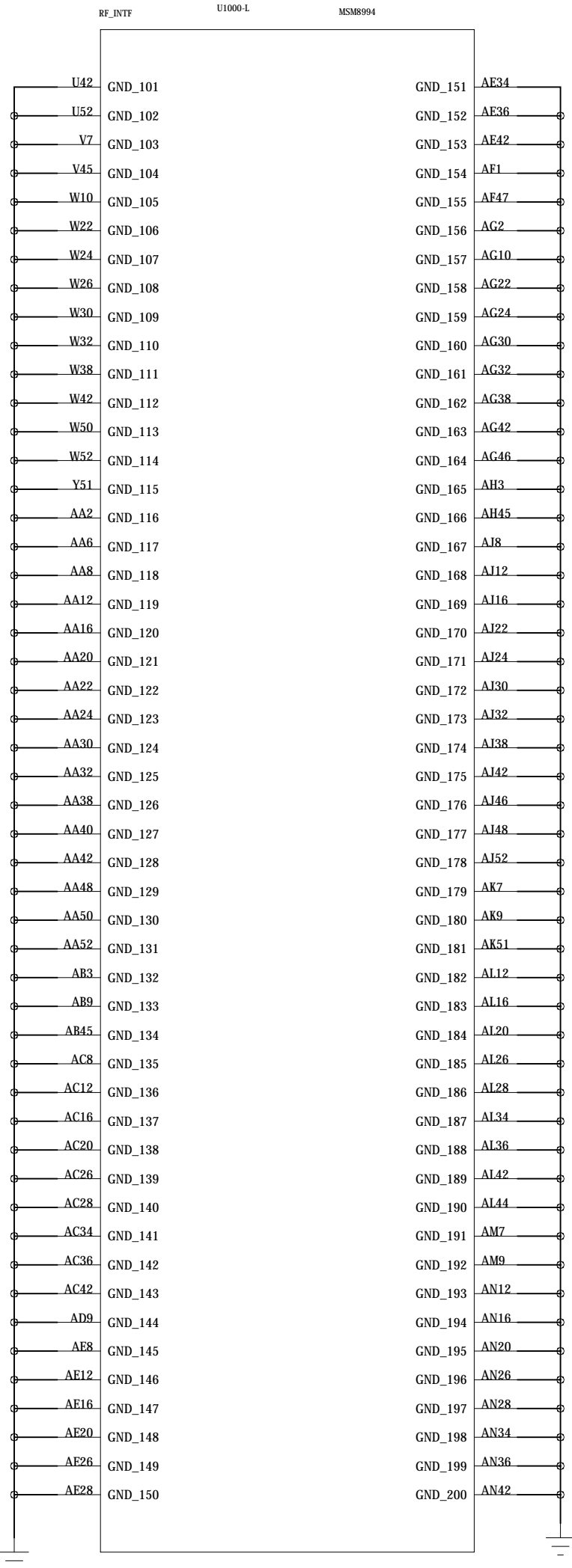
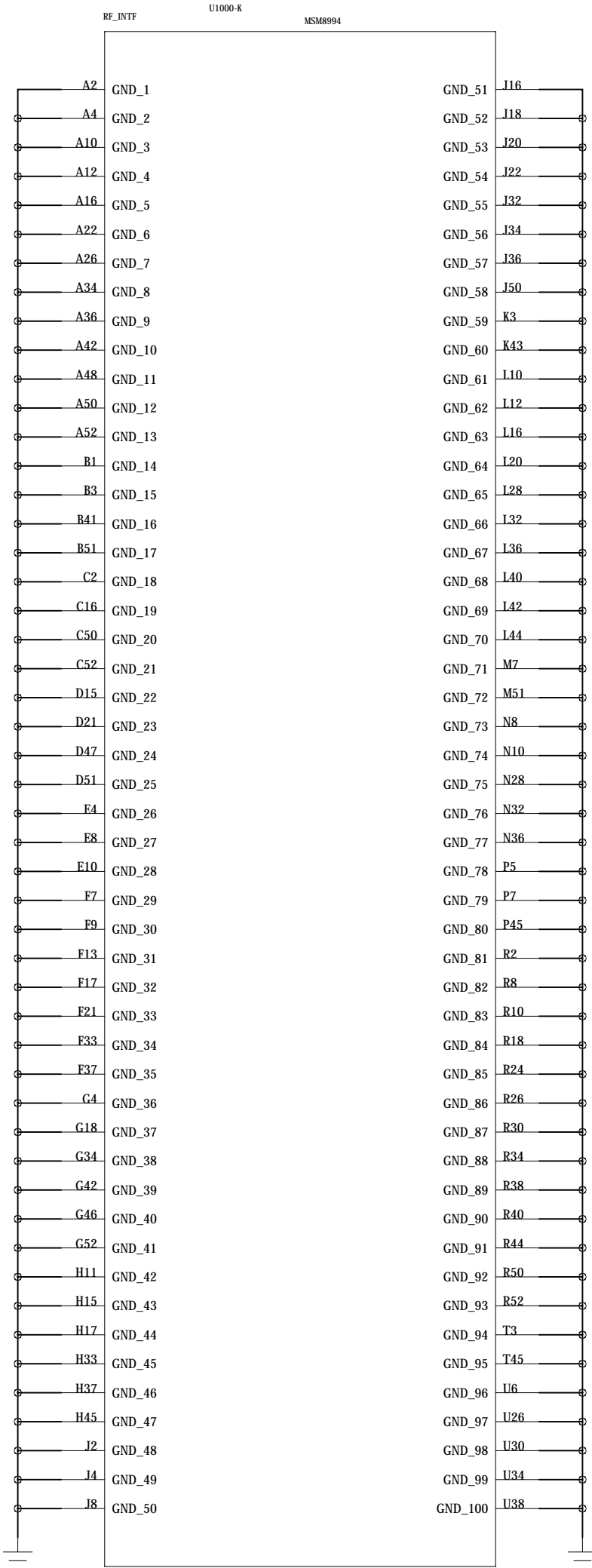
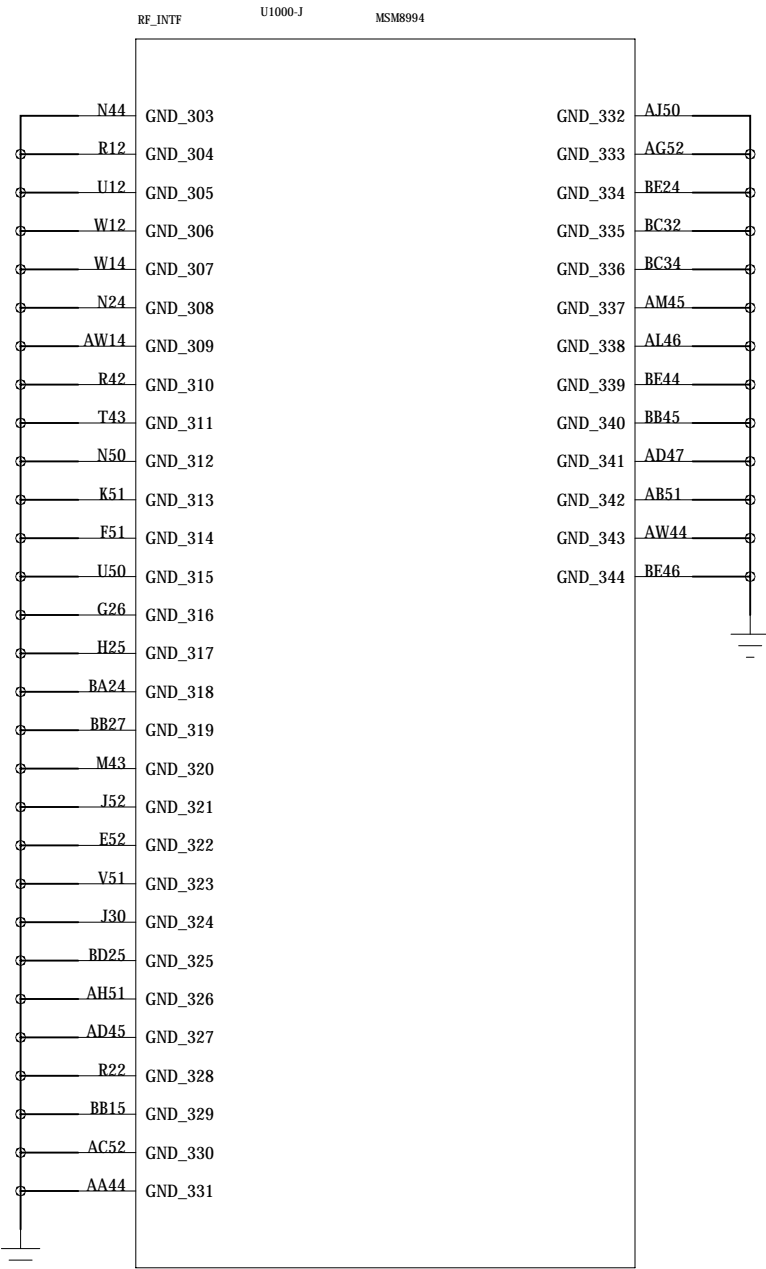




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DRAWN: , İ. âf-ÂiÇiÔİ	DATE: 2015-03-12	TITLE: RIMO			
CHECKED:	DATE:	SIZE: D	DRAWING NO: 8--MSM8994_PWR3		
DESIGNED:	DATE:	SCALE: 1:1	SHEET: 8 OF 36	REV: V1.0	

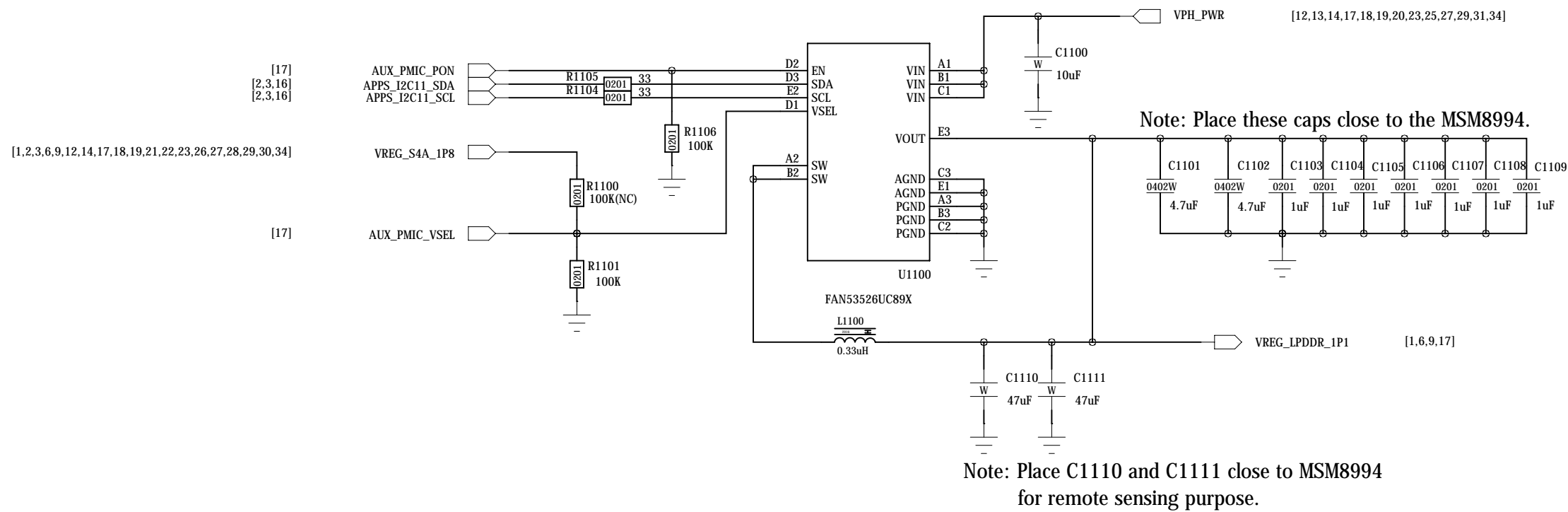


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CK Telecom Communication Technology Limited					
DRAWN: , ăf-Âi Çi 0	DATE: 2015-03-12	TITLE: RIMO			
CHECKED:	DATE:	SIZE: D	DRAWING NO: 9--MSM8994_PWR4		
DESIGNED:	DATE:	SCALE: 1:1	SHEET: 9 OF 36	REV: V1.0	

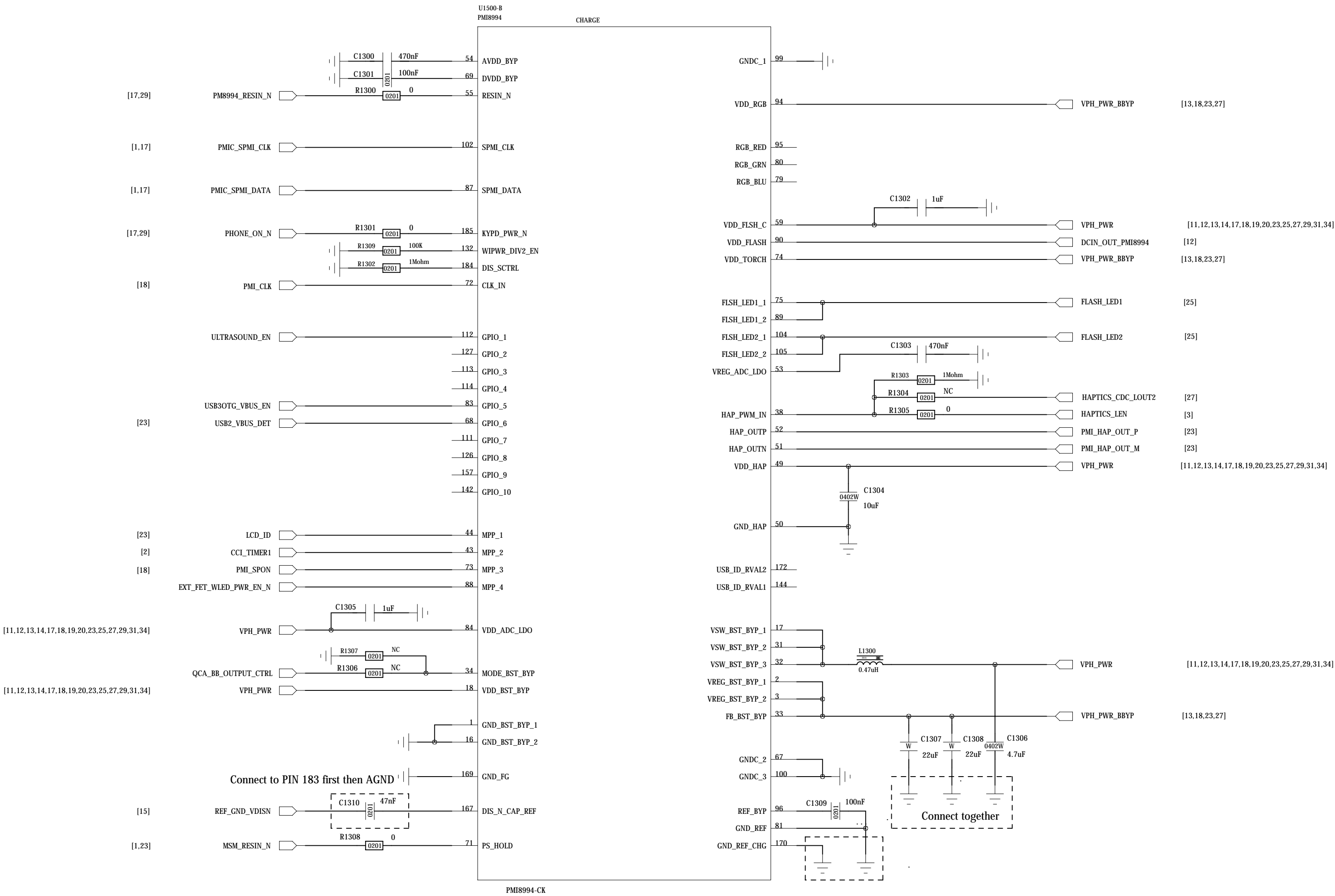


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CK Telecom Communication Technology Limited					
DRAWN: , āf-Āi Ći Ō	DATE: 2015-03-12	TITLE: RIMO			
CHECKED:	DATE:	SIZE: D	DRAWING NO: 10--MSM8994_GND		
DESIGNED:	DATE:	SCALE: 1:1	SHEET: 10 OF 36	REV: V1.0	

MSM8994 Additional power supplies



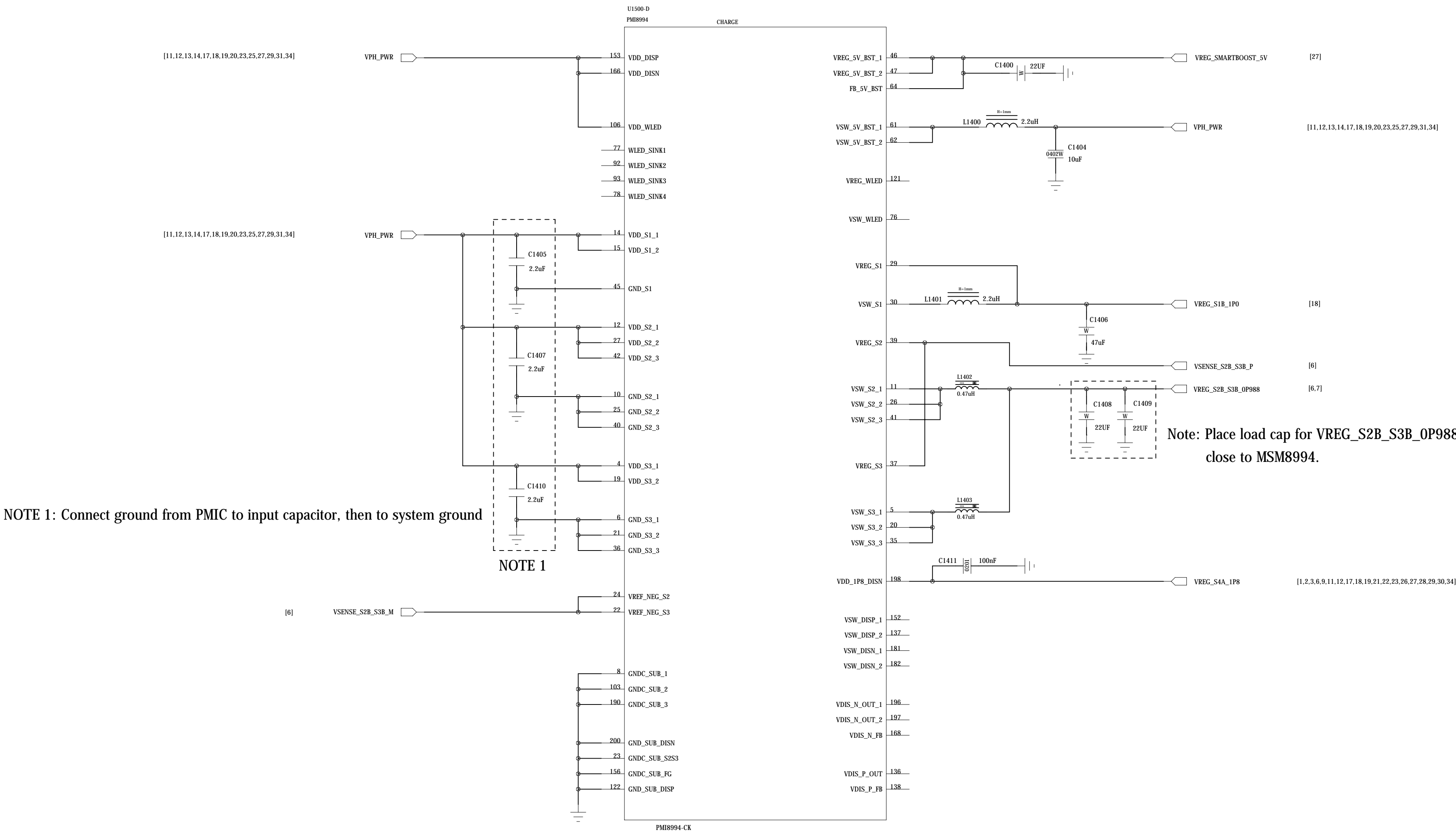
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DRAWN: , ¶ · à£~Ài Çi Ô¶	DATE: 2015-03-12	TITLE: RIMO			
CHECKED:	DATE:	SIZE: D	DRAWING NO: 11--MSM_LPDDR_REGULATOR		
DESIGNED:	DATE:	SCALE: 1:1	SHEET: 11 OF 36	REV: V1.0	



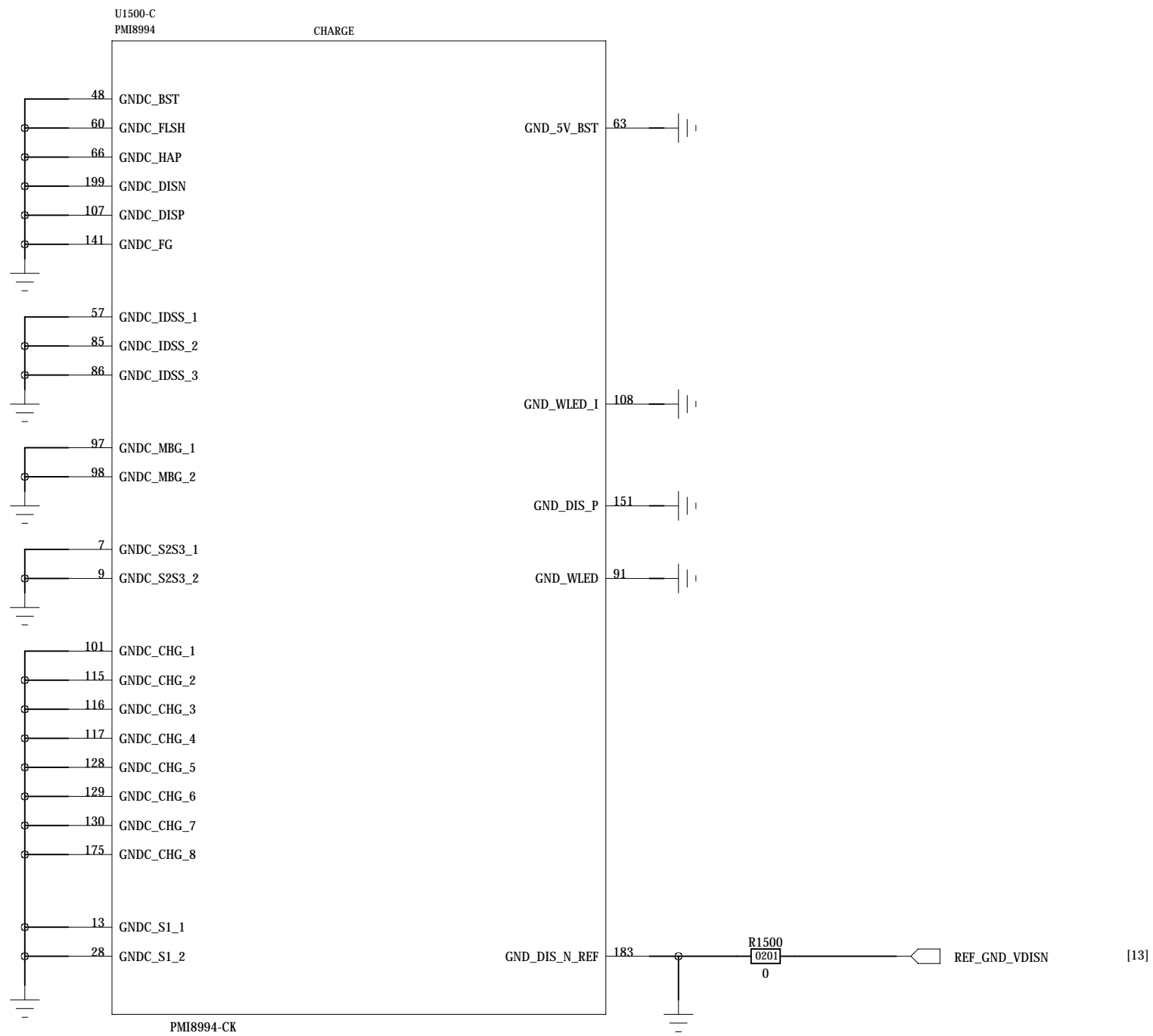
Note: GND_REF must be routed directly to the bypass capacitor's GND terminal.
A via to main GND should only be present at the bypass capacitor's GND terminal,
NOT at the PMIC's GND_REF pad.

Note: The capacitance (C416) required on the PM8994's DIS_N_CAP_REF pin depends
on whether you plan to support an LCD or an AMOLED panel.
If you plan to support an LCD panel, 47nF is required on DIS_N_CAP_REF.
If you plan to support an AMOLED panel, 1.5nF is required on DIS_N_CAP_REF.

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DRAWN: [Signature]	DATE: 2015-03-12	TITLE: RIMO			
CHECKED:	DATE:	SIZE: D	DRAWING NO: 13--PMI8994_GPIO_LED_RGB		
DESIGNED:	DATE:	SCALE: 1:1	SHEET: 13 OF 36	REV: V1.0	

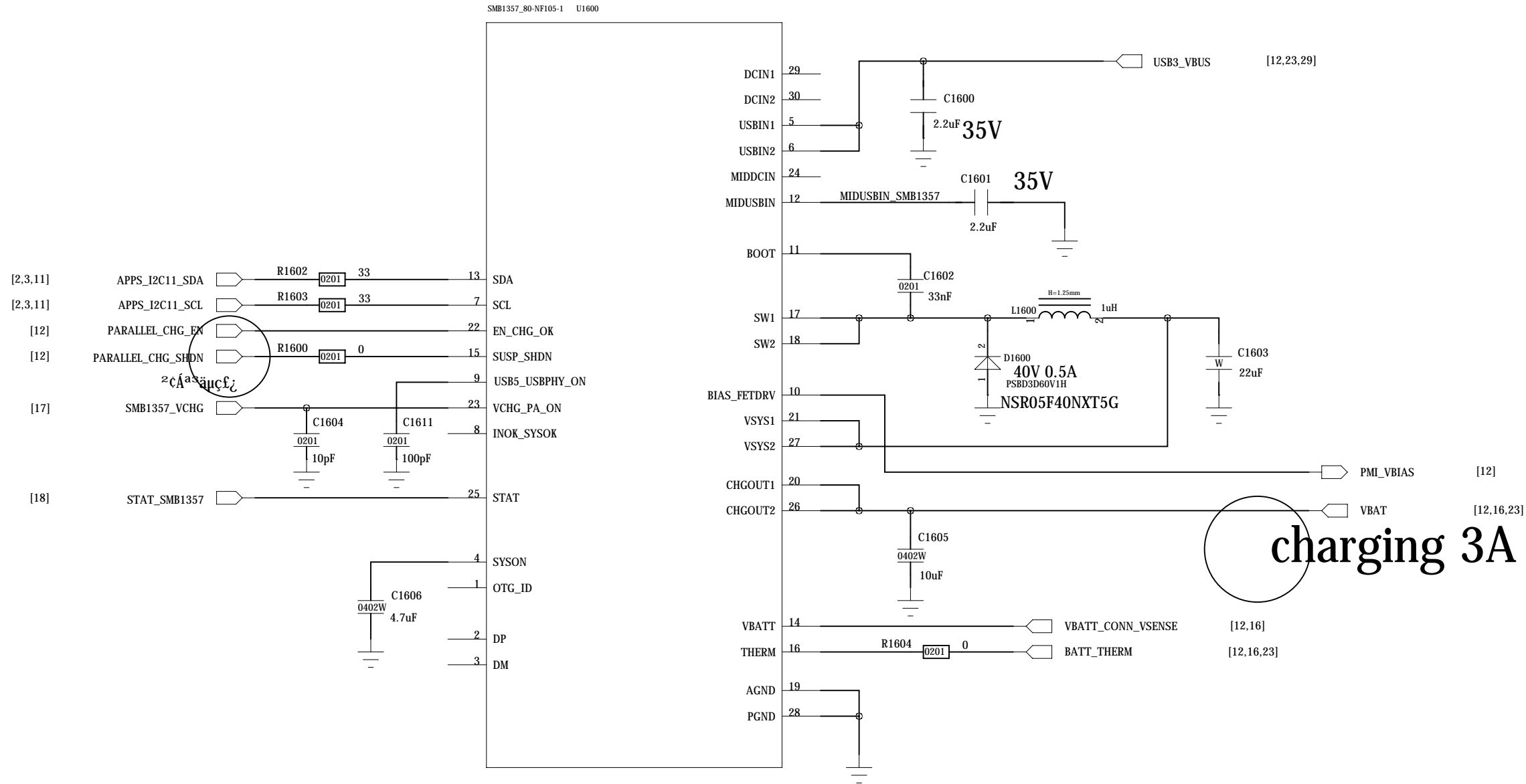


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DRAWN: , 1 · à f - À i Ç i 0 1	DATE: 2015-03-12	TITLE: RIMO			
CHECKED:	DATE:	SIZE: D	DRAWING NO: 14--PMI8994_REF_WLED		
DESIGNED:	DATE:	SCALE: 1:1	SHEET: 14 OF 36	REV: V1.0	

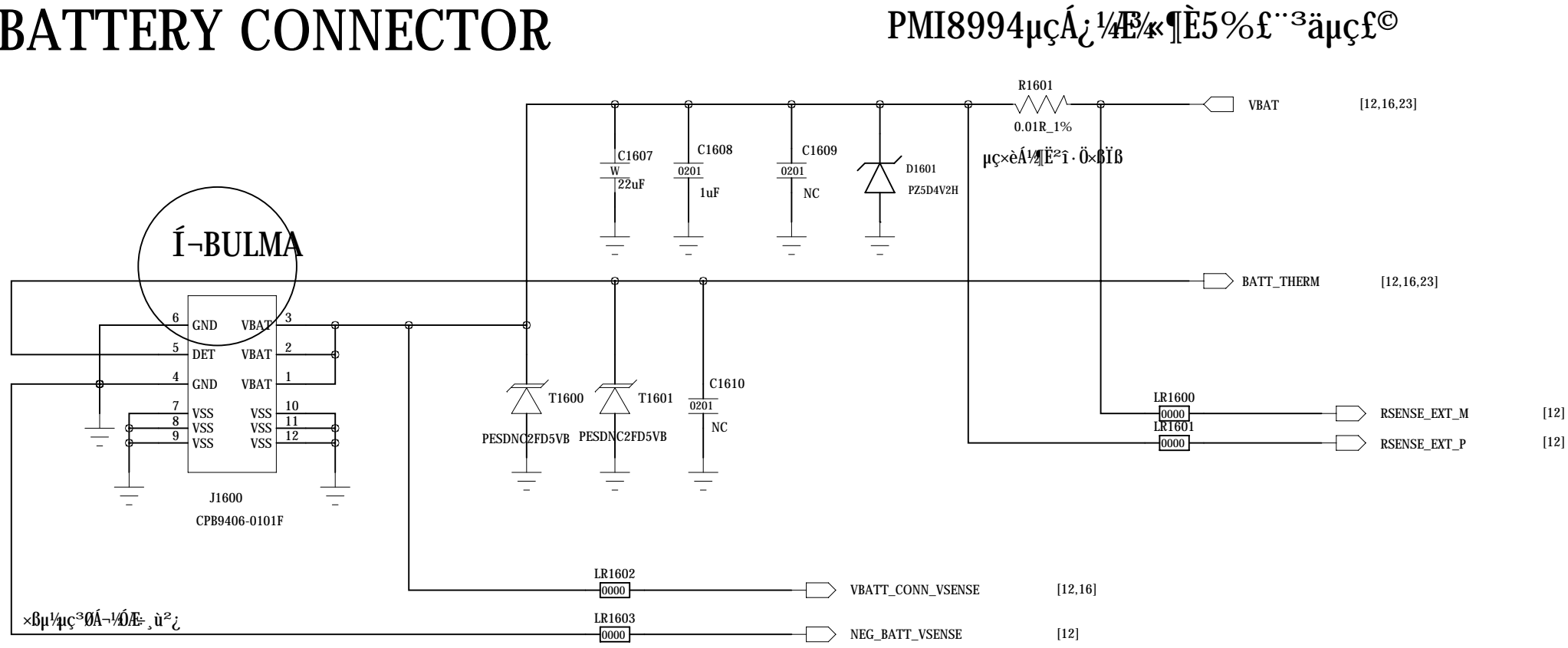


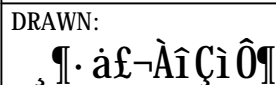
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DRAWN: ٢٠١٥-٠٣-١٢	DATE: 2015-03-12	TITLE: RIMO			
CHECKED:	DATE:	SIZE: D	DRAWING NO: 15--PMI8994_GND		
DESIGNED:	DATE:	SCALE: 1:1	SHEET: 15 OF 36	REV: V1.0	

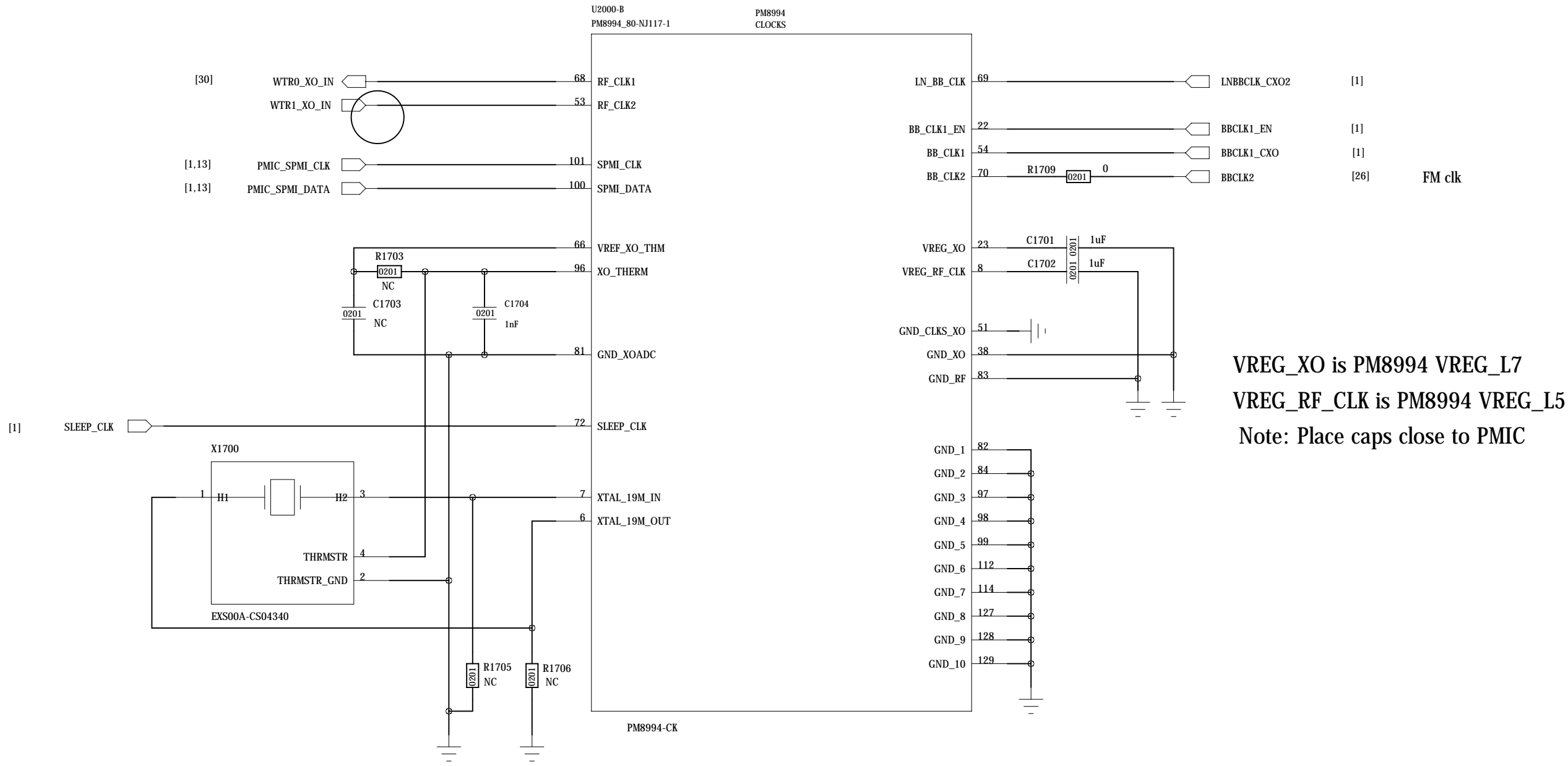
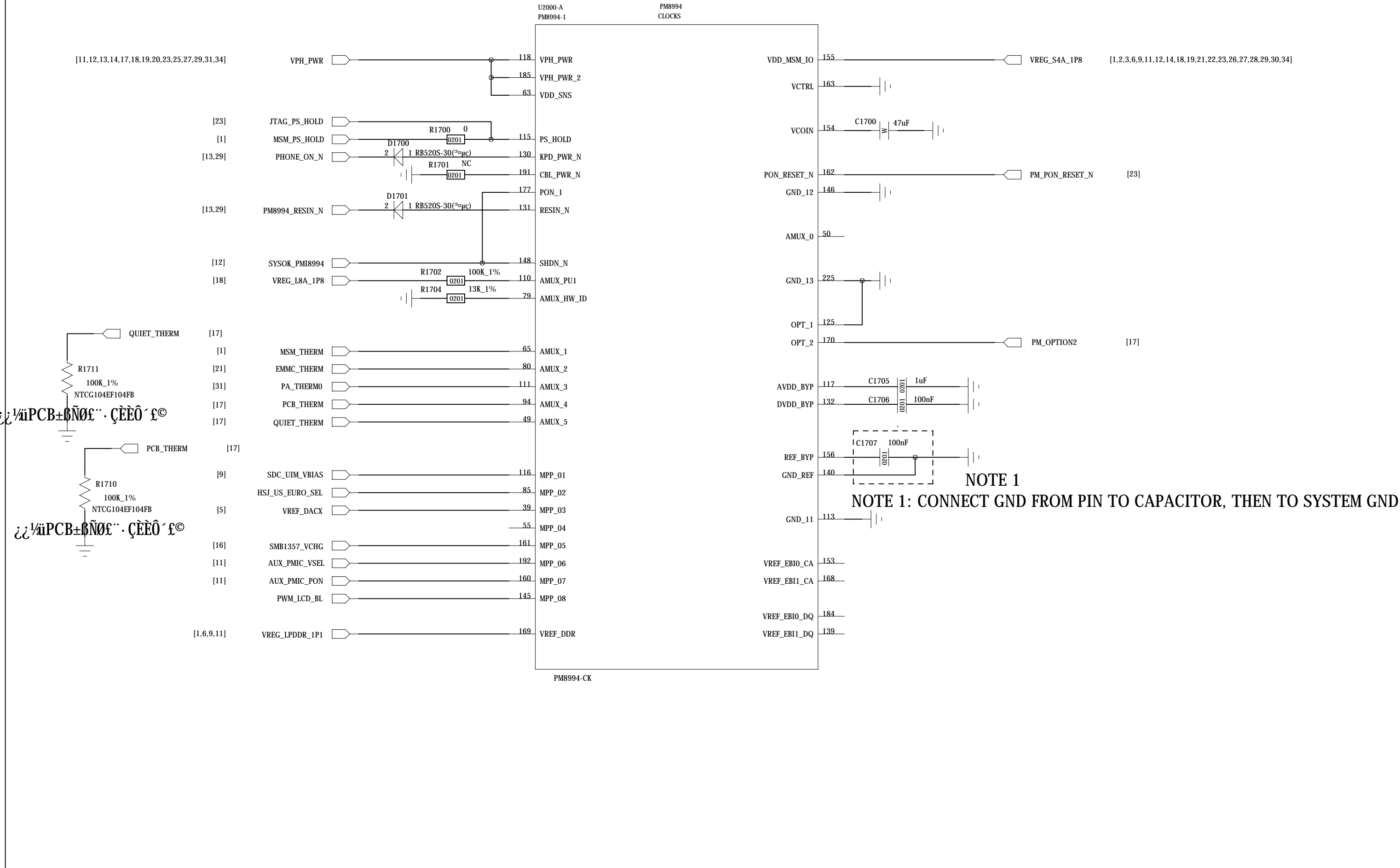
Charger



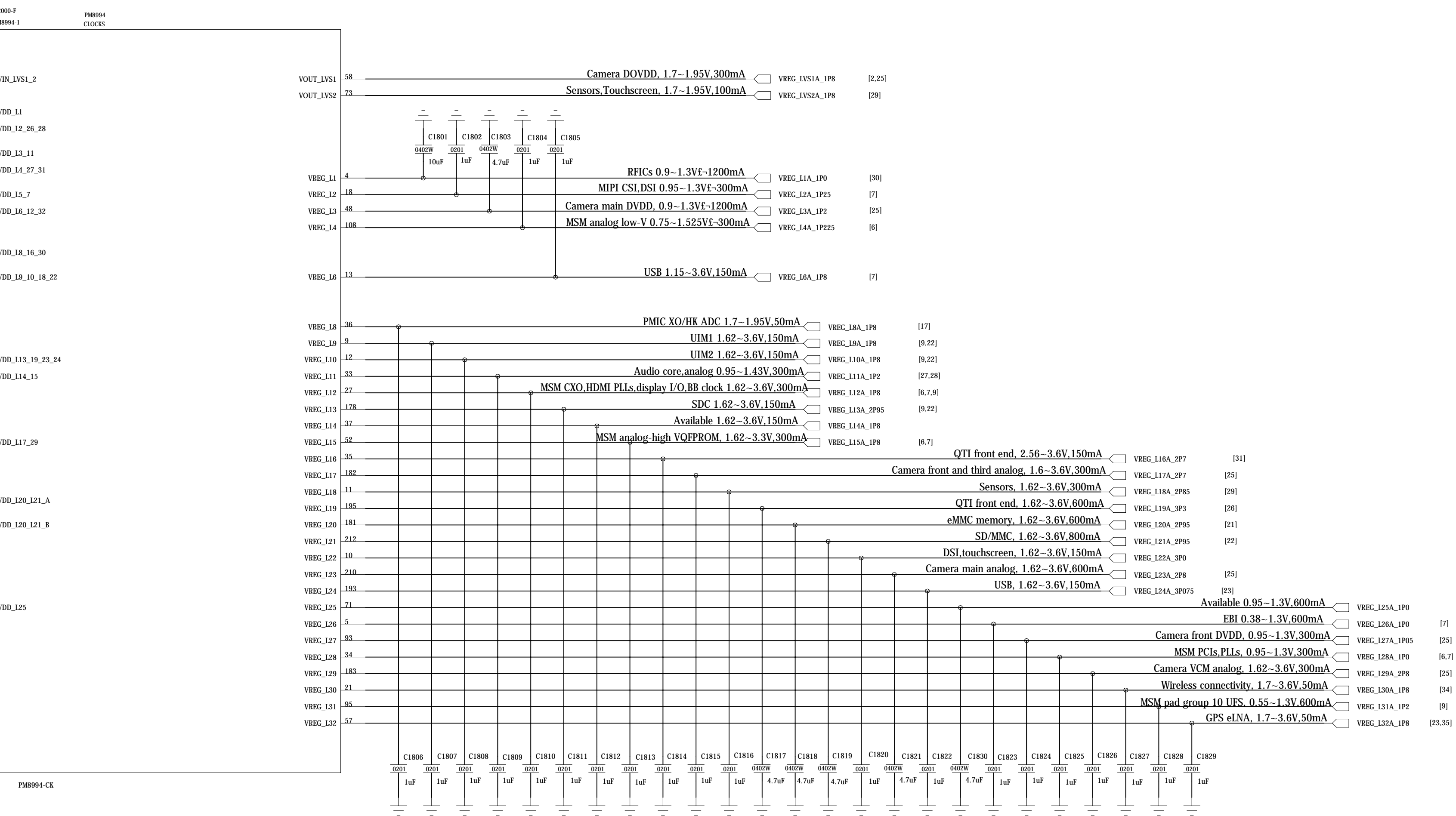
BATTERY CONNECTOR



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DRAWN: 	DATE: 2015-03-12	TITLE: RIMO			
CHECKED:	DATE:	SIZE: D	DRAWING NO: 16--CHARGING_SMB1357		
DESIGNED:	DATE:	SCALE: 1:1	SHEET: 16 OF 36	REV: V1.0	

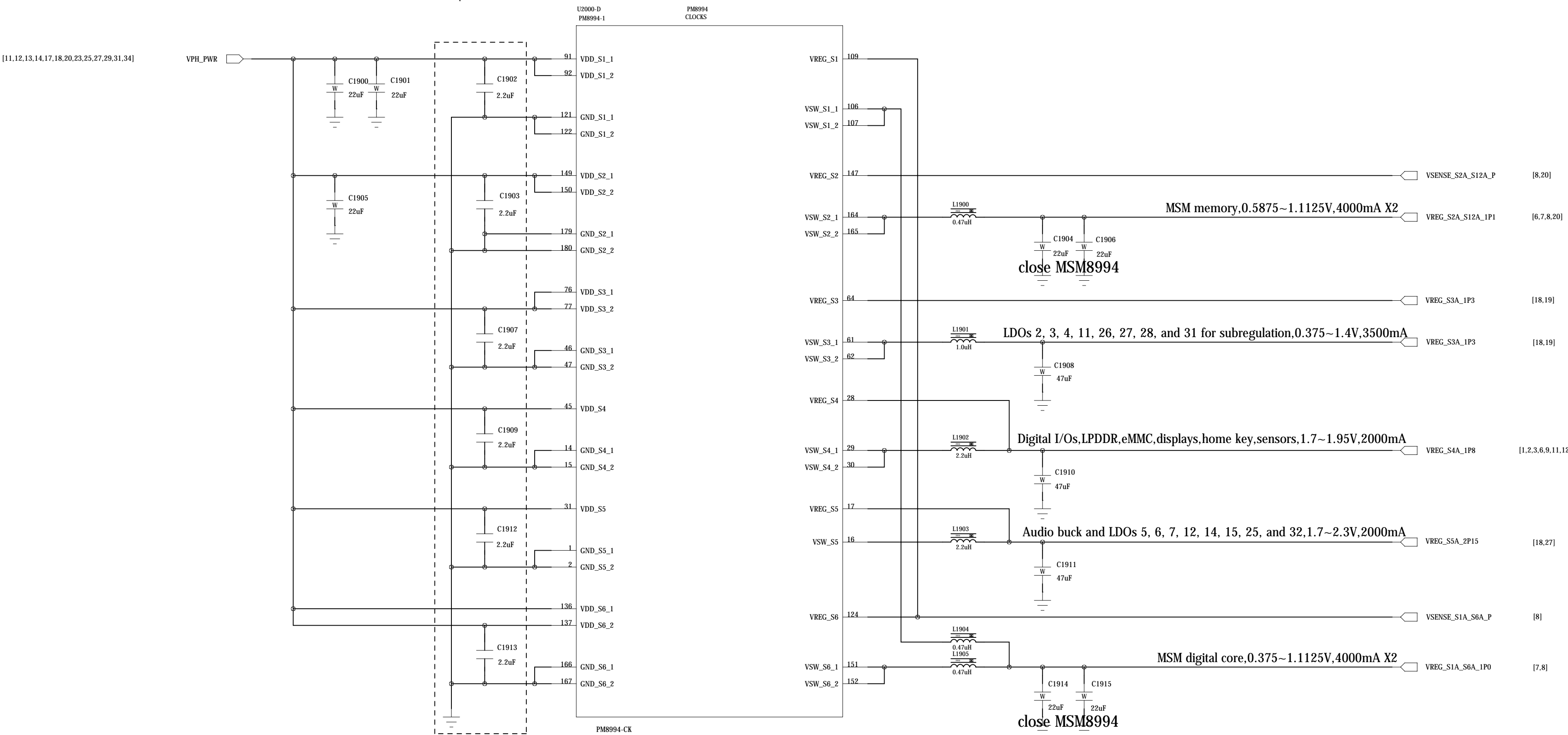


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DRAWN: . 1 . a f - A i C i 0 1	DATE: 2015-03-12	TITLE: RIMO			
CHECKED:	DATE:	SIZE: D	DRAWING NO: 17--PM8994_CNTL_CLKS_AMUX_MPP		
DESIGNED:	DATE:	SCALE: 1:1	SHEET: 17 OF 36	REV: V1.0	



Note 1: If VREG_L25 is used, place a 4.7uF as output capacitor.

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DRAWN: [Signature]	DATE: 2015-03-12	TITLE: RIMO	
CHECKED:	DATE:	SIZE: D	DRAWING NO: 18--PM8994_LDO&GPIO
DESIGNED:	DATE:	SCALE: 1:1	SHEET: 18 OF 36 REV: V1.0



NOTE 1

NOTE 1: Connect ground from PMIC to input capacitor, then to system ground

Note: Place load cap for VREG_S2A_S12A_1P1 close to MSM8994.

NOTE 2: Route as single trace from output capacitor back to PMIC

Note: Place load cap for VREG_S1A_S6A_1P0 close to MSM8994.

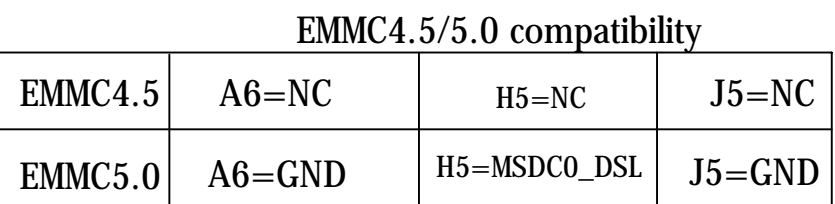
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DRAWN: [Signature]	DATE: 2015-03-12	TITLE: RIMO			
CHECKED:	DATE:	SIZE: D	DRAWING NO: 19--PM8994_VSMPS_S1A_S6A		
DESIGNED:	DATE:	SCALE: 1:1	SHEET: 19 OF 36	REV: V1.0	

[11,12,13,14,17,18,19,23,25,27,29,31,34]



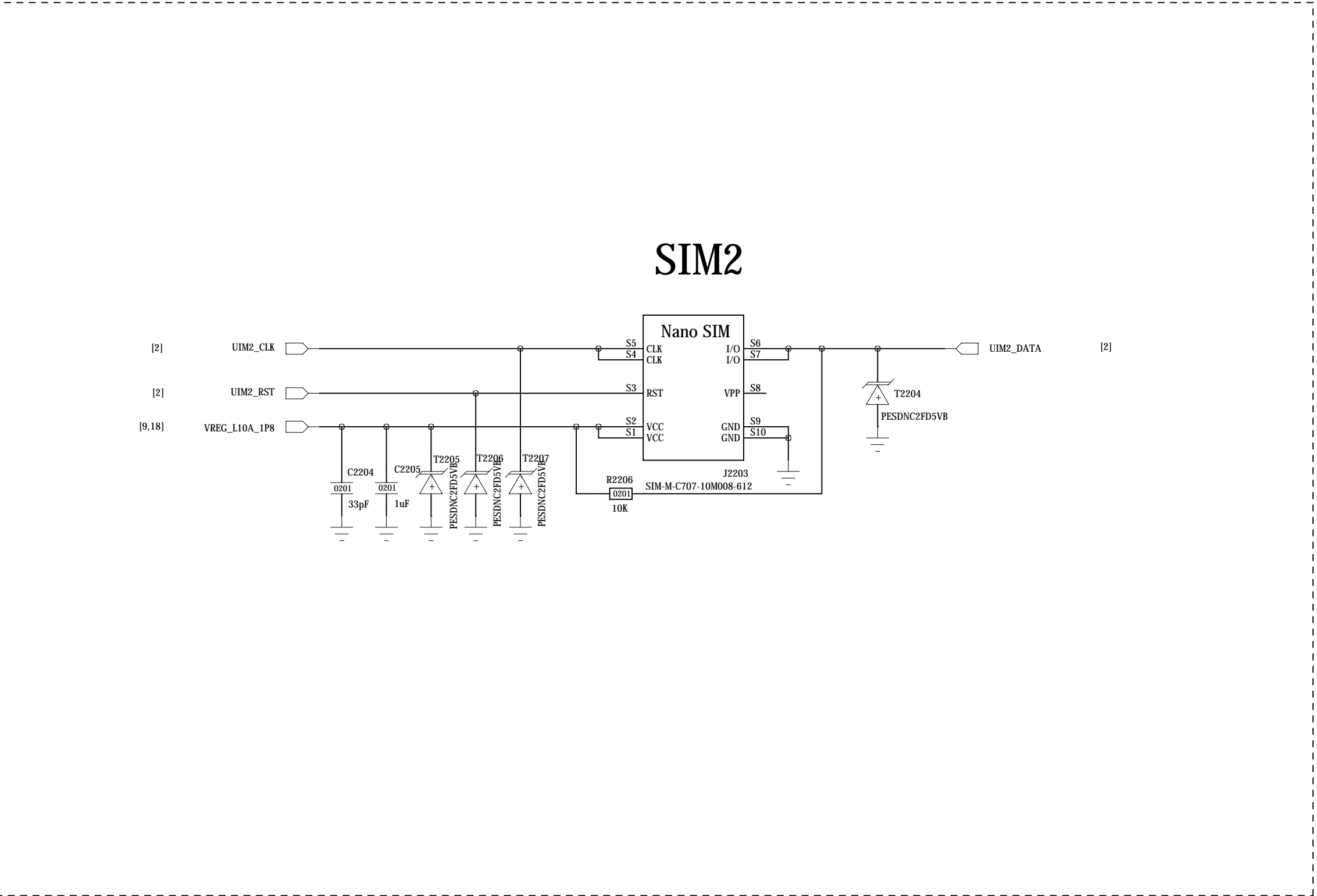
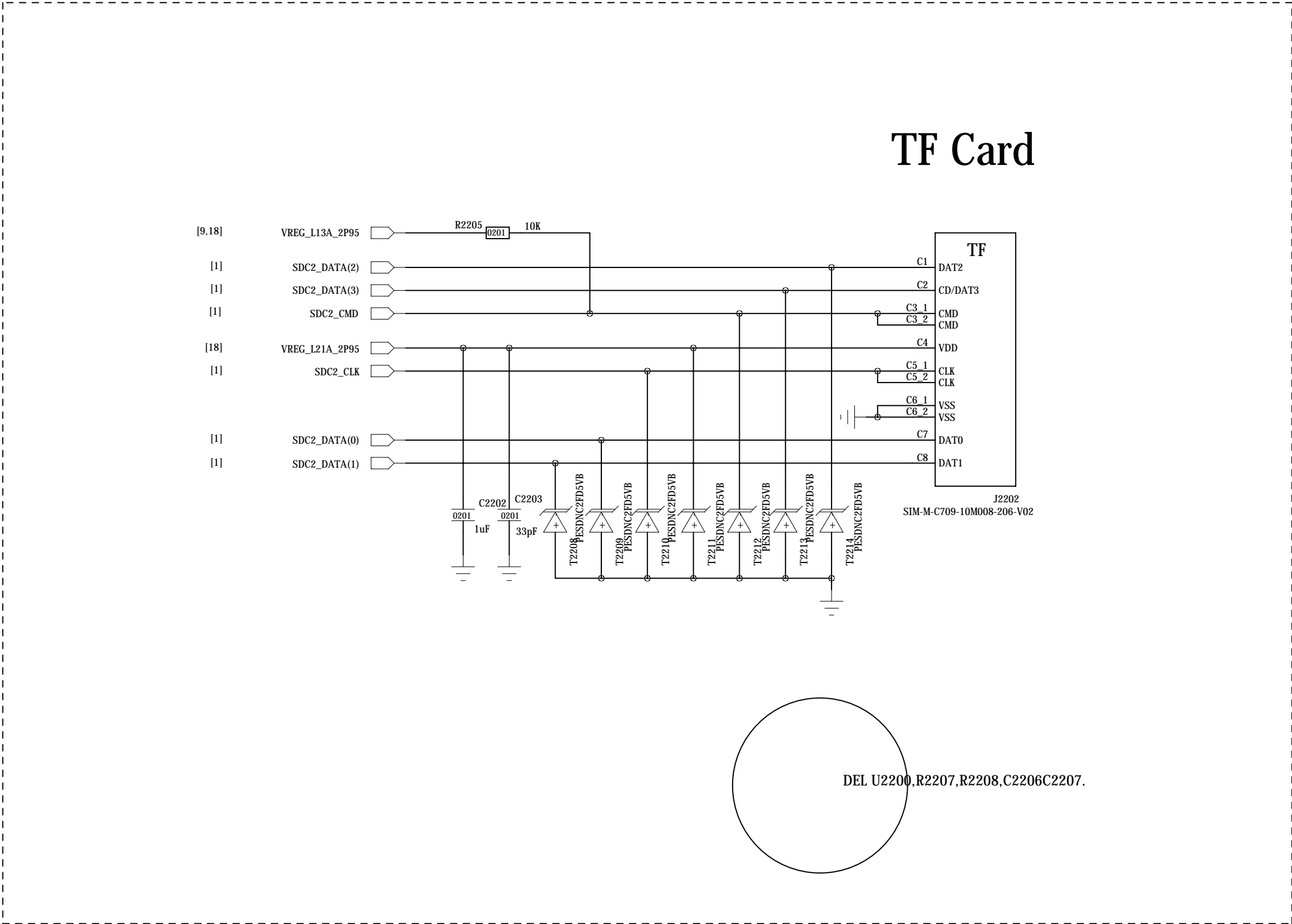
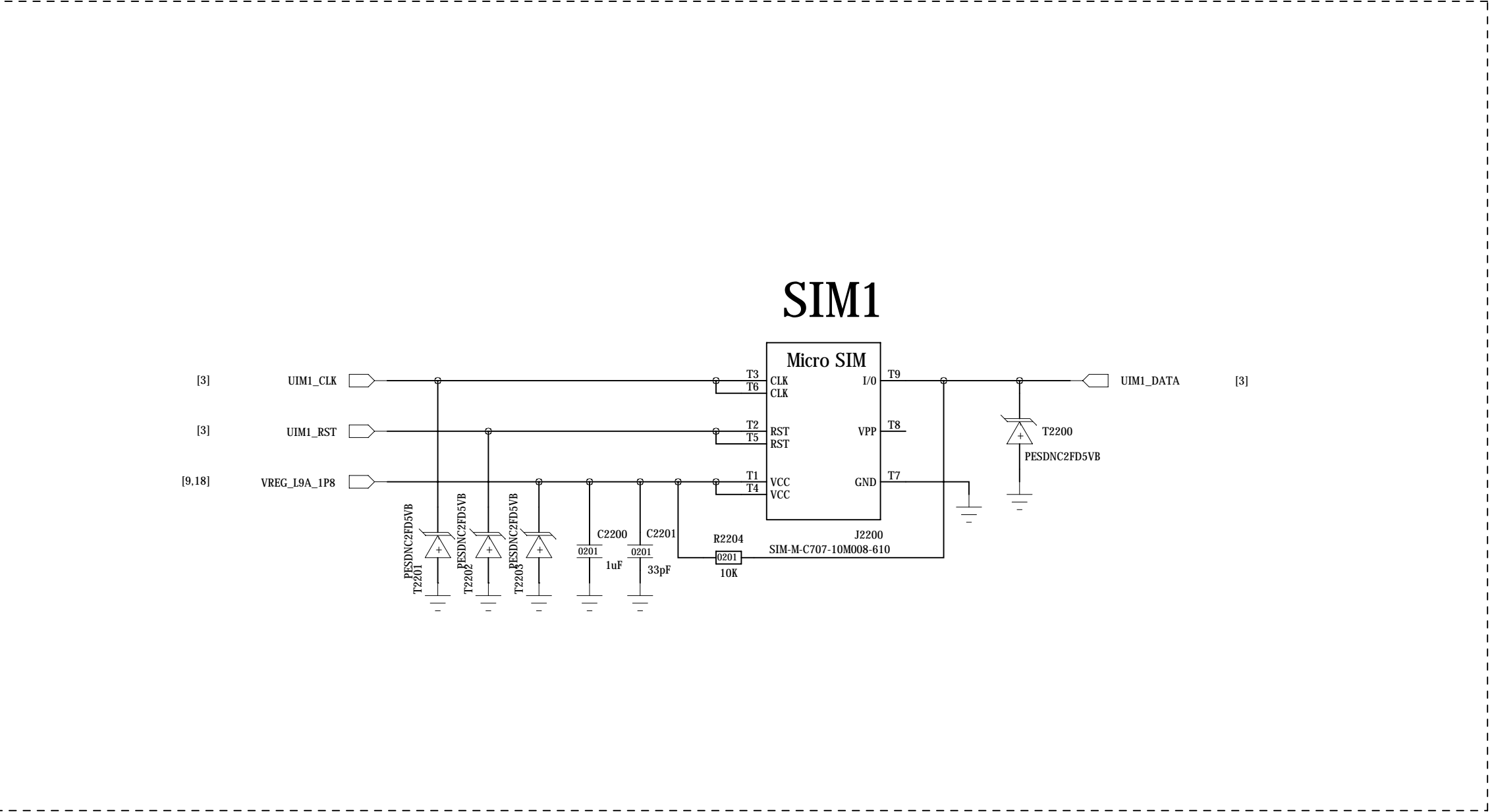
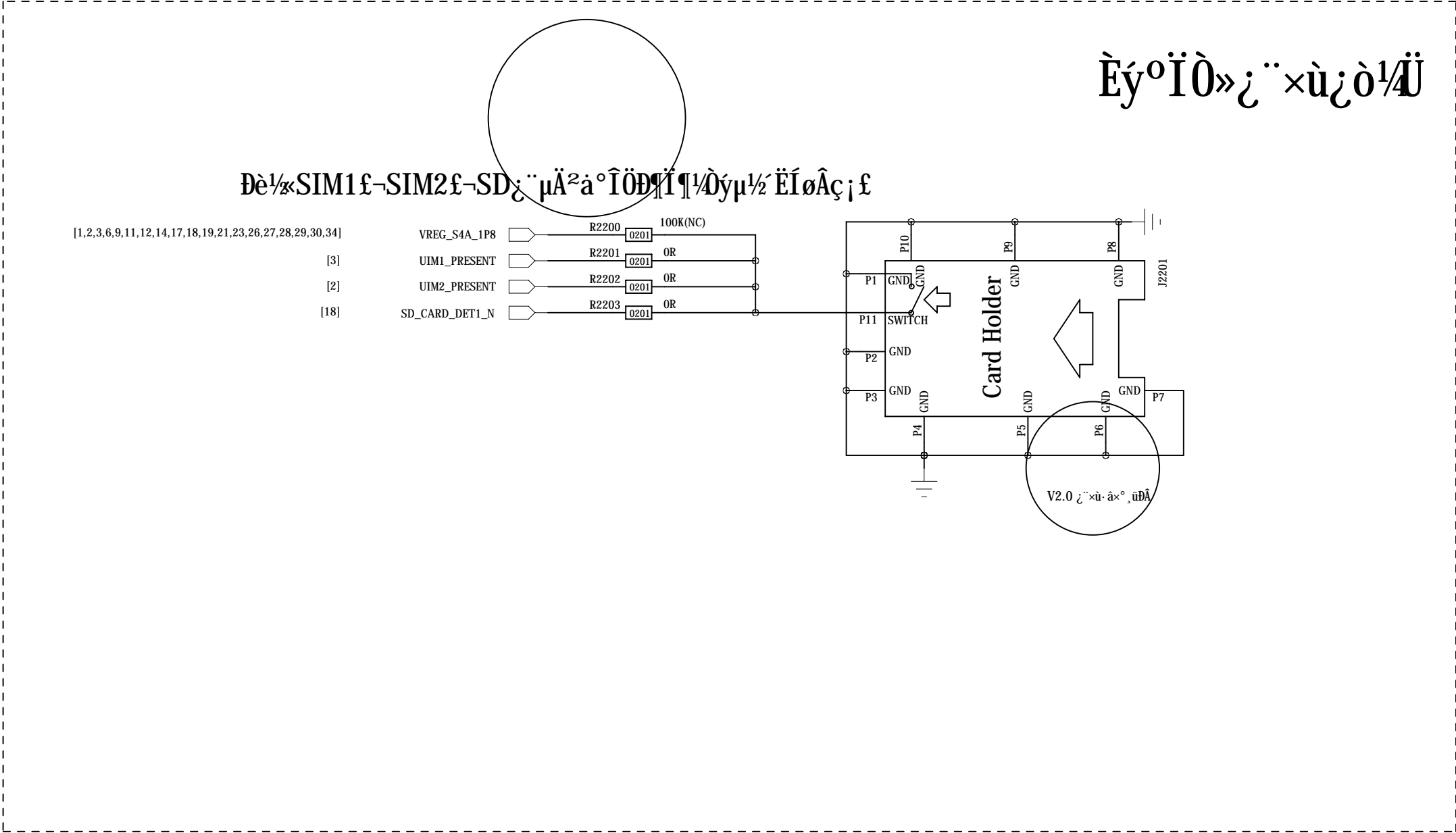
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DRAWN: [Signature]	DATE: 2015-03-12	TITLE: RIMO					
CHECKED:	DATE:	SIZE: D	DRAWING NO: 20--PM8994_VSMPS_S7A_S12A				
DESIGNED:	DATE:	SCALE: 1:1	SHEET: 20	OF 36	REV: V1.0		

1 bit mode for eMMC boot	153 ball, 0.5mm pitch
Discrete eMMC (153 balls)	

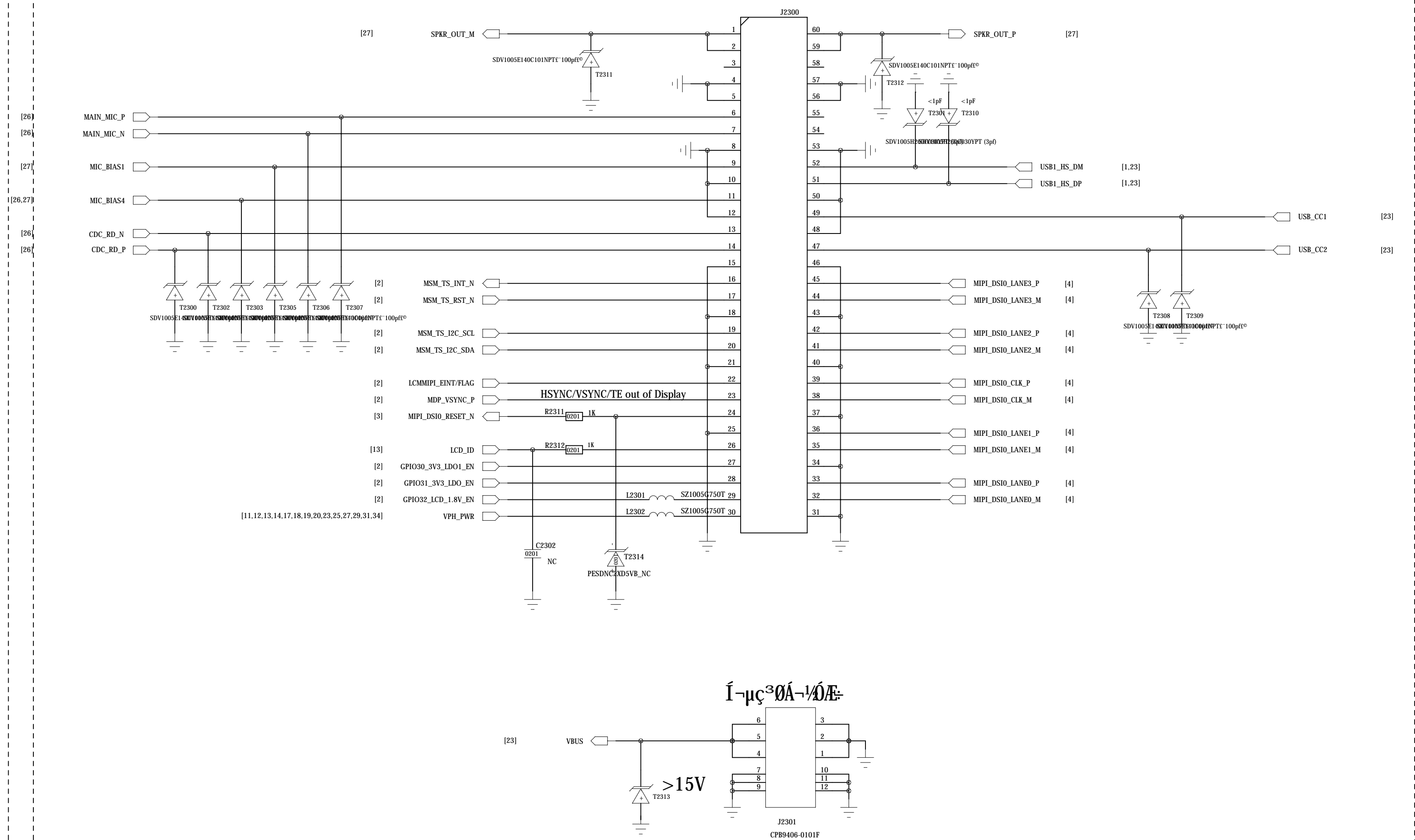
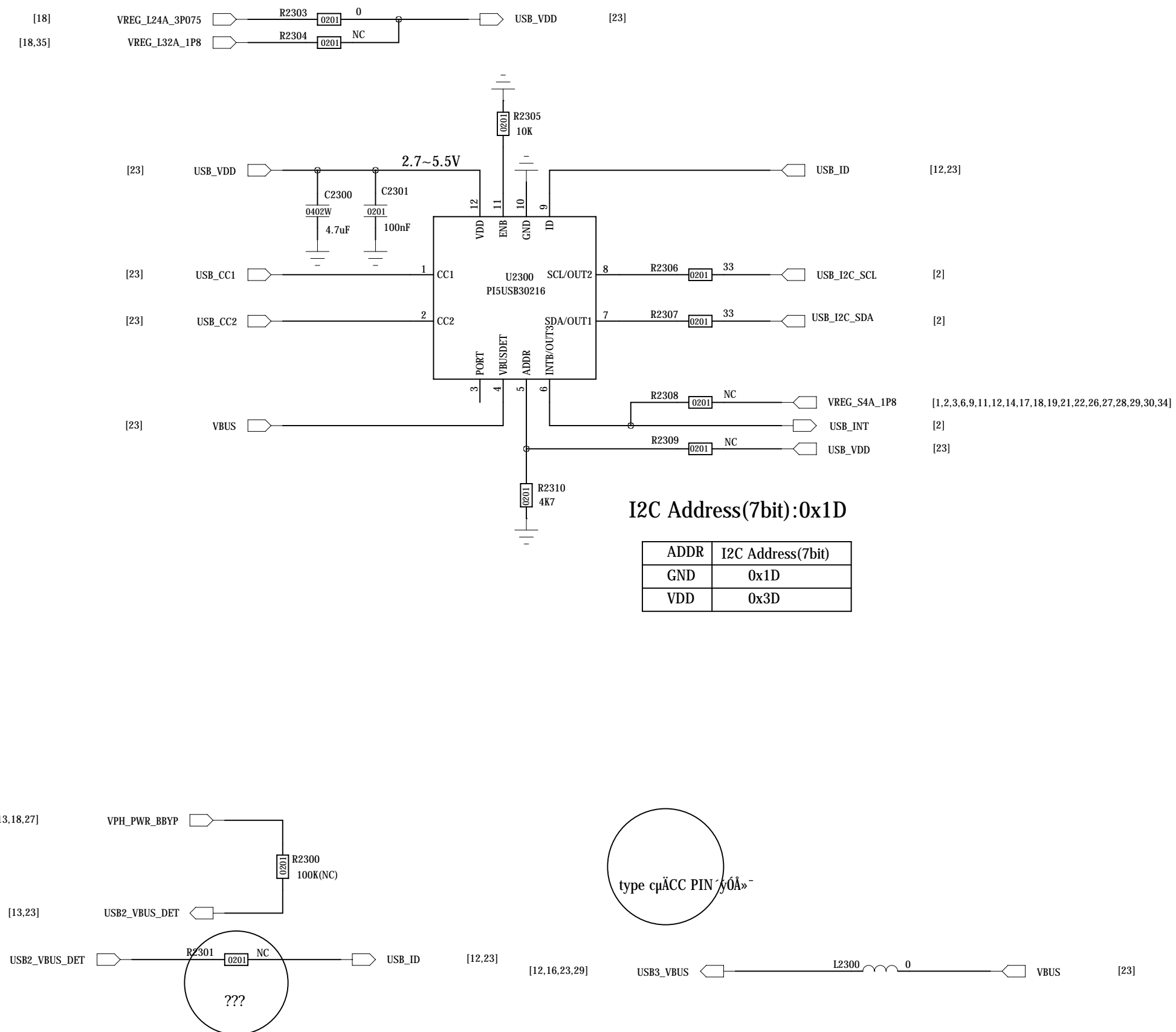


Note 40-1: For eMMC 5.0, connect eMMC's H6 & T5 pin to GND.

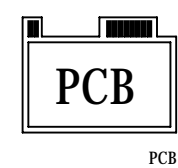
For eMMC 4.5, check eMMC's H6 & T5 is real no connection (NC).



USB TYPE C SWITCH



PCB及辅料

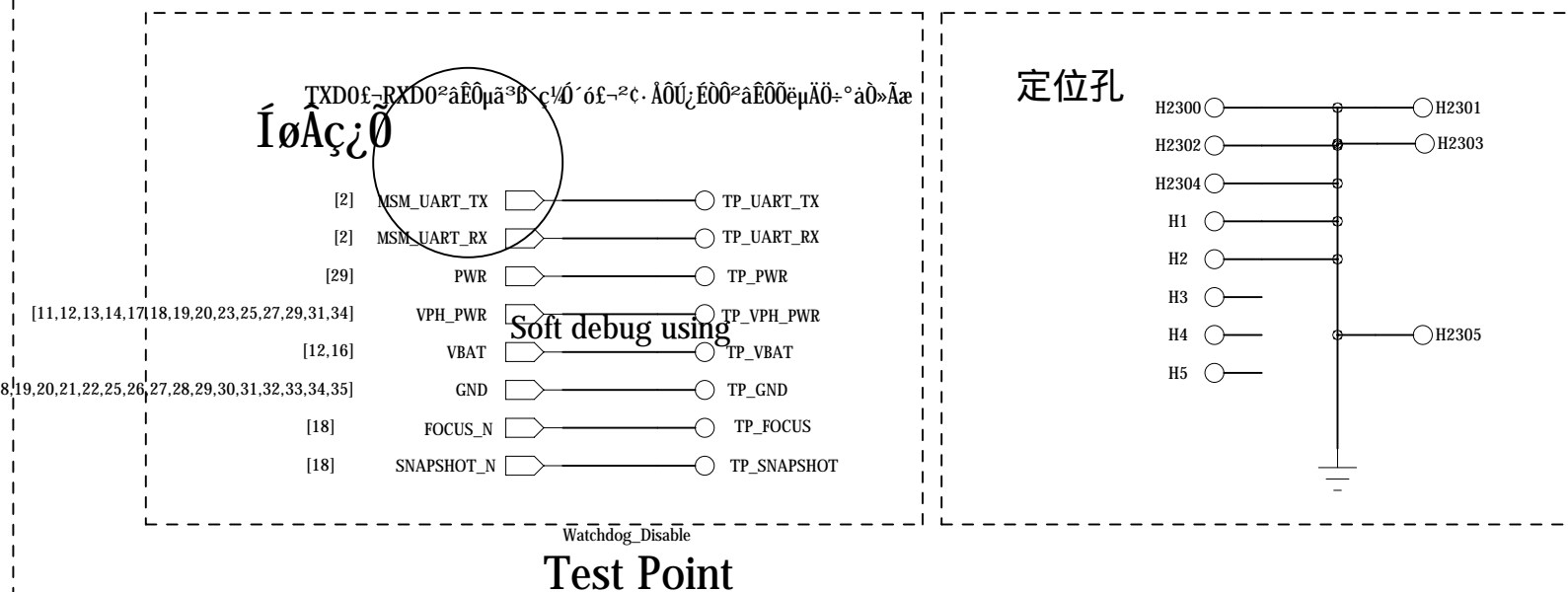
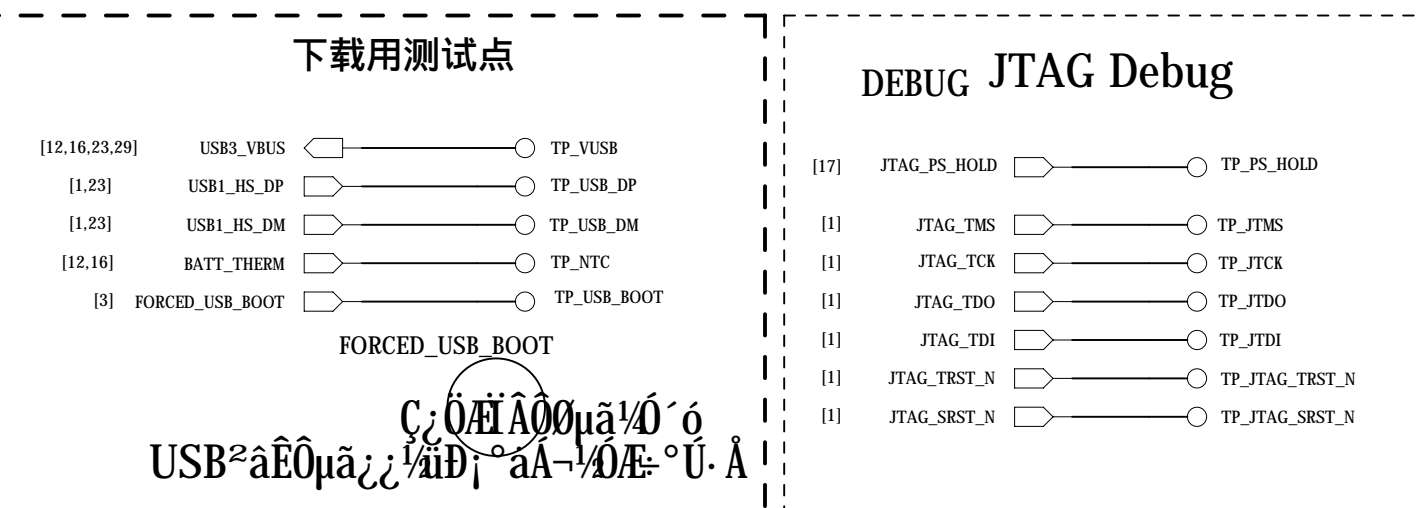


LABEL_SMALL
 B₁. 8T₁A₁4C₂0°x1u0^{1/4}(1D₁)
 5*18MM A₁. 8T₁A₁50; a(A₁±B₁ +1/4p×0^{1/4}5MM)

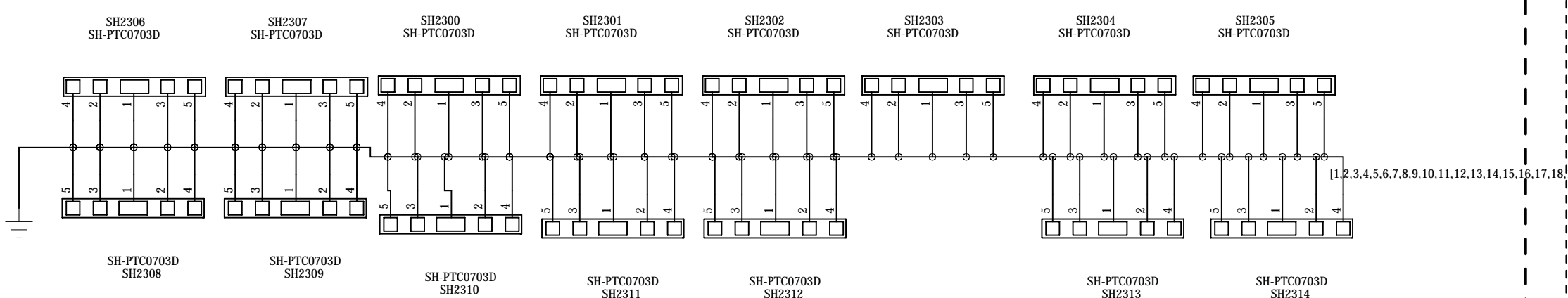


LABEL BIG
5*32MM A1, 81A300; (A1/2B, +10µm×0.2MM)

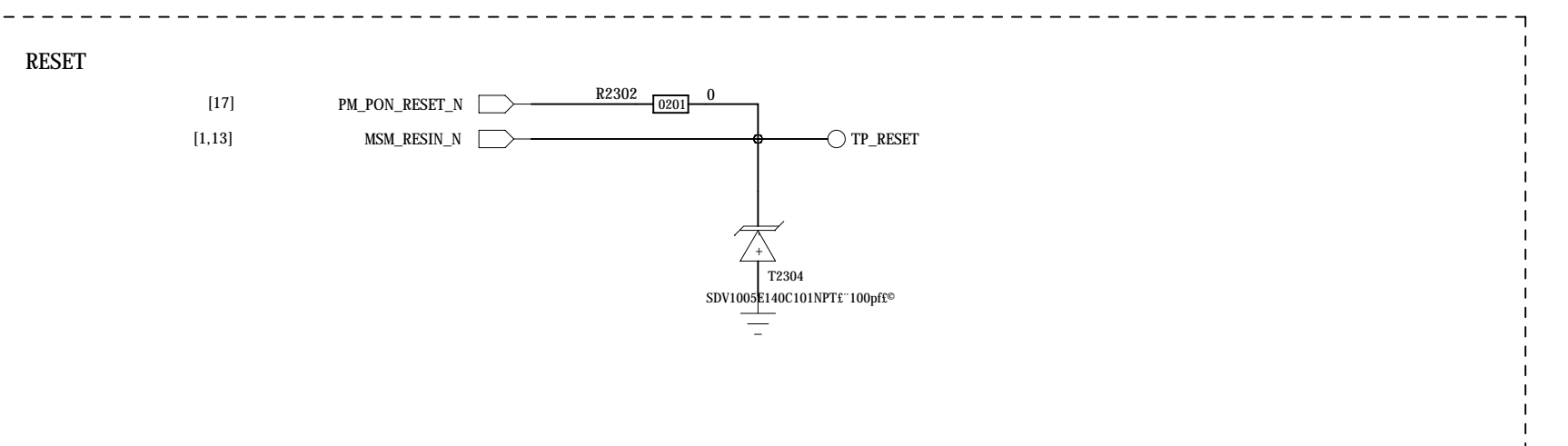
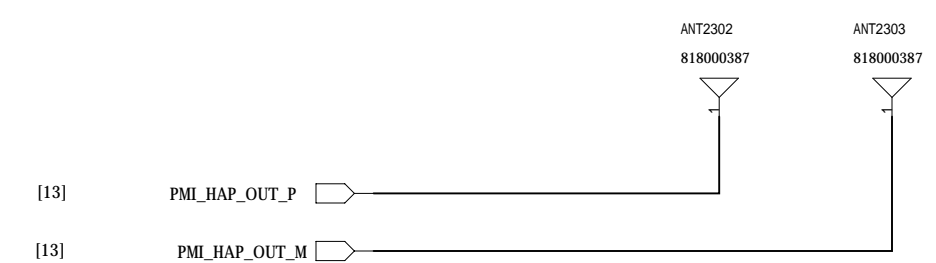
TEST POINT



屏蔽框



Vibrator



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CK Telecom
Communication Technology Limited

DRAWN: A. C. O.	DATE: 2015-03-12	TITLE: RIMO			
CHECKED:	DATE:	SIZE: D	DRAWING NO: 23--TYPE-C_USB_TEST_POINT		
DESIGNED:	DATE:	SCALE:	1:1	SHEET: 23 OF 36	REV: V1.0

LCD

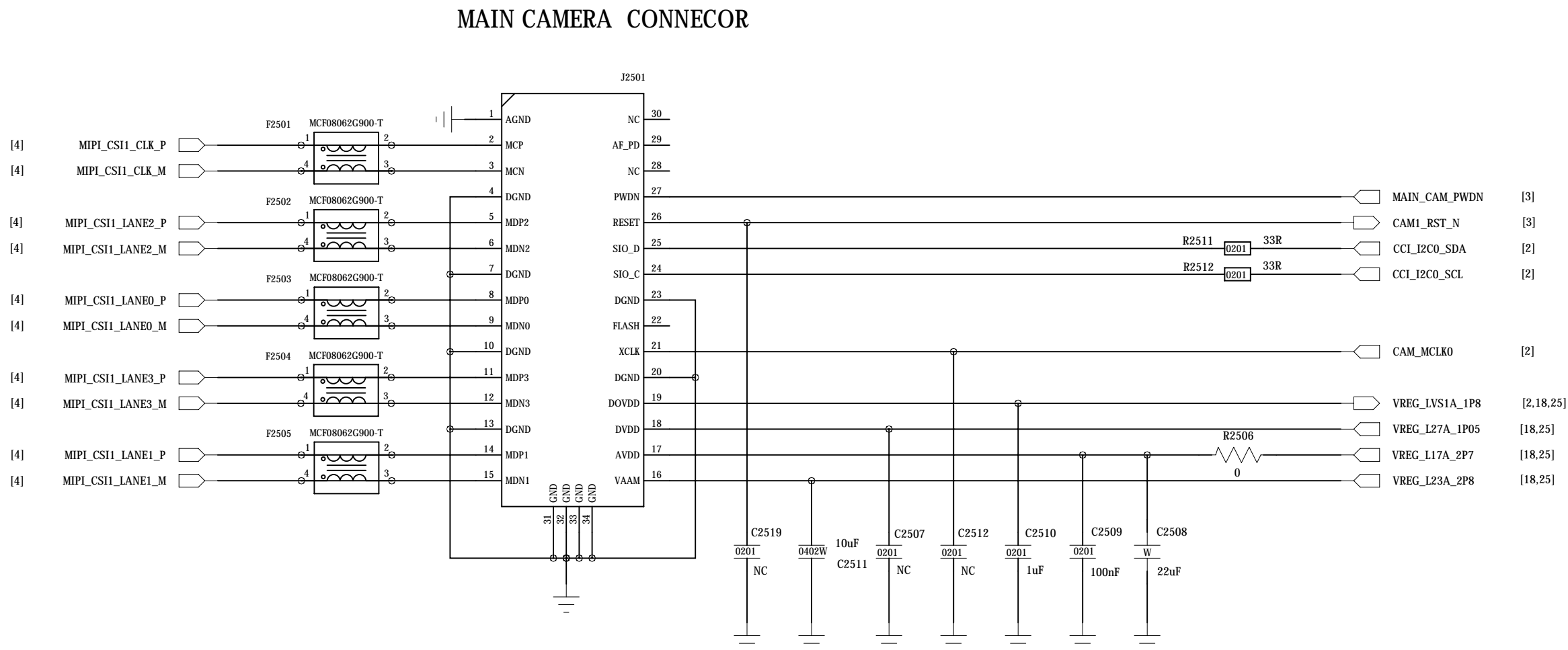
CTP

LCD Backlight

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DRAWN: 	DATE: 2015-03-12	TITLE: RIMO			
CHECKED:	DATE:	SIZE: D	DRAWING NO: 24--LCD_TP		
DESIGNED:	DATE:	SCALE: 1:1	SHEET: 24 OF 36	REV: V1.0	

Main Camera module

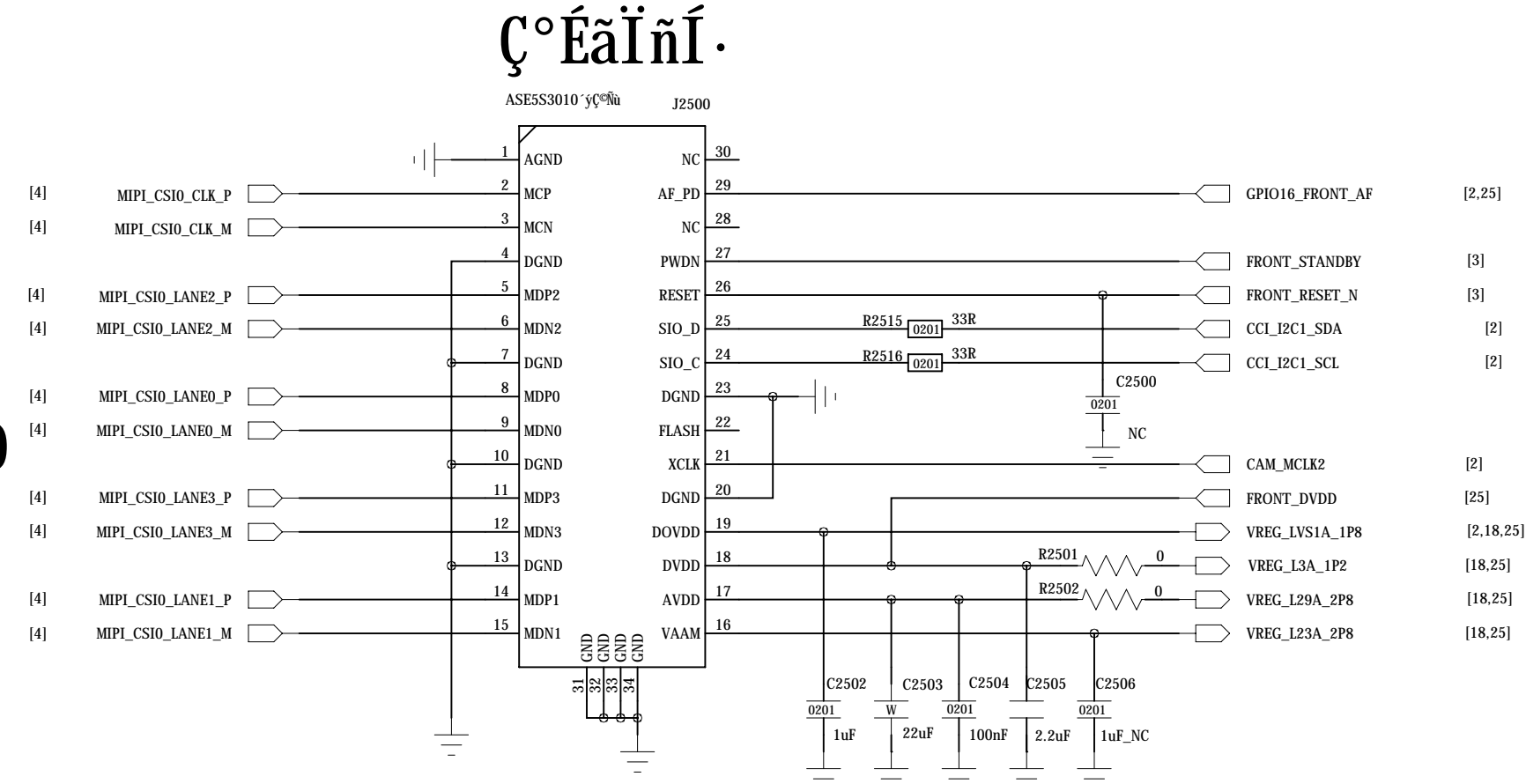
MIPI CSI1



I2C Address(7bit): 0x6C

Front Camera

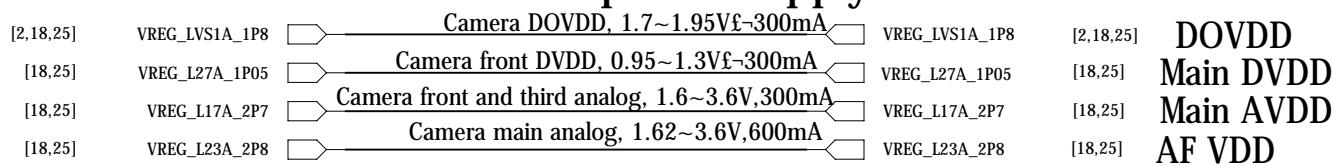
MIPI CSIO



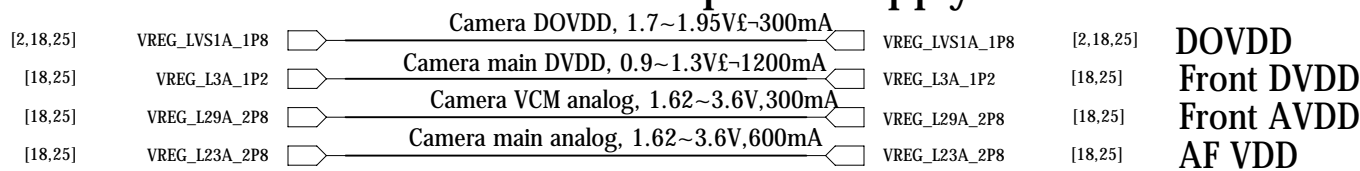
OV4688:DVDD=1.2V,AVDD=2.8V,DOVDD=1.8V
I2C Address(7bit): (OV4688)=0x36/0x10

Main Camera FLASH

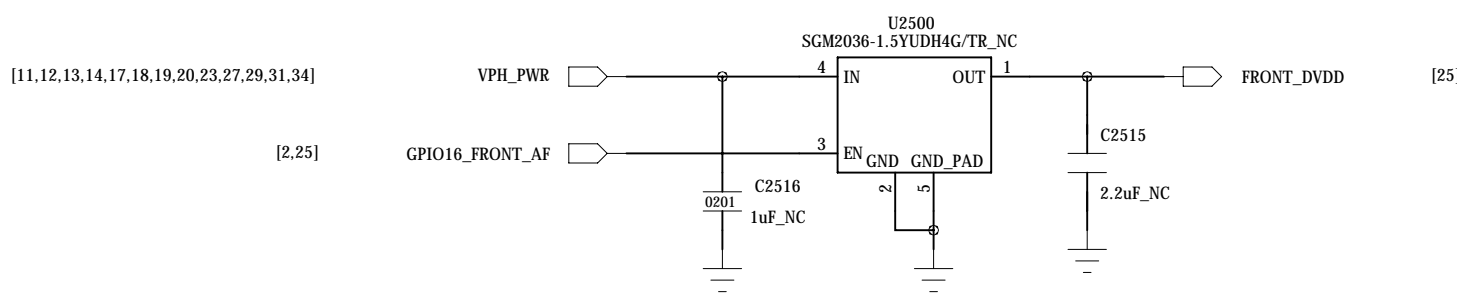
PM8994 camera power supply
main module power supply



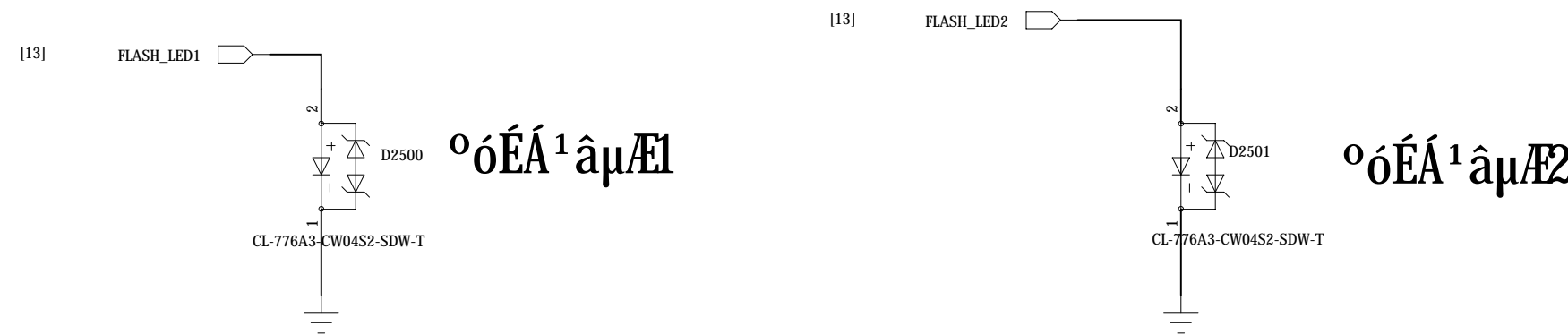
Front and Third module power supply



Front DVDD



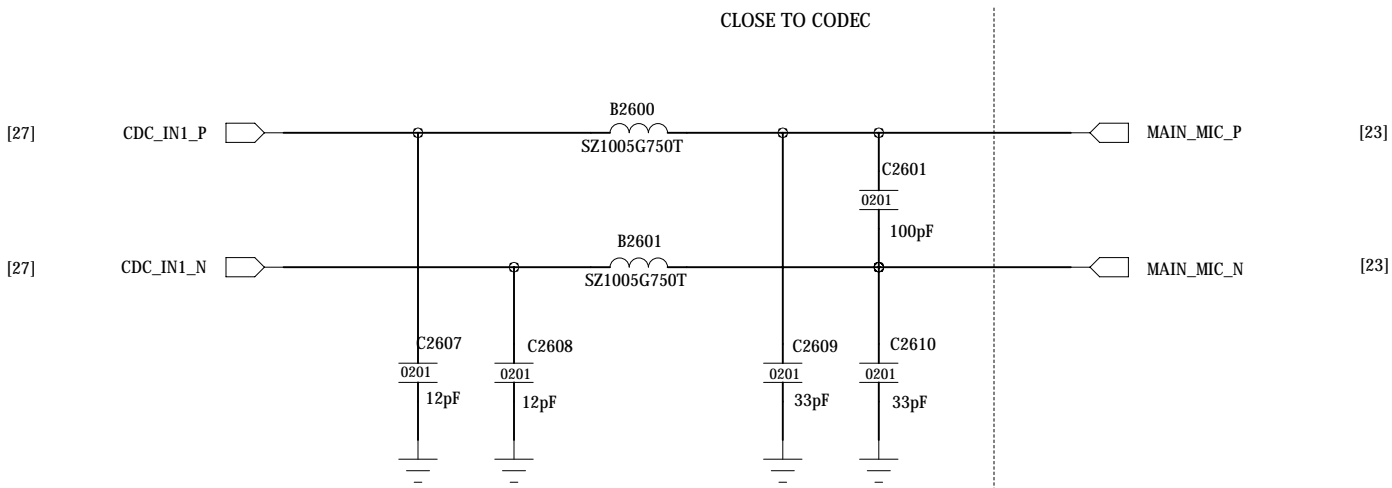
Module power supply



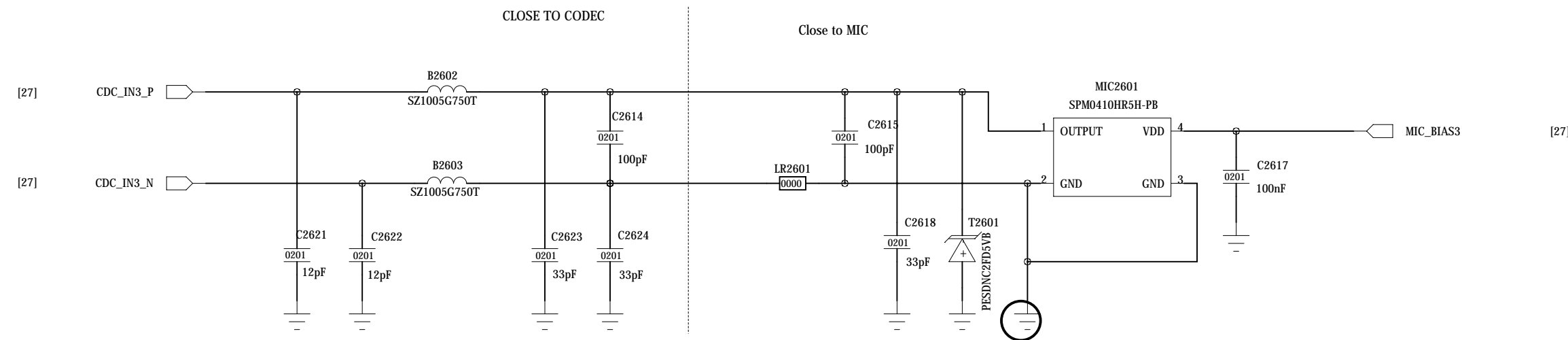
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DRAWN: [Signature]	DATE: 2015-03-12	TITLE: RIMO			
CHECKED:	DATE:	SIZE: D	DRAWING NO: 25--CAMERA		
DESIGNED:	DATE:	SCALE: 1:1	SHEET: 25 OF 36	REV: V1.0	

microphone

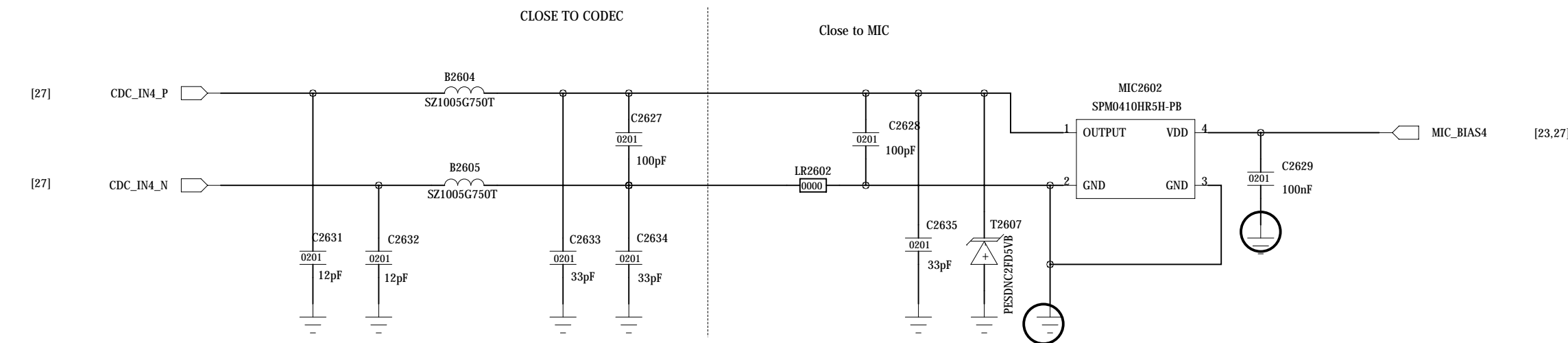
main MIC



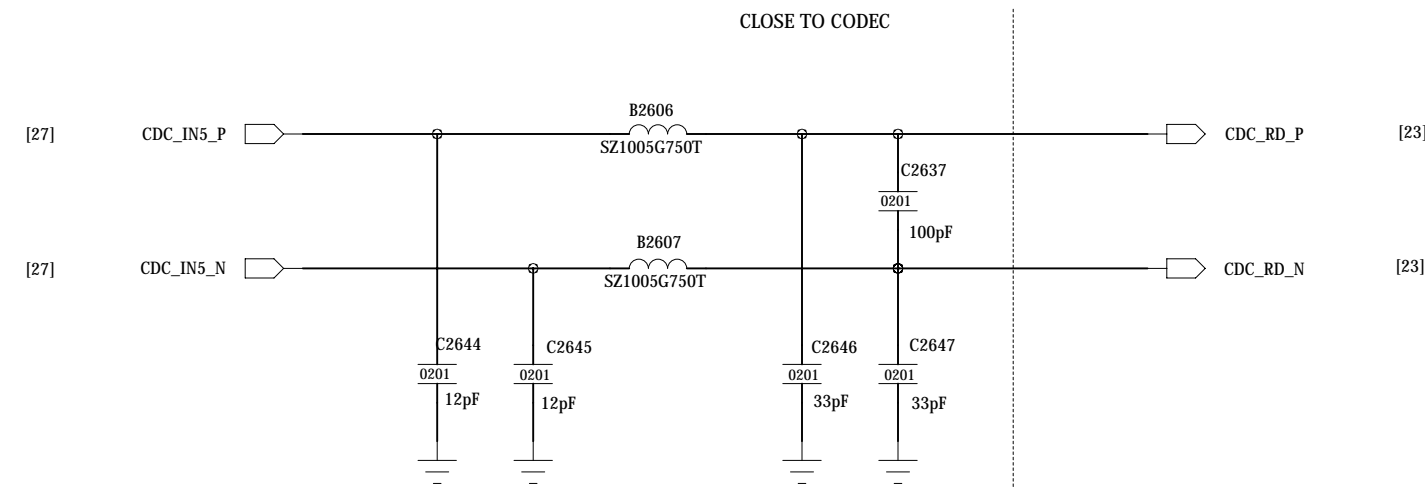
ANC mic



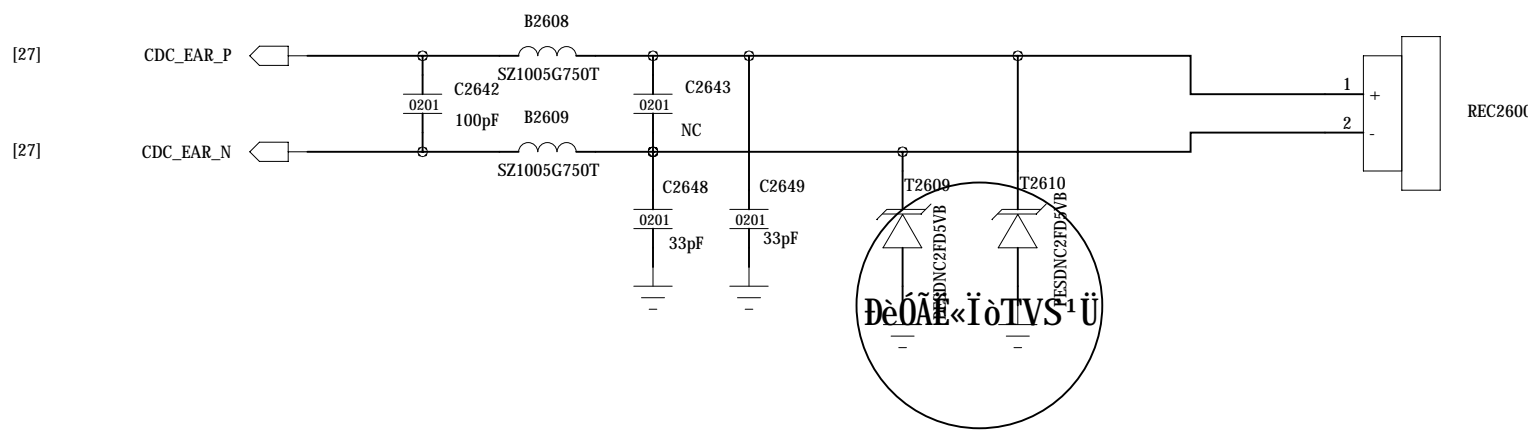
Rear up



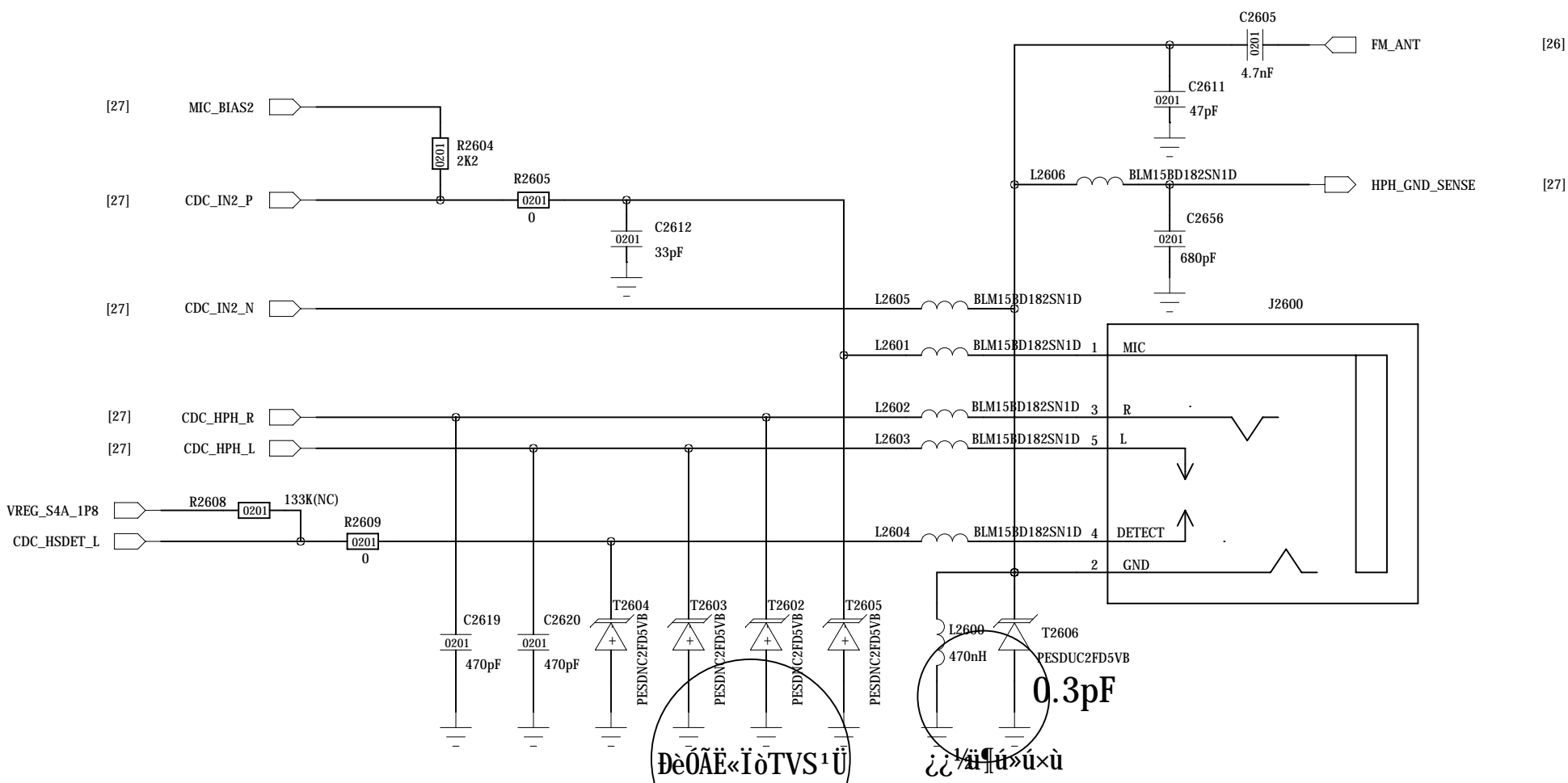
Rear down



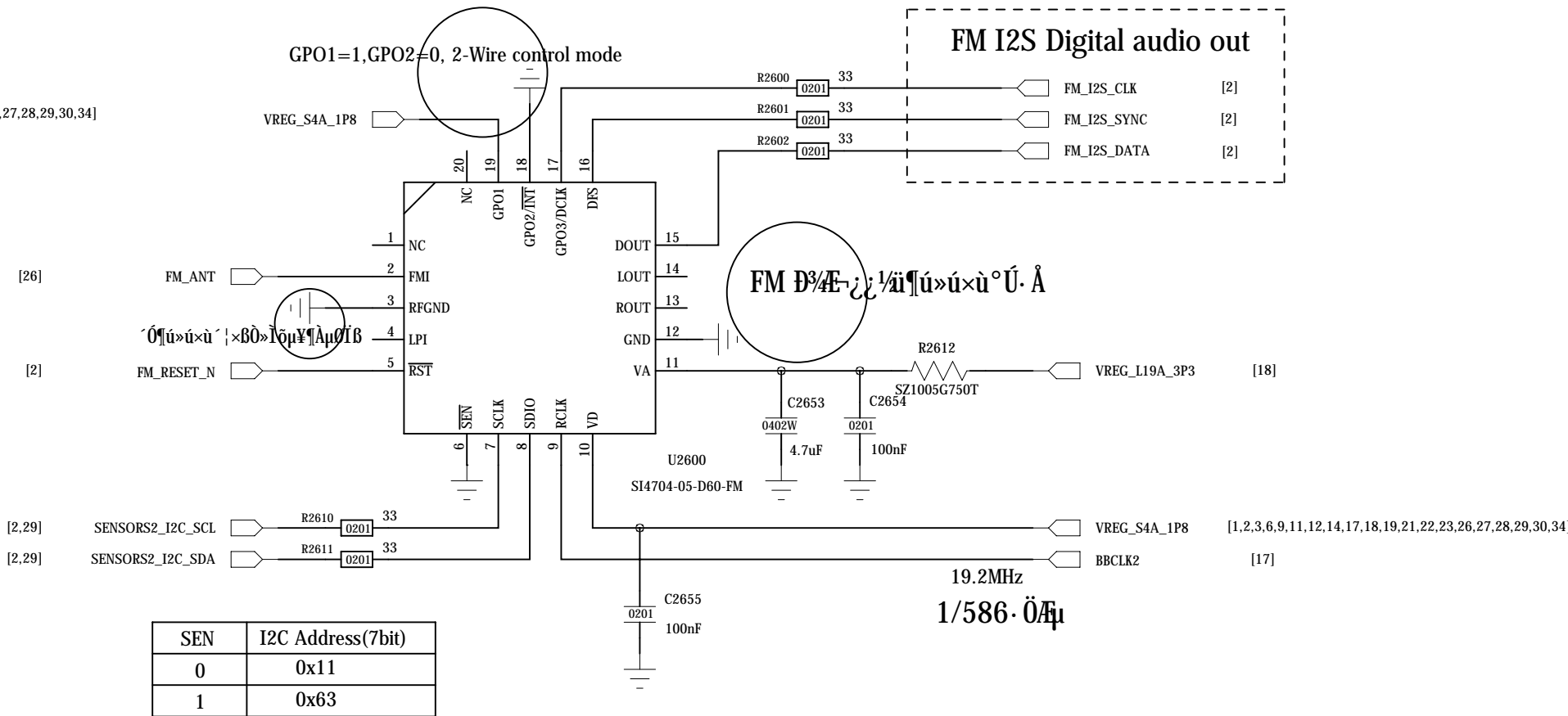
RECEIVER



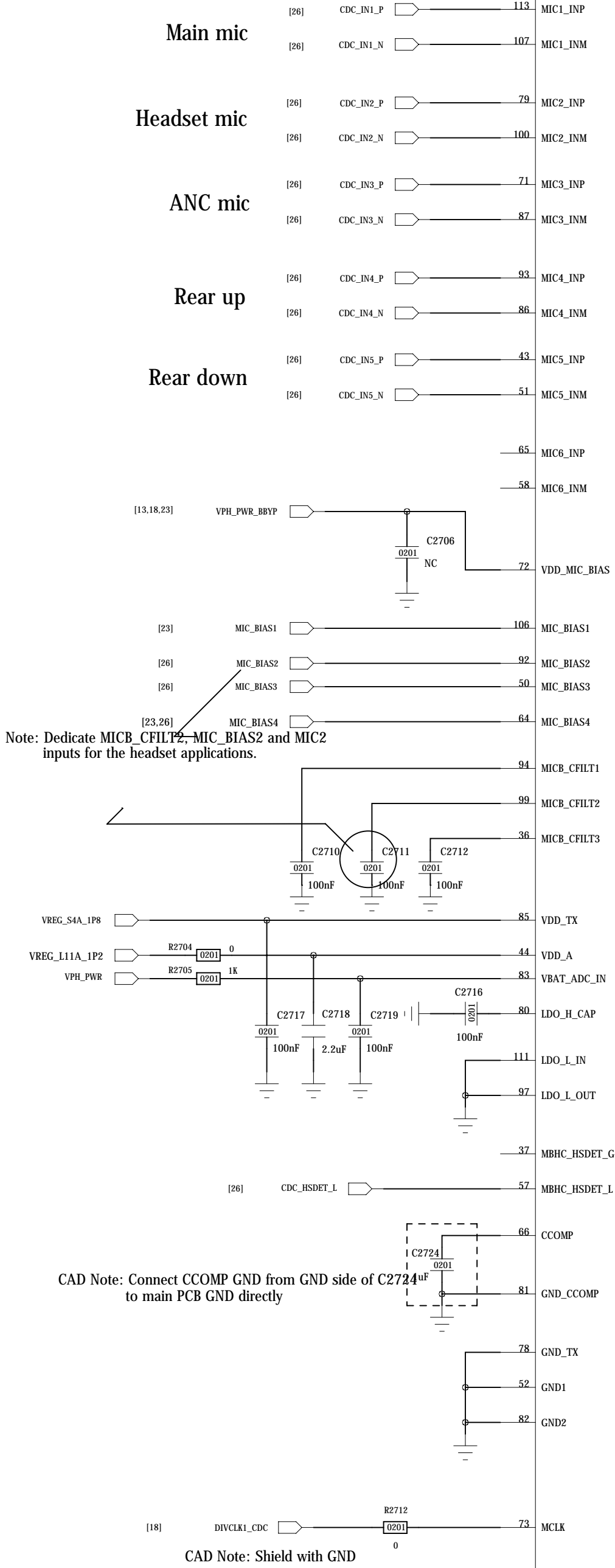
Audio Jack




FM

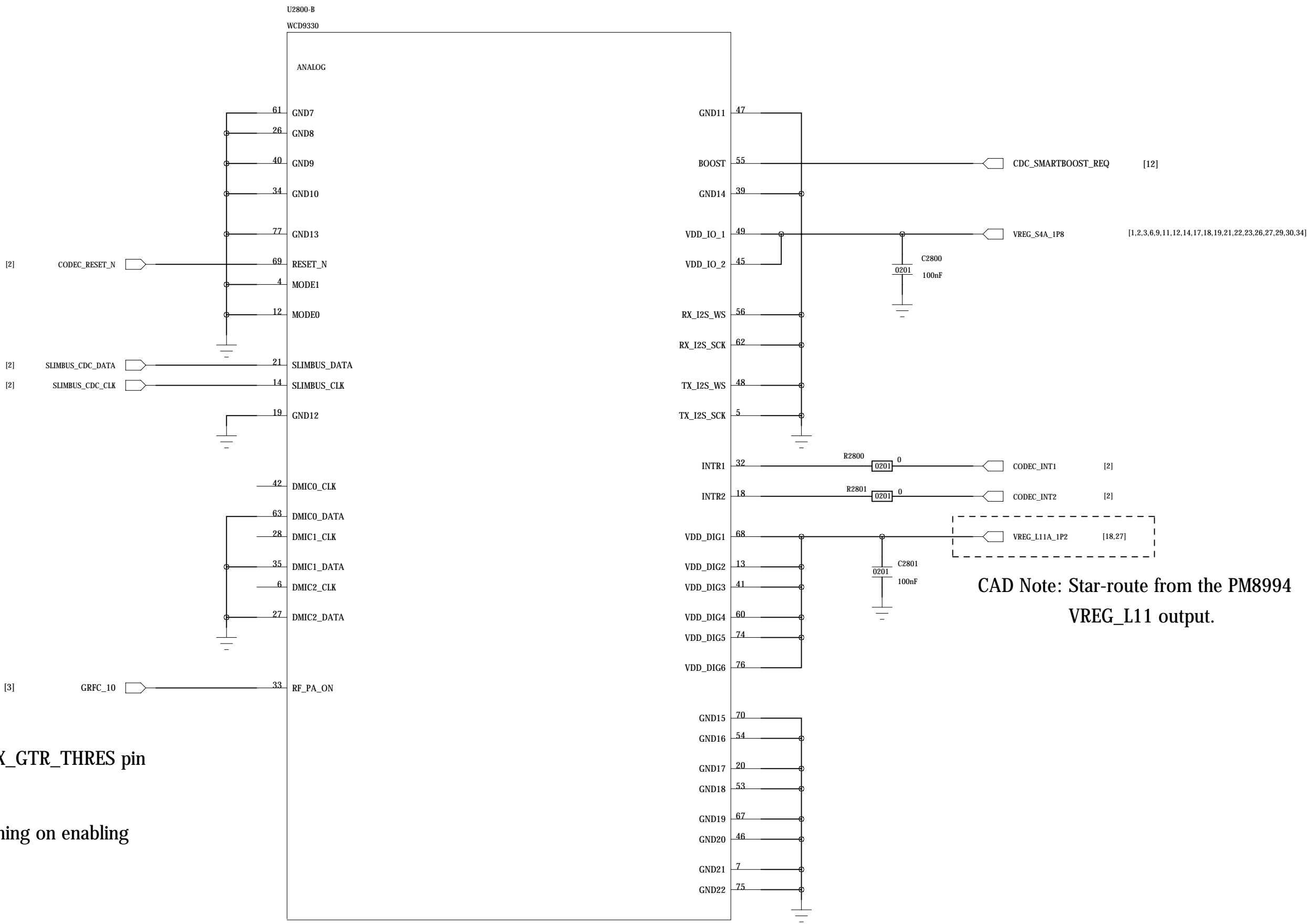


U2800-A
WCD9330



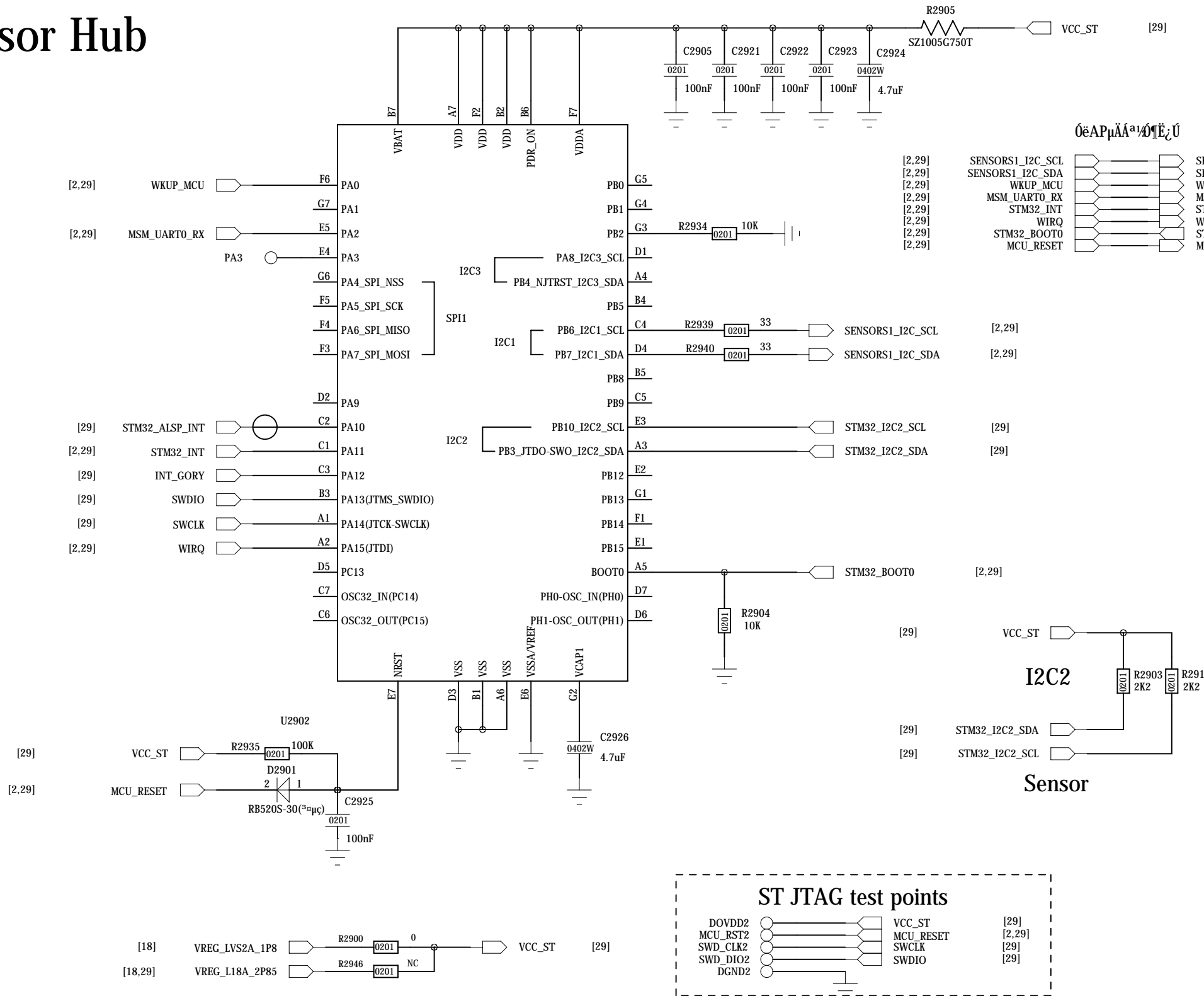
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DESIGNED:	DATE:	SCALE: 1:1	SHEET: <div>27 OF 36</div> REV: VI.0

Note: RF_PA_ON connection to MSM GPIO TX_CTR_THRES pin
for VBAT Monitoring Feature.
Connect RF_PA_ON to GND if not planning on enabling
VBAT Monitoring Feature.

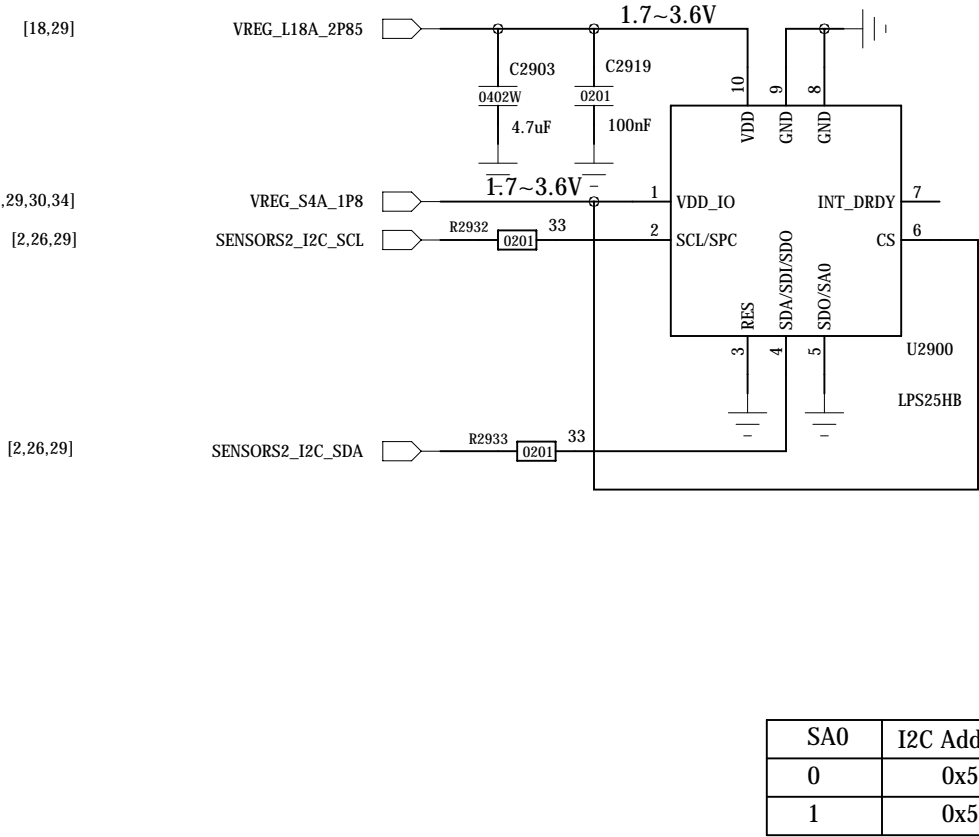


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CHECKED:	DATE:	SIZE: D	DRAWING NO: 28--WCD9330_DIGITAL		
DESIGNED:	DATE:	SCALE: 1:1	SHEET: 28 OF 36	REV: V1.0	

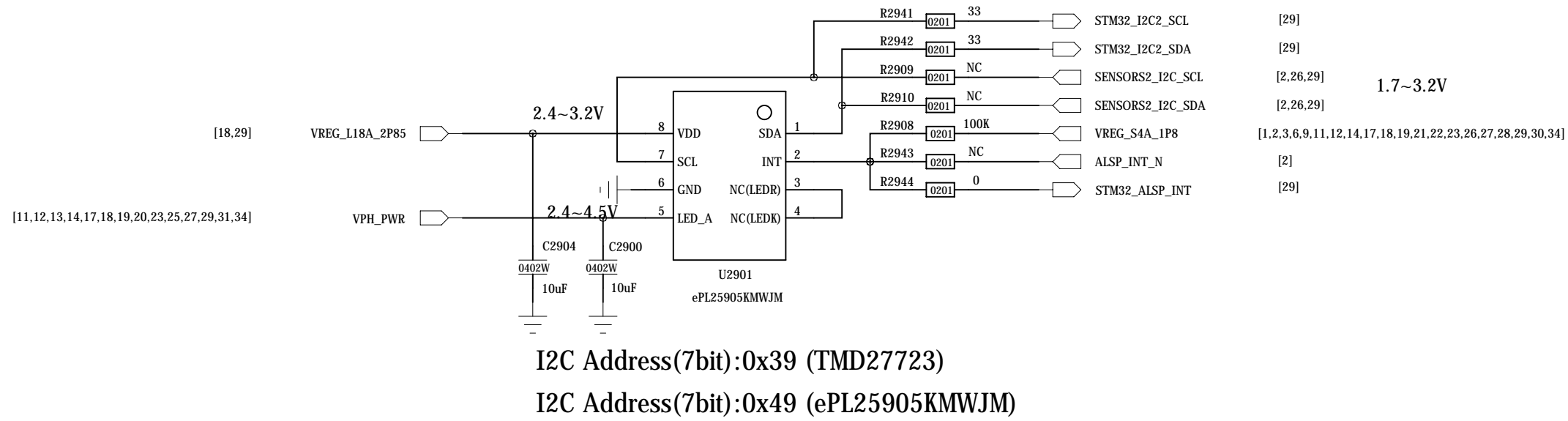
Sensor Hub



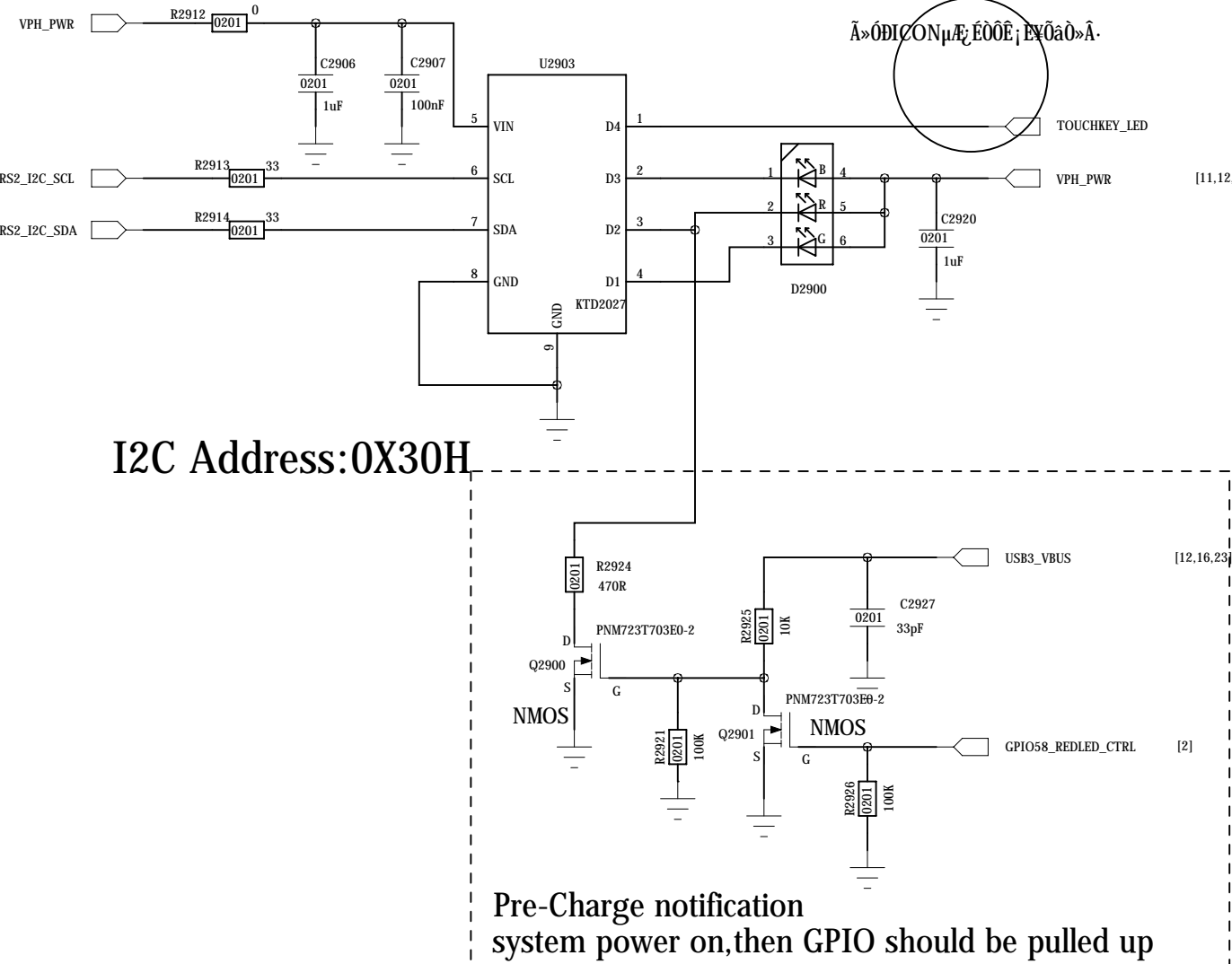
Breath LED



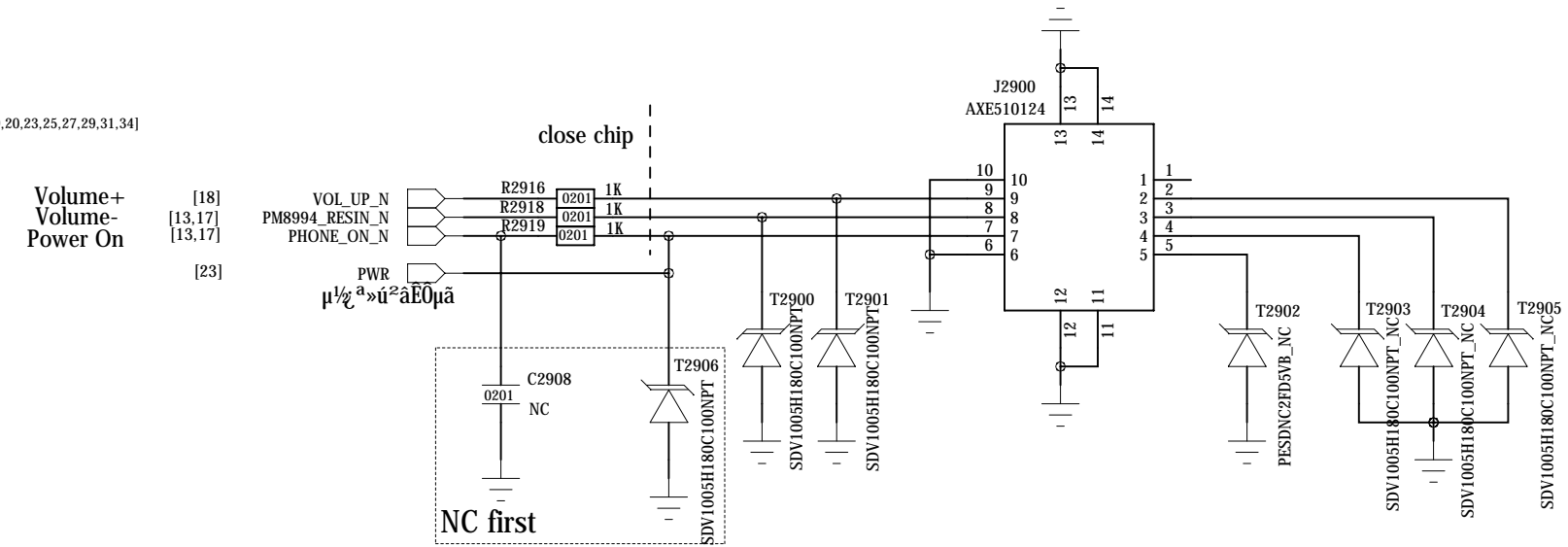
Ambient Light and Proximity Sensor



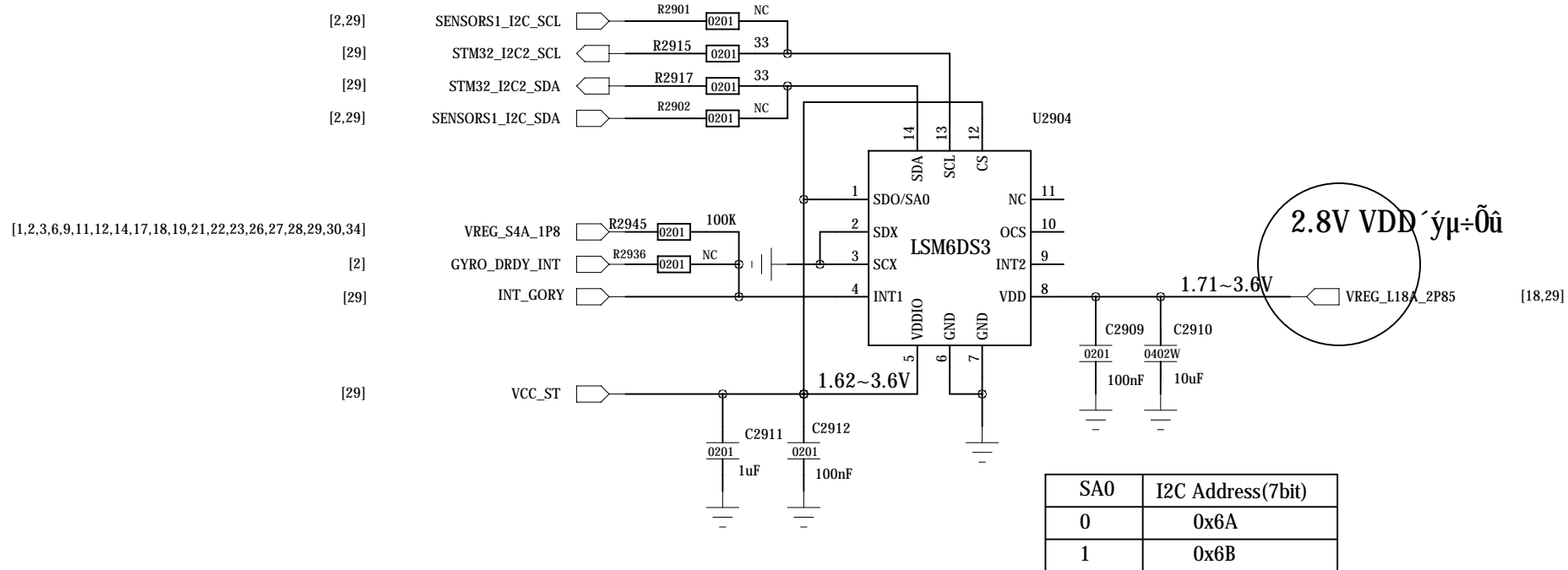
Breath LED



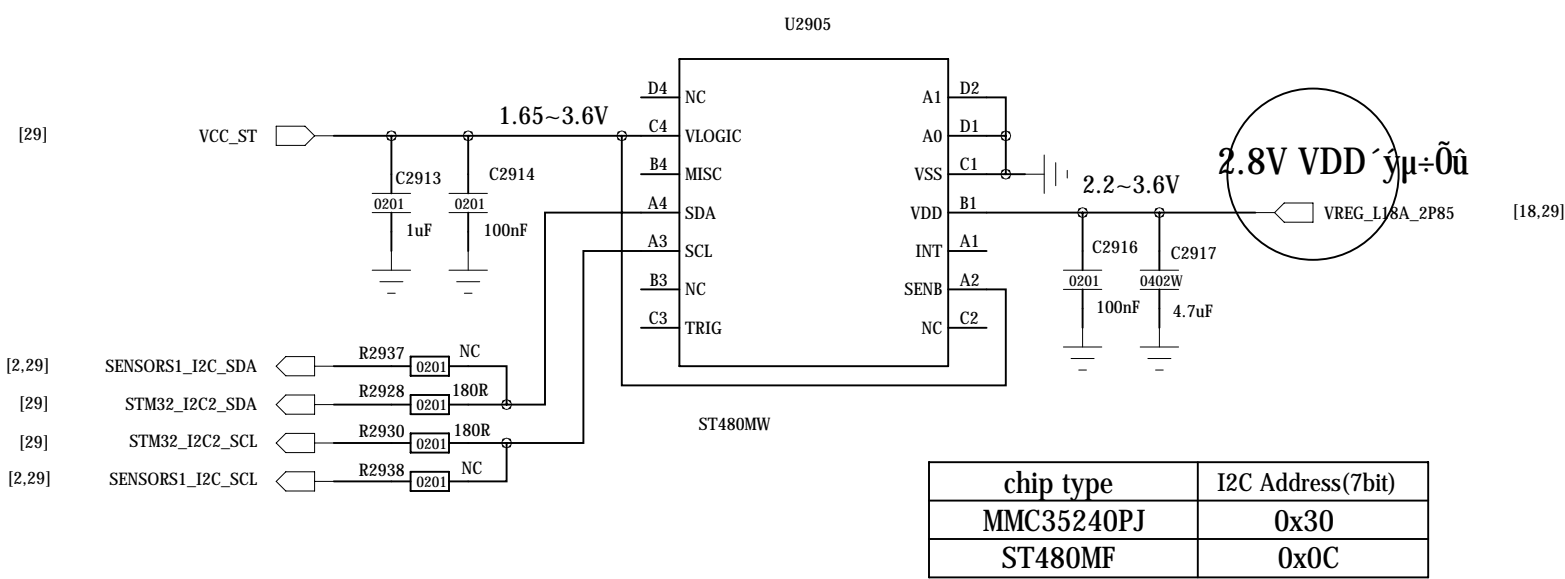
KEY



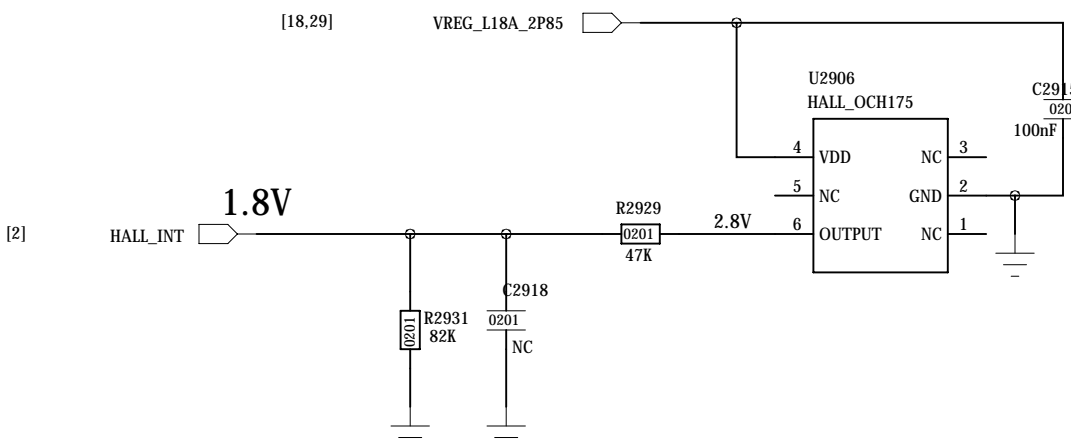
gyroscope and G sensor



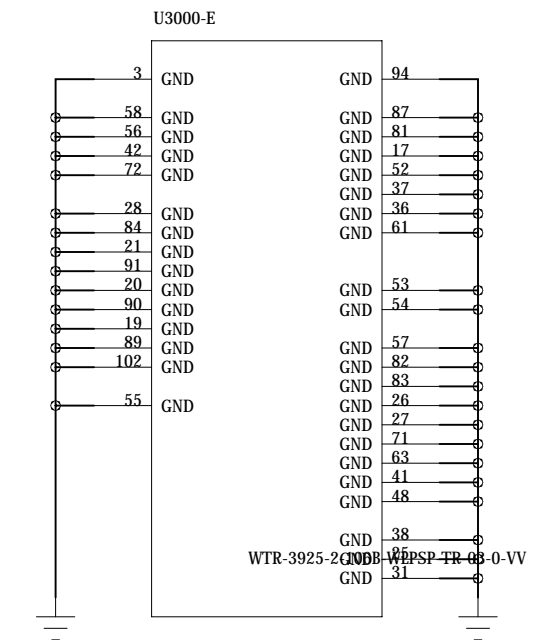
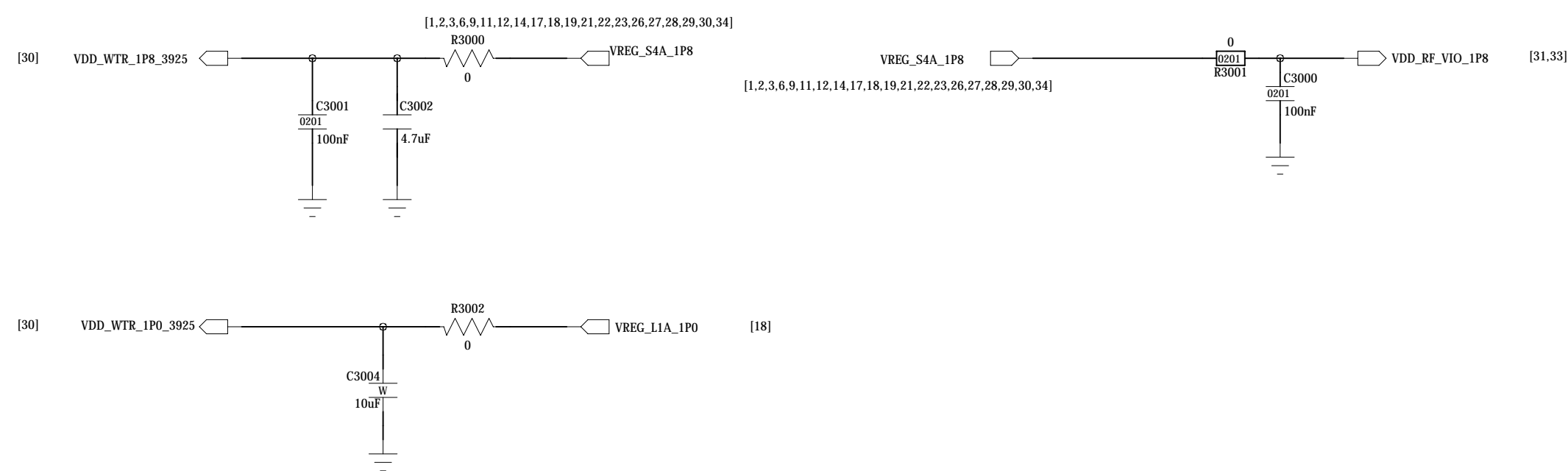
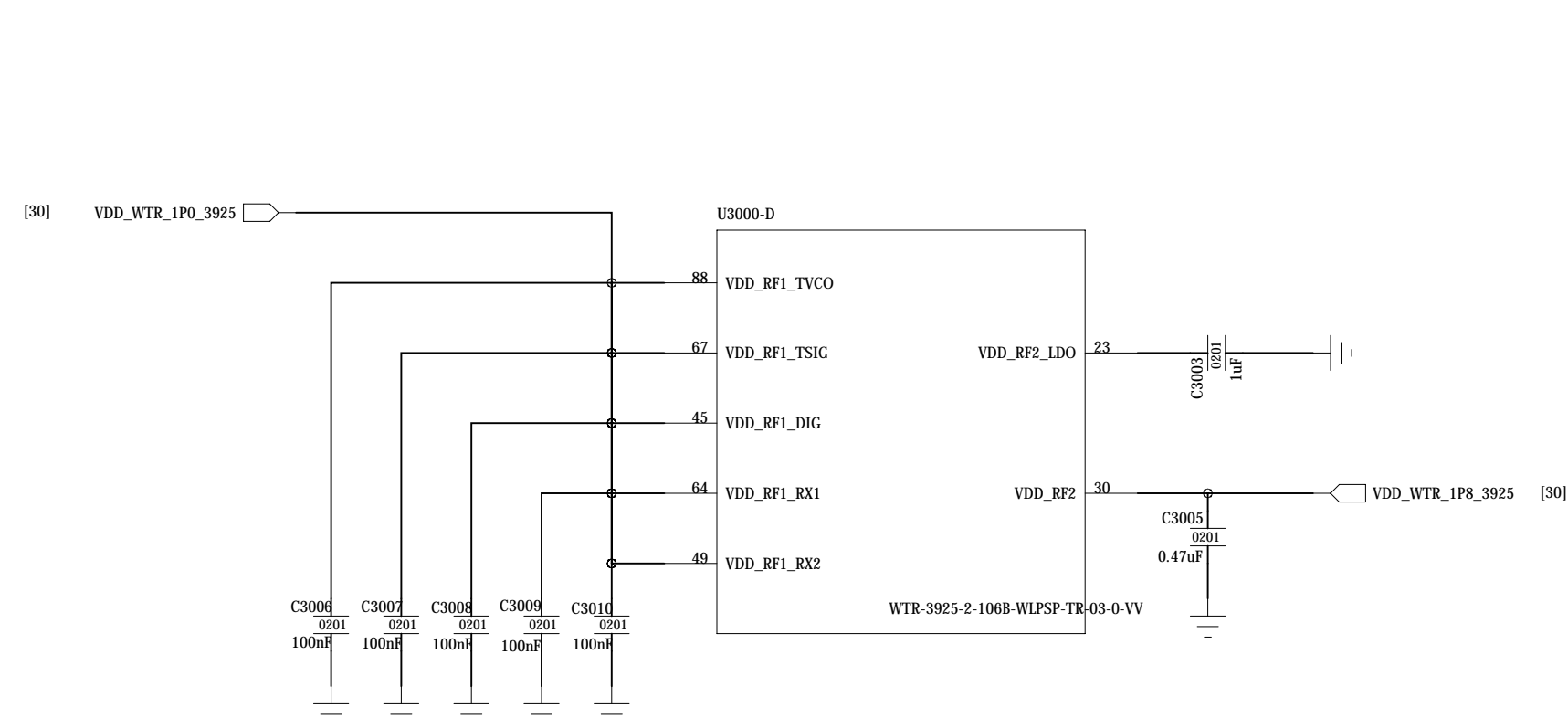
Magnetic sensor



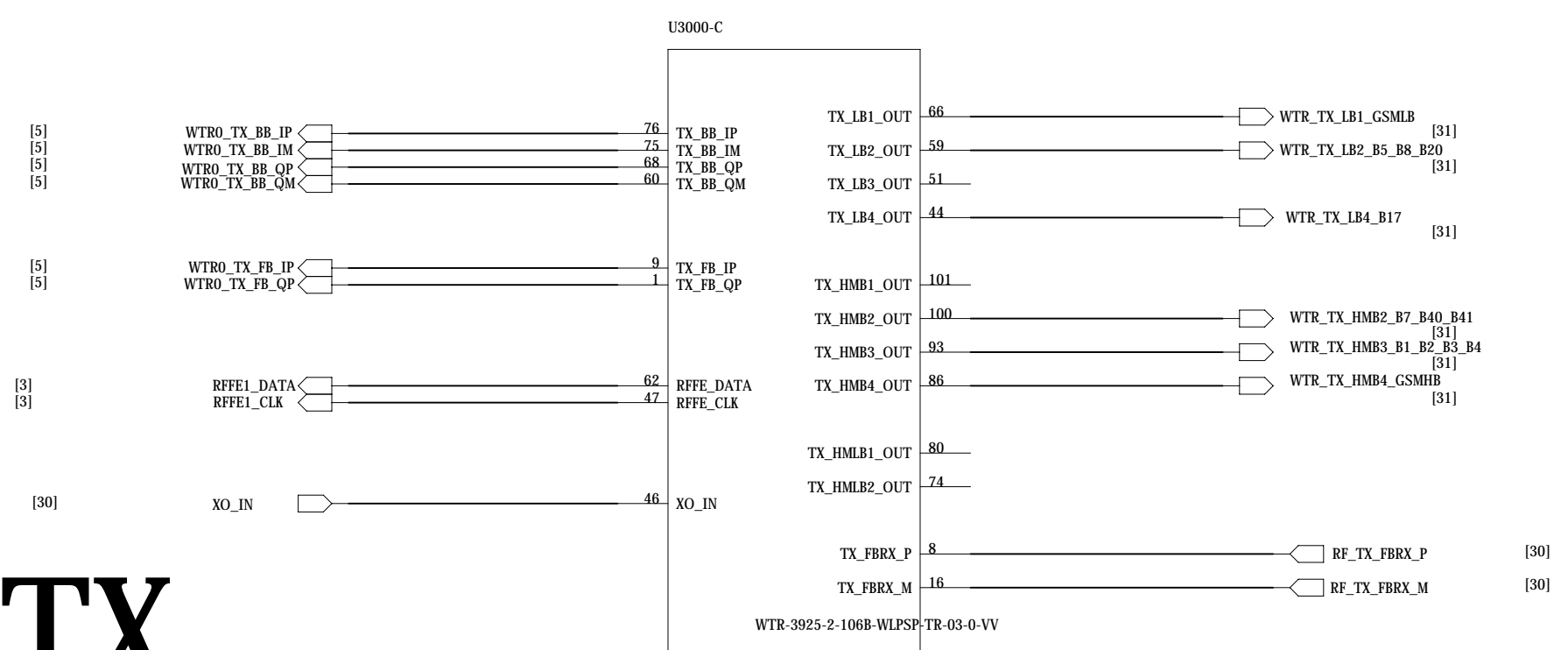
HALL



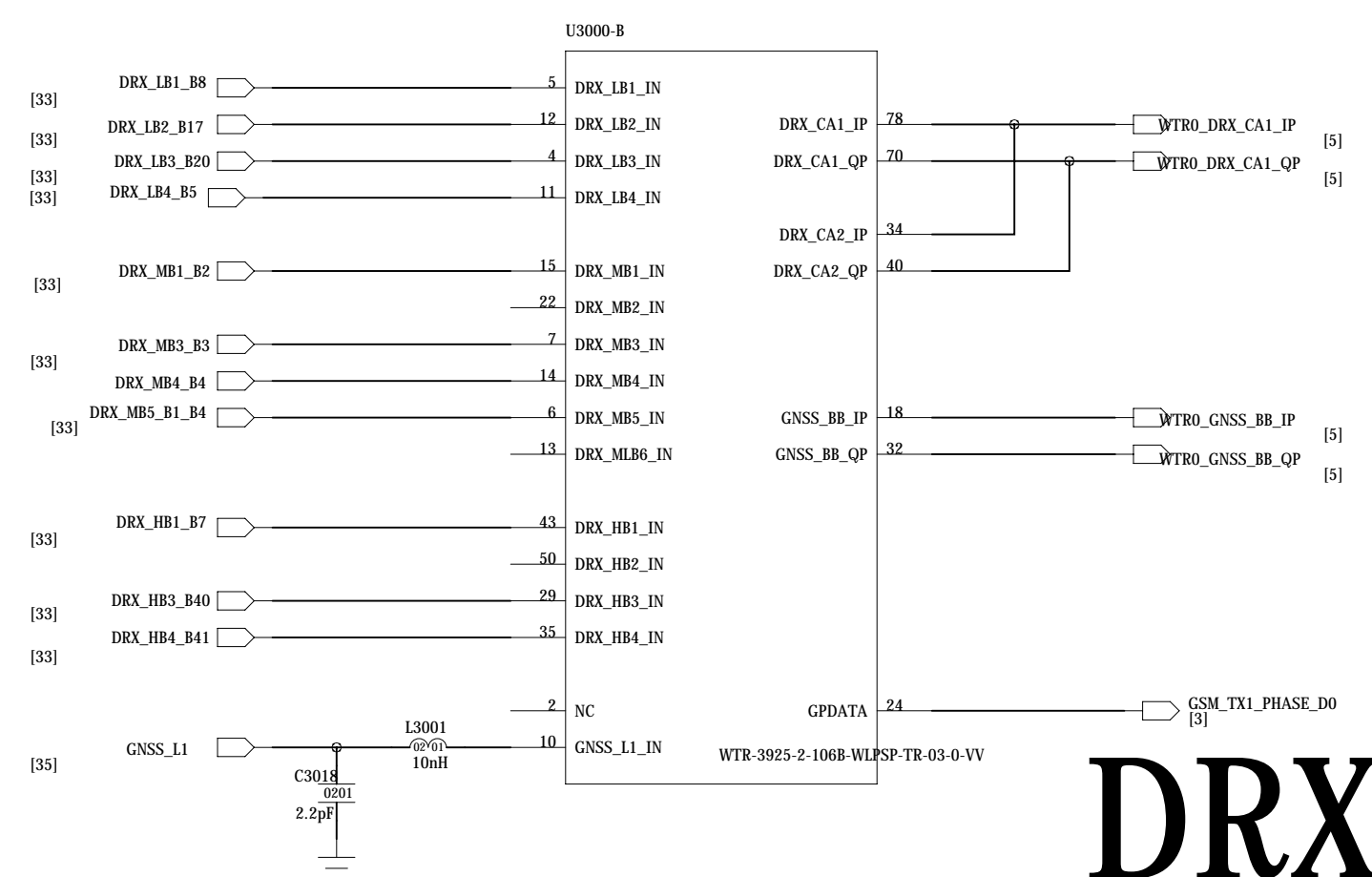
POWER



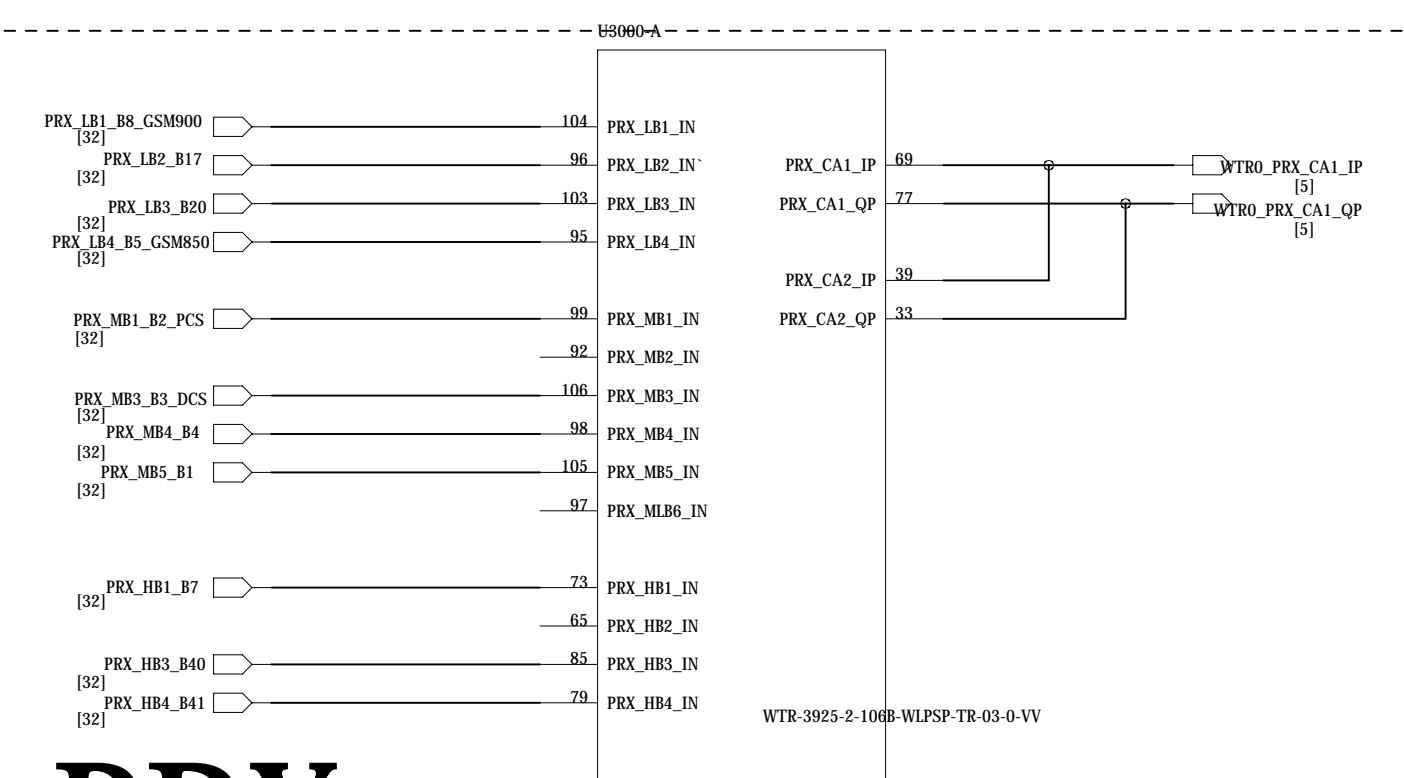
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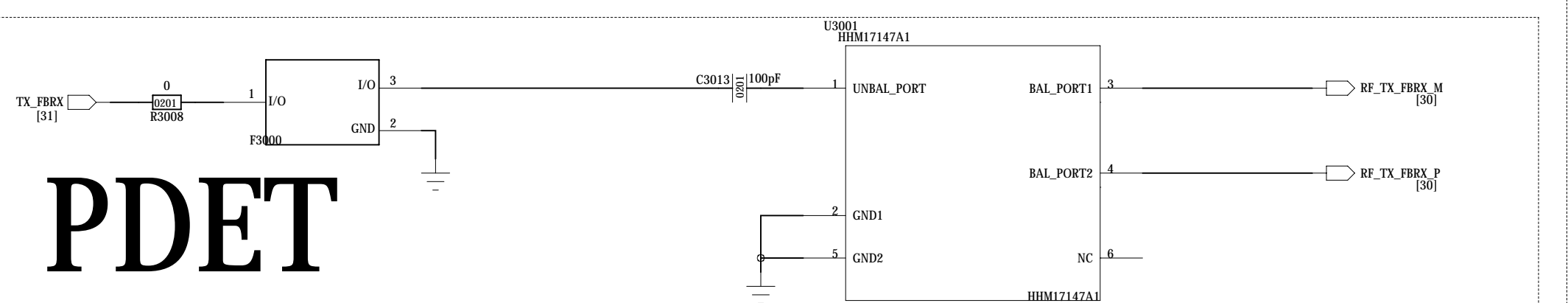
TX



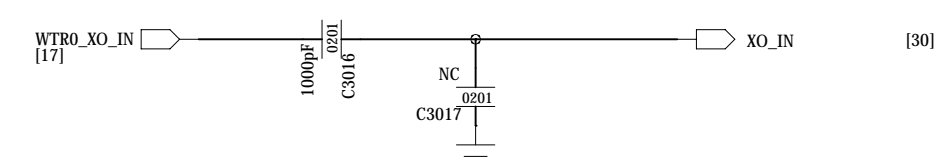
DRX



PRX

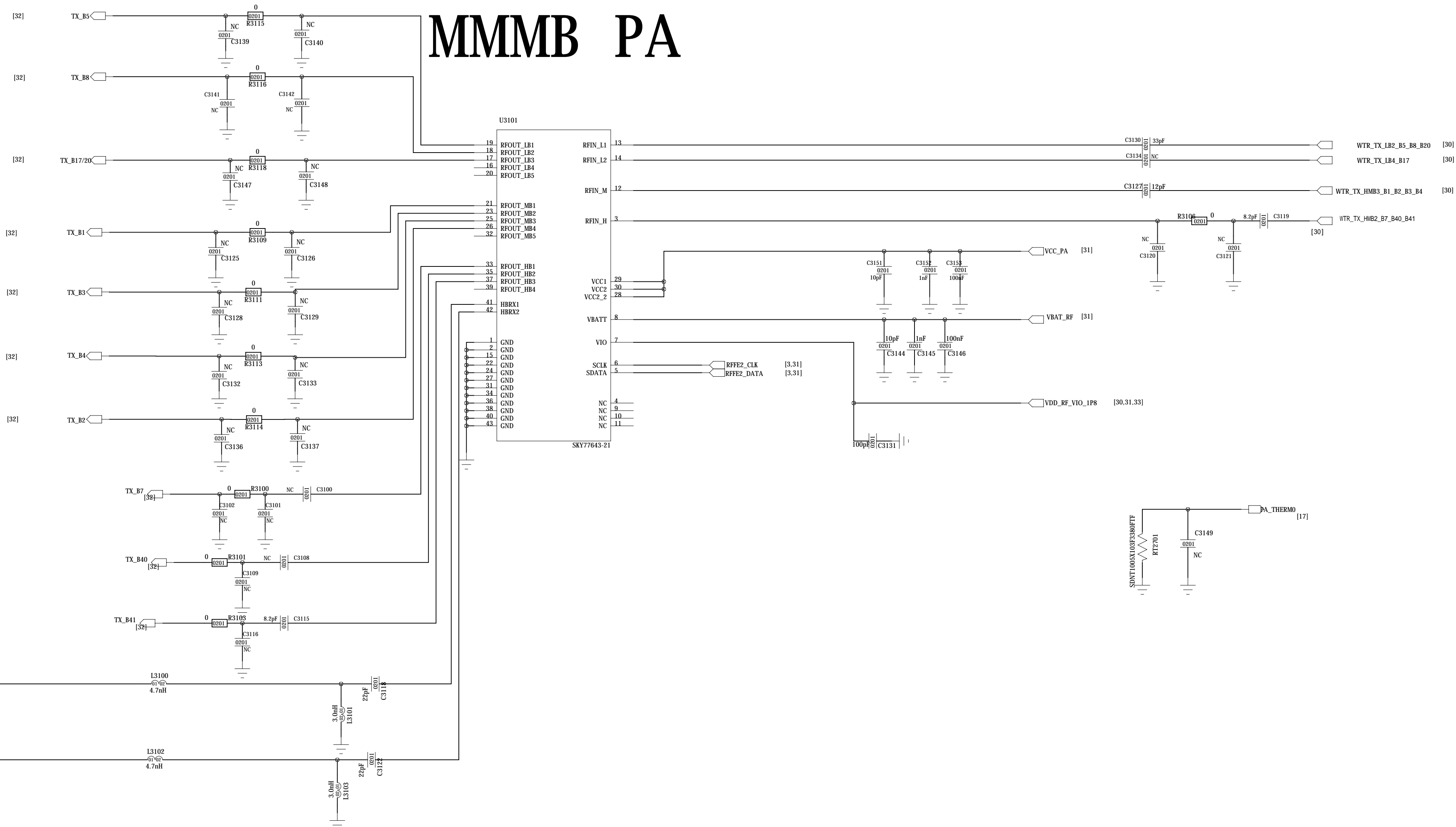
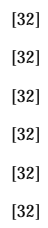


PDET

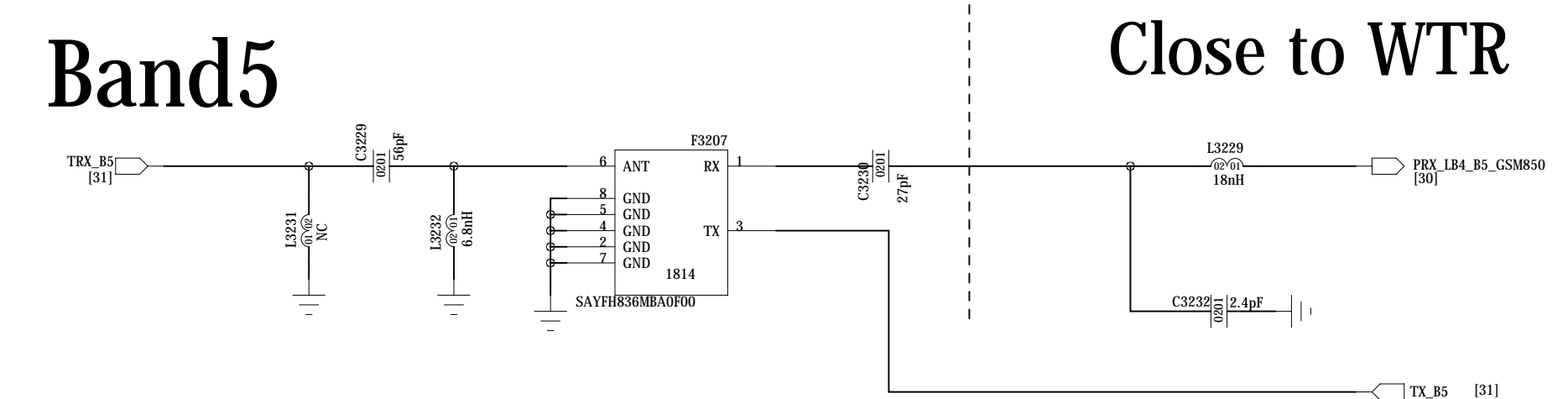
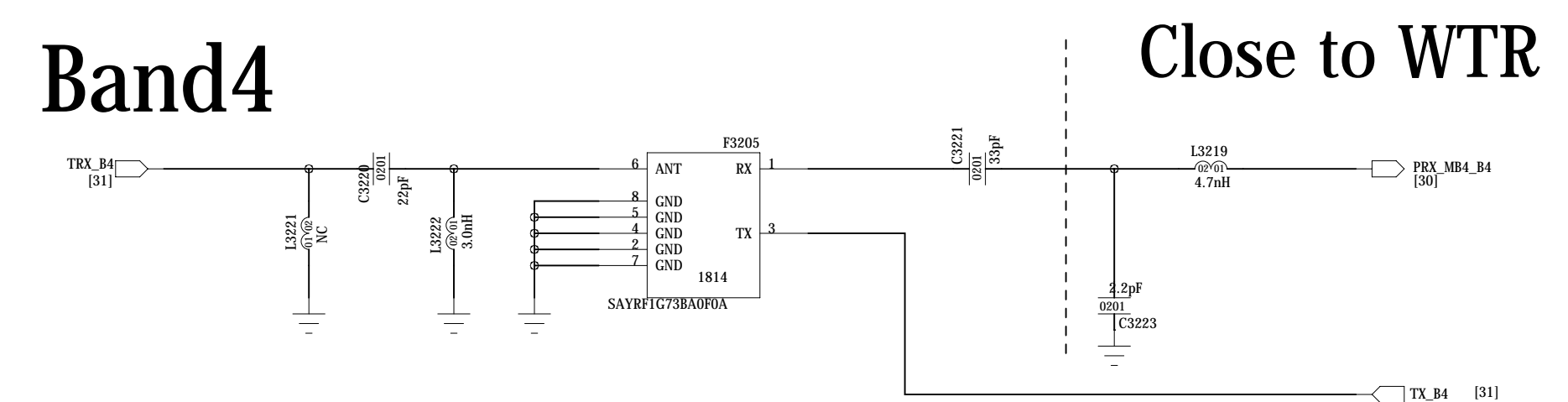
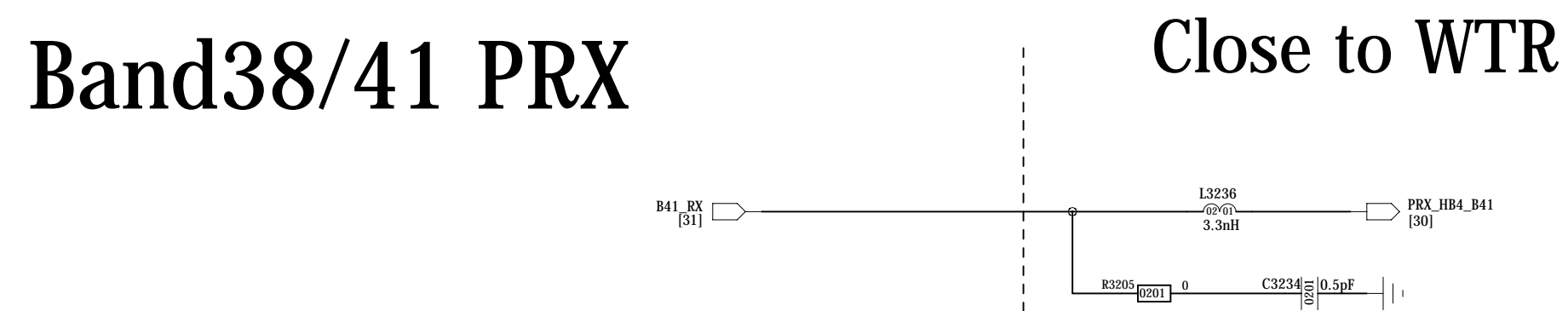
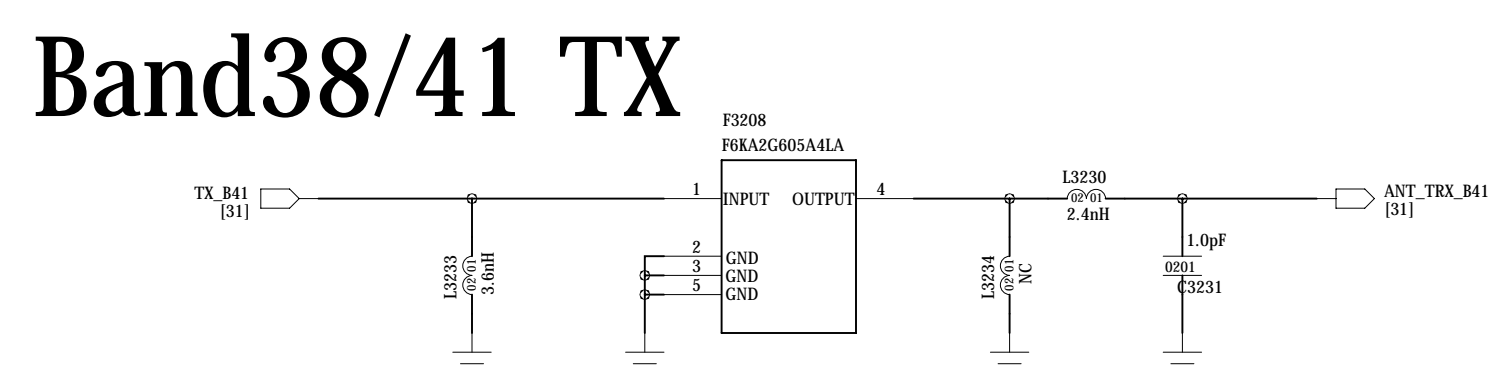
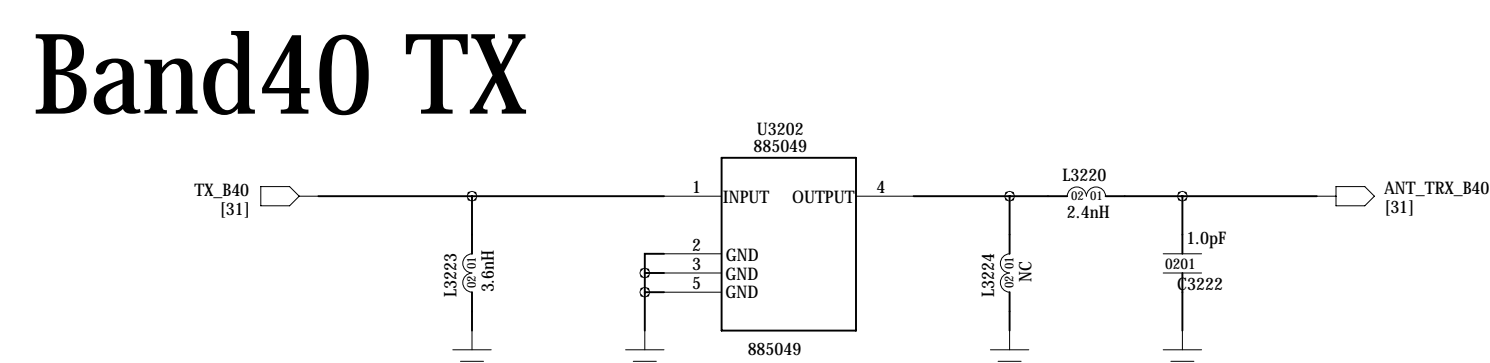
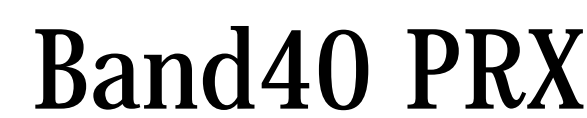
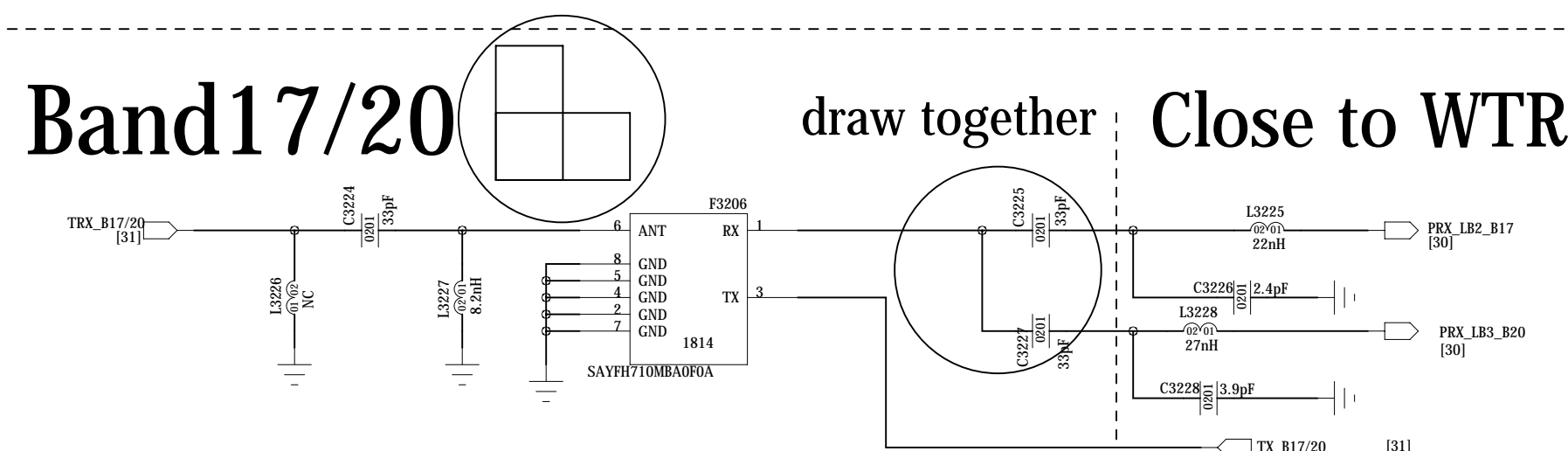
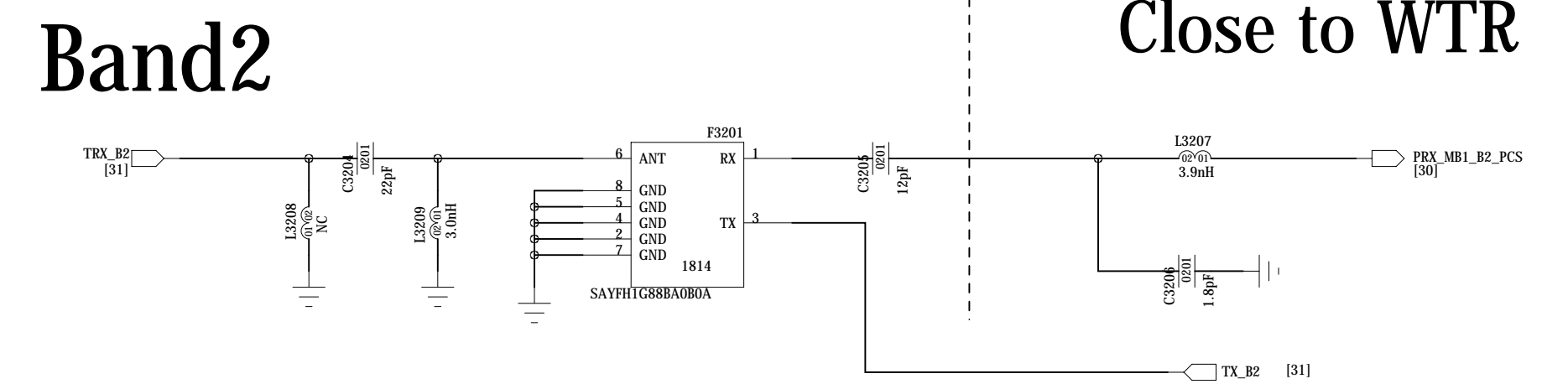


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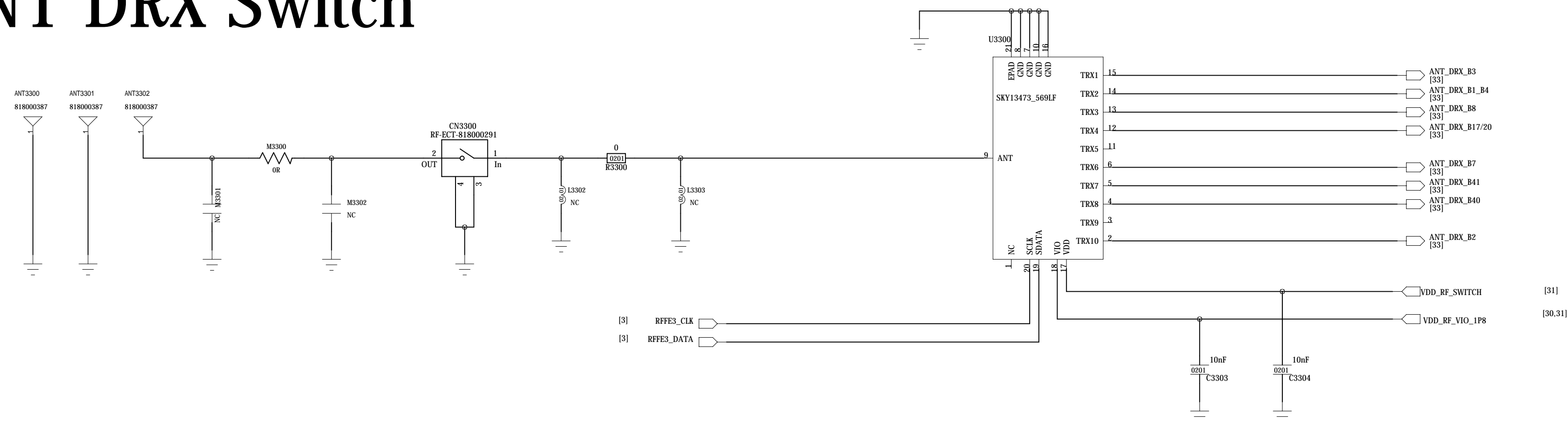


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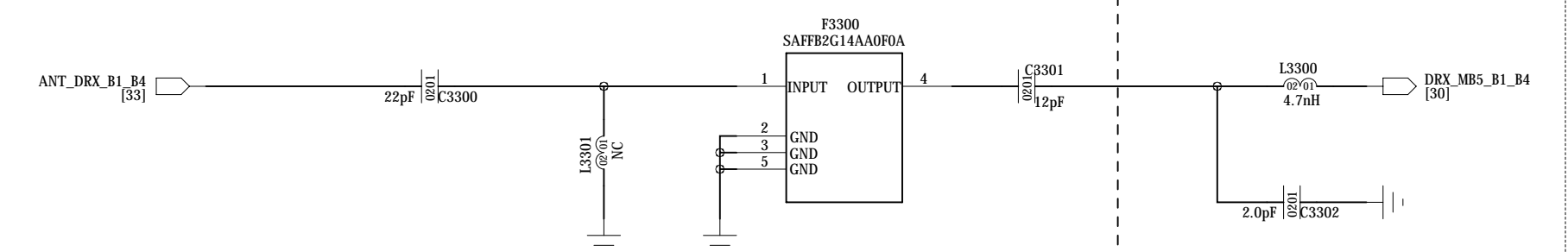
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ANT DRX Switch

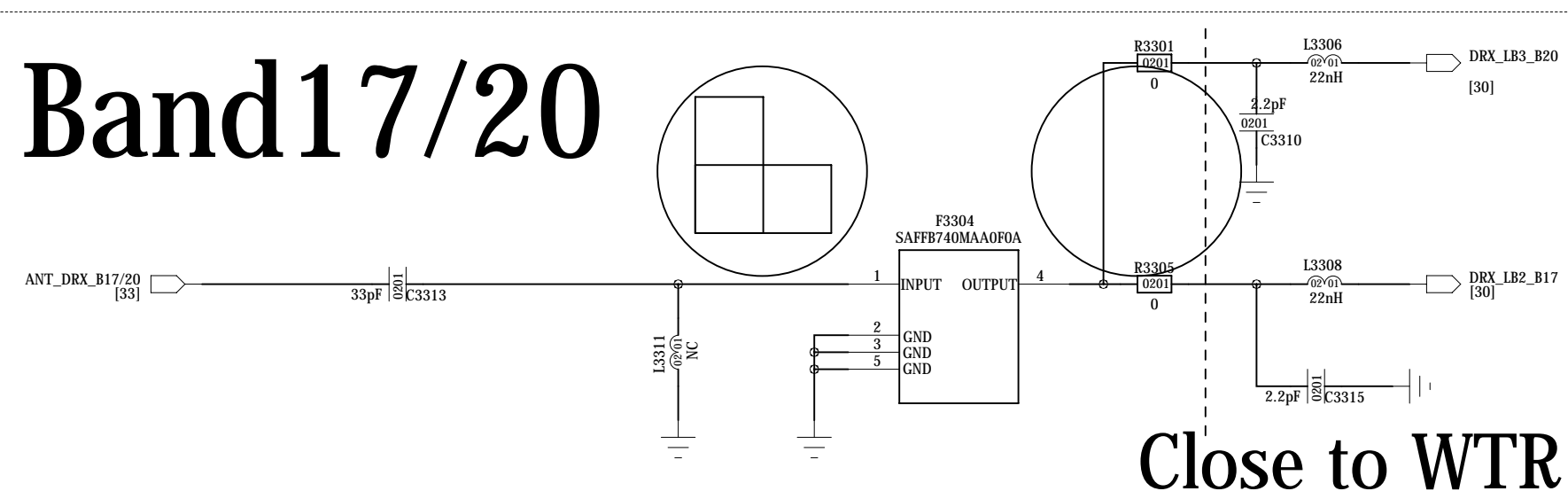


Band1_4

Close to WTR

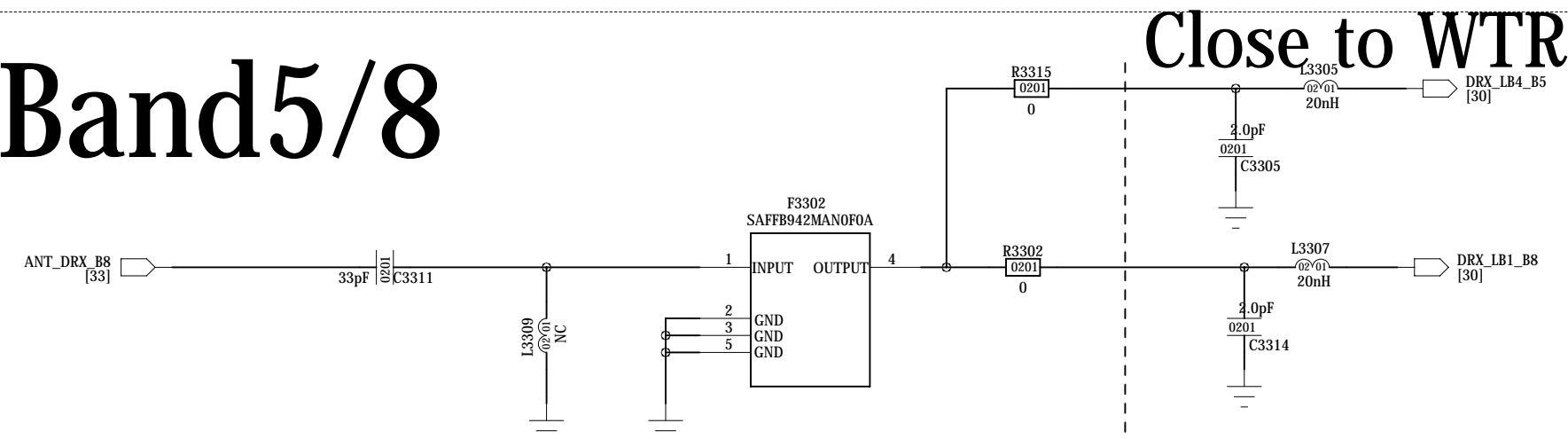


Band 17/20



Close to WTR

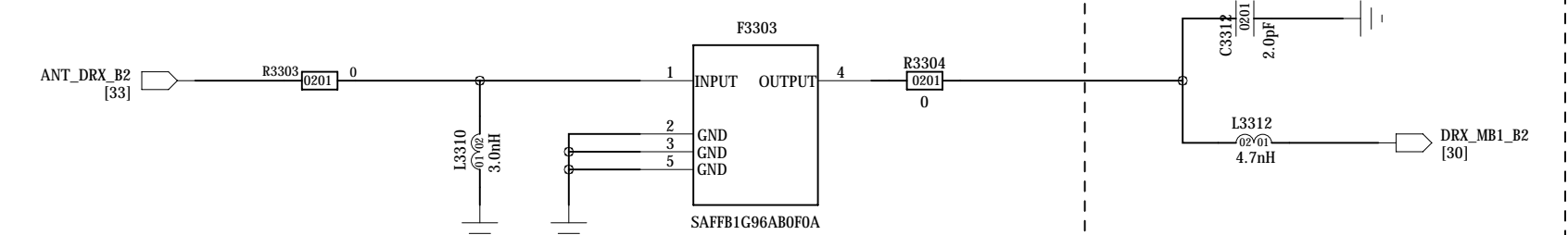
Band5/8



Close to WTR

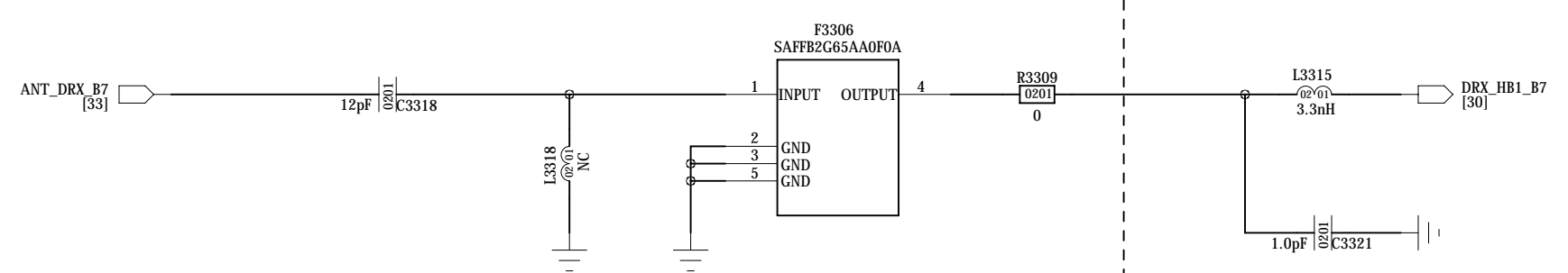
Band2 DRX

Close to WTR



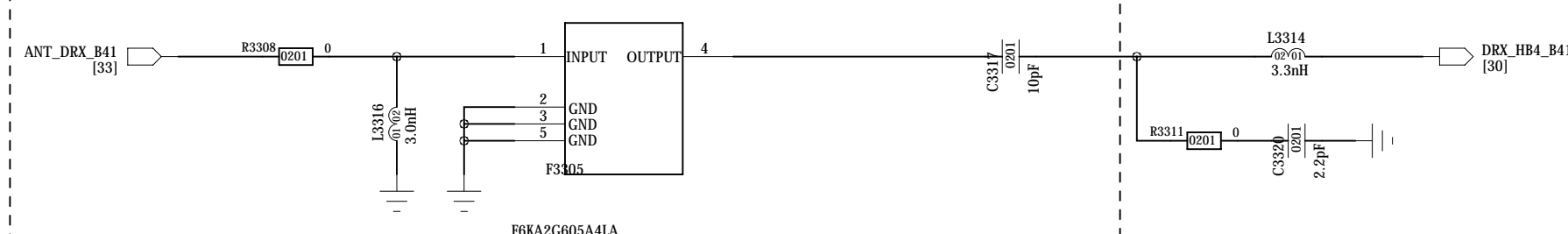
Band 7

Close to WTR



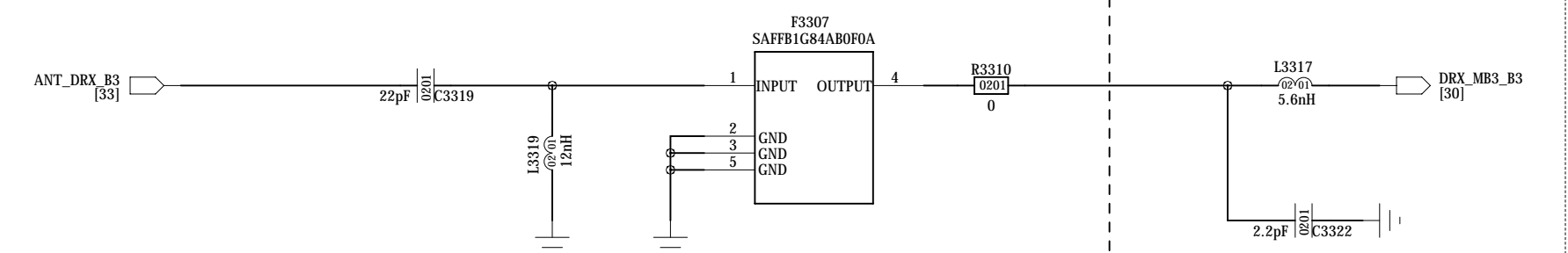
Band38/41 DRX

Close to WTR



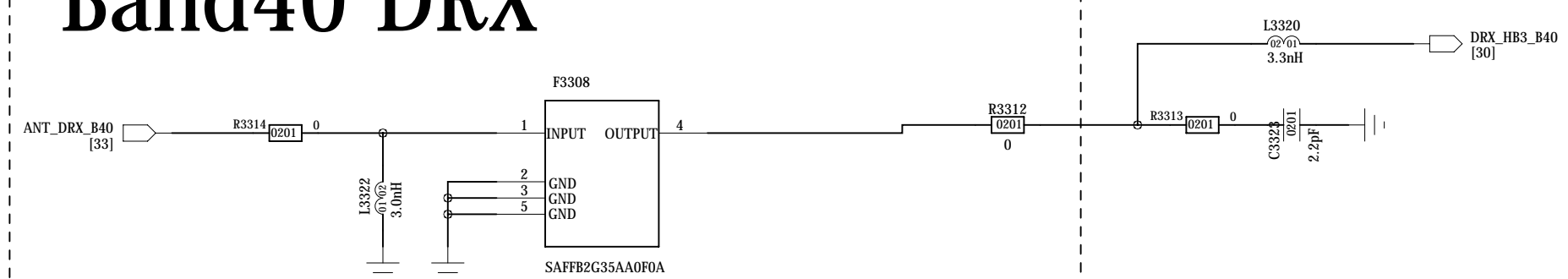
Band3

Close to WTR

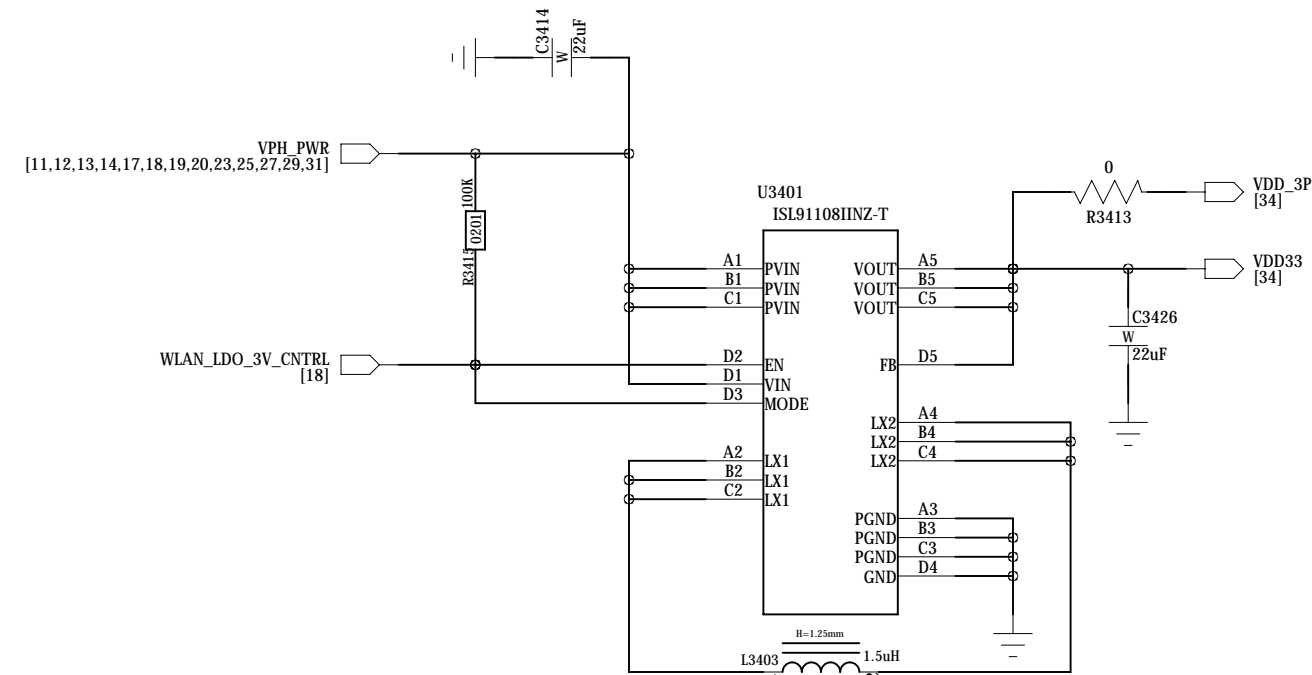


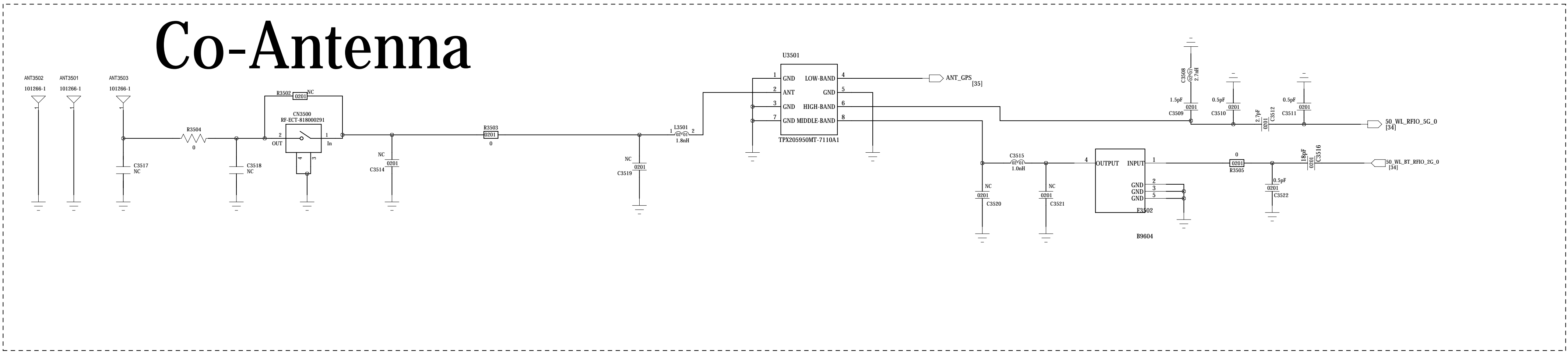
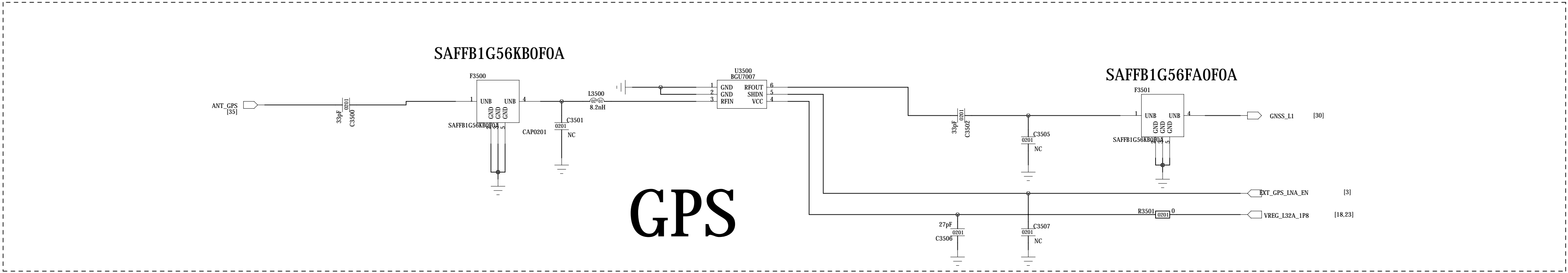
Band40 DRX

Close to WTR



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版本	原理图初始变更纪录	时间	记录人
V1.0	80-NJ051-41 MSM8994 BASEBAND REFERENCE SCHEMATIC.pdf	2015-03-12	陈永强
	1.		
	2.		
版本	3.		

- 原理图评审注意事项：
1. 在评审前一天把原理图（PDF文档）及基带芯片规格书，发给基线经理、基线工程师、软件专家

2. 对于与原项目或者平台商提供的参考设计不一致的IO口更换，必须要列出来在此表格，供软件工程师参考。

3. 原理图评审参加人员：基带部全体员工，PCB经理、射频经理及射频工程师
软件人员：基线经理、基线工程师、软件专家

4. 评审流程：1）与软件确认IO口的配置情况（STEP1）
2）电路设计评审（STEP2）

5. 评审会后第二天提供评审报告，上传PLM及发给所有参与评审人员，对于不能确定的评审点，可以在发出报告后继续评估。