

# Huawei Y7 Prime 2018 Schematic Diagram



*Diagram*



*Schematic*



# BB SCHEMETIC

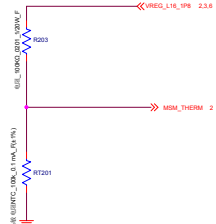
- 01.Contents
02. PM8953 Control
03. PMI8940 Charge
04. PMI8940 Power
05. PM8953 SMPS
06. PM8953 LDO
07. PM8953 CODEC
08. SDM450 Control
09. SDM450 EBI
10. SDM450 GPIO
11. SDM450 MIPI
12. SDM450 Power1
13. SDM450 Power2
14. SDM450 GND
15. MCP
16. Battery/USB IF.
17. Speaker
18. MIC
19. Earphone
20. LCD/CTP IF.
21. Camera IF.
22. Sensor
23. SIM/TF IF.
24. Sidekey
25. Reserved (CTP IF.)
26. Test Points
27. NFC (20797)
28. Fingerprint Module IF.
29. Shielding
30. Sub PCB IF.

# RF SCHEMETIC

- 31.TRANSCEIVER WTR2965
- 32.TRX\_SKY77916-21
- 33.DRX\_SKY13418
- 34.TX\_SKY77643-21
- 35.WCN\_WCN3615
- 36.QFE2101
- 37.WLAN/GPS\_FEM
- 38.ONSEMI

MT Pro Tool

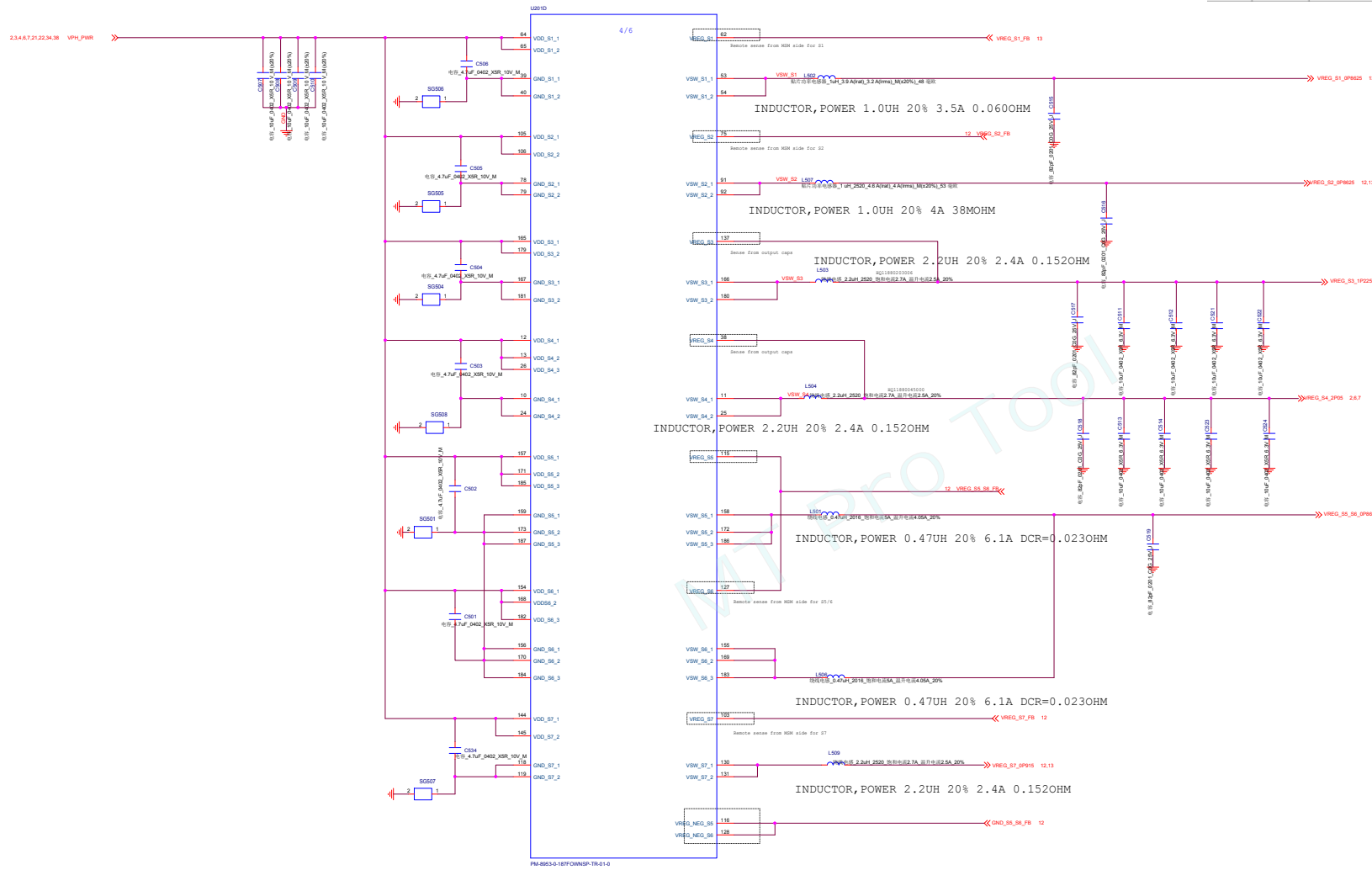
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Size	Document Number	Rev	
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Date:	Thursday, November 23, 2017	Sheet	1 of 37





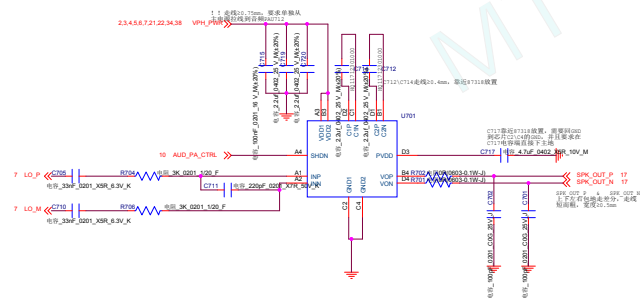


Function	Circuit type	Default voltage (V)	Specified range (V) (MSM8953)	Programmable range (V)	Rated current (mA)	Default on	Expected use (MSM8953)
S1	SMP5	0.87	0.4-1.14	0.32-2.04	3000	N	MSM modem
S2	SMP5	0.87	0.4-1.14	0.32-2.04	4000	Y	MSM core and graphics
S3	SMP5	1.225	1.2-1.25	0.32-2.04	2000	Y	LPDDR2/LPDDR3, MP3, CSI, and CSI, low-voltage LDOs (1, 2, 3, and 23)
S4	SMP5	2.04	1.8-2.04	0.32-2.04	2000	Y	High-voltage LDOs (4, 5, 6, 7, 15, 19, RFCLK, and XD)
S5	SMP5	0.87	0.4-1.14	0.35-1.355	3750	Y	MSM applications processor
S6	SMP5	0.87	0.4-1.14	0.35-1.355	3750	Y	MSM applications processor
S7	SMP5	0.915	0.4-1.14	0.32-2.04	2000	Y	VDDMX



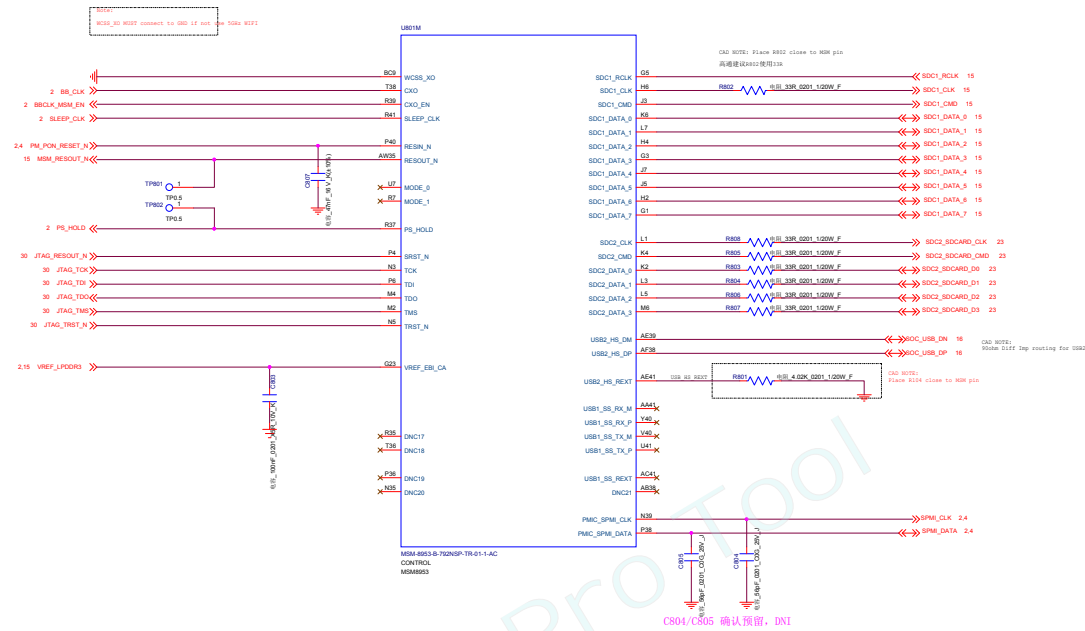
Function	Circuit type	Default V (V)	Specified range (V) (MSM8993)	Programmable range (V)	Rated current (mA)	Default On	Expected use (MSM8993)
L10	PMOS LDO	3.0	3.0	1.750-3.375	500	N	Sensors and touchscreen
L11	PMOS LDO	2.950	2.950	1.750-3.375	800	Y	Micro SD
L12	PMOS LDO	2.950	1.600/2.950	1.750-3.375	50	Y	MSM pad group 2 and SOC2
L13	PMOS LDO	3.125	3.125	1.750-3.375	150	Y	MSM USB type C and PMIC and external codec audio
L14	PMOS LDO	1.800	1.80/3	1.750-3.375	50	N	MSM pad group 5, dual-voltage UMI1, and NFC
L15	PMOS LDO	1.800	1.80/3	1.750-3.375	50	N	MSM pad group 6 and dual-voltage UMI2
L16	PMOS LDO	1.800	1.800	1.750-3.375	5	N	PMIC HKADC
L17	PMOS LDO	2.850	2.800	1.750-3.375	300	N	Camera and display
L18	PMOS LDO	2.700	2.700	1.750-3.375	150	N	QTI RF front-end
L19	NMOS LDO	1.350	1.350	0.375-1.575	600	N	MSM analog, WCN, and WGR
L20	Low-noise LDO	1.74	1.74	1.74-3.375	5	Y	PMIC XO circuits
L21	Low-noise LDO	1.74	1.74	1.74-3.375	5	N	PMIC RF clock buffers
L22	PMOS LDO	2.800	2.800	1.750-3.375	150	N	Camera - analog
L23	NMOS LDO	1.15	1.15	0.375-1.575	600	N	Camera - digital





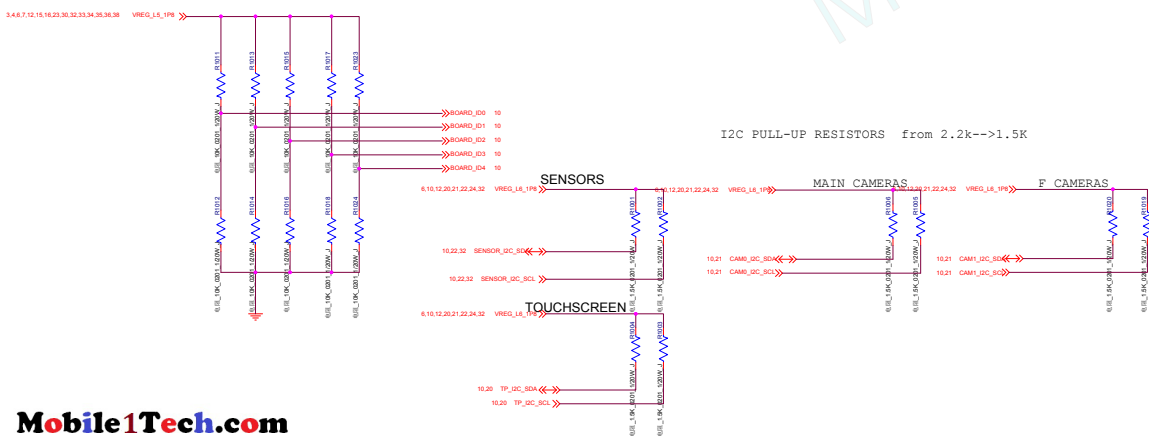
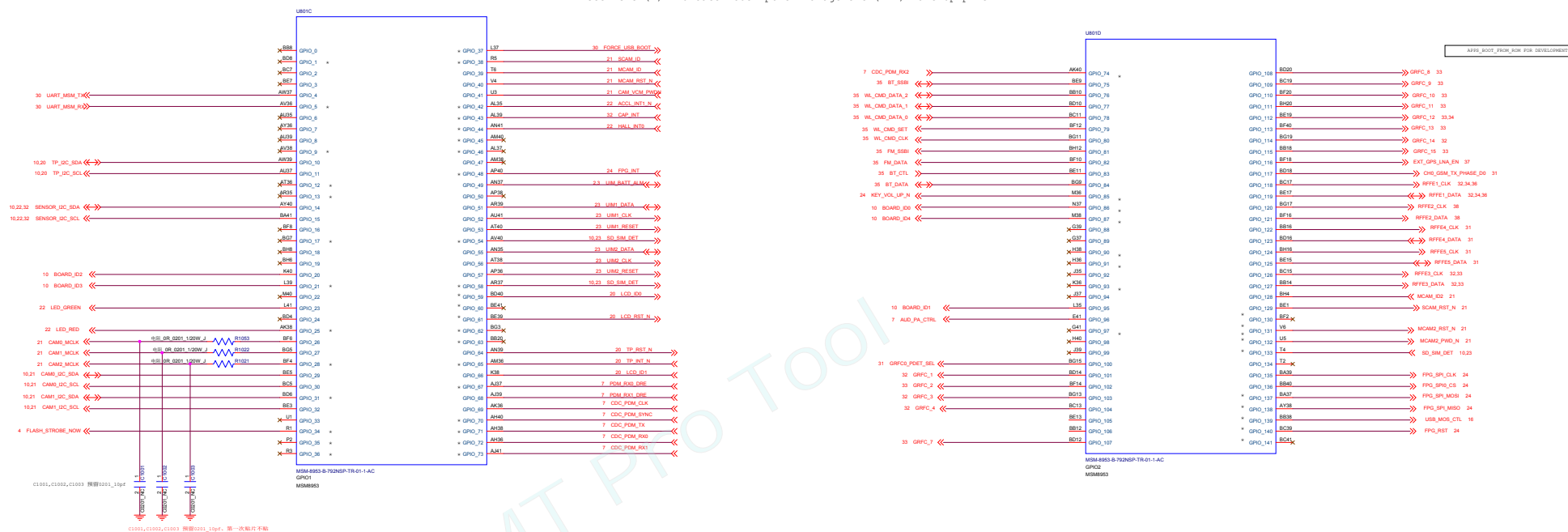
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Size	Document Number	Rev	
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Date:	Friday, December 01, 2017	Sheet	7 of 37







NOTE:  
Asterisks (\*) indicate modem power management (MPM) wake-up pins

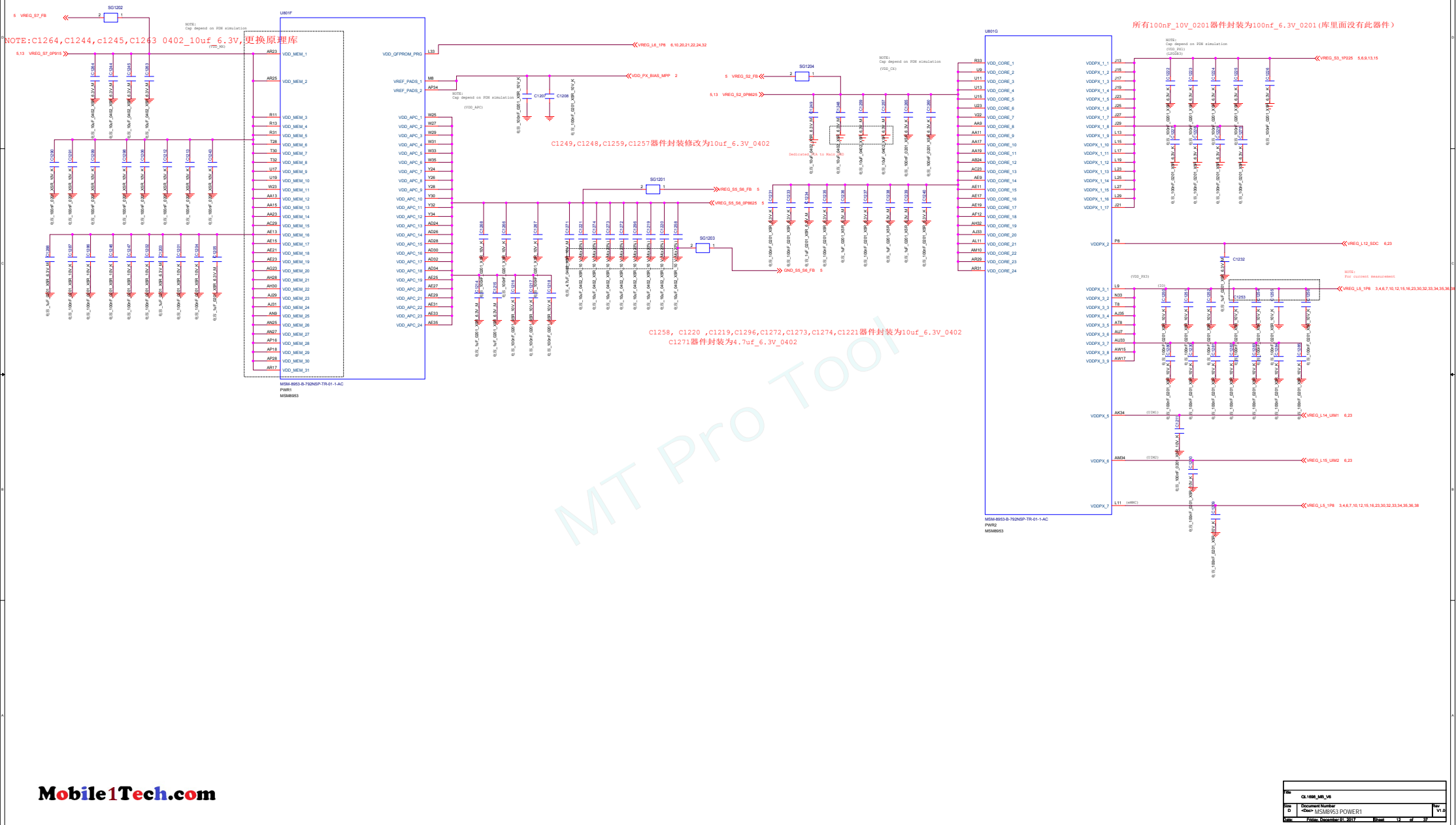


GP10_37	FORCED_USE_ROOT
GP10_106	WDOG_DISABLE
GP10_108	APPS_ROOT_FROM_ROM

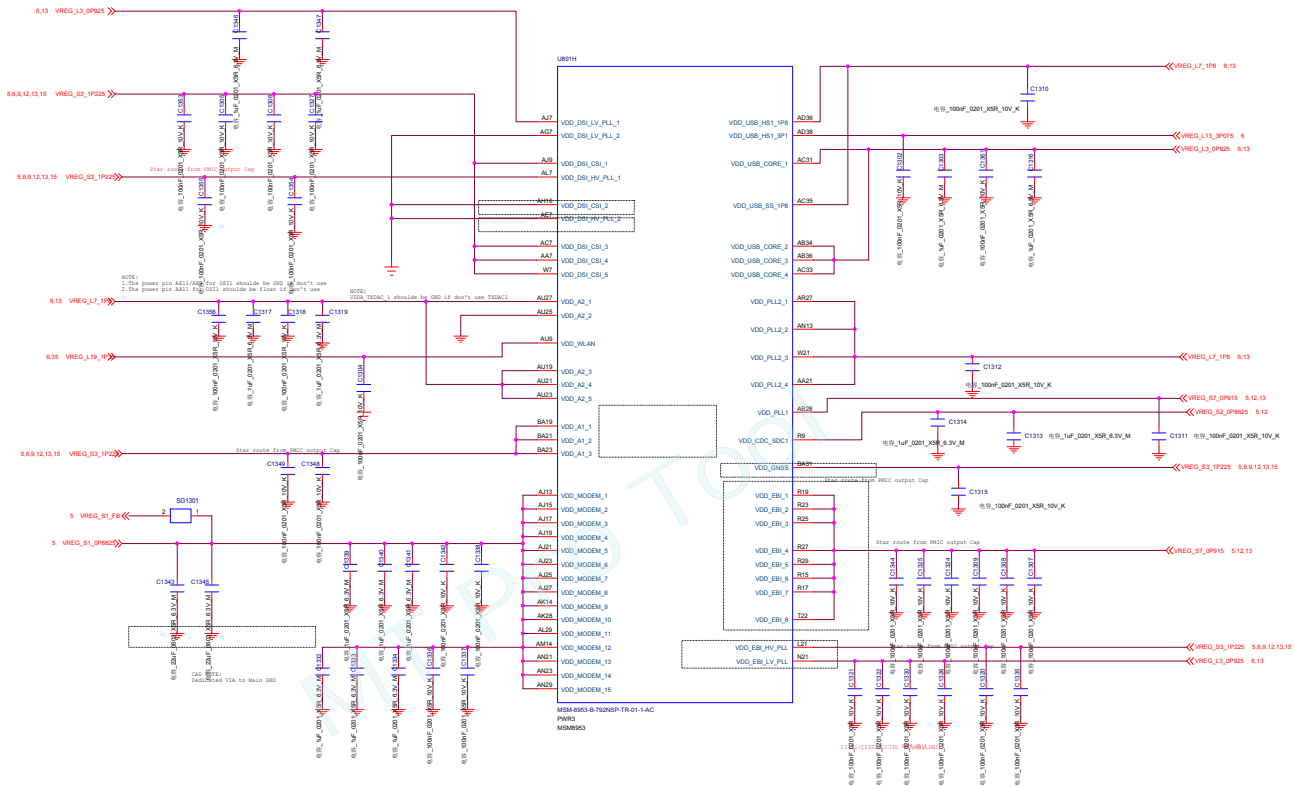
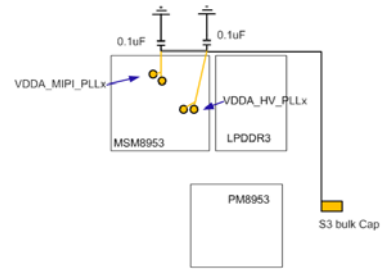
ROOT_CONFIG[3:1]	ROOT_CONFIG
0x00	SDC1 -> SDC2 -> USB2.0
0x01	SDC2 -> SDC1-> USB2.0
0x10	SDC1-> USB2.0
0x11	USB2.0

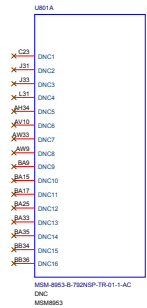
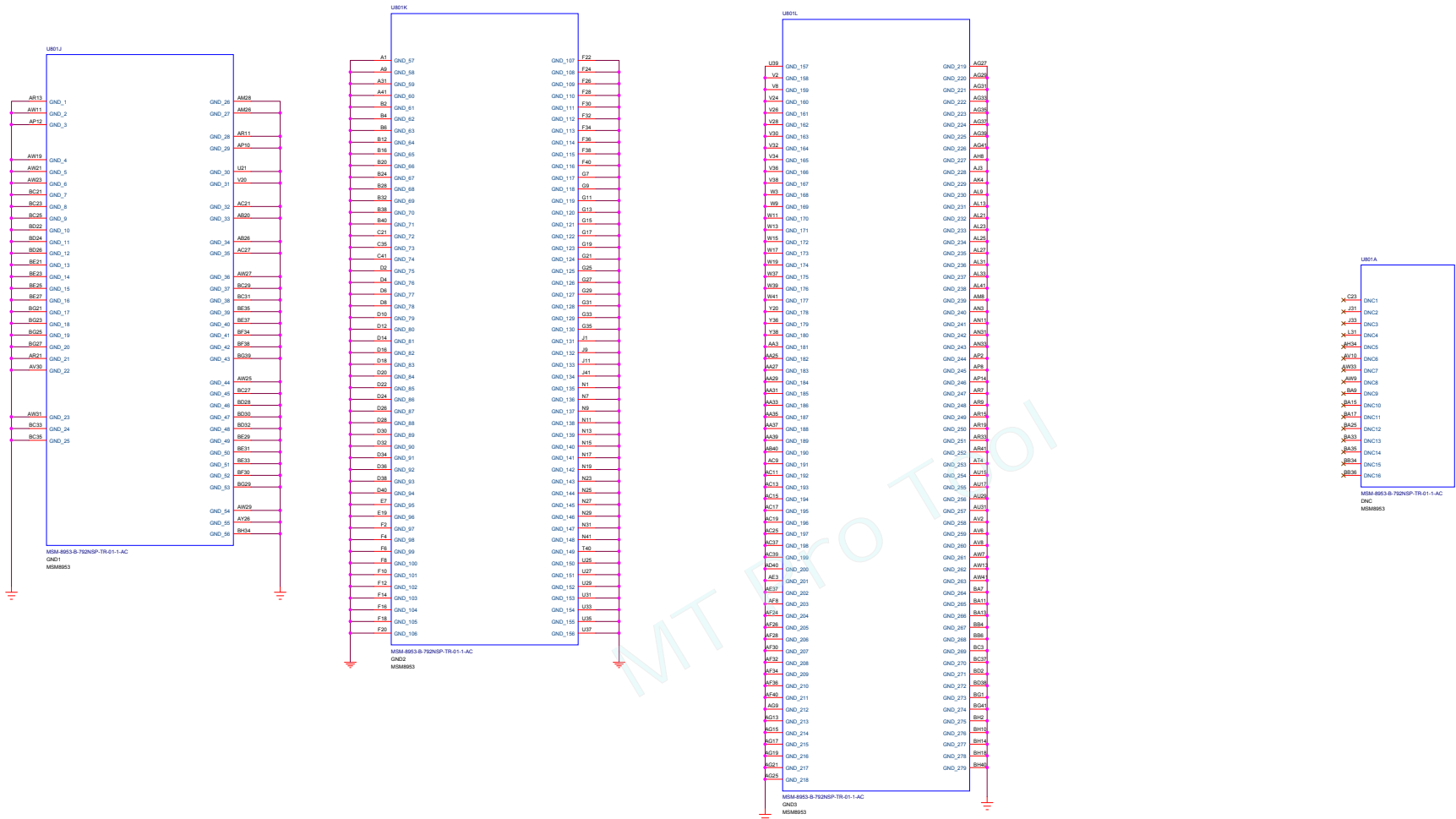
Default Root Config (St010) is SDC1(400K)

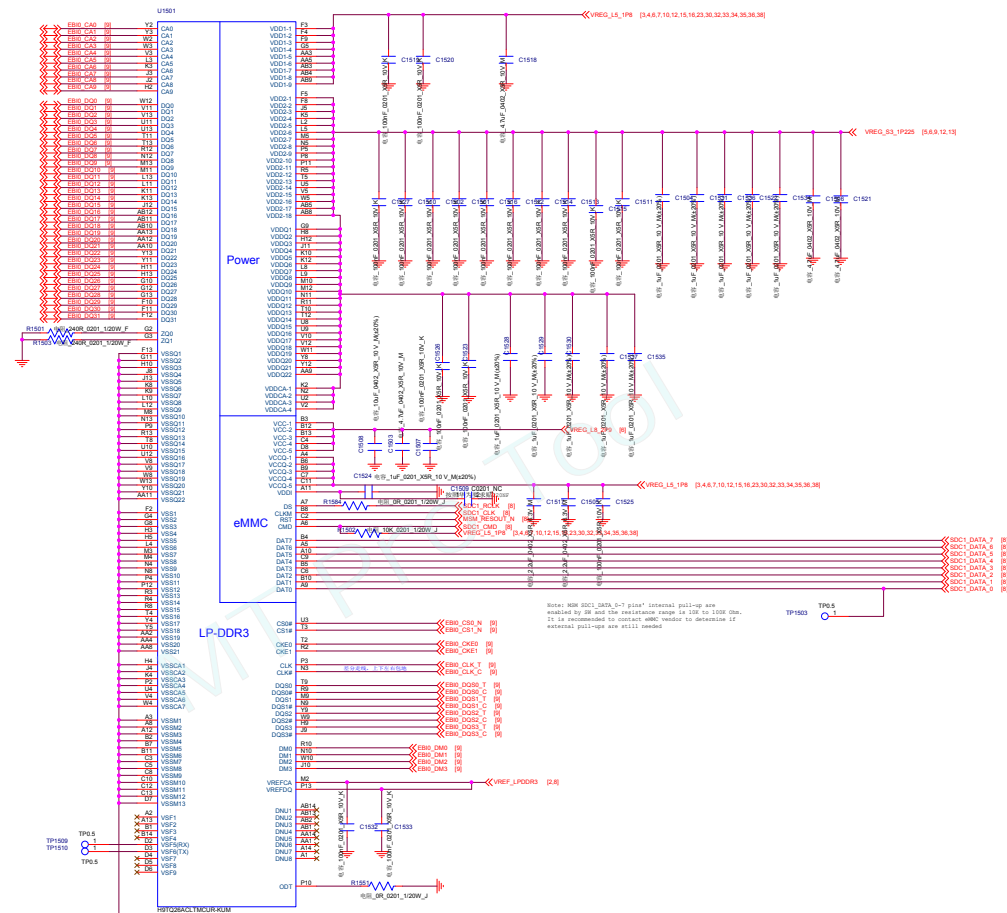




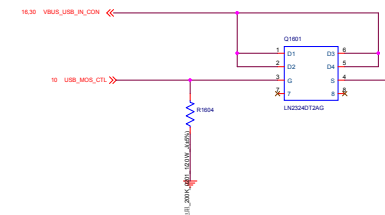
CAD NOTE:  
About star route from PMIC output Cap:



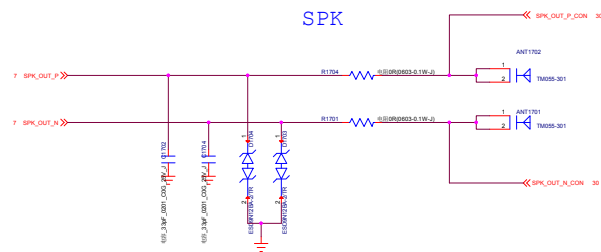
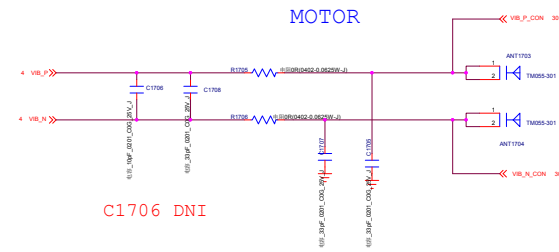
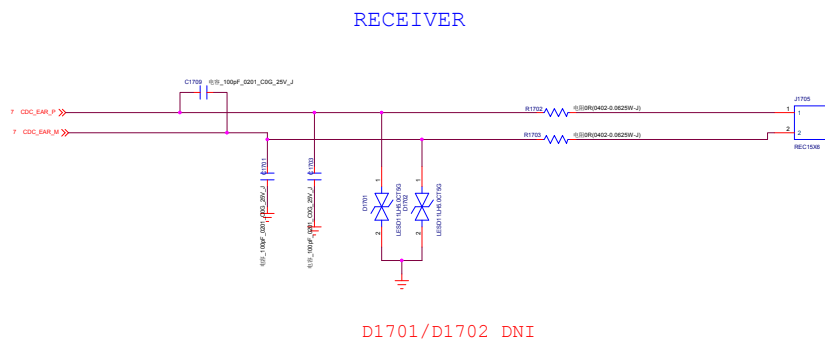


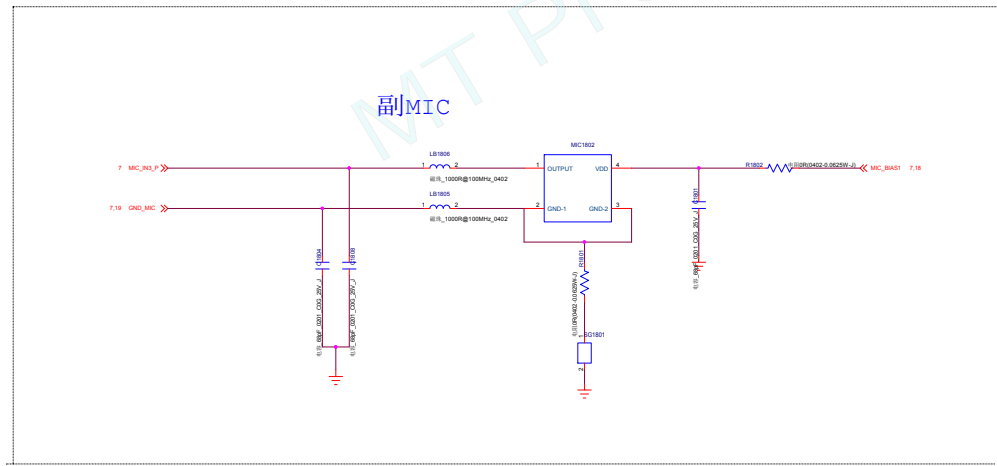
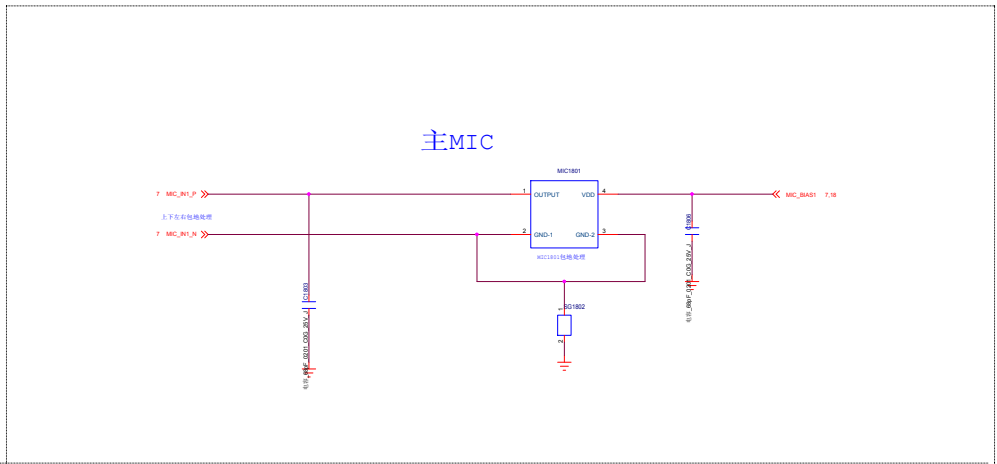






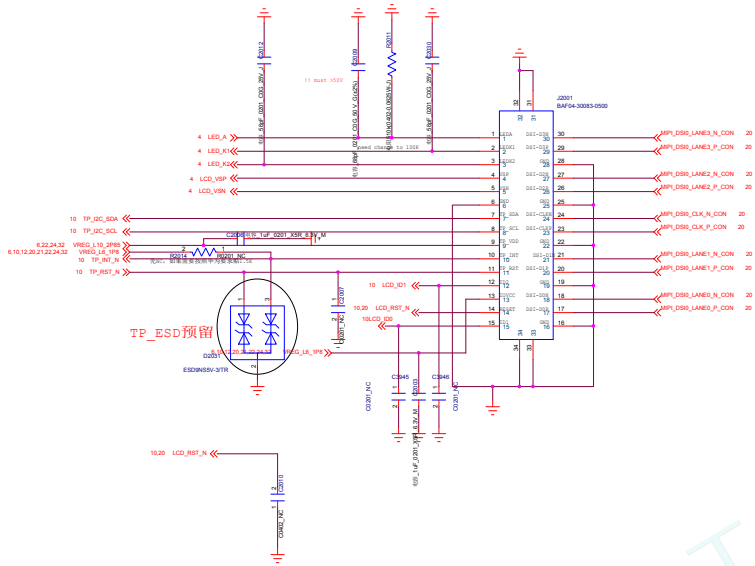
D1604华为新需求VRM>15V 双向修改



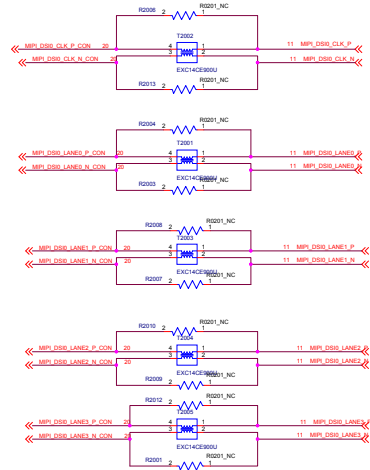




LCD&CTP-Connector

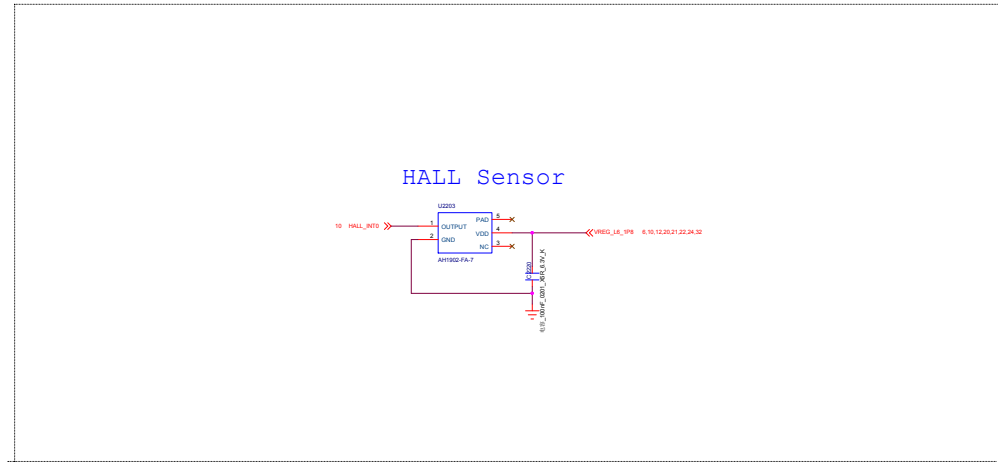
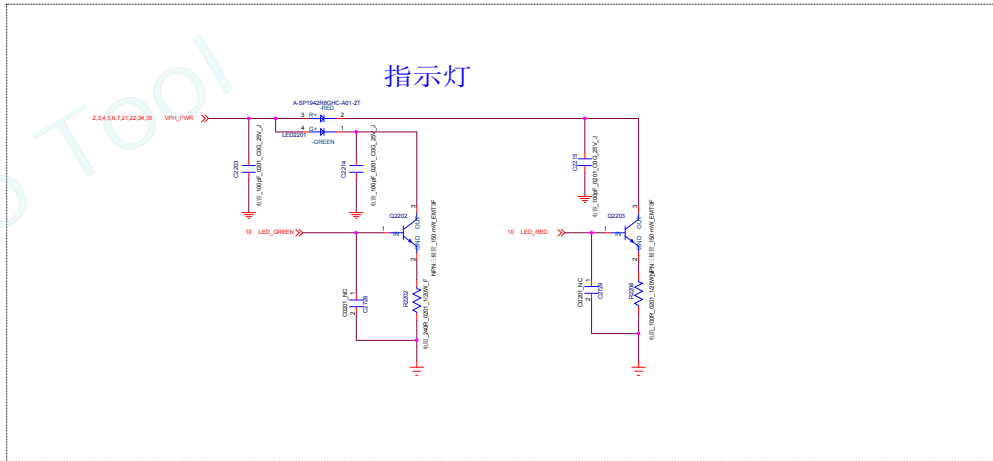
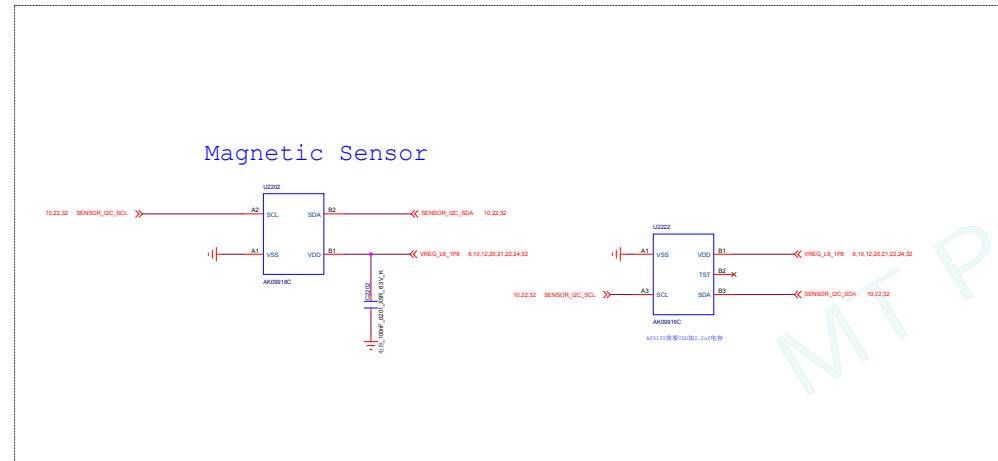
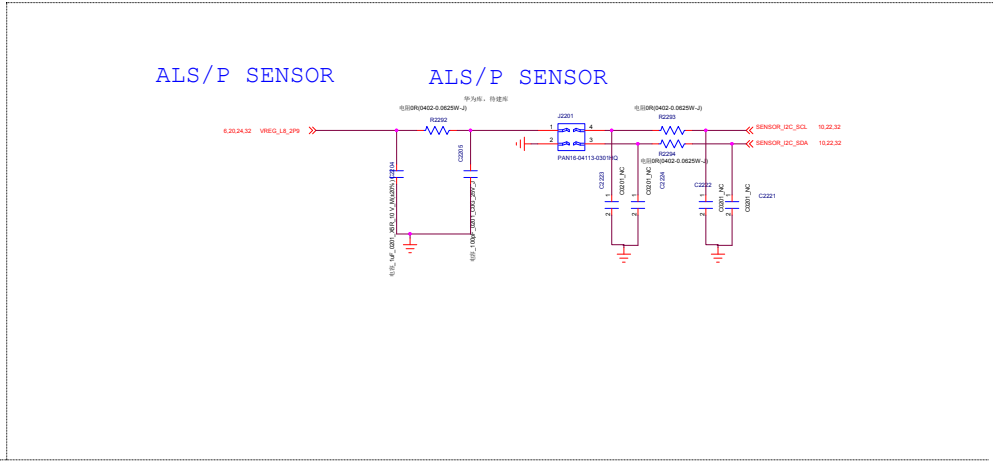
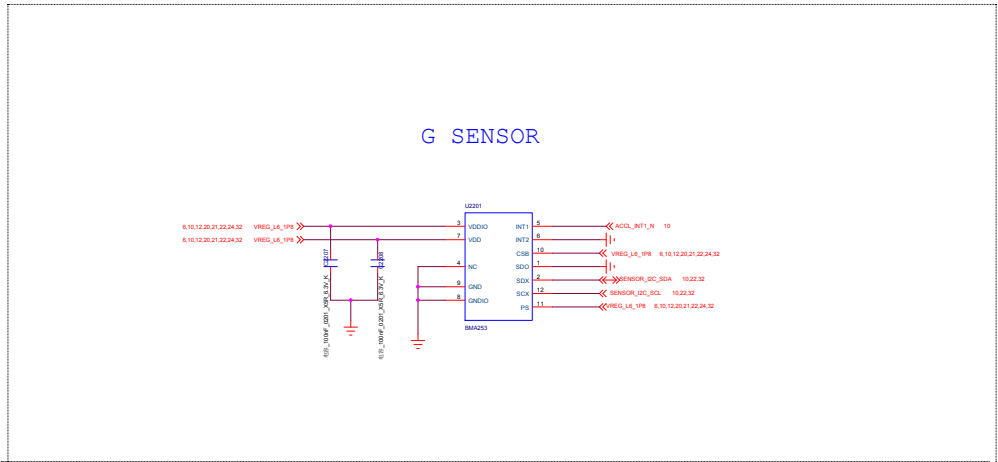


LCD MIPI Common Mode Filter

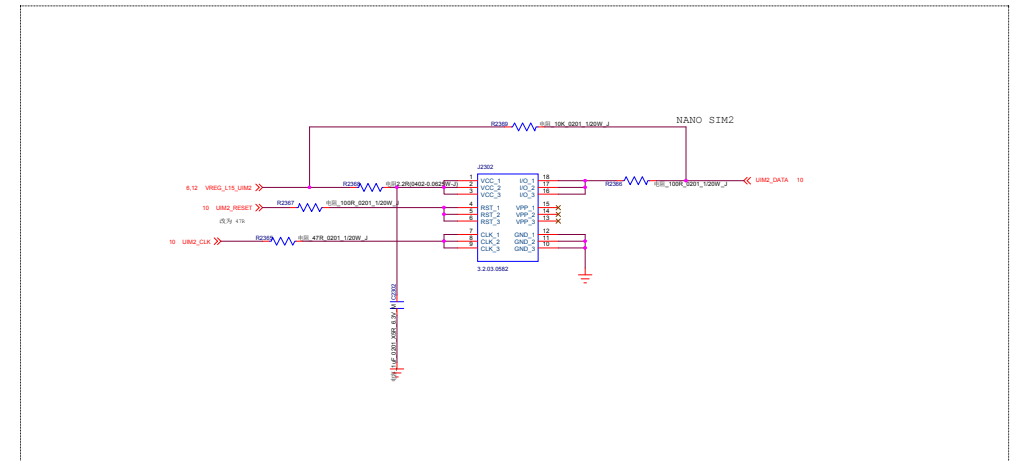
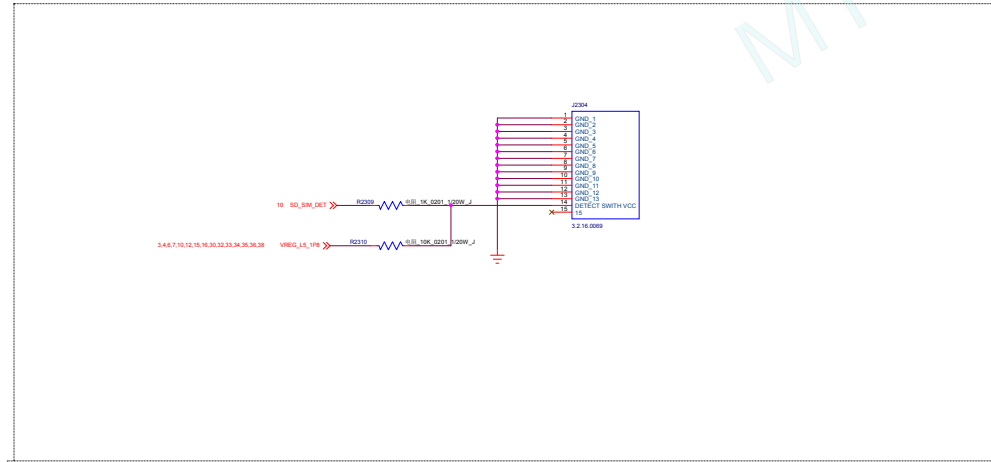
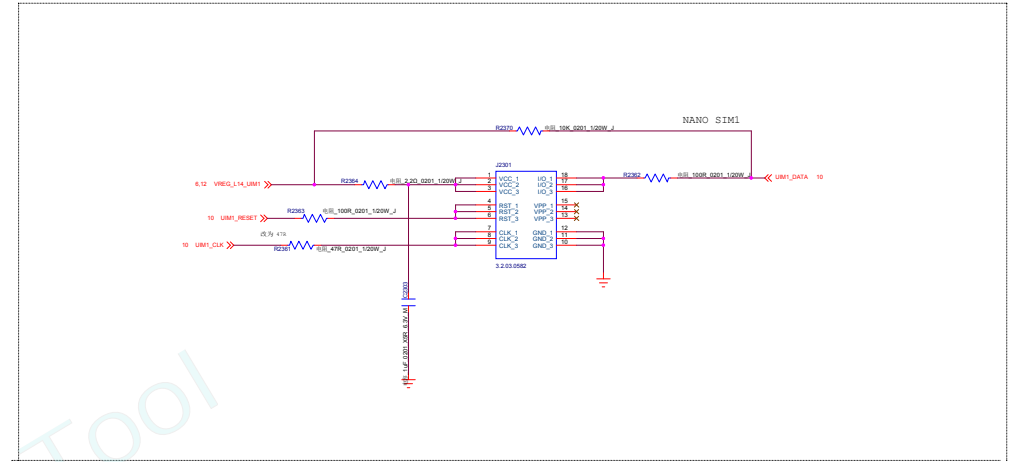
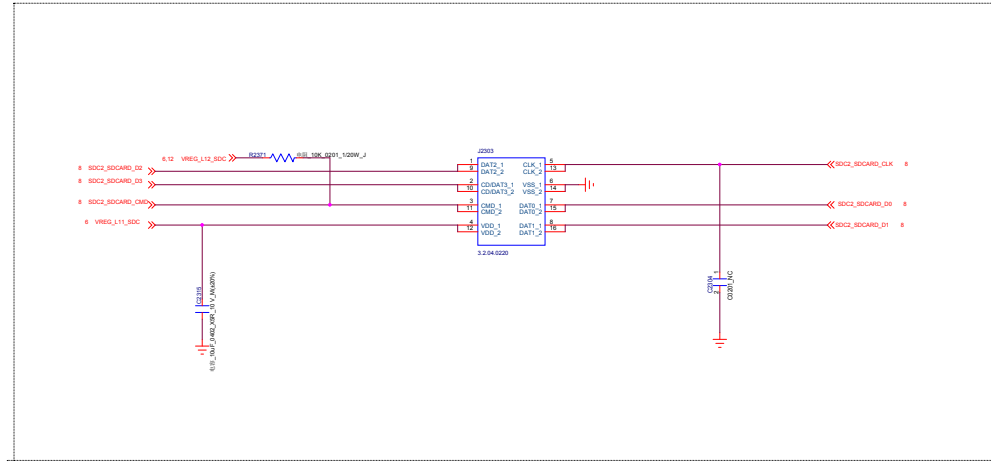


First using 0R ,Second using EMI Filter.

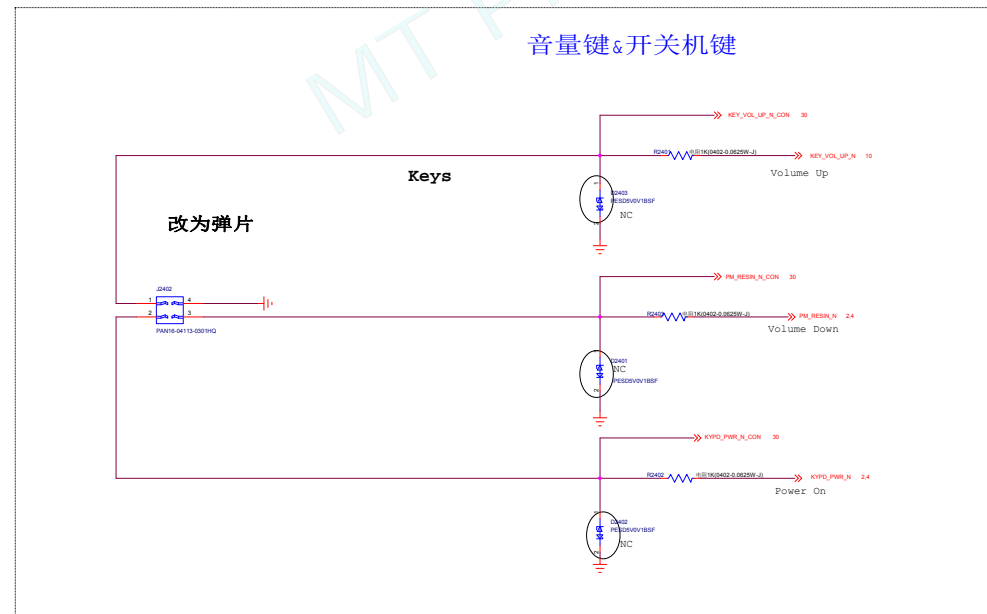
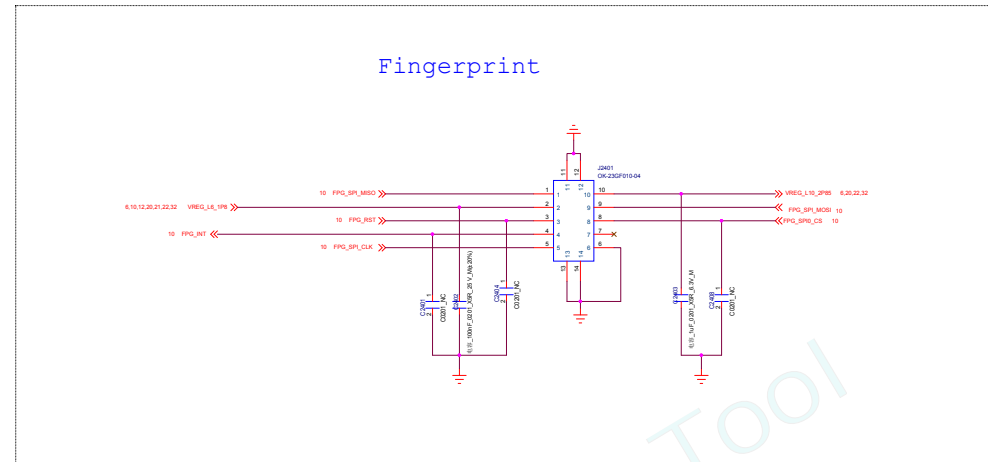




## SIM/T卡三选三卡座









5

4

3

2

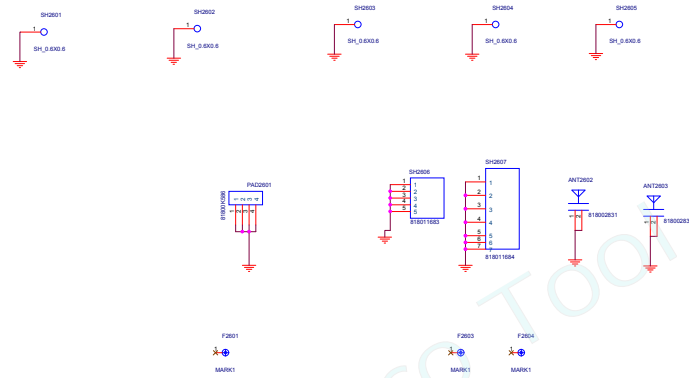
1

D

C

B

A



5

4

3

2

1



5

4

3

2

1

D

C

B

A

MT Pro Tool

5

4

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D

C

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A

MT Pro Tool

5

4

3

2

1

D

D

C

C

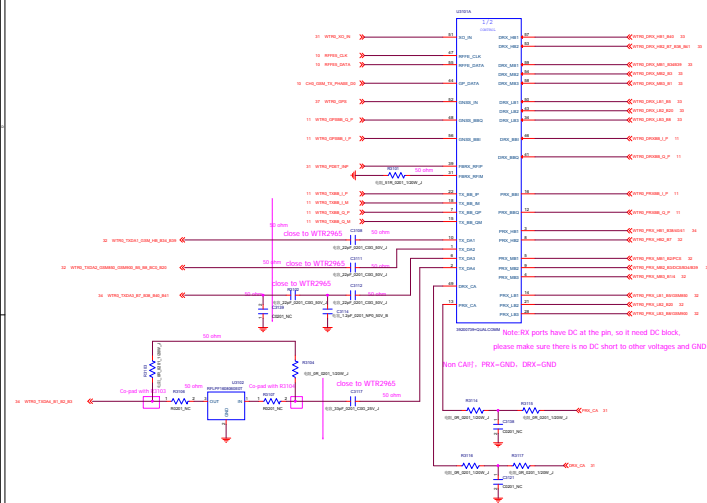
B

B

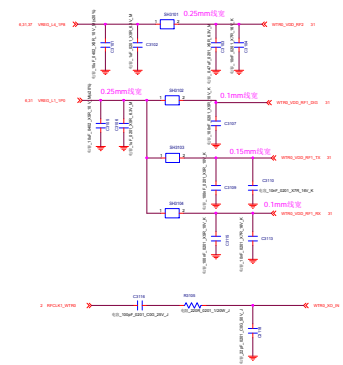
A

A

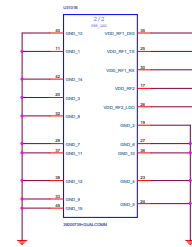
## WTR0\_2965\_A



## WTR0\_2965 Power

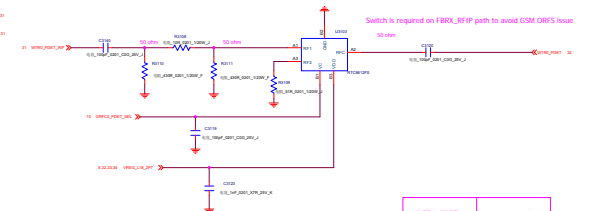


## WTR0\_2965\_B



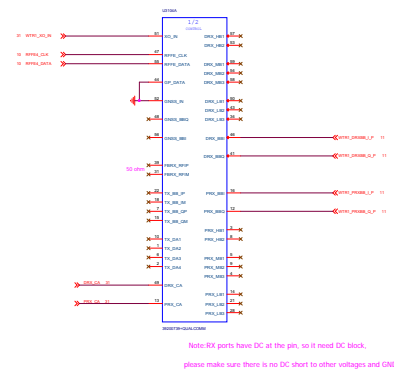
## WTR0\_2965 Power\_DET

Note: FL2401 is a 5 GHz LPF for WIFI co-existence mitigation

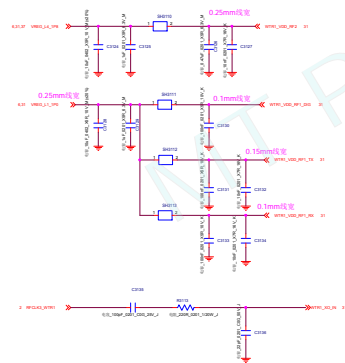


WTRO_PDET	0
Load	1

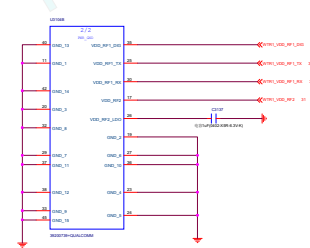
## WTR1\_2965\_A



### WTR1\_2965 Power

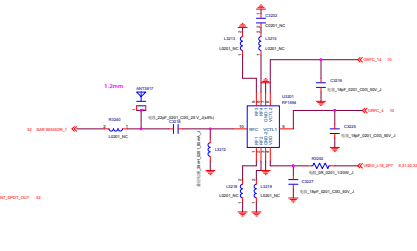
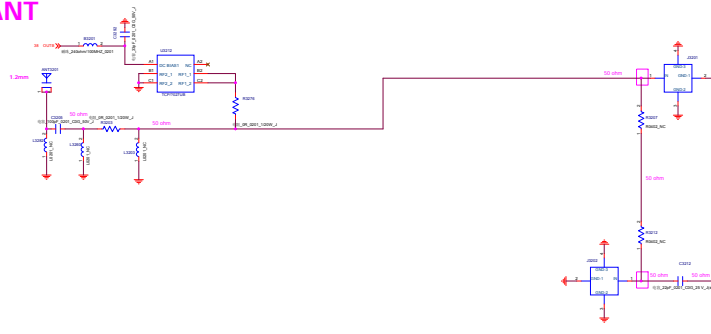
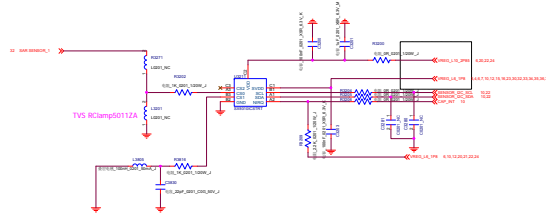


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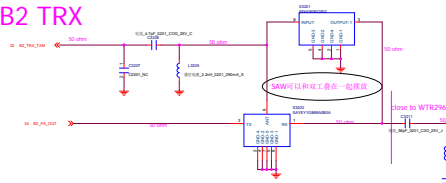




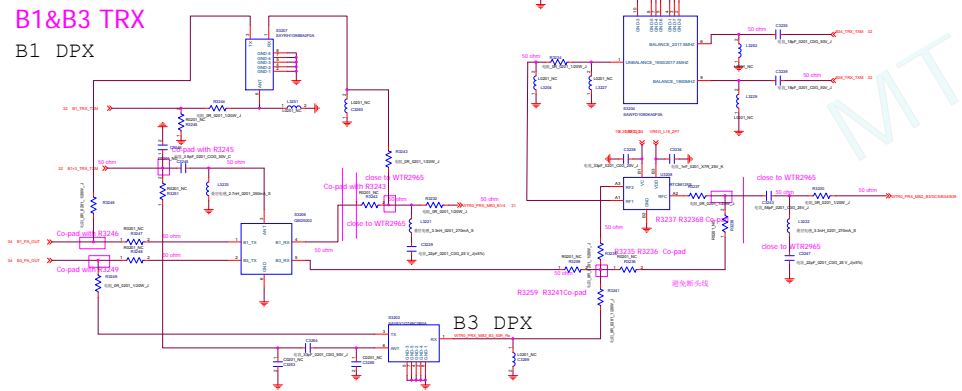
## MAIN\_ANT



## TRX\_MB B2 TRX

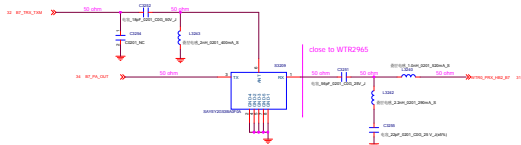


## B1&B3 TRX B1 DPX



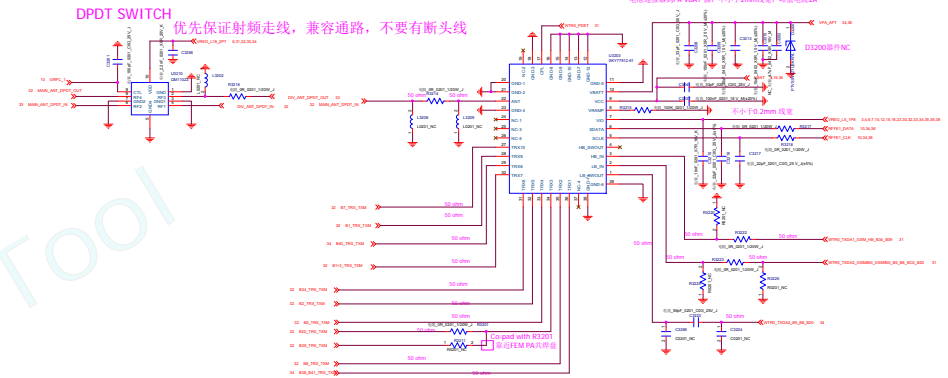
## TRX\_HB

### B7 TRX

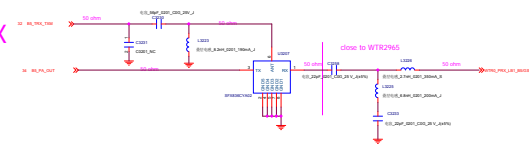


## TXM\_GSM

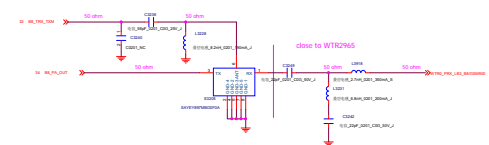
DPDT SWITCH 优先保证射频走线，兼容通路，不要有断头线



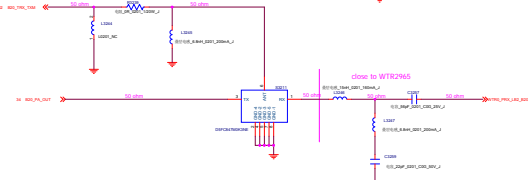
## TRX\_LB B5 TRX



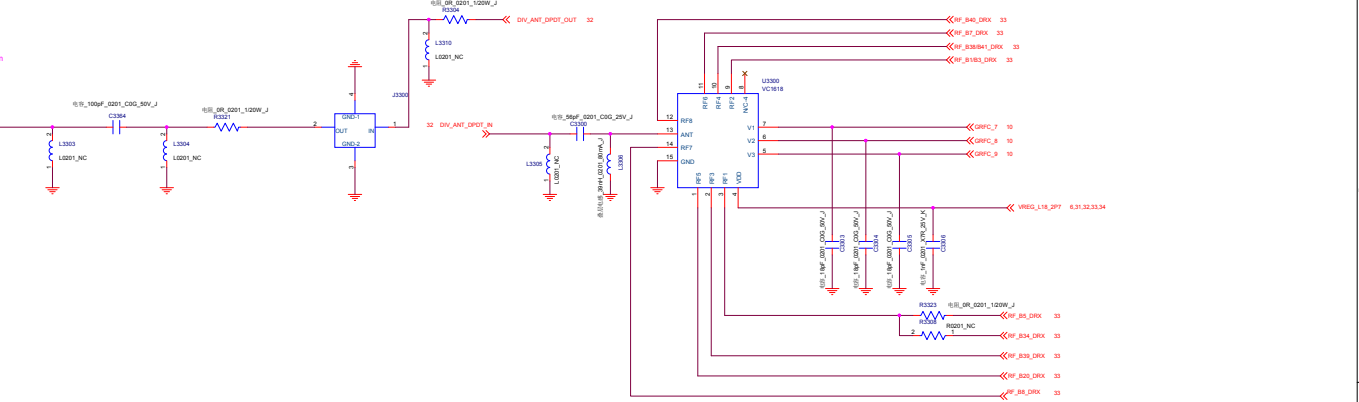
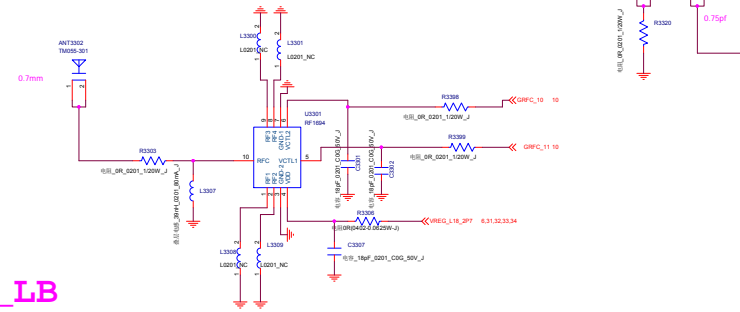
## B8 TRX



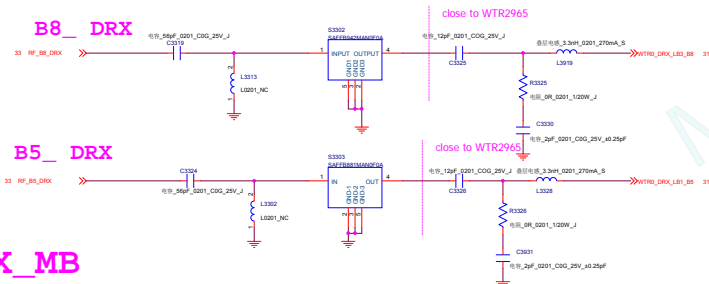
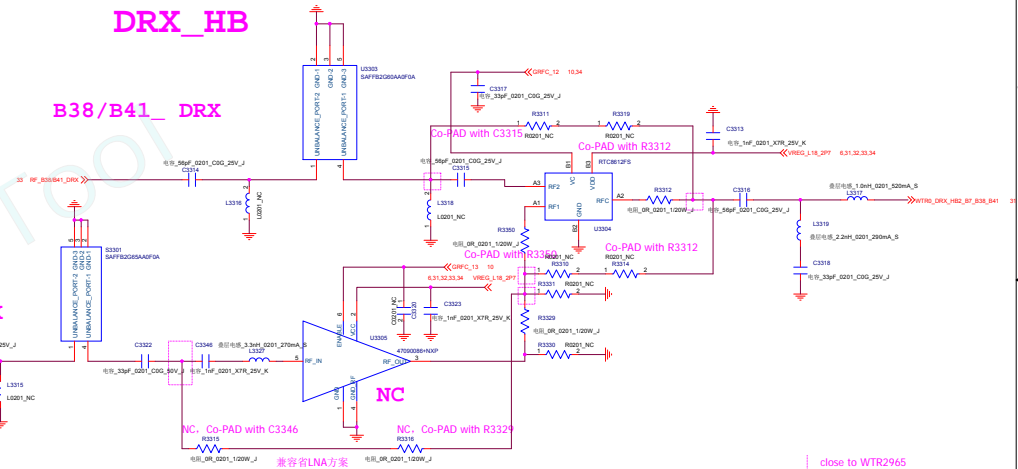
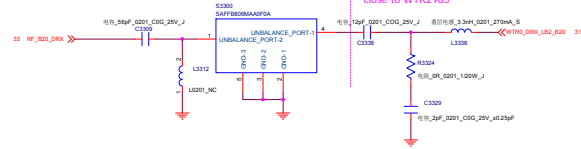
## B20 TRX



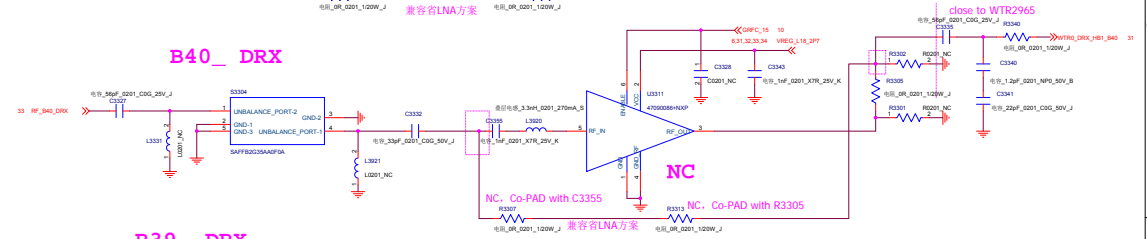
## DRX\_LB



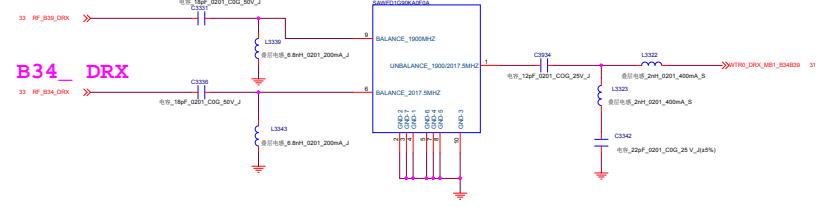
## DRX\_HB



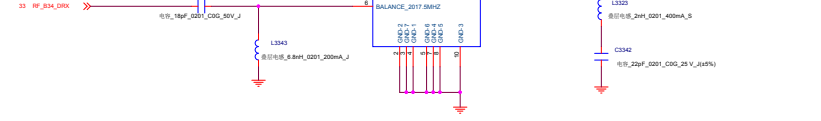
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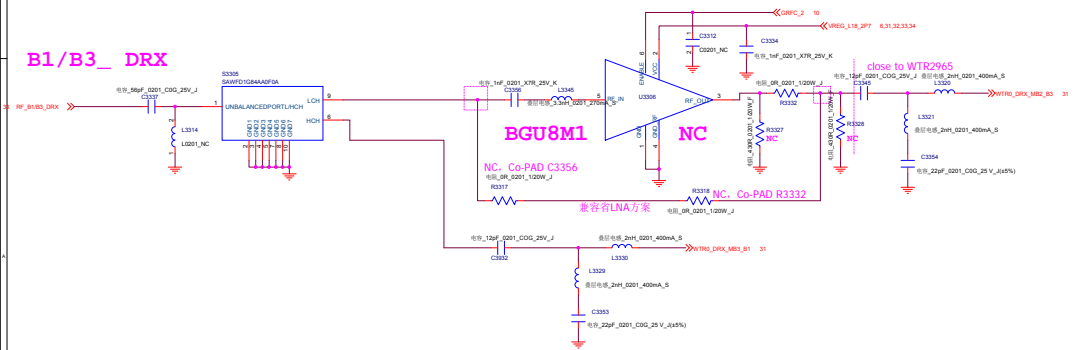
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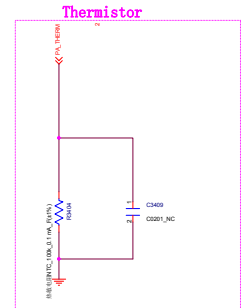
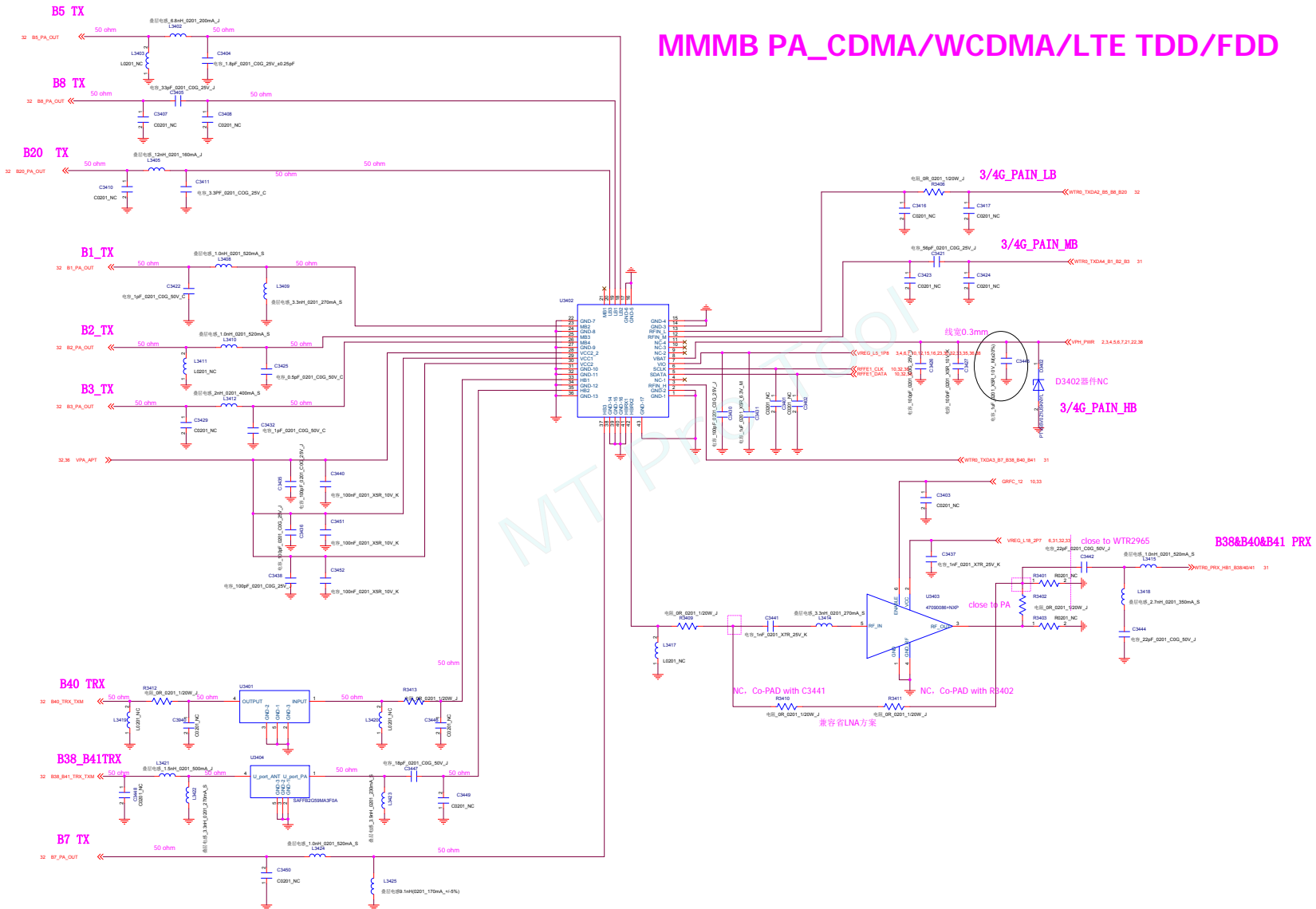
## B34\_ DRX



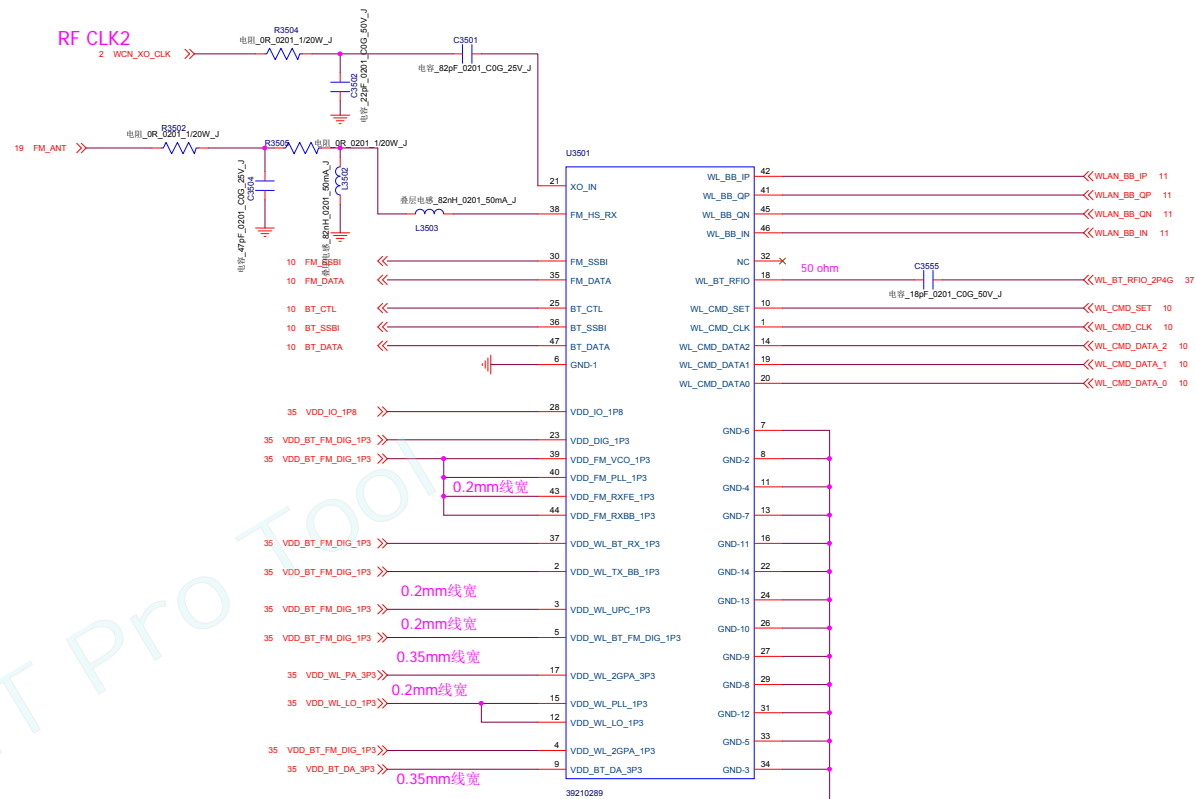
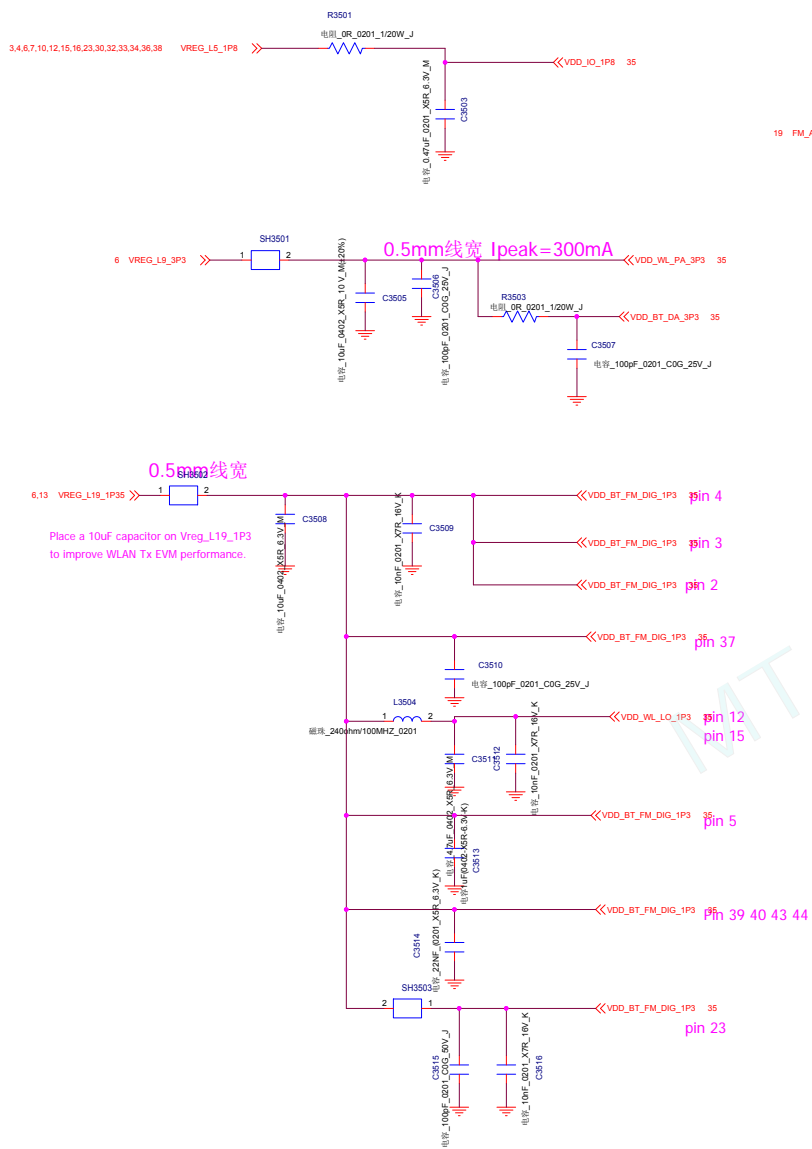
## DRX\_MB



# MMMB PA\_CDMA/WCDMA/LTE TDD/FDD



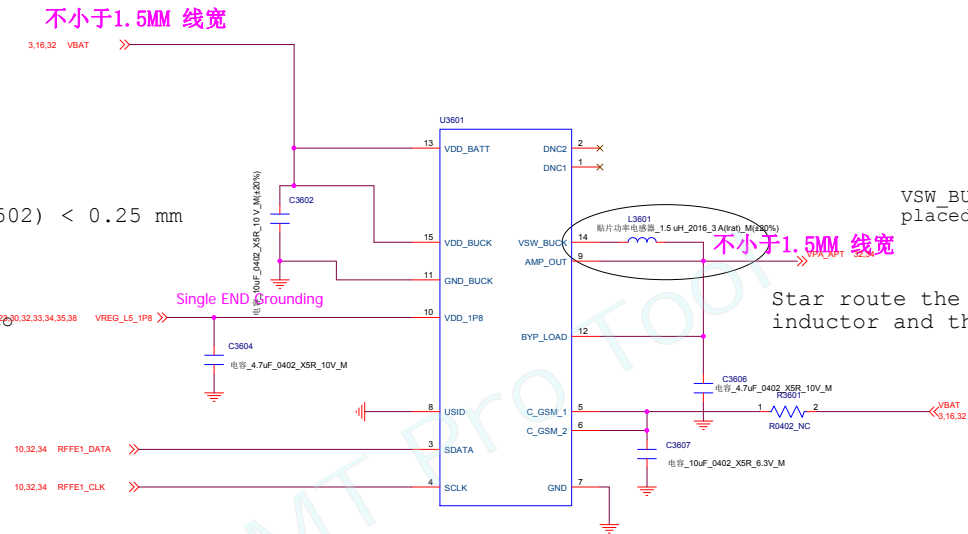
## WCN3615



# QFE-2101

Place the buck bypass capacitor (C502) < 0.25 mm from the QFE2101 pins (15 and 11)

Do not via pins 15 and 11 directly to power and ground.  
? Do not via input capacitor directly to power and ground.  
? Instead, via to power and ground at least 1 mm beyond the capacitor



# WIFI&BT&GPS

