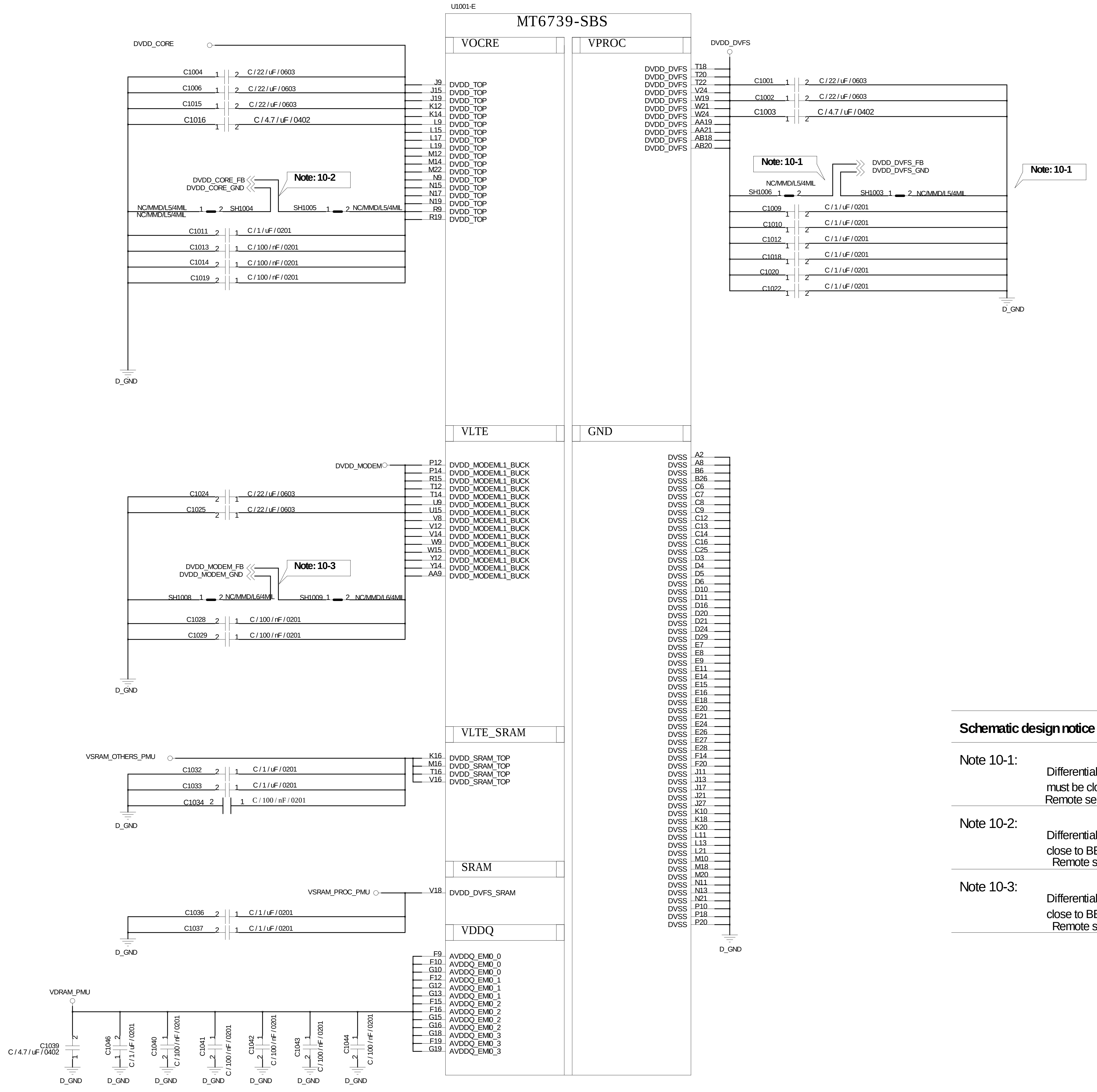

Schematic design notice of "10_BB_POWER_PDN" page.

Note 10-1: Differential pair of DVDD_DVFS remote sense must be close to BB's ball
Remote sense trace with GND shielding to PMIC (Differential)

Note 10-2: Differential pair of DVDD_TOP remote sense must be close to BB's ball.
Remote sense trace with GND shielding to PMIC (Differential)

Note 10-3: Differential pair of DVDD_MODEML1_BUCK remote sense must be close to BB's ball.
Remote sense trace with GND shielding to PMIC (Differential)

Title	10_BB_POWER_PDN
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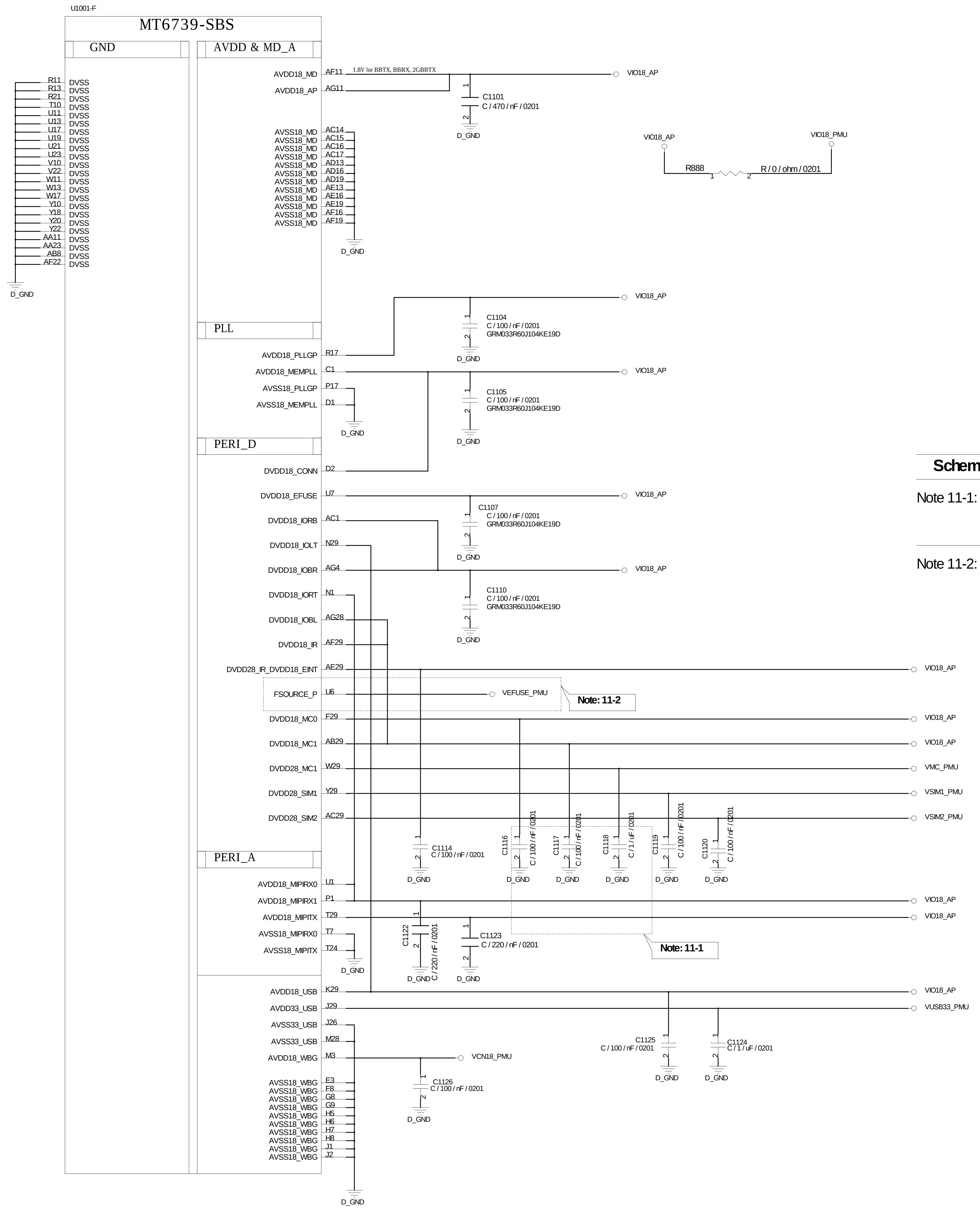

Schematic design notice of "11_BB_ POWER_PDN"

Note 11-1:

```
C1116 close to DVDD18_MC0, Distance less than 150mil
C1117 close to DVDD18_MC1, Distance less than 150mil
C1118 close to DVDD28_MC1, Distance less than 150mil
```

Note 11-2:

```
FSOURCE_P(EFUSE)
(1)FSOURCE_P EFUSE power(VEFUSE) should be
only for EFUSE usage(not share with other application)
(2)W/I EFUSE program, VEFUSE need 1uF bypass cap
(pls refer to ¡§LDO output voltage/current table¡¨)
(3)W/O EFUSE program, VEFUSE bypass cap should be NC.
```

Title
11_BB_ POWER_PDN
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D
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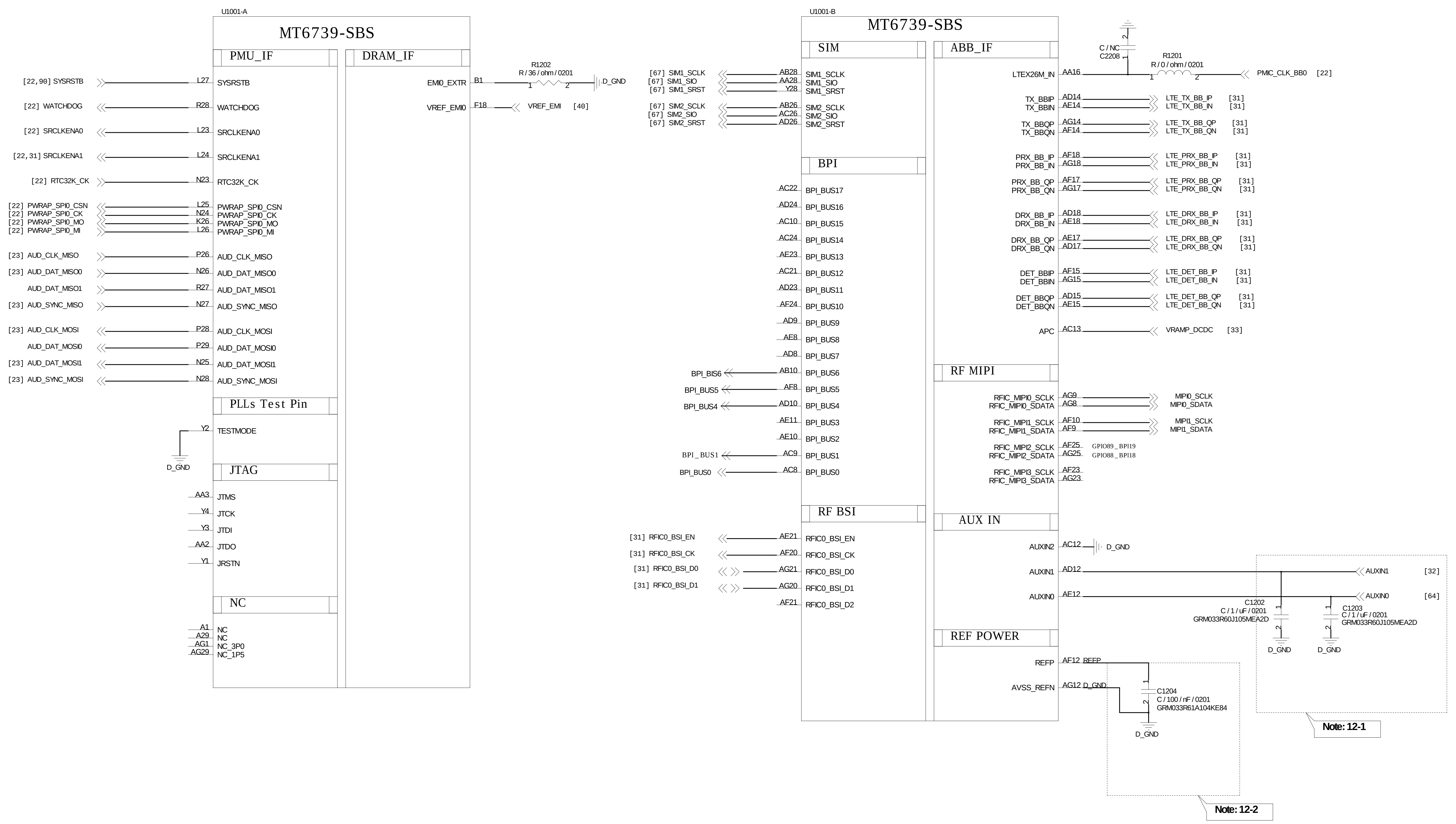
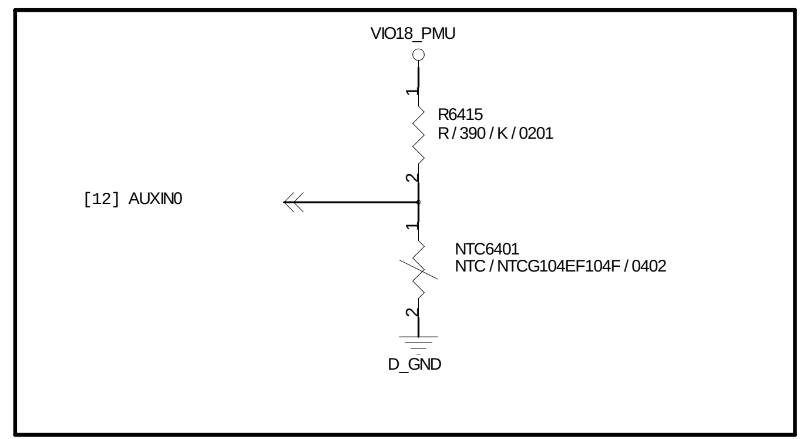


Schematic design notice of "12_BB_1" page.

Note 12-1:	To shunt a 1uF capacitor in the AUXIN ADC input to prevent noise coupling. It should be placed as close to BB as possible. Connect the unused AUX ADC input to GND.
Note 12-2:	The de-coupling cap. for REFP (AF12 ball) have to be placed as close to BB as possible.

Thermistor / To sense board level temperature



Distance to AP is 5~7mm and away form other heat resource 10mm~12mm

Title
12_BB_1
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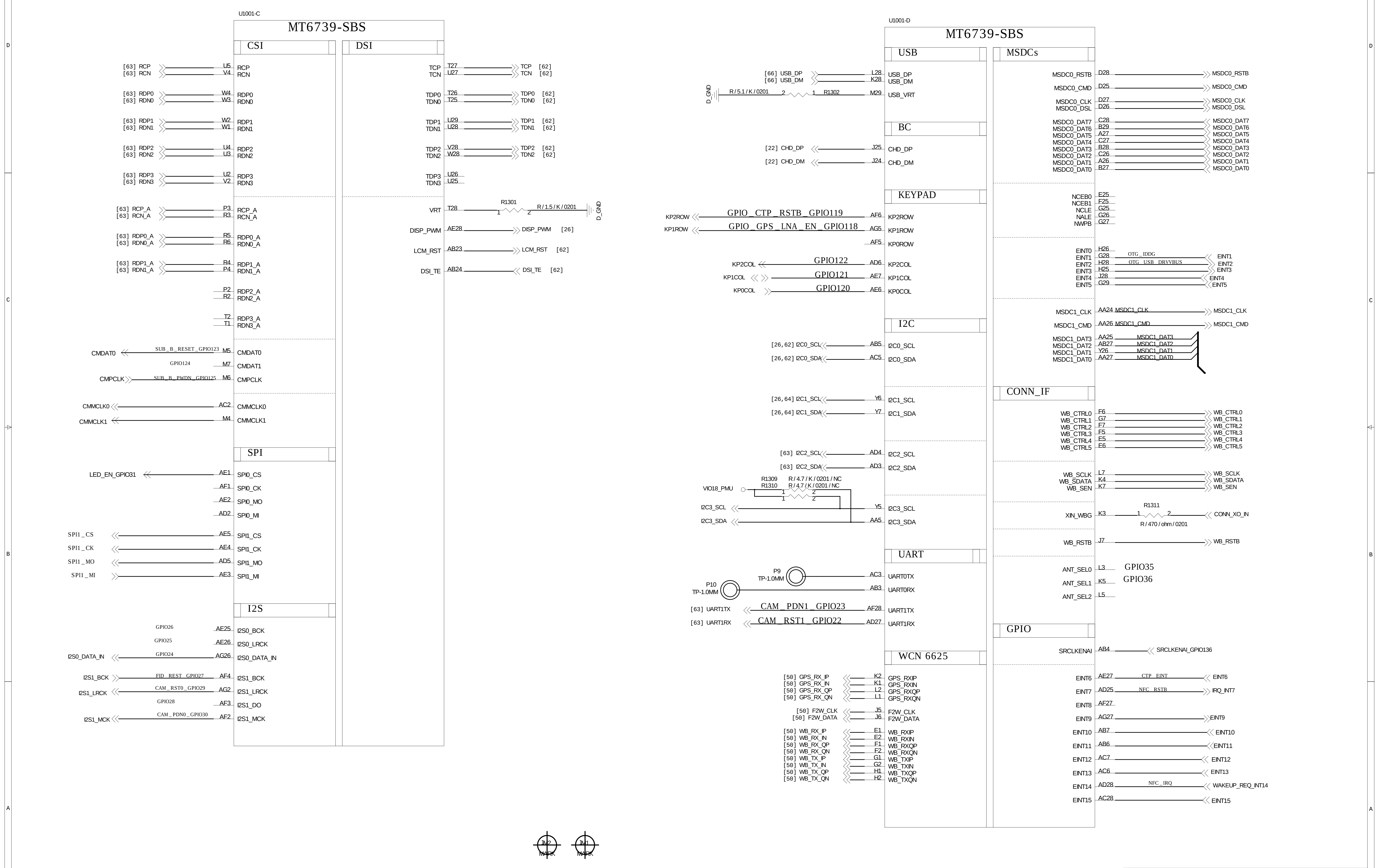

Title
13_BB_2
Size
D
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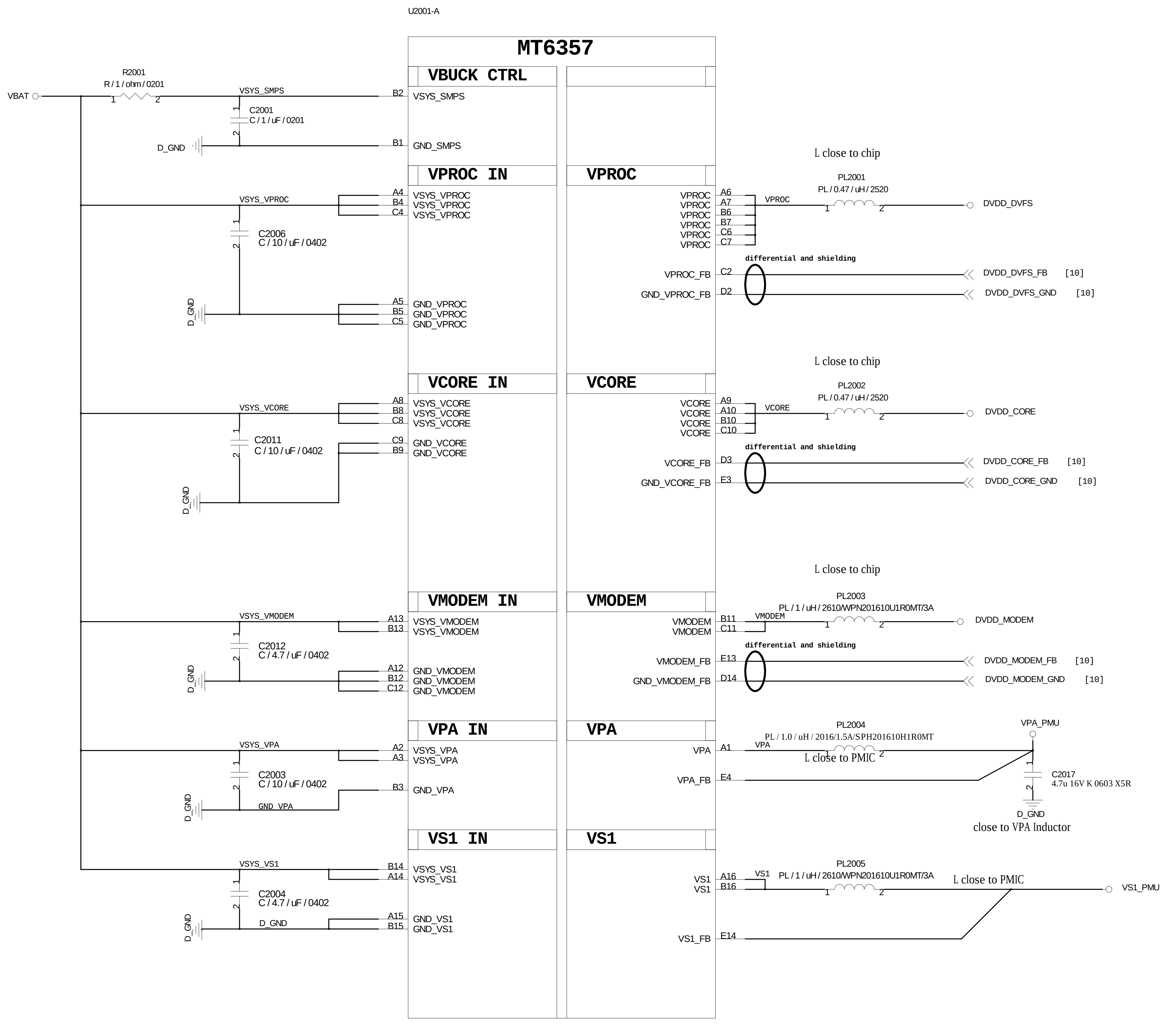

Title
20_POWER_MT6357-Buck

Size
D

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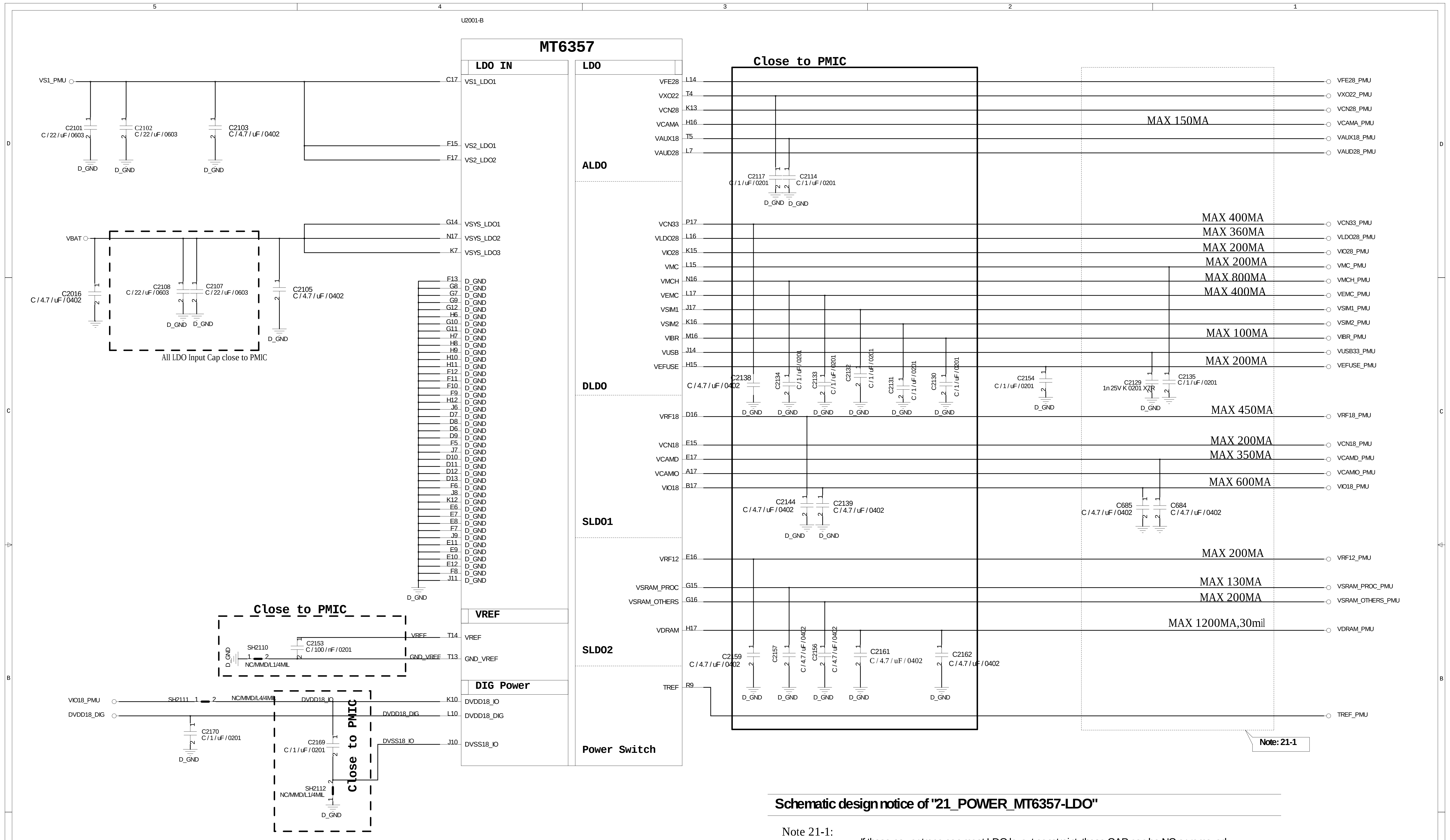
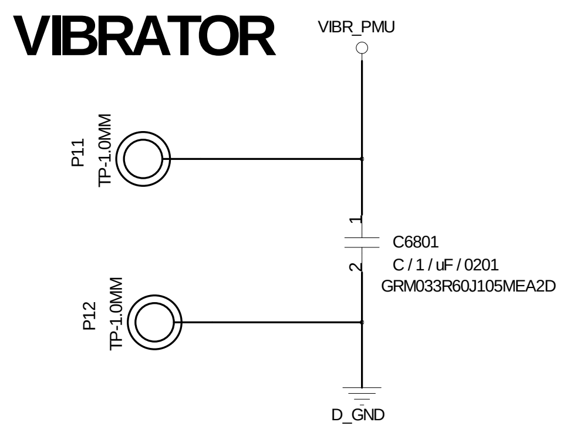


Schematic design notice of "21_POWER_MT6357-LDO"

Note 21-1:

If these power trace can meet LDO layout constraint, these CAP can be NC or removed.
Please refer to MT6357 design notice.



Title
21_POWER_MT6357-LDO
Size D
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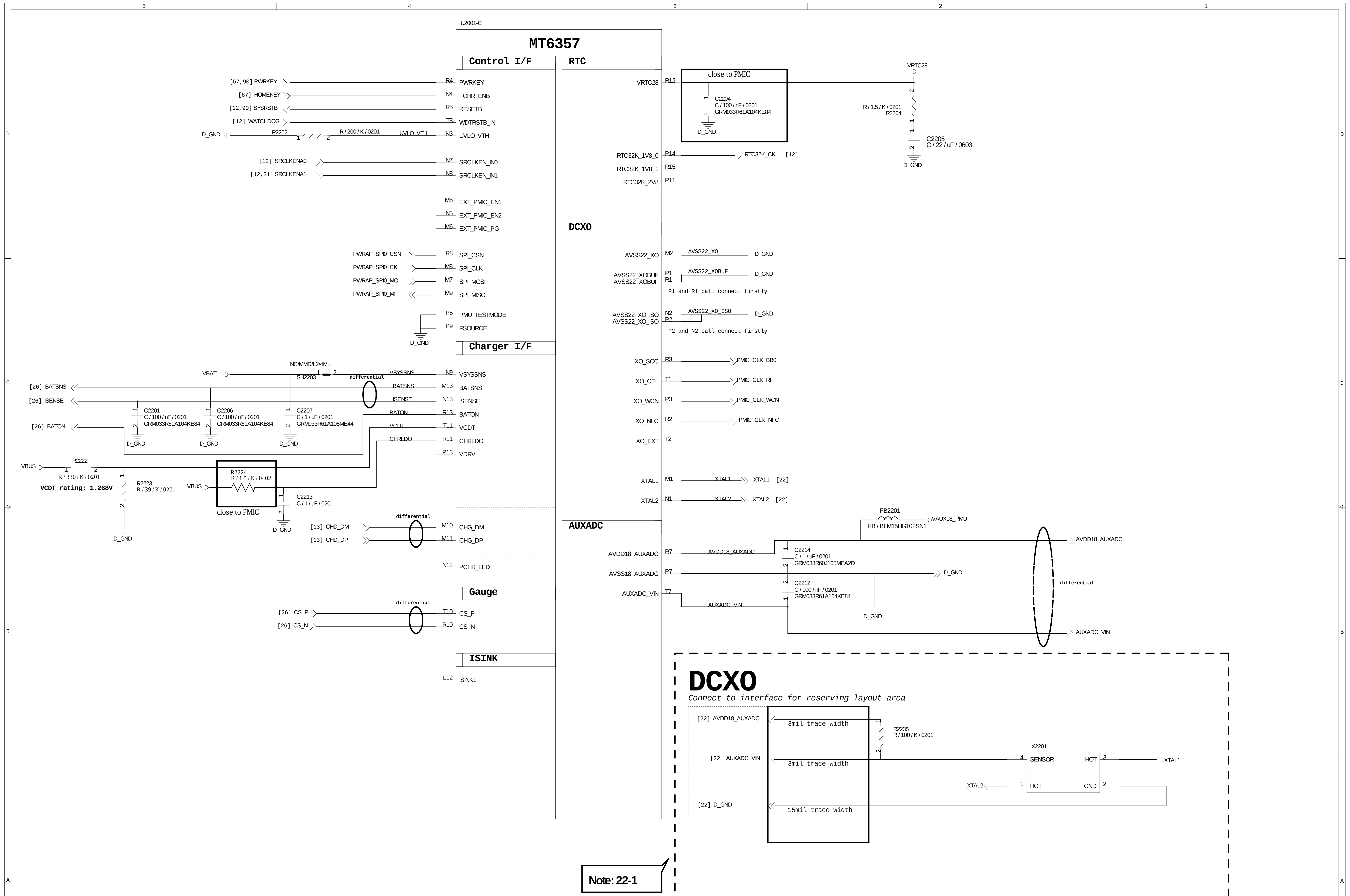

Route AVDD18_AUXADC/AUXADC_VIN as differential trace (3 mil each)with well GND shielding and route AVSS18_AUXADC with 15mil trace width under AVDD18_AUXADC/AUXADC_VIN trace to provide return current path.

Schematic design notice of "22_POWER_MT6357-IF"

Note 22-1:

Please implement 2520 & 2016 Size TMS PCB co-layout.
Please refer to MT6739_MT6357 Co-Clock Design Notice for co-layout guide

Title
22_POWER_MT6357-IF
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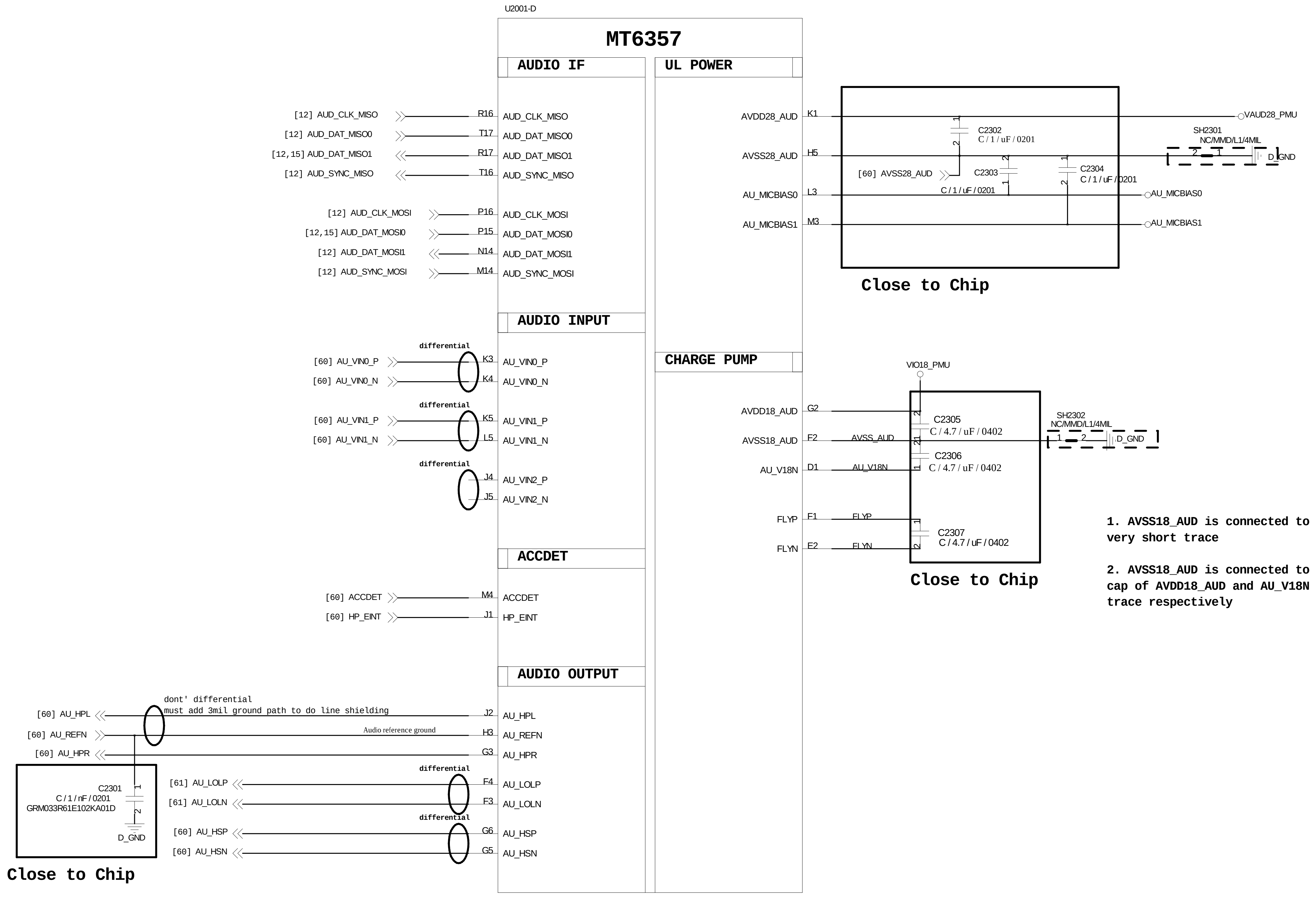

1. AVSS18_AUD is connected to GND with very short trace

2. AVSS18_AUD is connected to de-couple cap of AVDD18_AUD and AU_V18N with 6mil trace respectively

Title
23_POWER_MT6357-Audio
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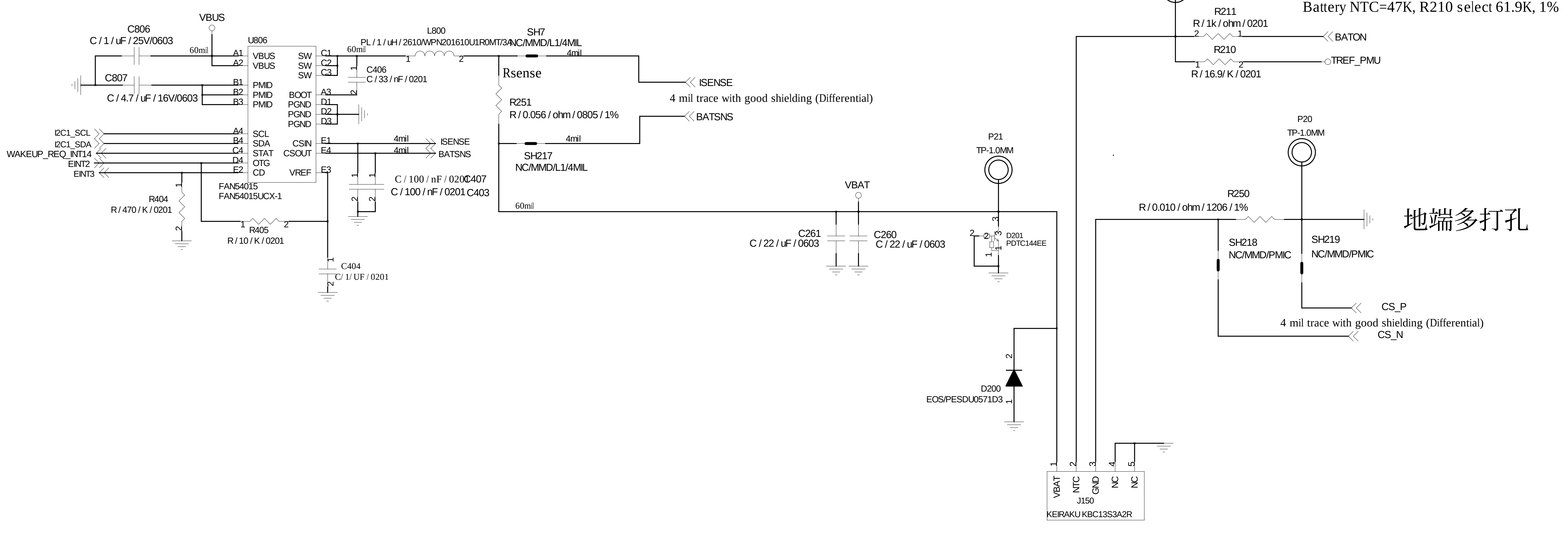
switching Li-Ion battery charger



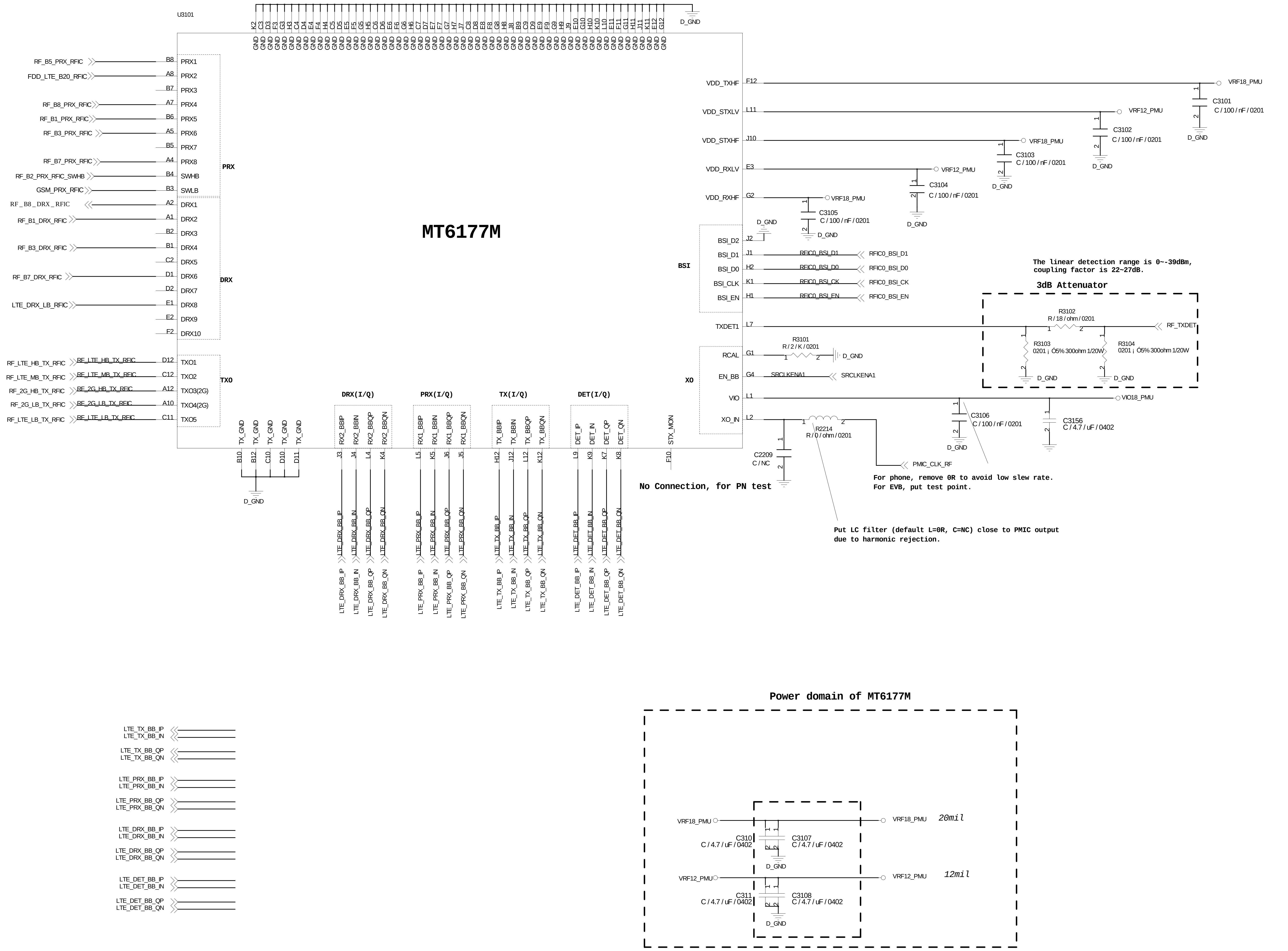
Battery NTC=10K, R210 select 16.9K, 1%
Battery NTC=47K, R210 select 61.9K, 1%

4 mil trace with good shielding (Differential)

4 mil trace with good shielding (Differential)

地端多打孔

BATTERY CONNECTOR



The linear detection range is 0~-39dBm,
coupling factor is 22~27dB.

3dB Attenuator

No Connection, for PN test

For phone, remove 0R to avoid low slew rate.
For EVB, put test point.

Put LC filter (default L=0R, C=NC) close to PMIC output
due to harmonic rejection.

Power domain of MT6177M

4.7uF close to RFIC for better Ripple Performance

Title
31_RF_MT6177M_Pin_Out
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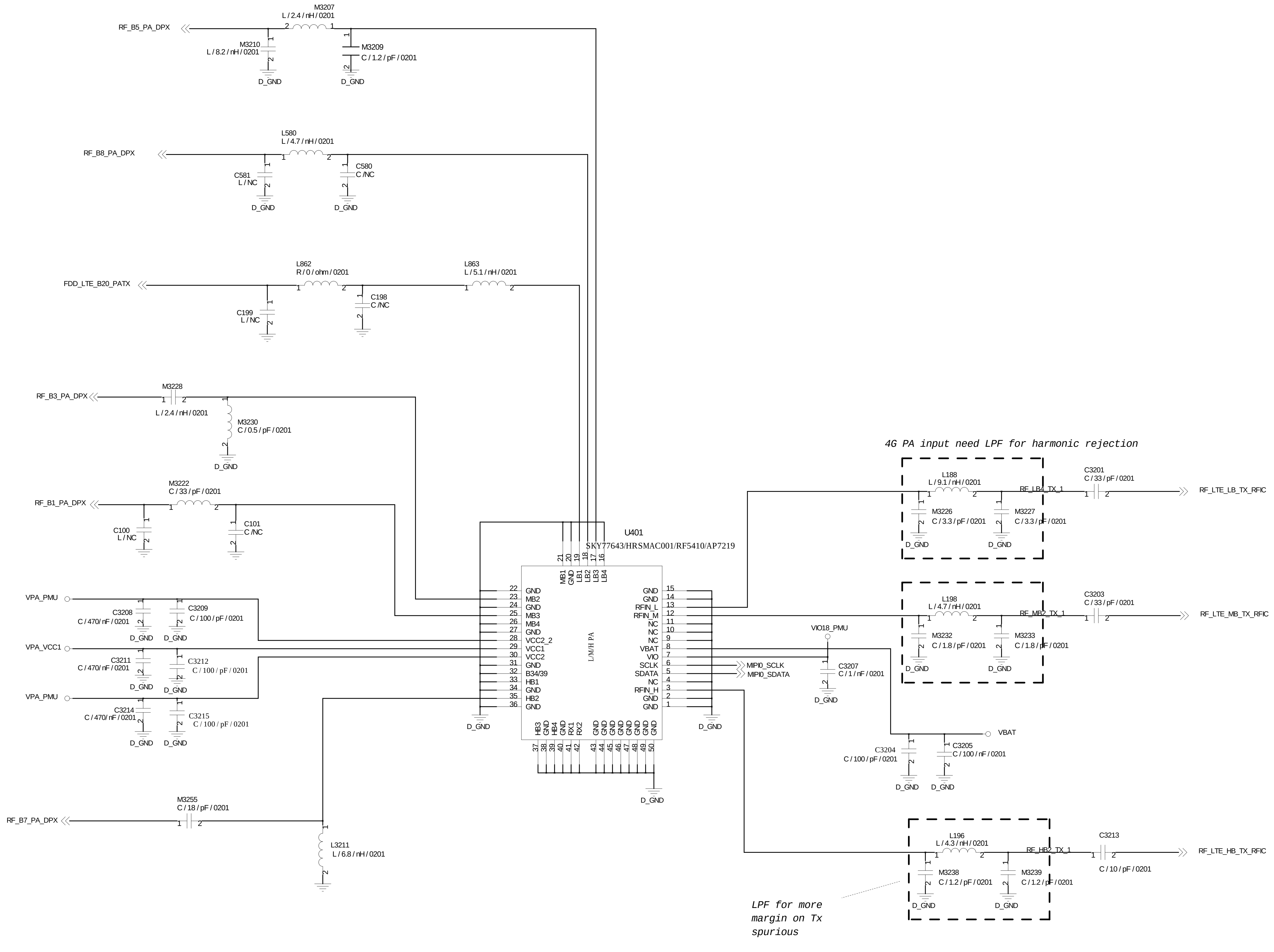
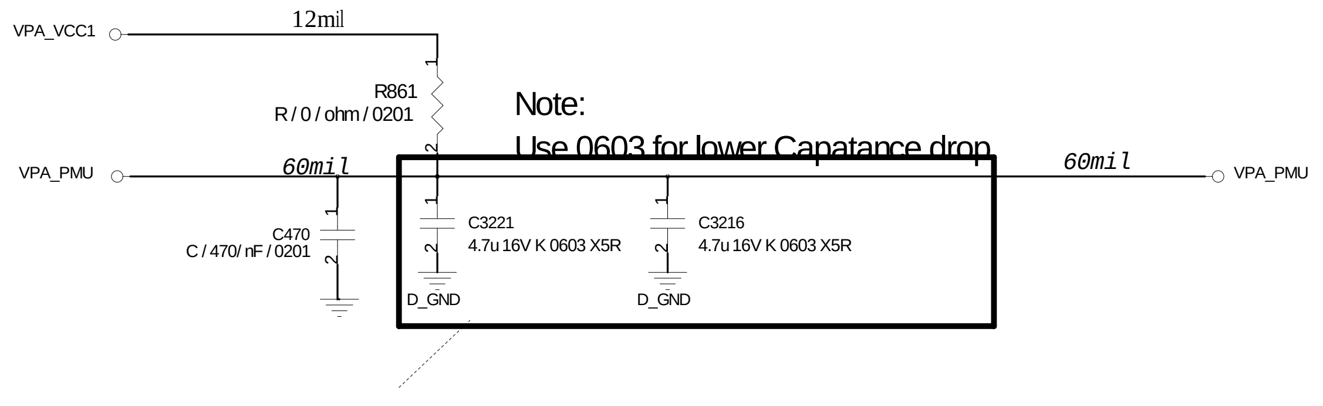


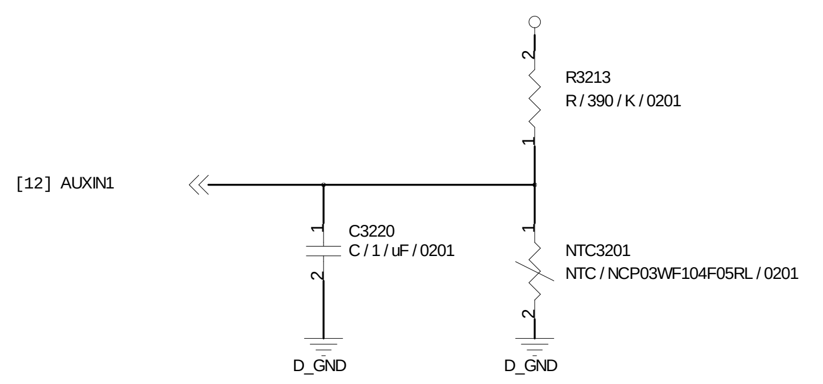
4G PA input need LPF for harmonic rejection

LPF for more
margin on Tx
spurious



Note:
Use 0603 for lower Capatance drop

Note:
Reserve one tuning cap. For PMIC VPA total cap requirement,
the total cap at RF side should be in 6.2uF +/-10%.



NTC3201 close to PA , and located in the same layer

Title
32_RF_MT6177M_RF_TX
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Title
33_RF_MT6177M_RF_PRX
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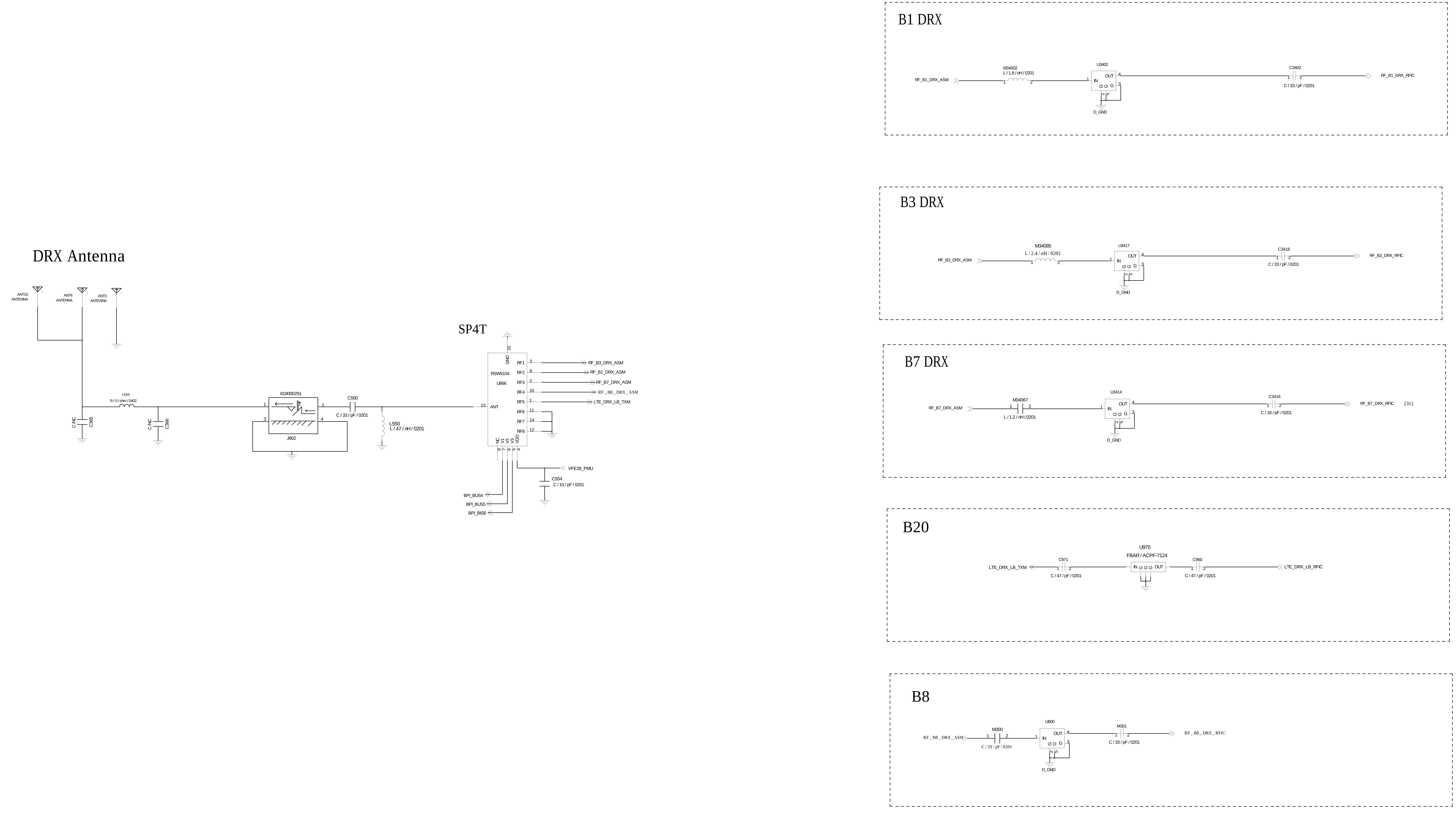

Title
34_RF_MT6177M_RF_DRX
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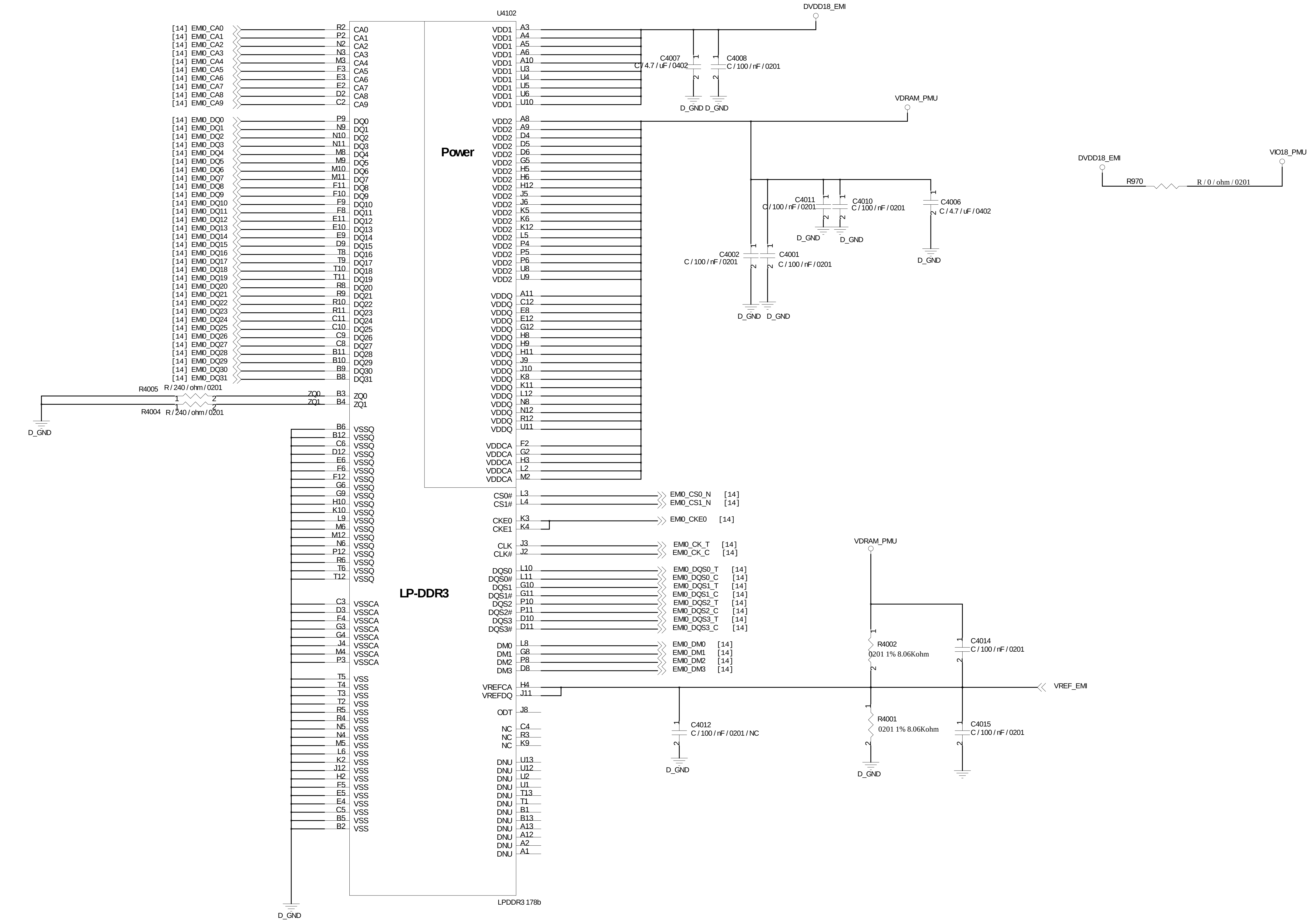
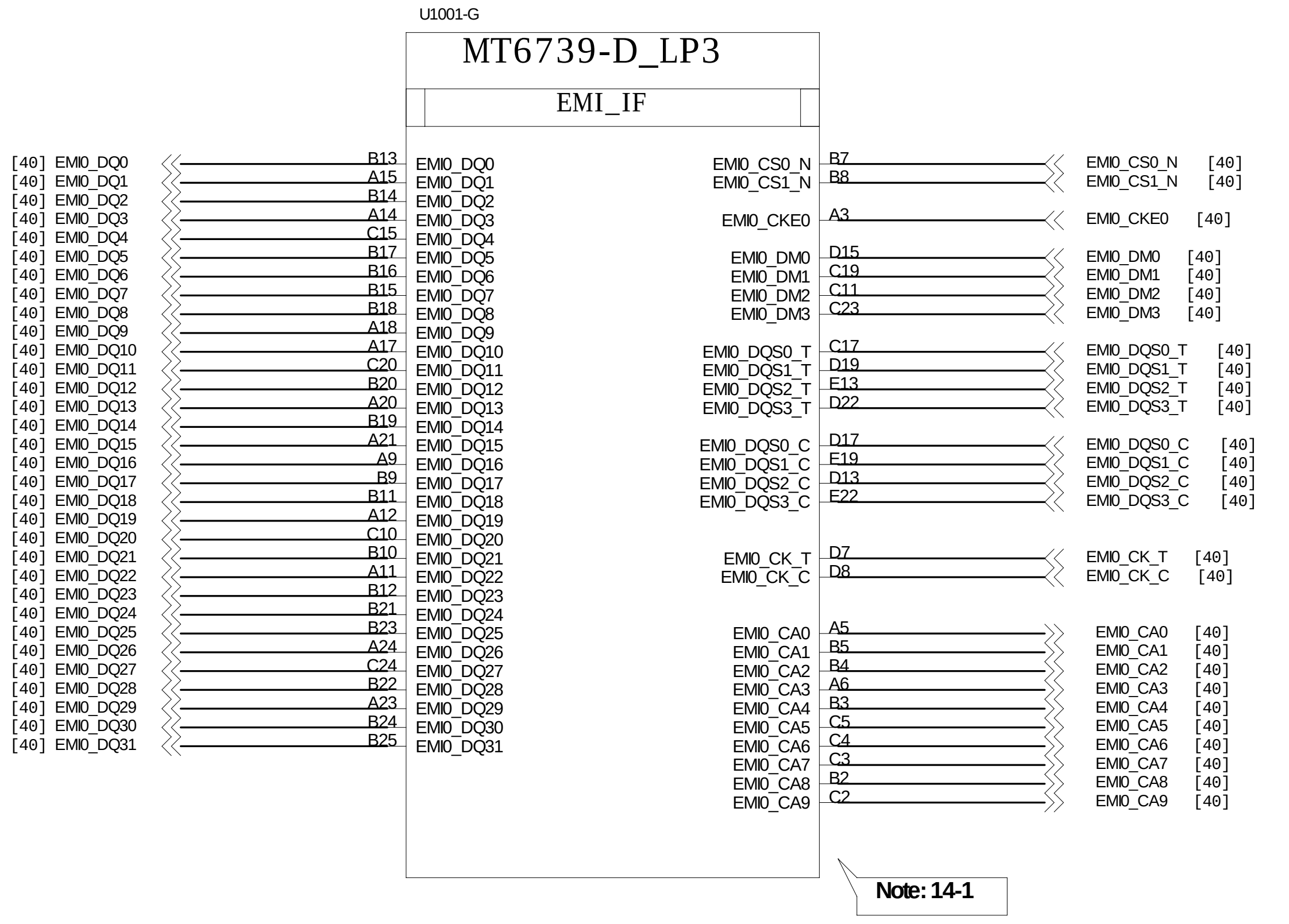
discrete LP3





Schematic design notice of "14_BB_3" page.

Note 14-1:	MT6739 LPDDR3-eMCP/Discrete LPDDR3/LPDDR2-eMCP ball map is different. Base on the memory you select connect BB-Memory with correct ball map

Title
40_Memory_discrete_LP3
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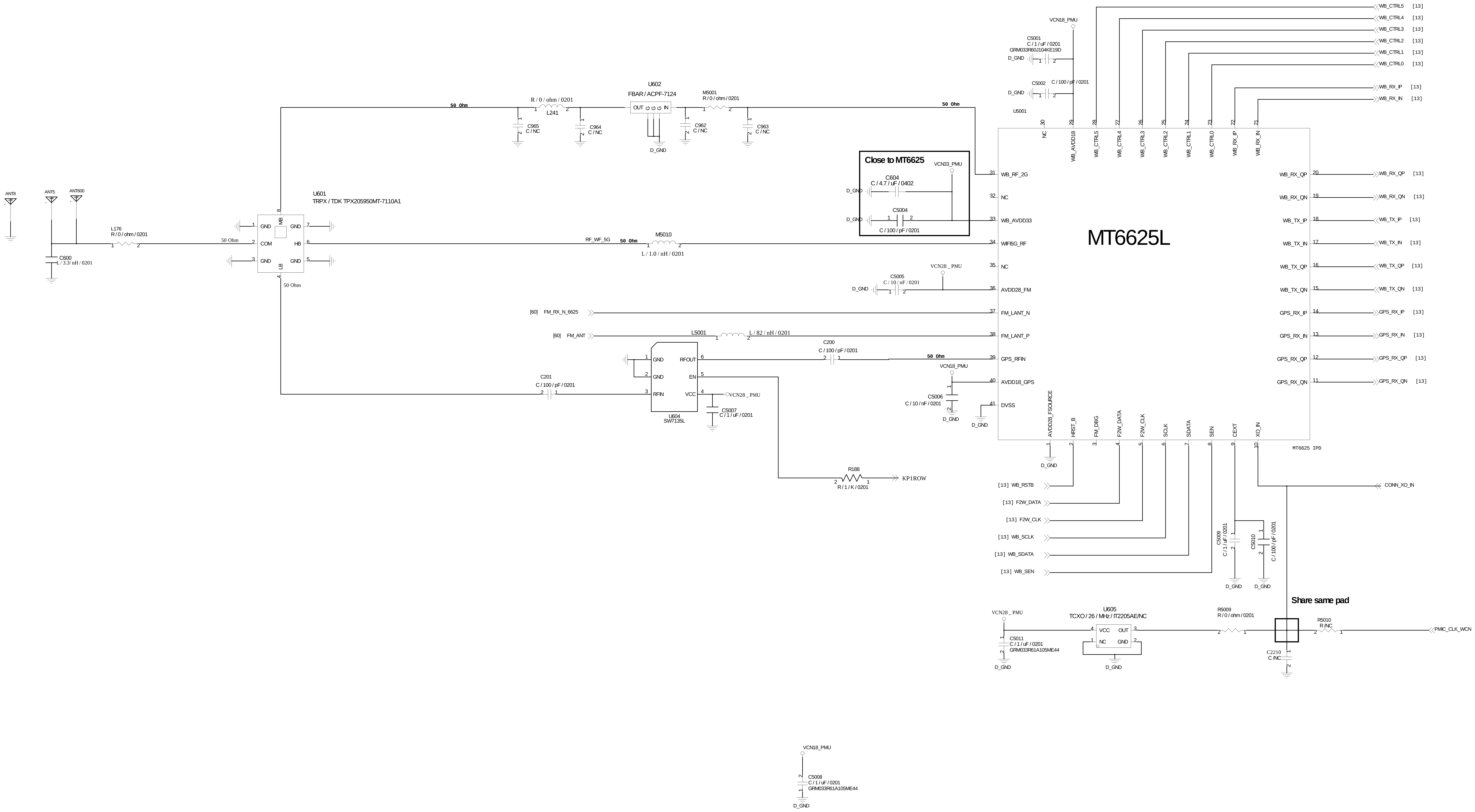
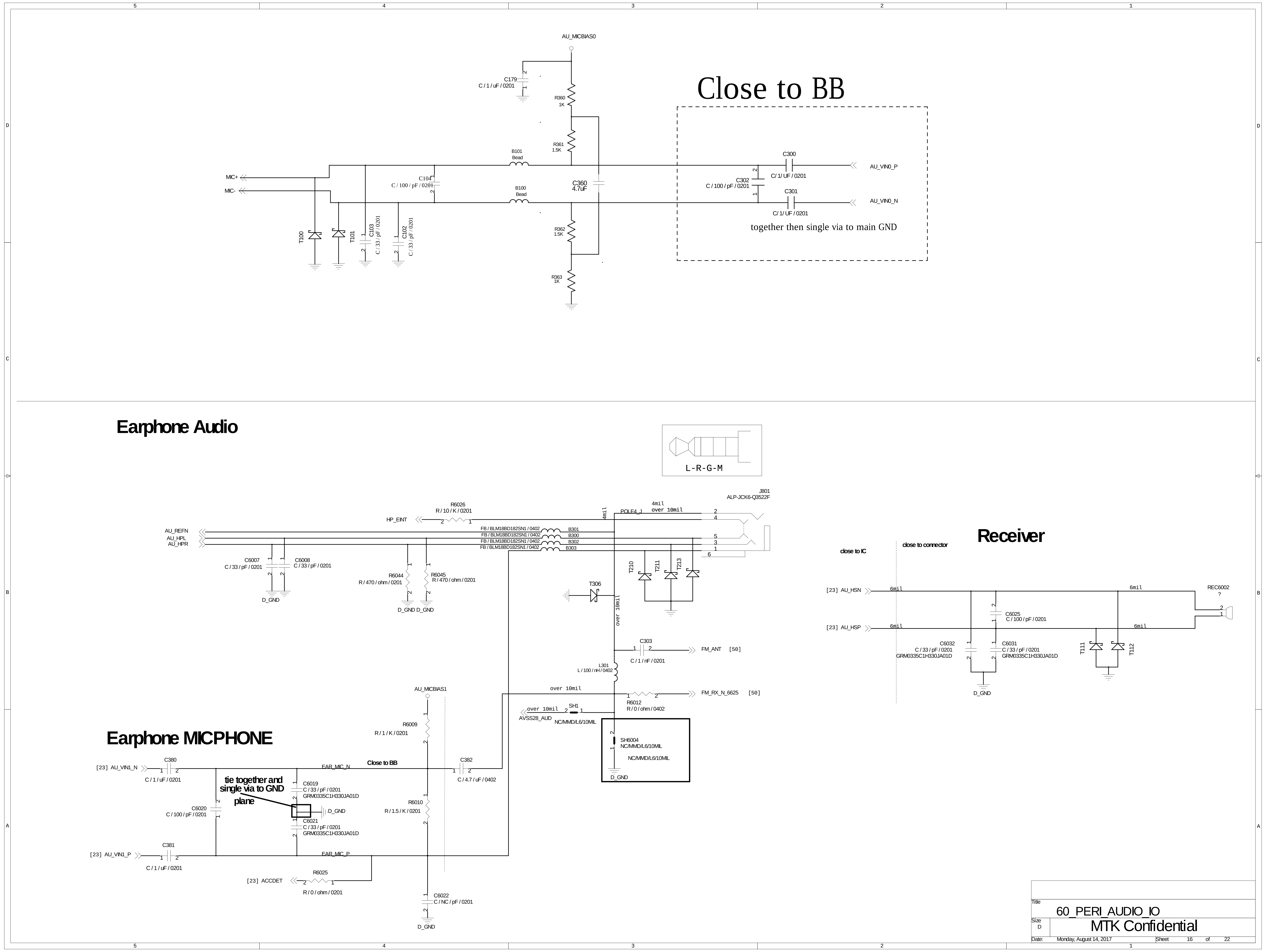

U602
FBAR / ACPF-7124
OUT
IN
D_GND
R / 0 / ohm / 0201
L241
C965
C / NC
C964
C / NC
M5001
R / 0 / ohm / 0201
C962
C / NC
C963
C / NC
50 Ohm
50 Ohm
VCN18_PMU
C5001
C / 1 / uF / 0201
GRM033R60J104KE19D
D_GND
C5002
C / 100 / pF / 0201
D_GND
U5001
WB_CTRL5 [13]
WB_CTRL4 [13]
WB_CTRL3 [13]
WB_CTRL2 [13]
WB_CTRL1 [13]
WB_CTRL0 [13]
WB_RX_IP [13]
WB_RX_IN [13]
ANT8
ANT5
ANT600
L176
R / 0 / ohm / 0201
C600
L / 3.3/ nH / 0201
50 Ohm
U601
TRPX / TDK TPX205950MT-7110A1
GND
MB
GND
COM
HB
GND
LB
GND
50 Ohm
RF_WF_5G
50 Ohm
M5010
L / 1.0 / nH / 0201
Close to MT6625
VCN33_PMU
C604
C / 4.7 / uF / 0402
D_GND
C5004
C / 100 / pF / 0201
D_GND
MT6625L
NC
WB_AVDD18
WB_CTRL5
WB_CTRL4
WB_CTRL3
WB_CTRL2
WB_CTRL1
WB_CTRL0
WB_RX_IP
WB_RX_IN
31 WB_RF_2G
32 NC
33 WB_AVDD33
34 WIFI5G_RF
35 NC
36 AVDD28_FM
37 FM_LANT_N
38 FM_LANT_P
39 GPS_RFIN
40 AVDD18_GPS
41 DVSS
WB_RX_QP 20
WB_RX_QN 19
WB_TX_IP 18
WB_TX_IN 17
WB_TX_QP 16
WB_TX_QN 15
GPS_RX_IP 14
GPS_RX_IN 13
GPS_RX_QP 12
GPS_RX_QN 11
WB_RX_QP [13]
WB_RX_QN [13]
WB_TX_IP [13]
WB_TX_IN [13]
WB_TX_QP [13]
WB_TX_QN [13]
GPS_RX_IP [13]
GPS_RX_IN [13]
GPS_RX_QP [13]
GPS_RX_QN [13]
VCN28 _ PMU
C5005
C / 10 / nF / 0201
D_GND
[60] FM_RX_N_6625
[60] FM_ANT
L5001
L / 82 / nH / 0201
C200
C / 100 / pF / 0201
50 Ohm
VCN18_PMU
C5006
C / 10 / nF / 0201
D_GND
D_GND
GND
GND
RFIN
RFOUT
EN
VCC
VCN28 _ PMU
U604
SW7135L
C5007
C / 1 / uF / 0201
C201
C / 100 / pF / 0201
AVDD28_FSOURCE
HRST_B
FM_DBG
F2W_DATA
F2W_CLK
SCLK
SDATA
SEN
CEXT
XO_IN
MT6625 IPD
D_GND
R188
R / 1 / K / 0201
KP1ROW
[13] WB_RSTB
[13] F2W_DATA
[13] F2W_CLK
[13] WB_SCLK
[13] WB_SDATA
[13] WB_SEN
CONN_XO_IN
C5009
C / 1 / uF / 0201
C5010
C / 100 / pF / 0201
D_GND
D_GND
Share same pad
VCN28 _ PMU
C5011
C / 1 / uF / 0201
GRM033R61A105ME44
D_GND
U605
TCXO / 26 / MHz / IT2205AE/NC
VCC
OUT
NC
GND
D_GND
R5009
R / 0 / ohm / 0201
R5010
R /NC
C2210
C /NC
PMIC_CLK_WCN
VCN18_PMU
C5008
C / 1 / uF / 0201
GRM033R61A105ME44
D_GND



Title
60_PERI_AUDIO_IO

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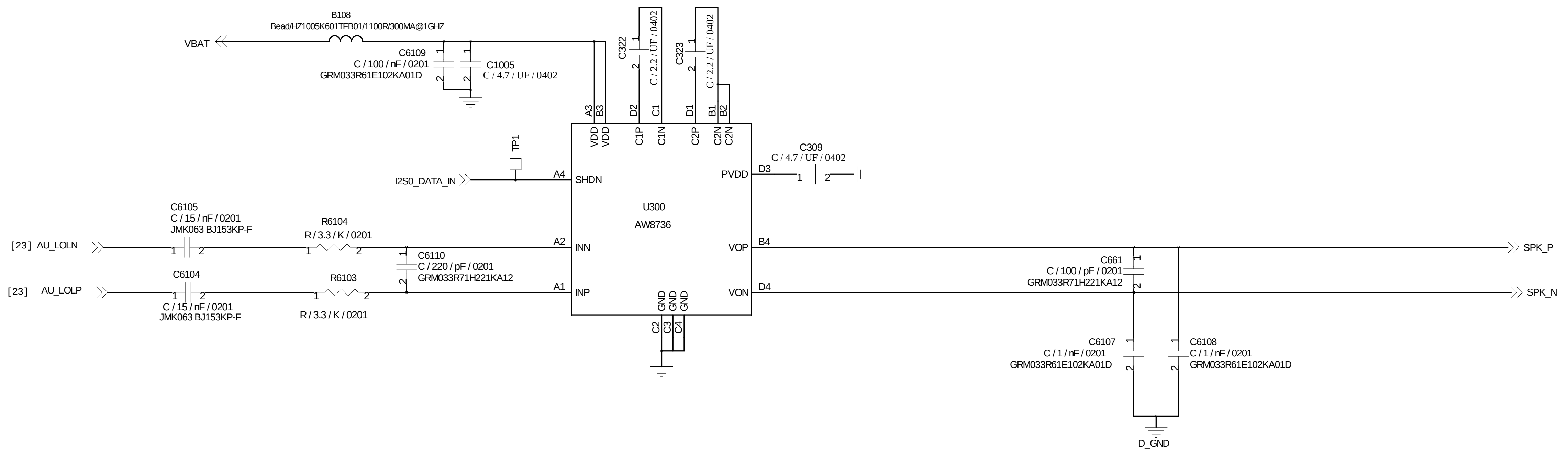
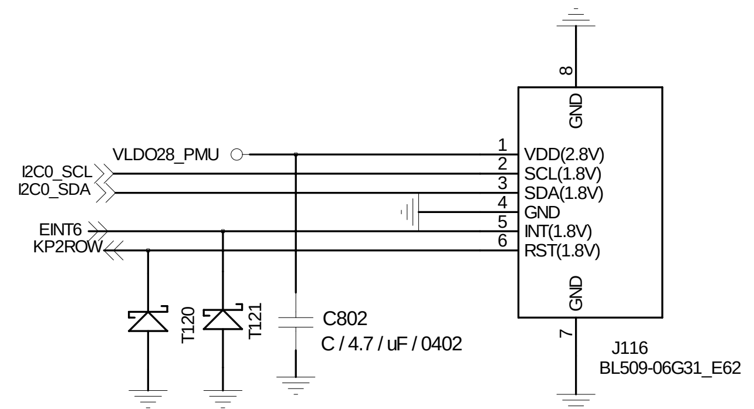
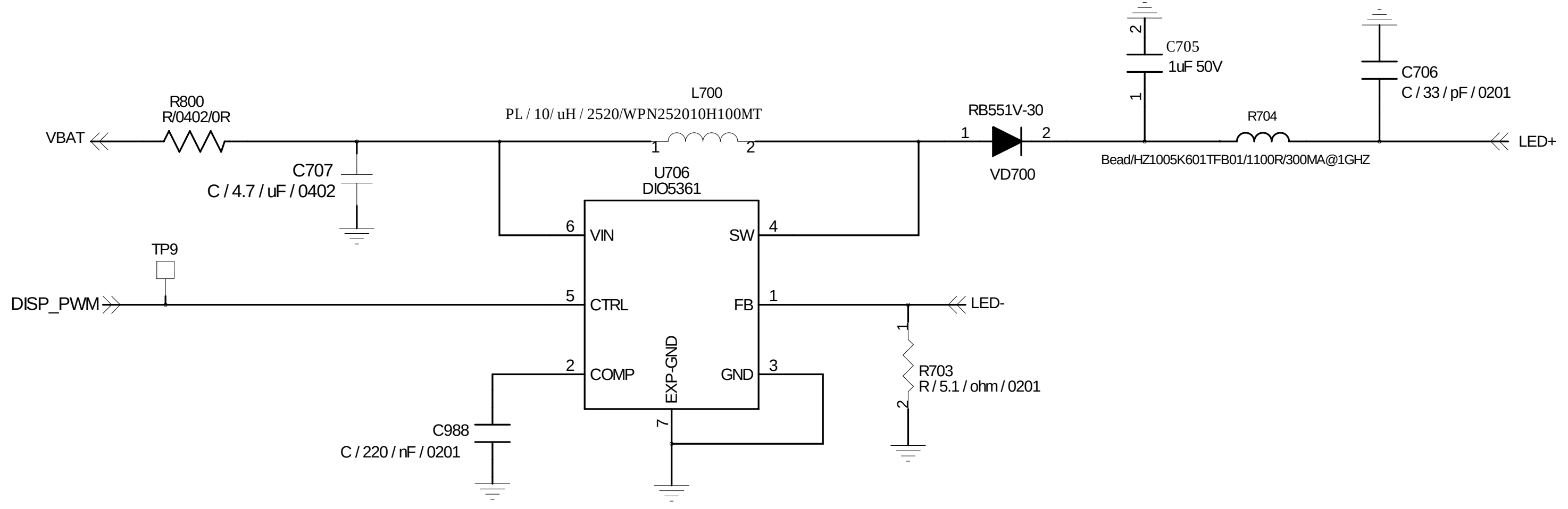
Speaker Amplifier



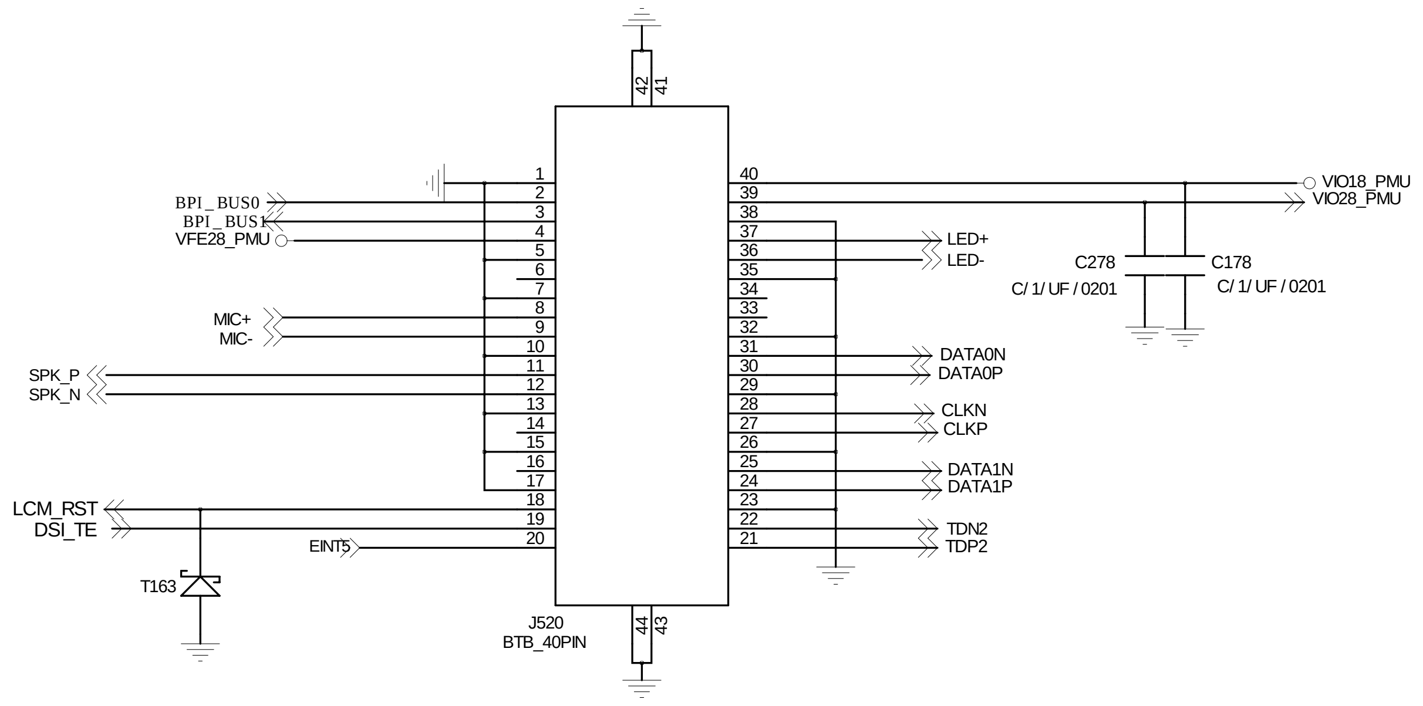
CTP

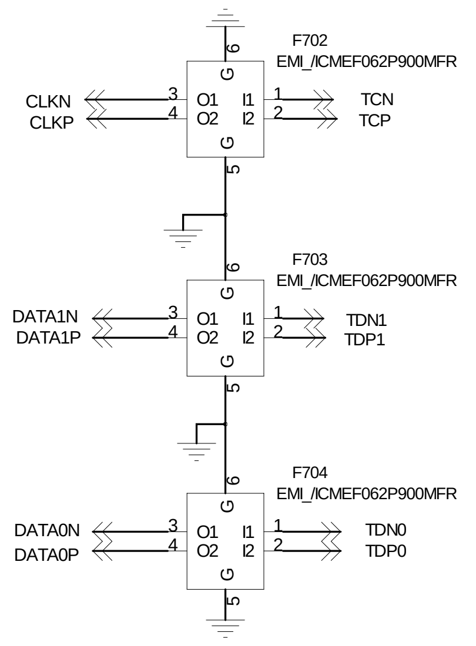


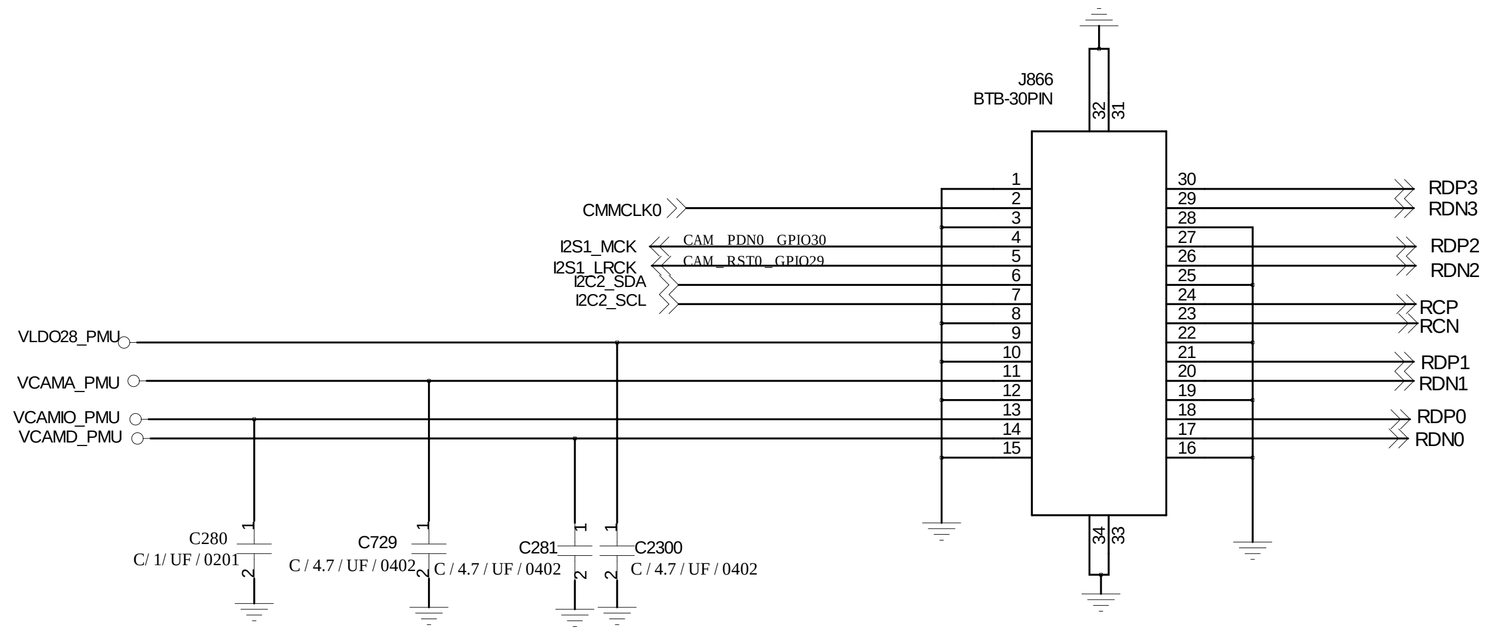
LCM Backlight LED Driver

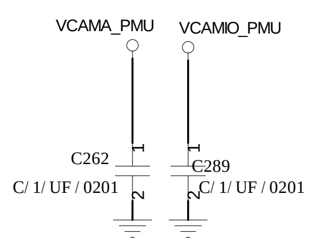


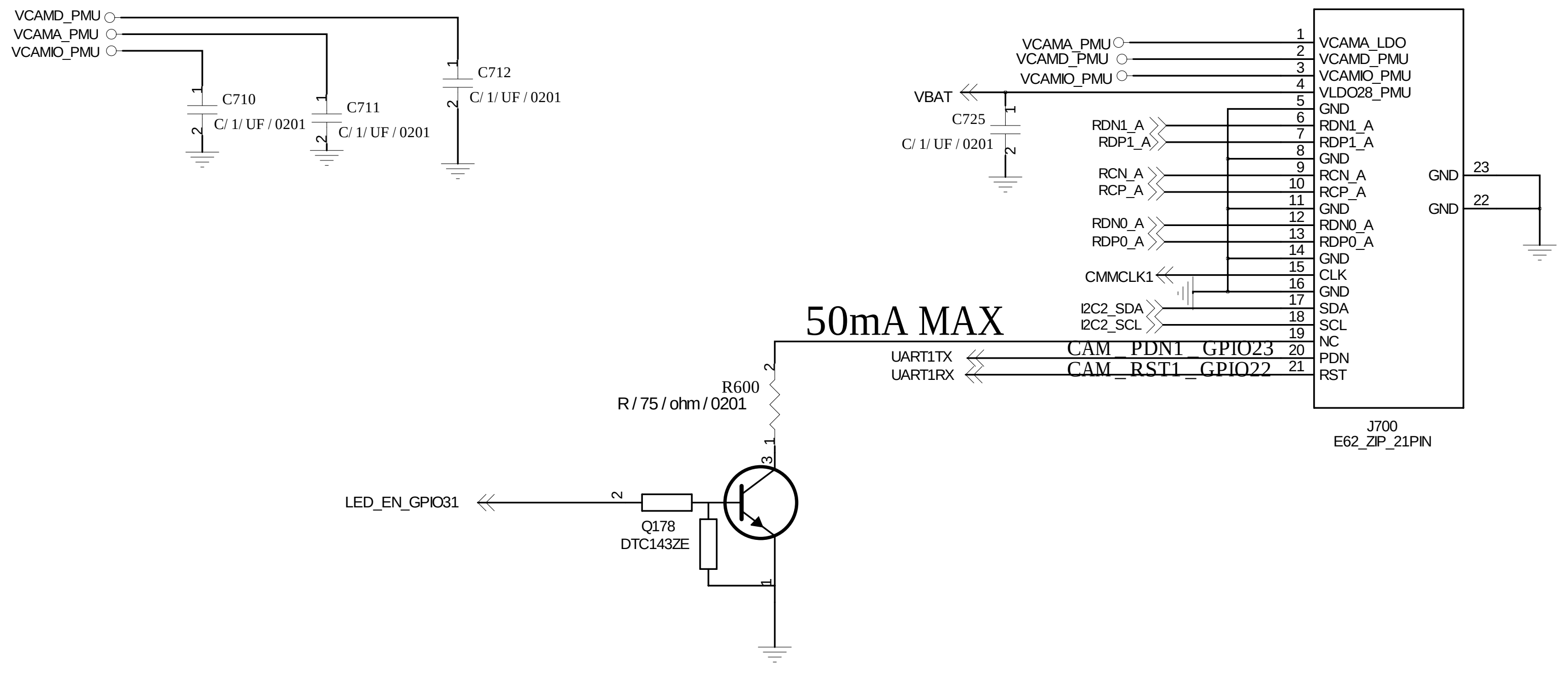
LCM Connector



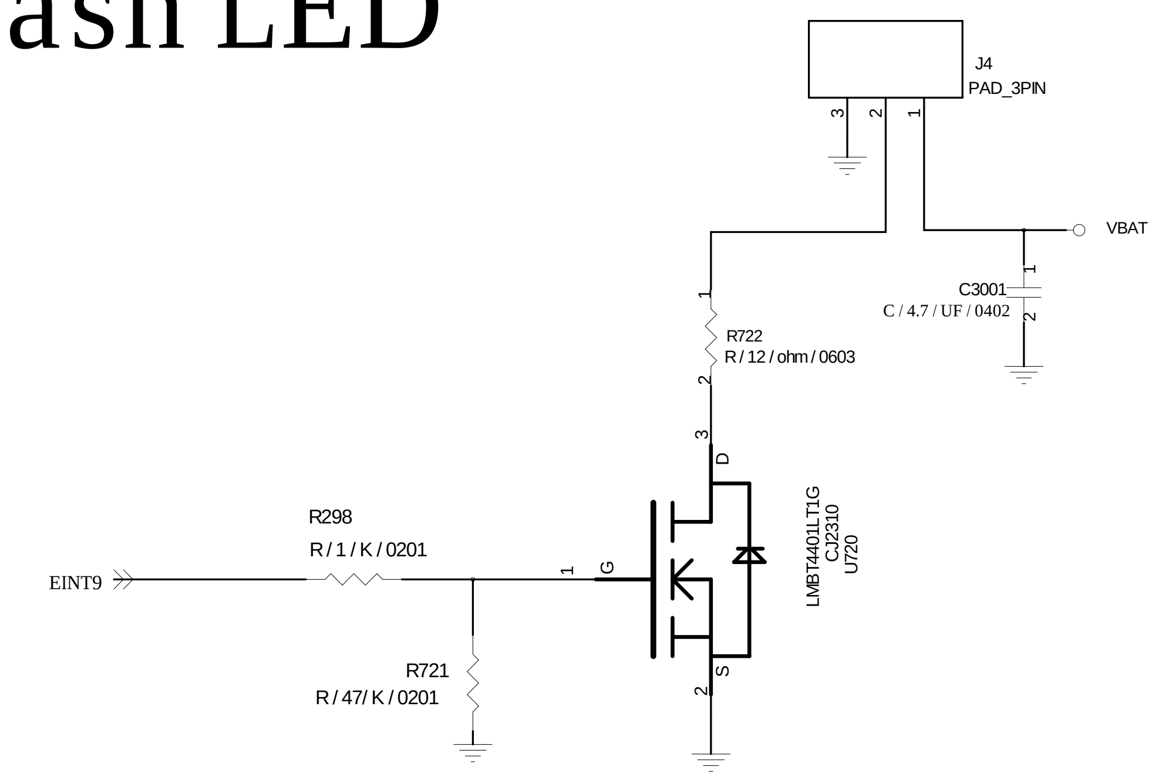




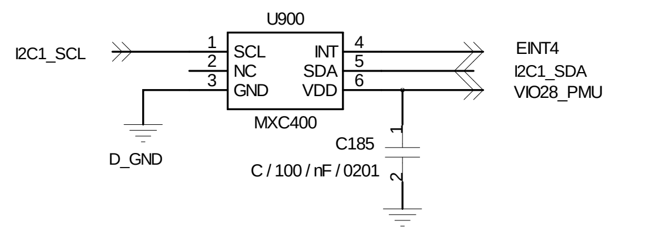




Flash LED

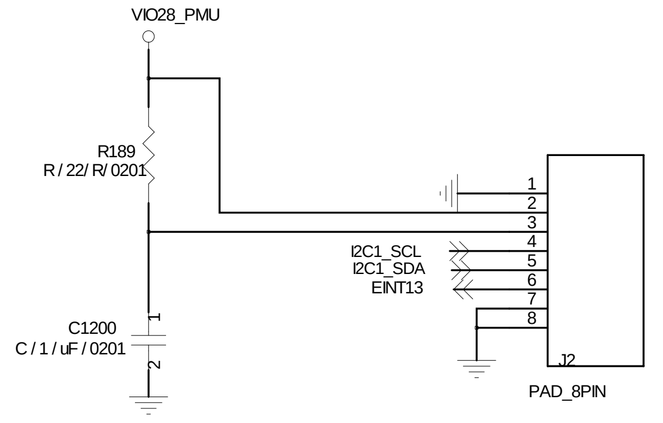


G-Sensor

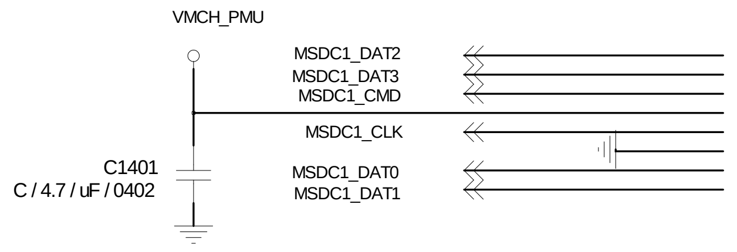


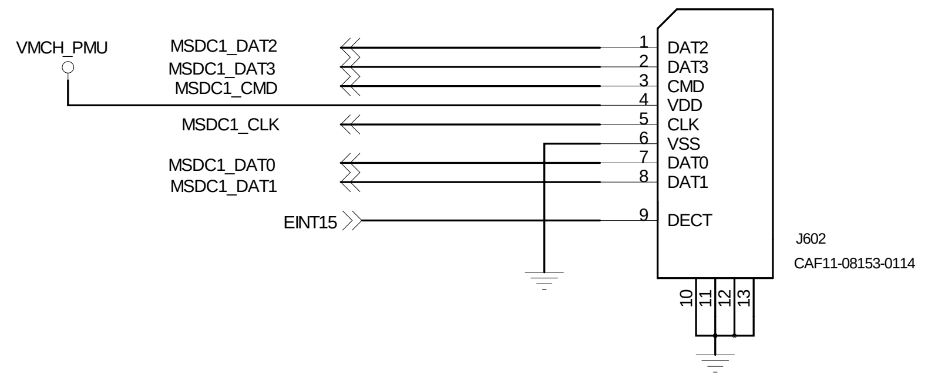
RGB & PS Sensor

CM36558 / ALPS + UV I2C address: 0X51 (Write:0xA2, Read:0xA3)

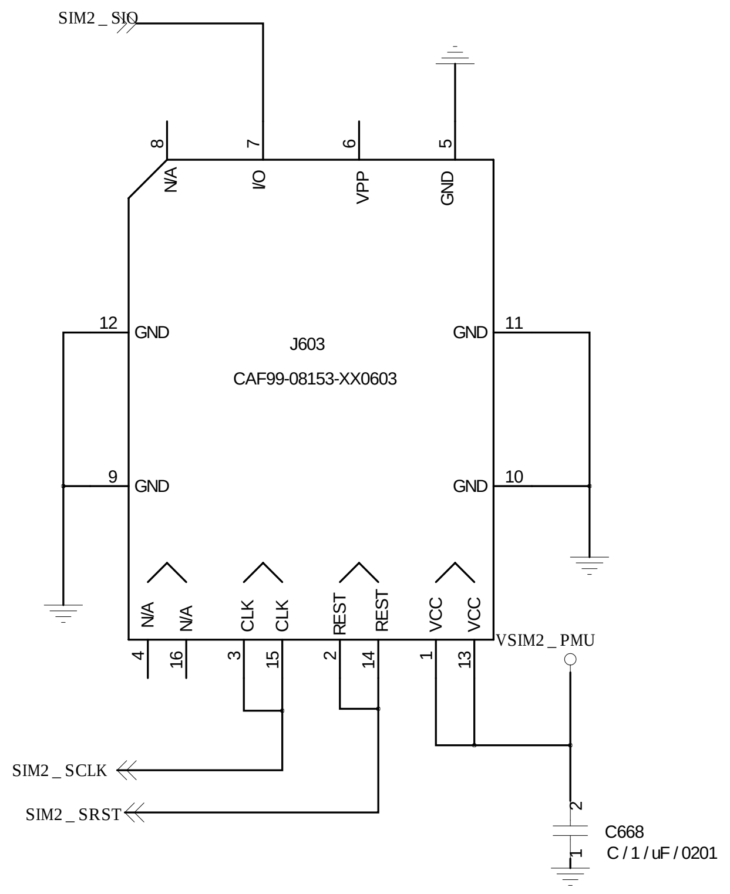


T-CARD

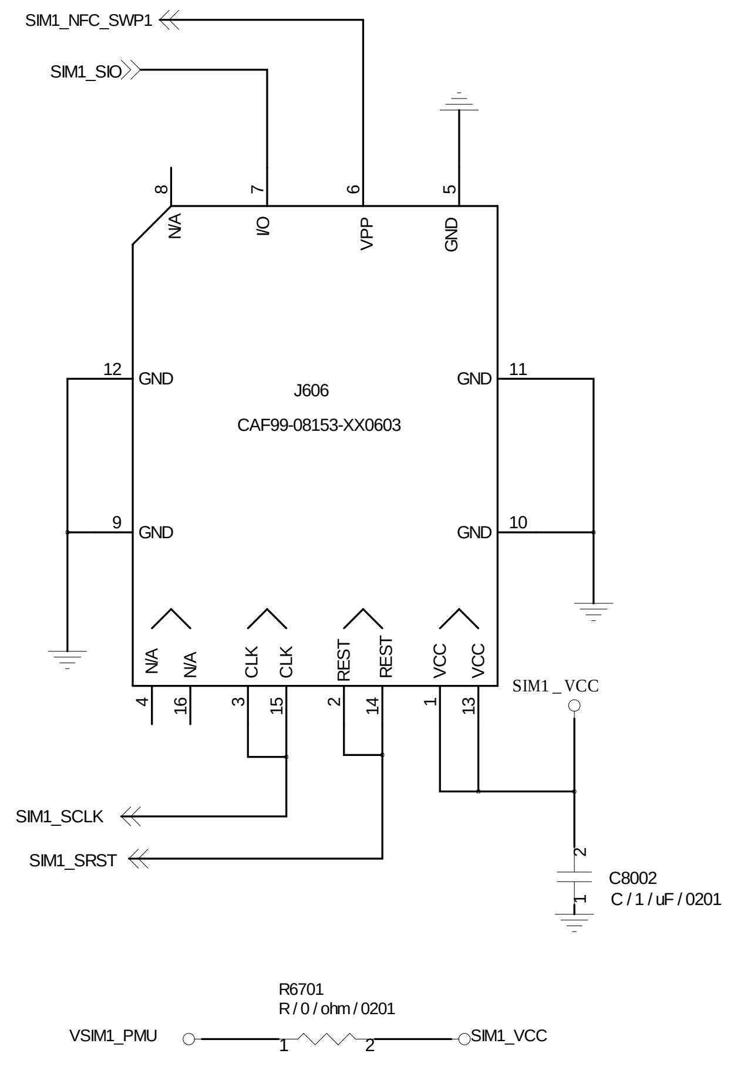


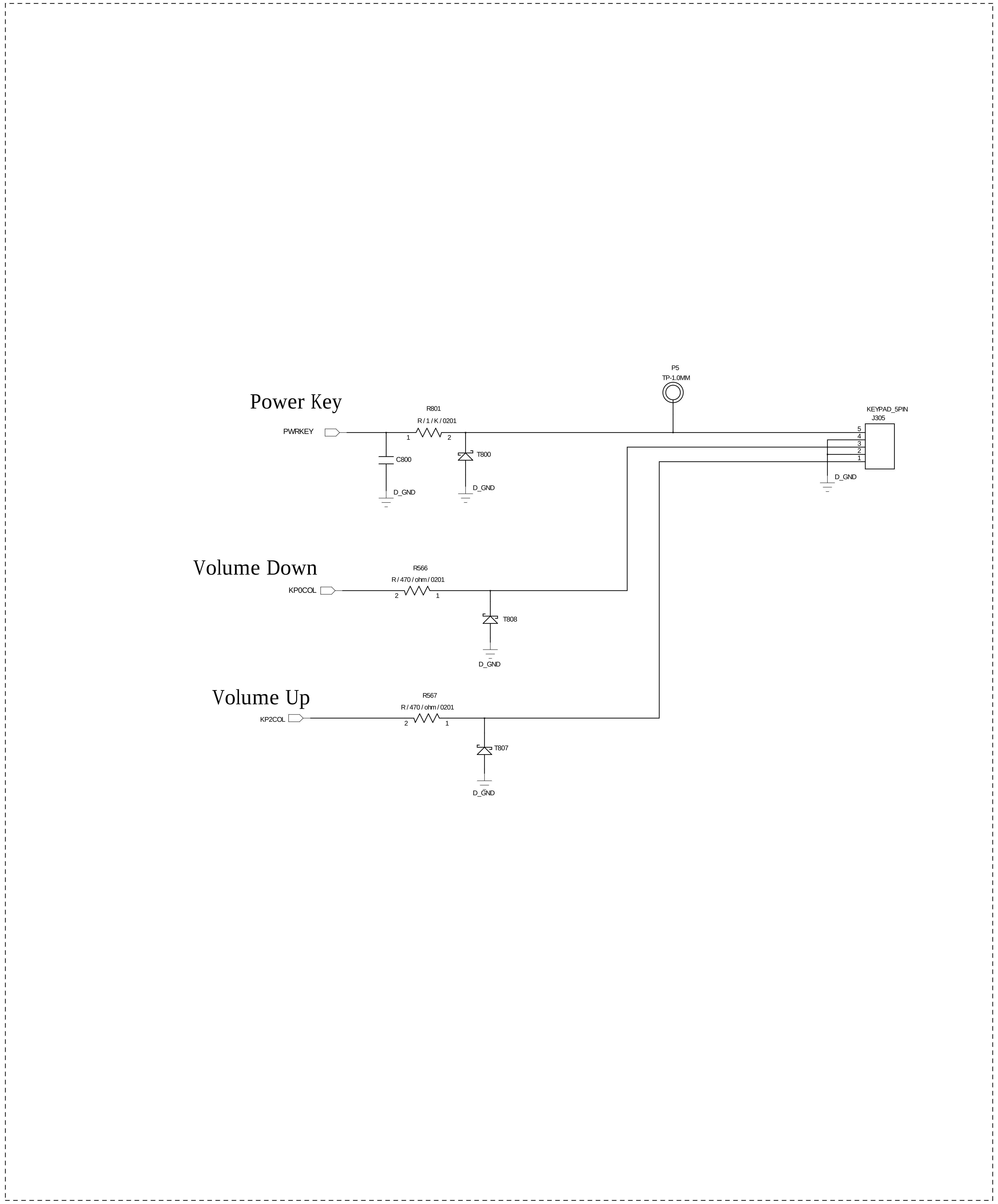


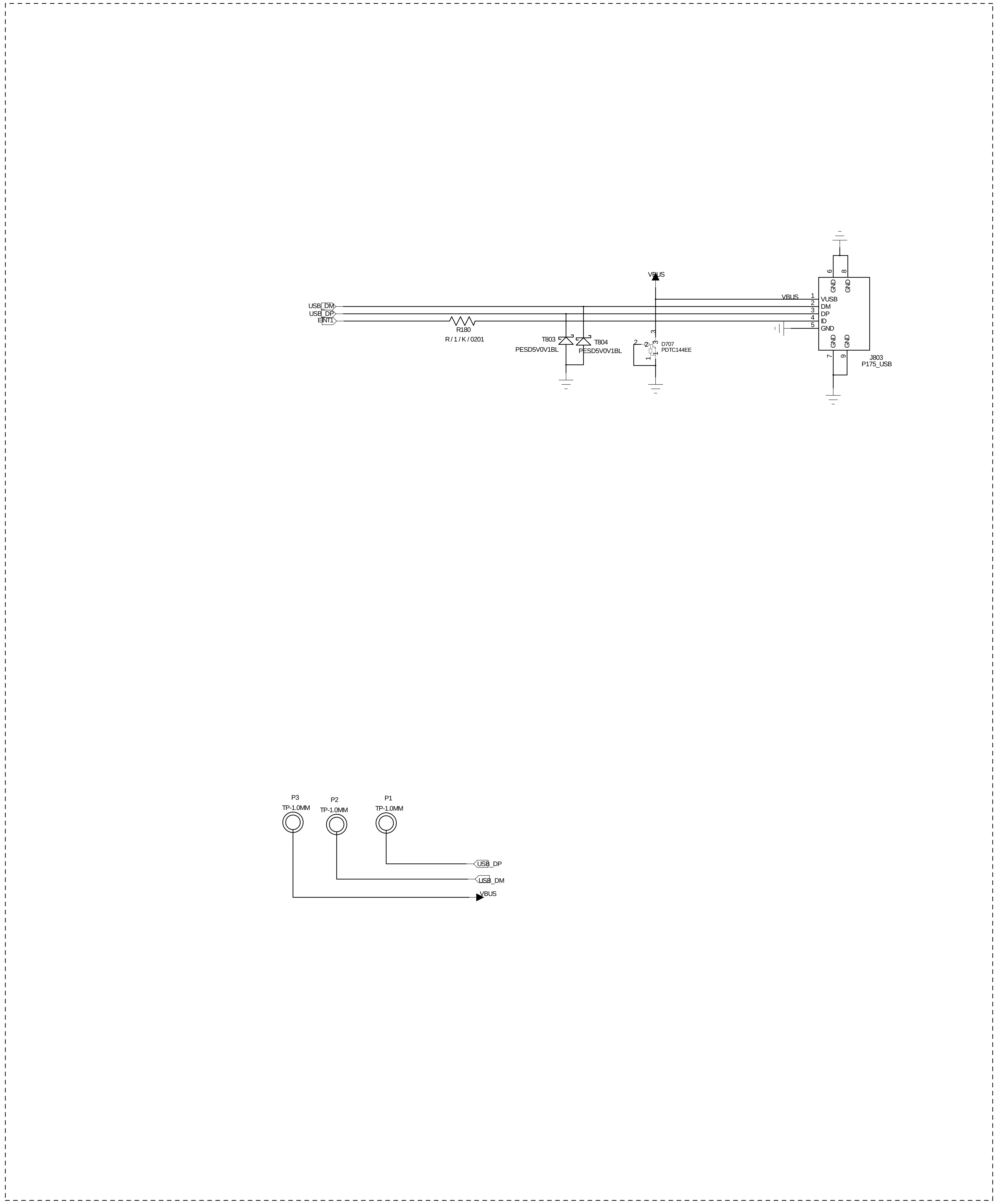
SIM2



SIM1

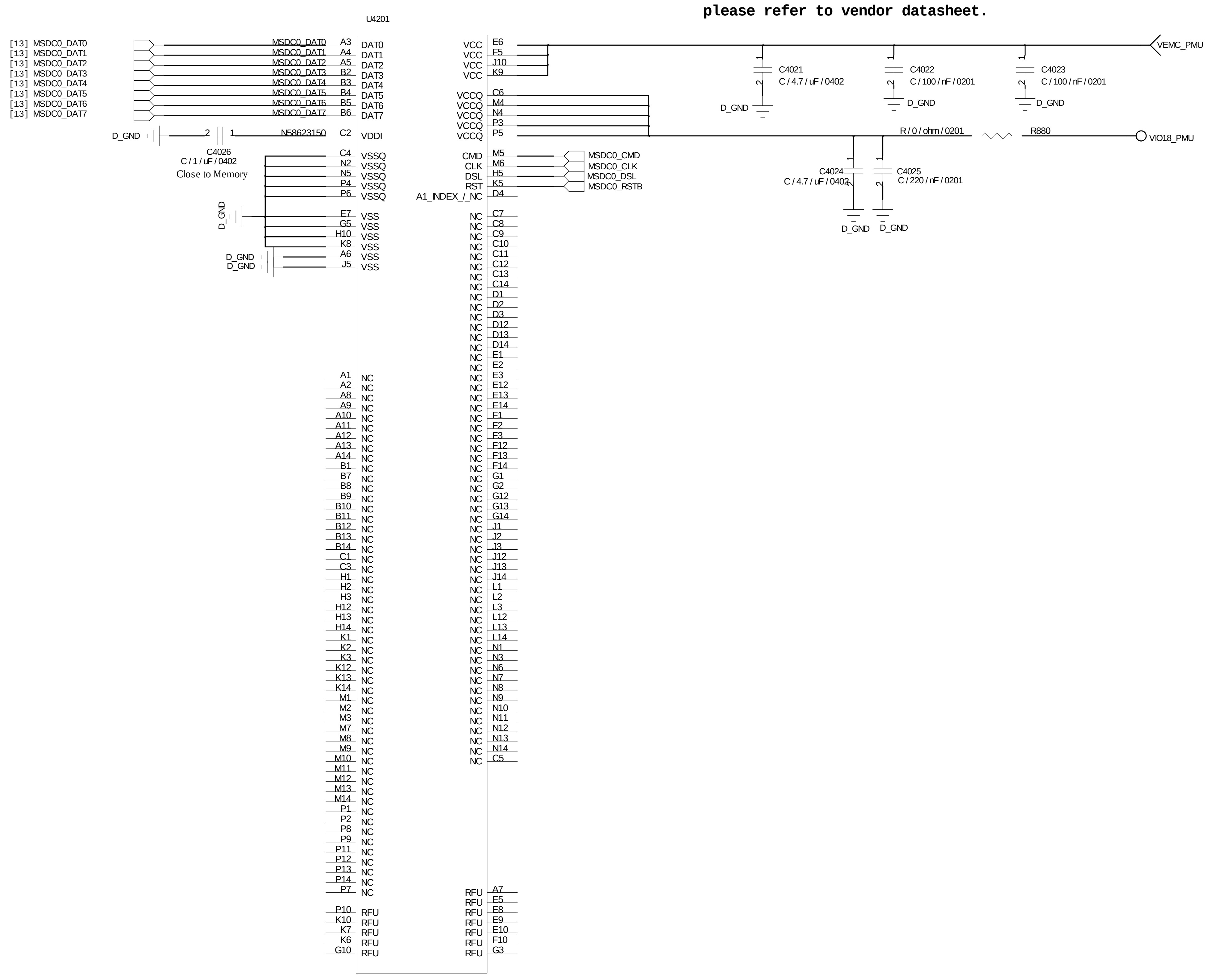



Power Key
PWRKEY
R801
R / 1 / K / 0201
1
2
C800
D_GND
T800
D_GND
P5
TP-1.0MM
KEYPAD_5PIN
J305
5
4
3
2
1
D_GND
Volume Down
KP0COL
R566
R / 470 / ohm / 0201
2
1
T808
D_GND
Volume Up
KP2COL
R567
R / 470 / ohm / 0201
2
1
T807
D_GND


USB_DM
USB_DP
EINT1
R180
R / 1 / K / 0201
T803
PESD5V0V1BL
T804
PESD5V0V1BL
VBUS
2
3
1
D707
PDTC144EE
VBUS
1 VUSB
2 DM
3 DP
4 ID
5 GND
6 GND
8 GND
7 GND
9 GND
J803
P175_USB
P3
TP-1.0MM
P2
TP-1.0MM
P1
TP-1.0MM
USB_DP
USB_DM
VBUS

153 ball eMMC

The eMMC VCC/VCCQ/VDDI bypass cap recommand value,
please refer to vendor datasheet.



Title	**42_discrete_eMMC_NAND**
Size D	MTK Confidential
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