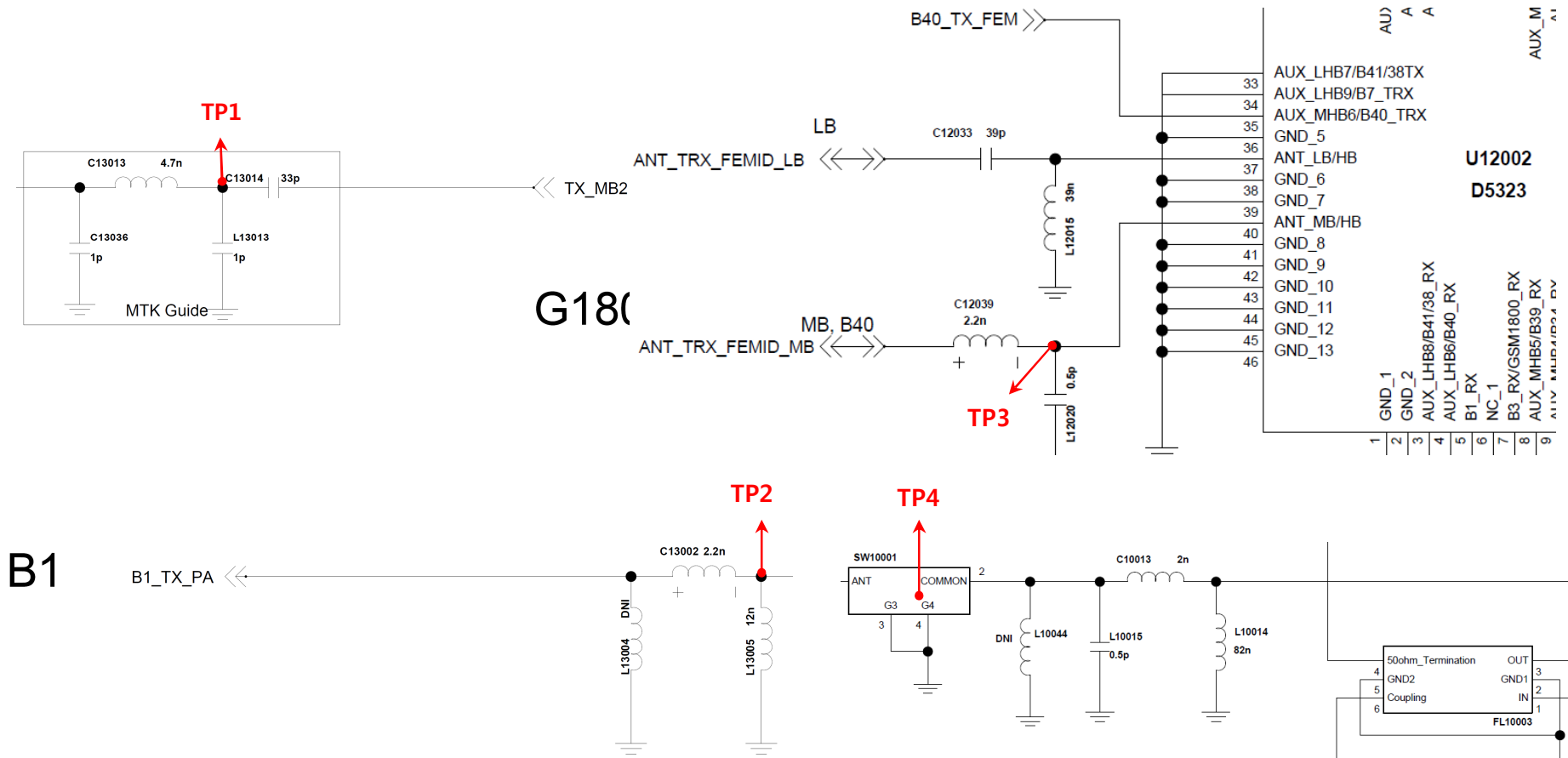


### 3.6 WCDMA RF PART

#### 3.6.5 Checking RF Signal TX path(WCDMA B1/B2)

## 3. TROUBLE SHOOTING

Circuit Diagram

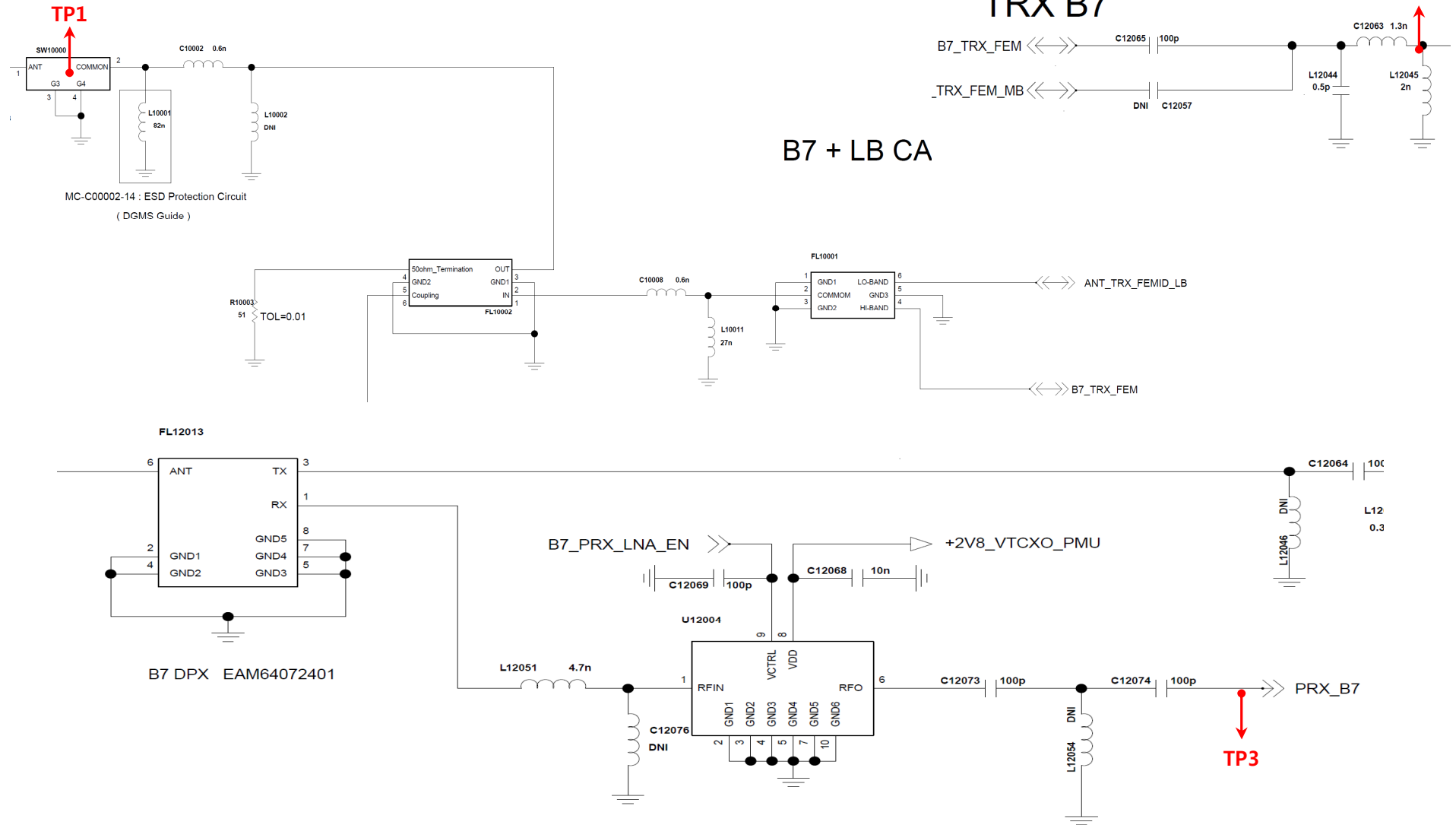


# 3. TROUBLE SHOOTING

## 3.7 LTE RF PART

### 3.7.2 Checking RF Signal RX path(LTE B7)

Circuit Diagram



LGE Internal Use Only

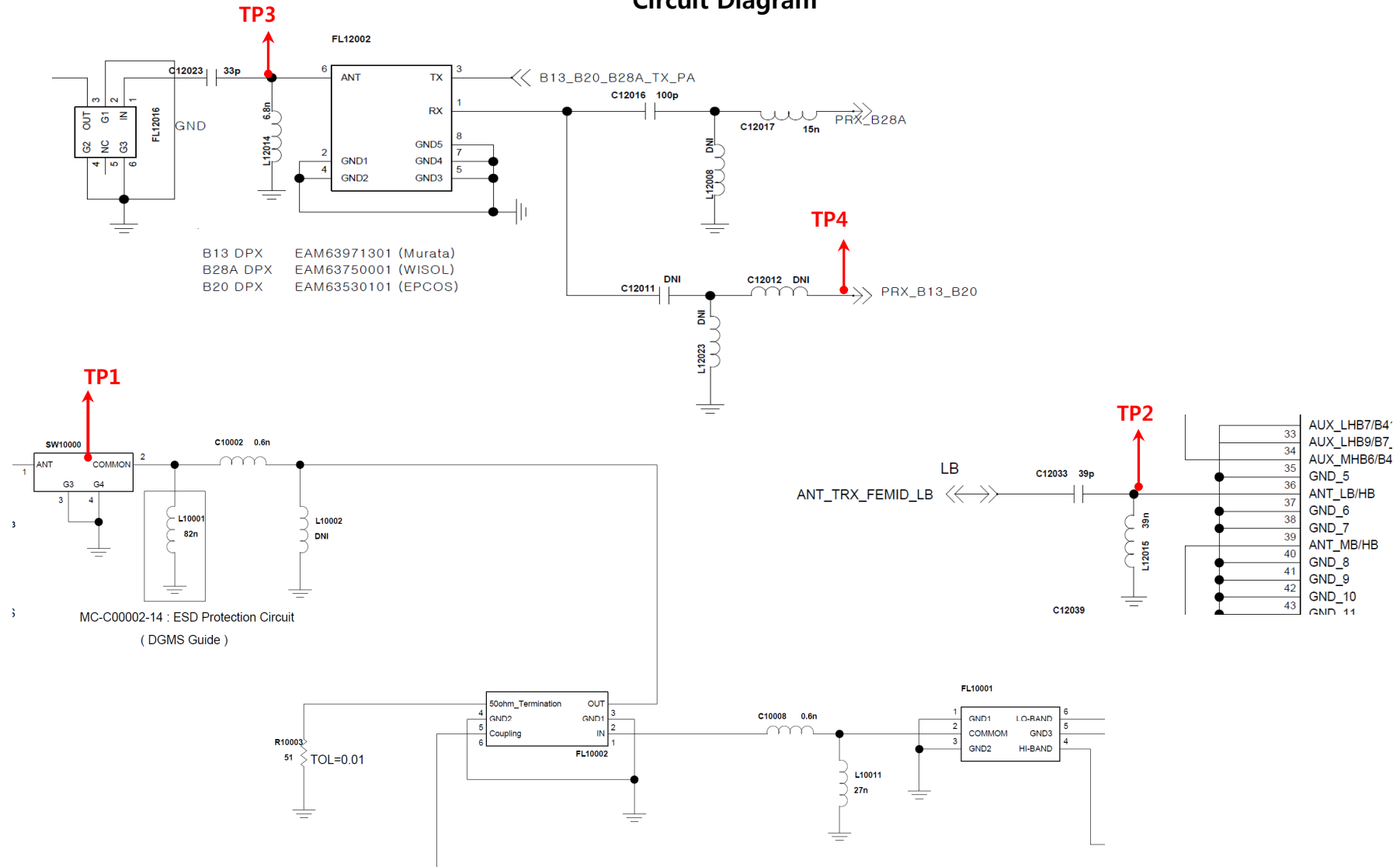
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# 3. TROUBLE SHOOTING

## 3.7 LTE RF PART

### 3.7.2 Checking RF Signal RX path(LTE B28A)

Circuit Diagram



LGE Internal Use Only

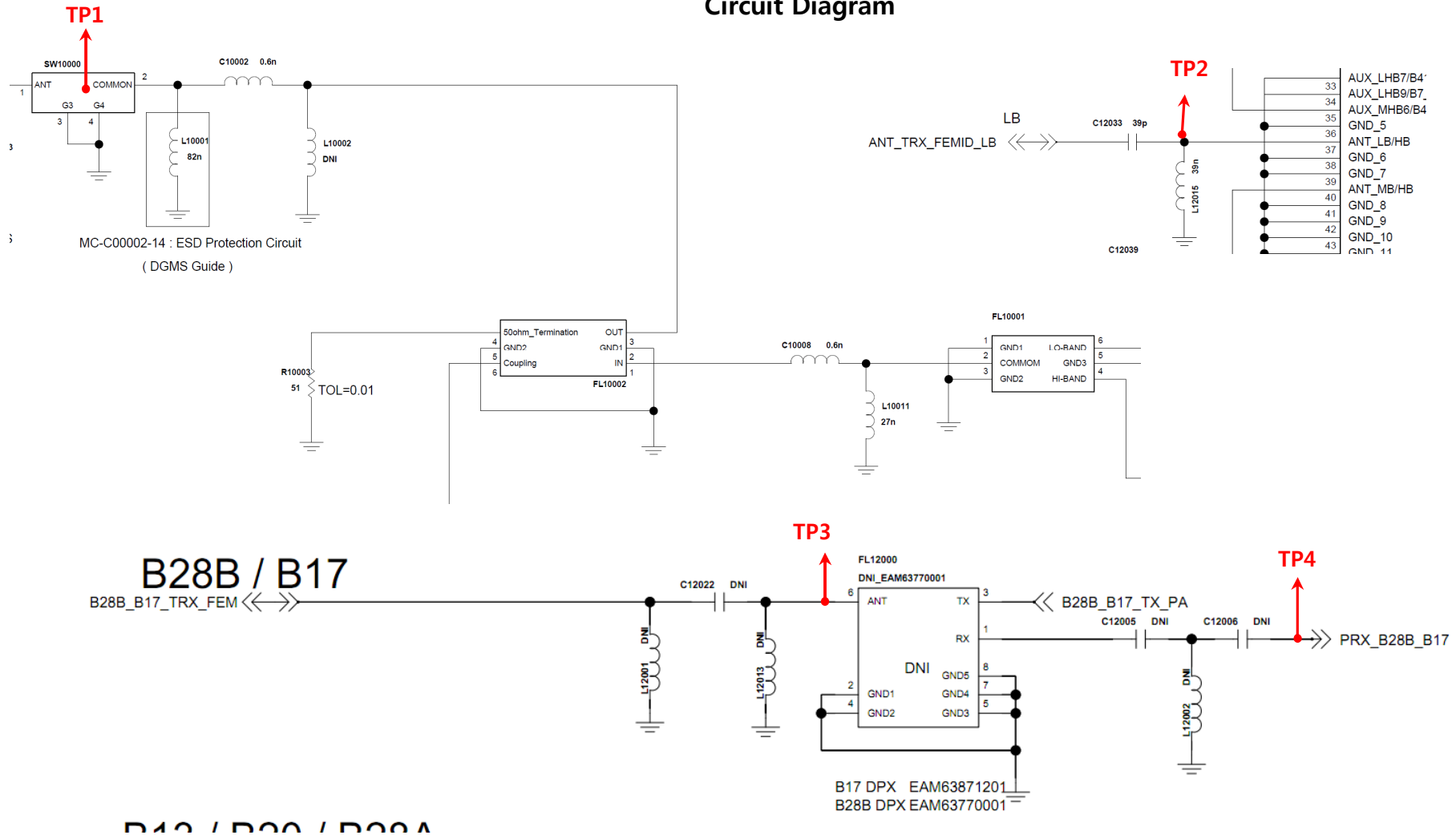
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# 3. TROUBLE SHOOTING

## 3.7 LTE RF PART

### 3.7.2 Checking RF Signal RX path(LTE B28B)

Circuit Diagram

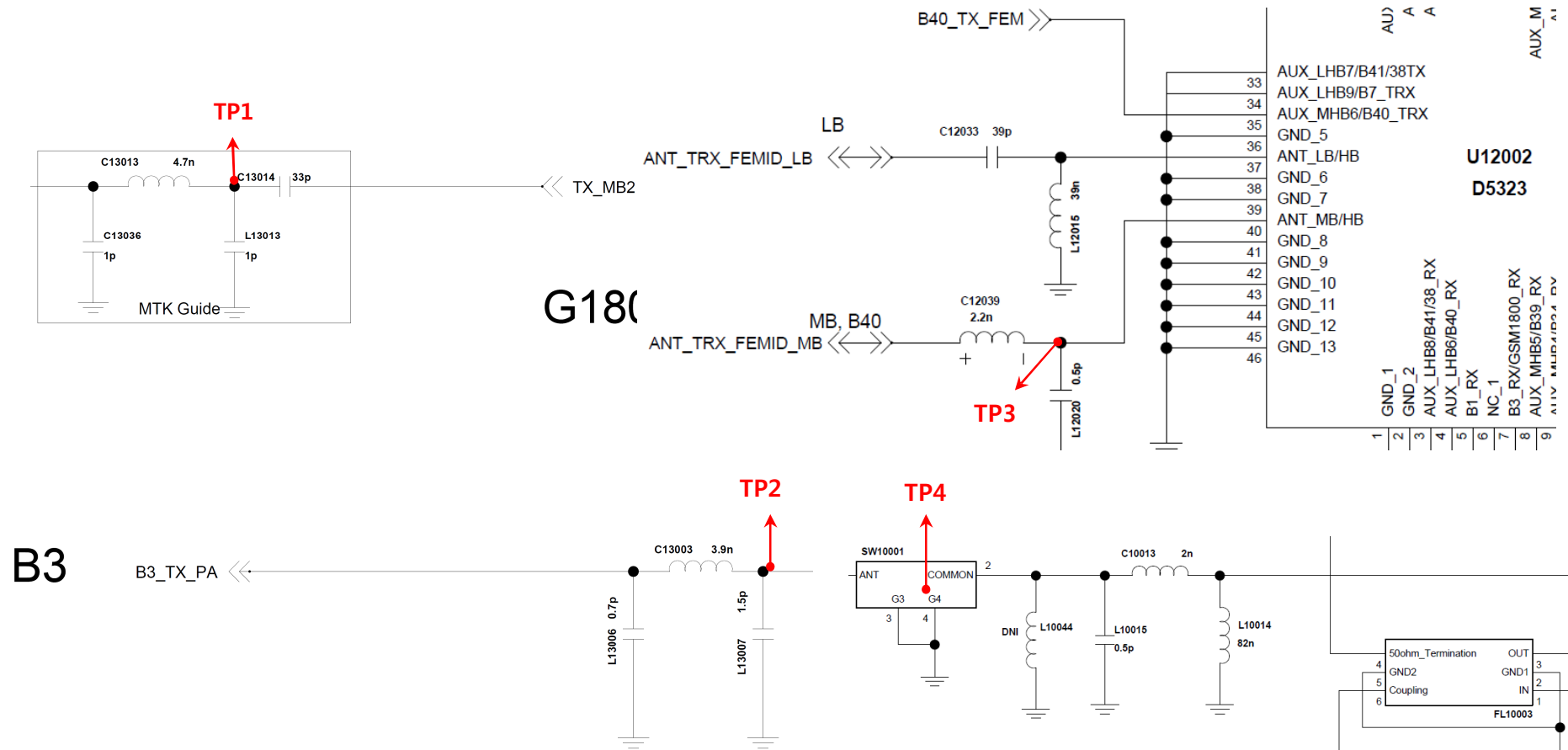


# 3. TROUBLE SHOOTING

## 3.7 LTE RF PART

### 3.7.12 Checking RF Signal TX path(LTE B3)

#### Circuit Diagram



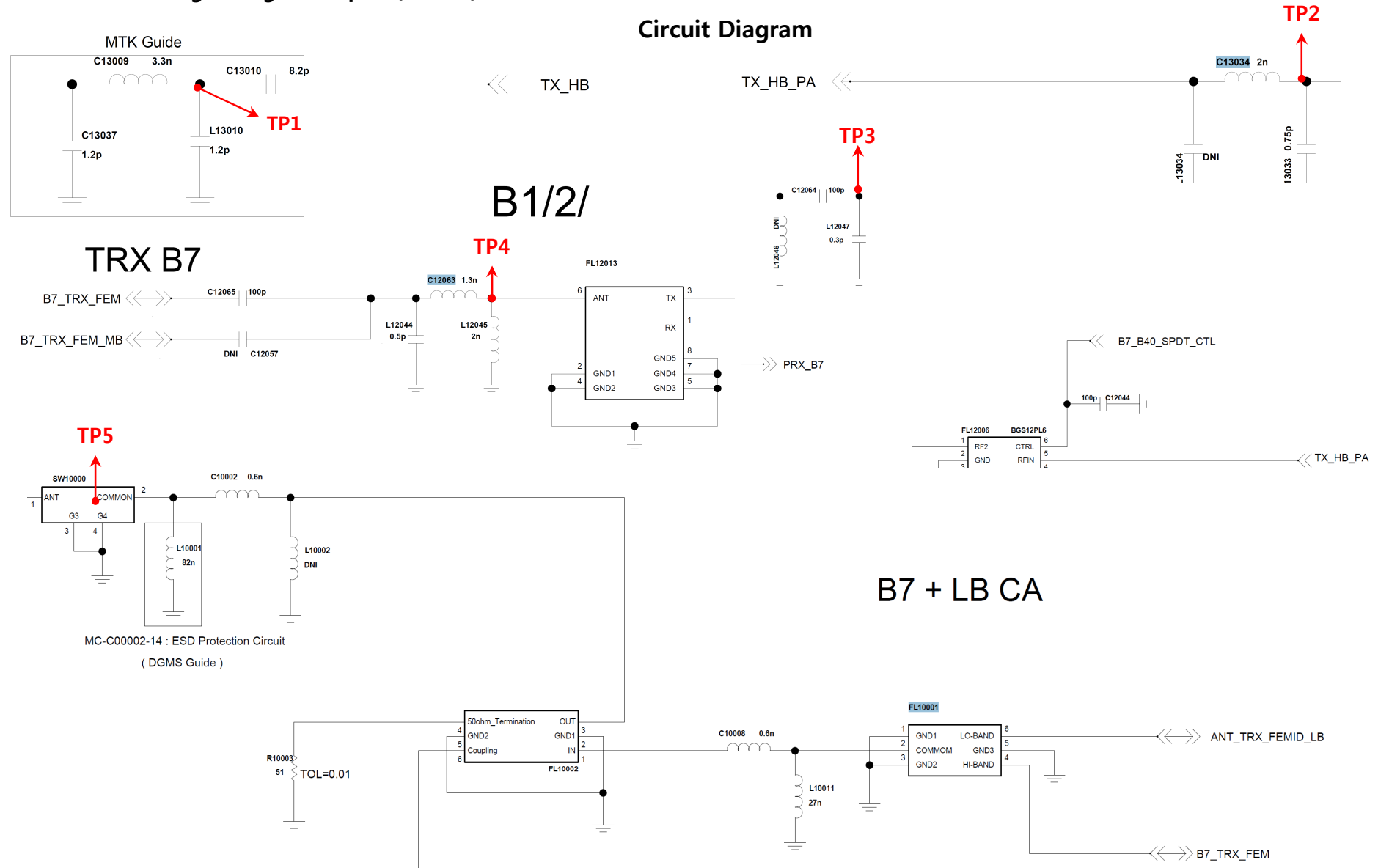
LGE Internal Use Only

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# 3. TROUBLE SHOOTING

## 3.7 LTE RF PART

### 3.7.12 Checking RF Signal TX path(LTE B7)



LGE Internal Use Only

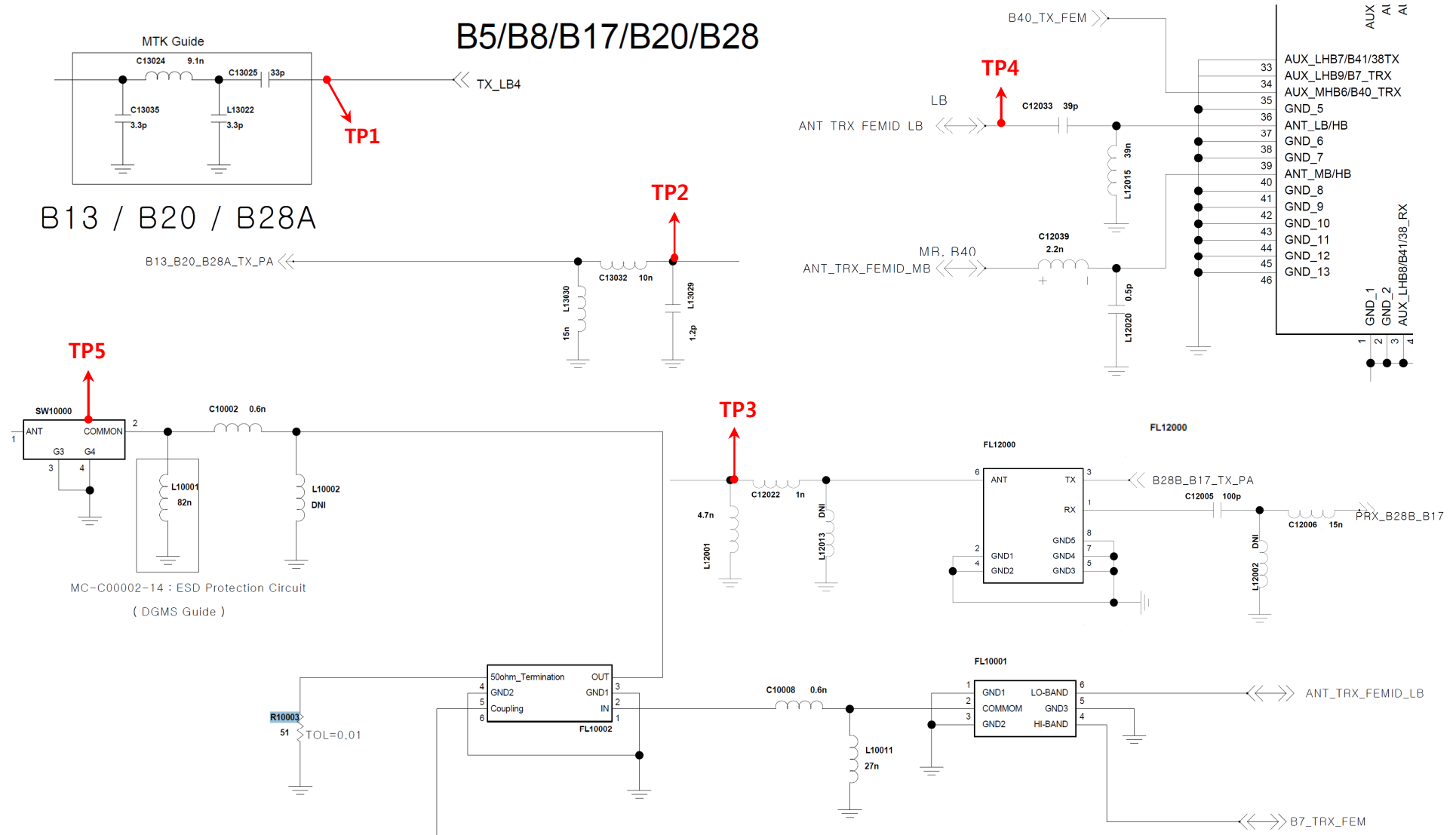
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### 3. TROUBLE SHOOTING

#### 3.7 LTE RF PART

##### 3.7.12 Checking RF Signal TX path(LTE B28A)

#### Circuit Diagram



LGE Internal Use Only

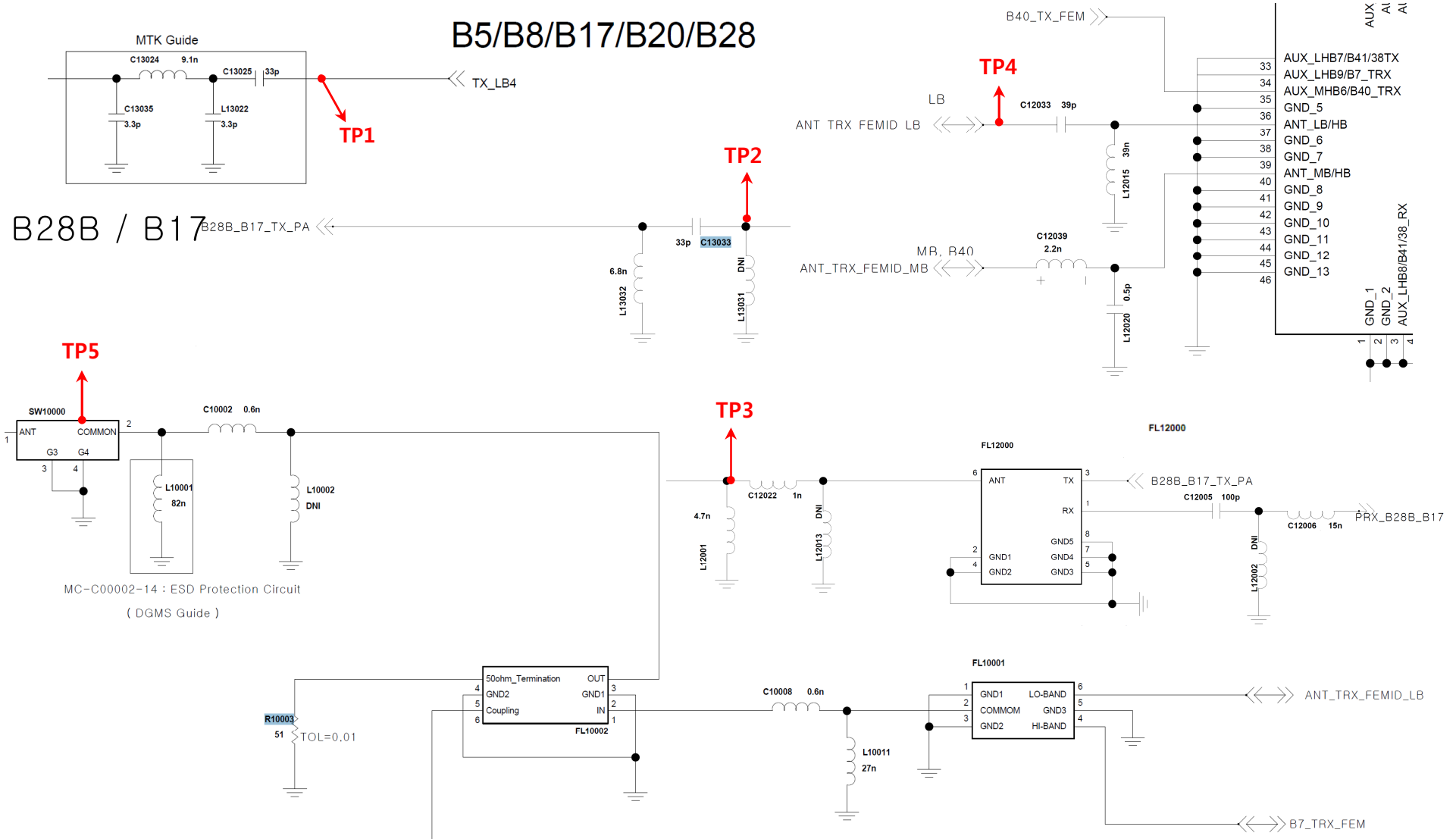
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### 3. TROUBLE SHOOTING

#### 3.7 LTE RF PART

##### 3.7.12 Checking RF Signal TX path(LTE B28B)

#### Circuit Diagram



LGE Internal Use Only

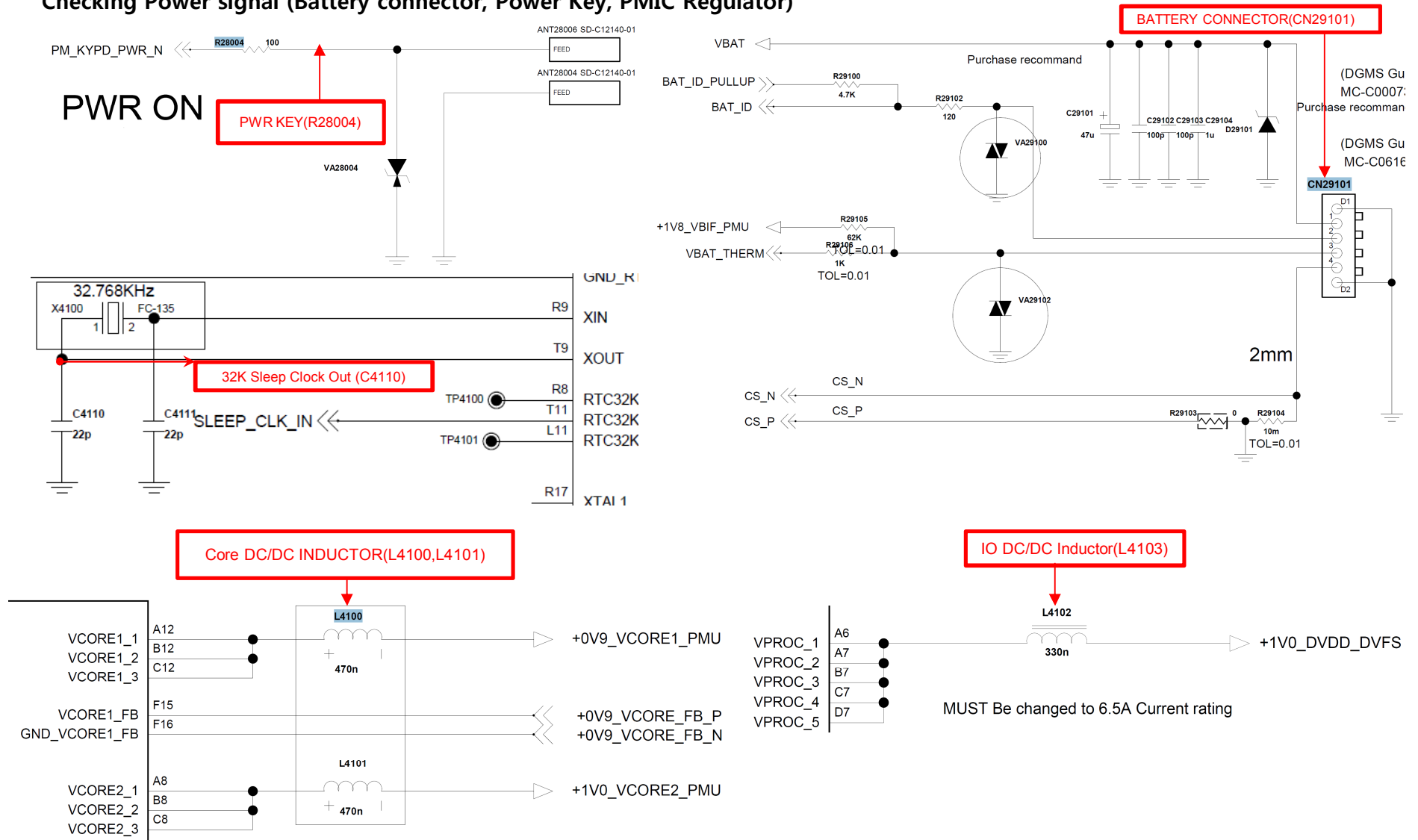
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# 3. TROUBLE SHOOTING

## 3.8 Power

### Checking Power signal (Battery connector, Power Key, PMIC Regulator)



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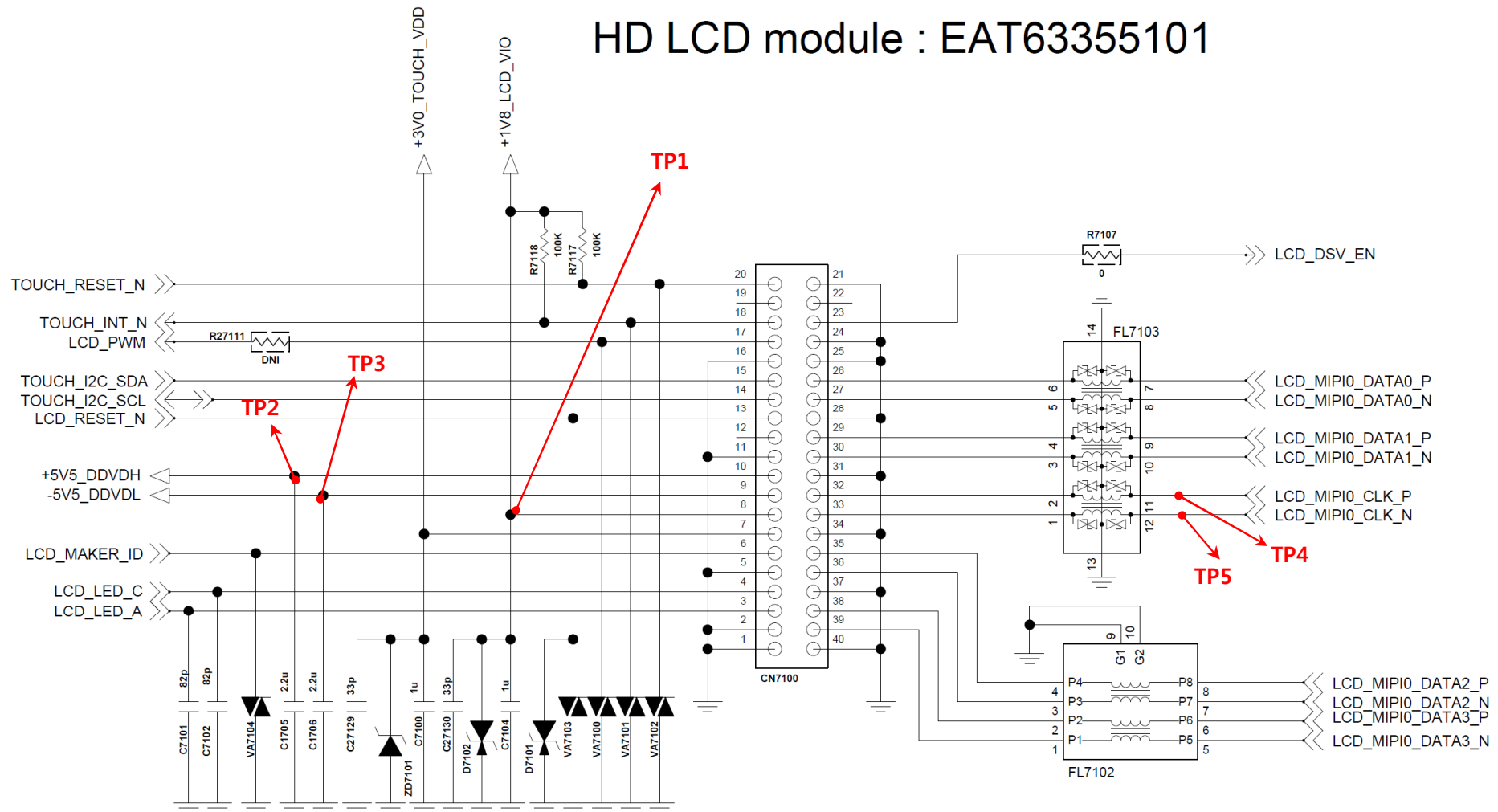
## 3. TROUBLE SHOOTING

### 3.11 Checking LCD Block

The LCD control signals are generated by MT6750. Its interface is MIPI having four data lanes and one clock lane.

Circuit Diagram

### HD LCD module : EAT63355101



LGE Internal Use Only

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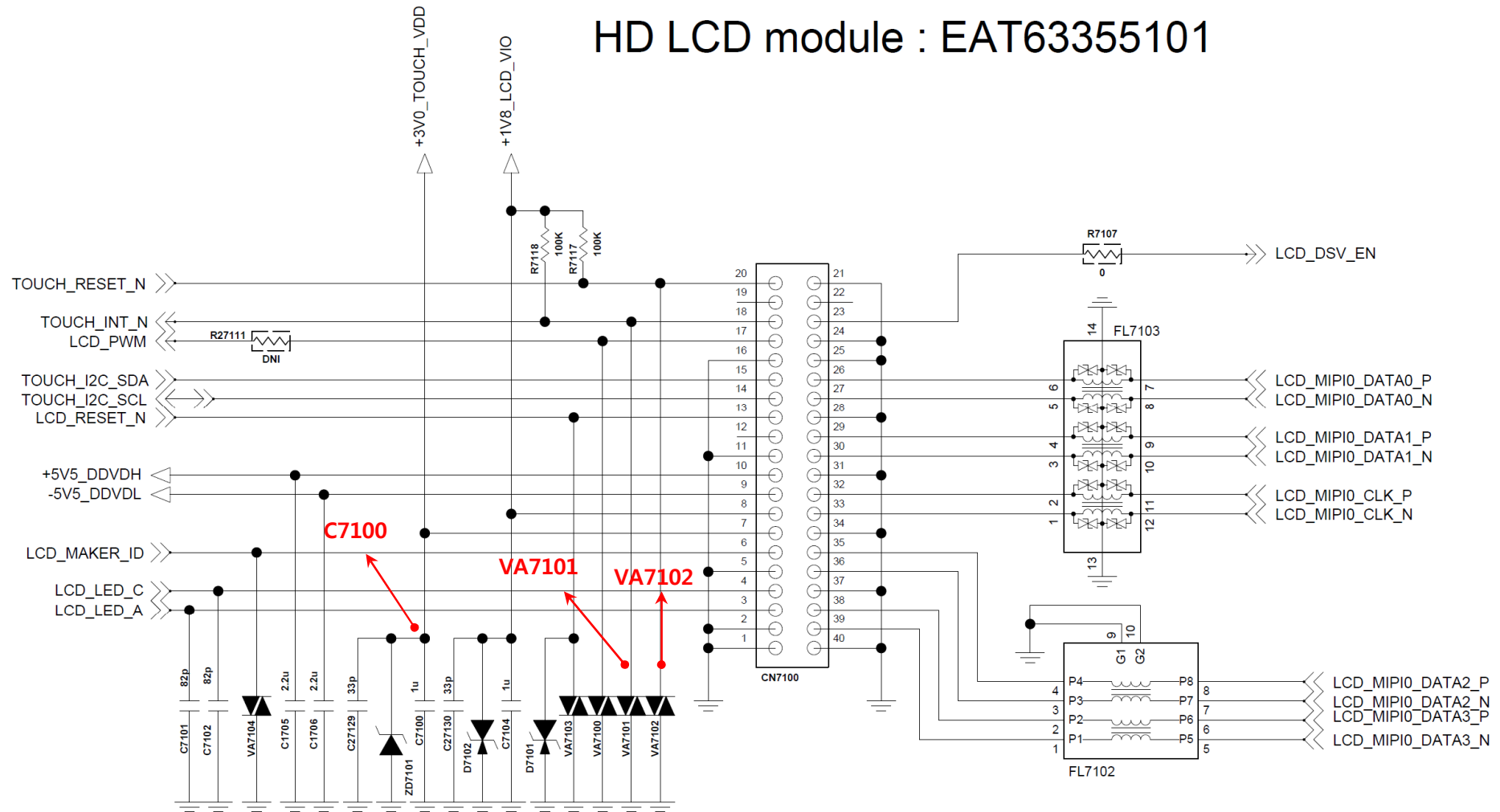
## 3. TROUBLE SHOOTING

### 3.12 Checking Touch Block

The Touch control signals are generated by MT6750. It is assembled with LCD.

Circuit Diagram

HD LCD module : EAT63355101



LGE Internal Use Only

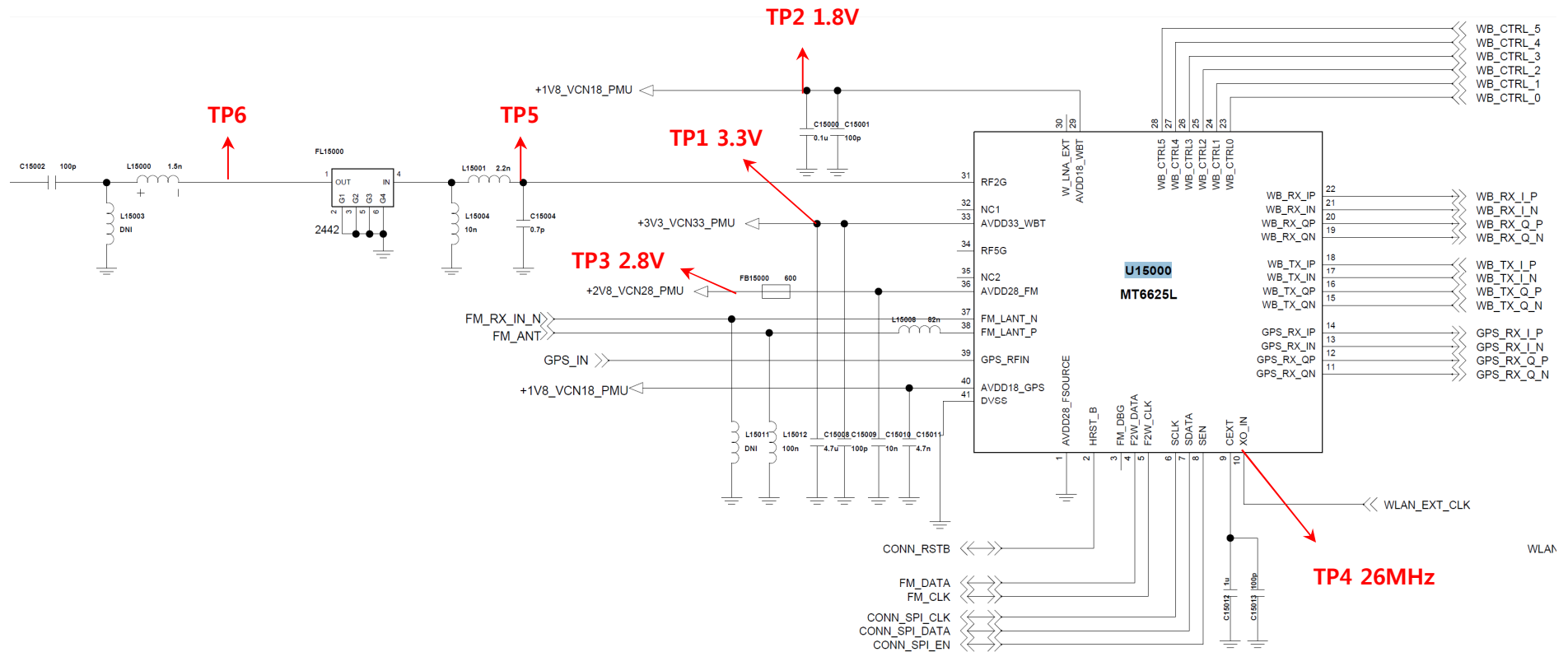
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## 3. TROUBLE SHOOTING

### 3.16 Connectivity RF PART

#### 3.16.1 Checking RF Signal TRX path(WiFi, BT)

##### Circuit Diagram



# CIRCUIT DIAGRAM





16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

# uFEMID

9111ça SAW Front End Module(D5322)  
B4/5/8 duplexer EAT63414801  
G1800,TX2G LPF

Globalça SAW Front End Module(D5323)  
B1/3/5/8 duplexer EAT63375201

B2 / W1900 / GSM1900

B28B / B17

B13 / B20 / B28A

B8, G900 RX

TRX B7

B40 RX

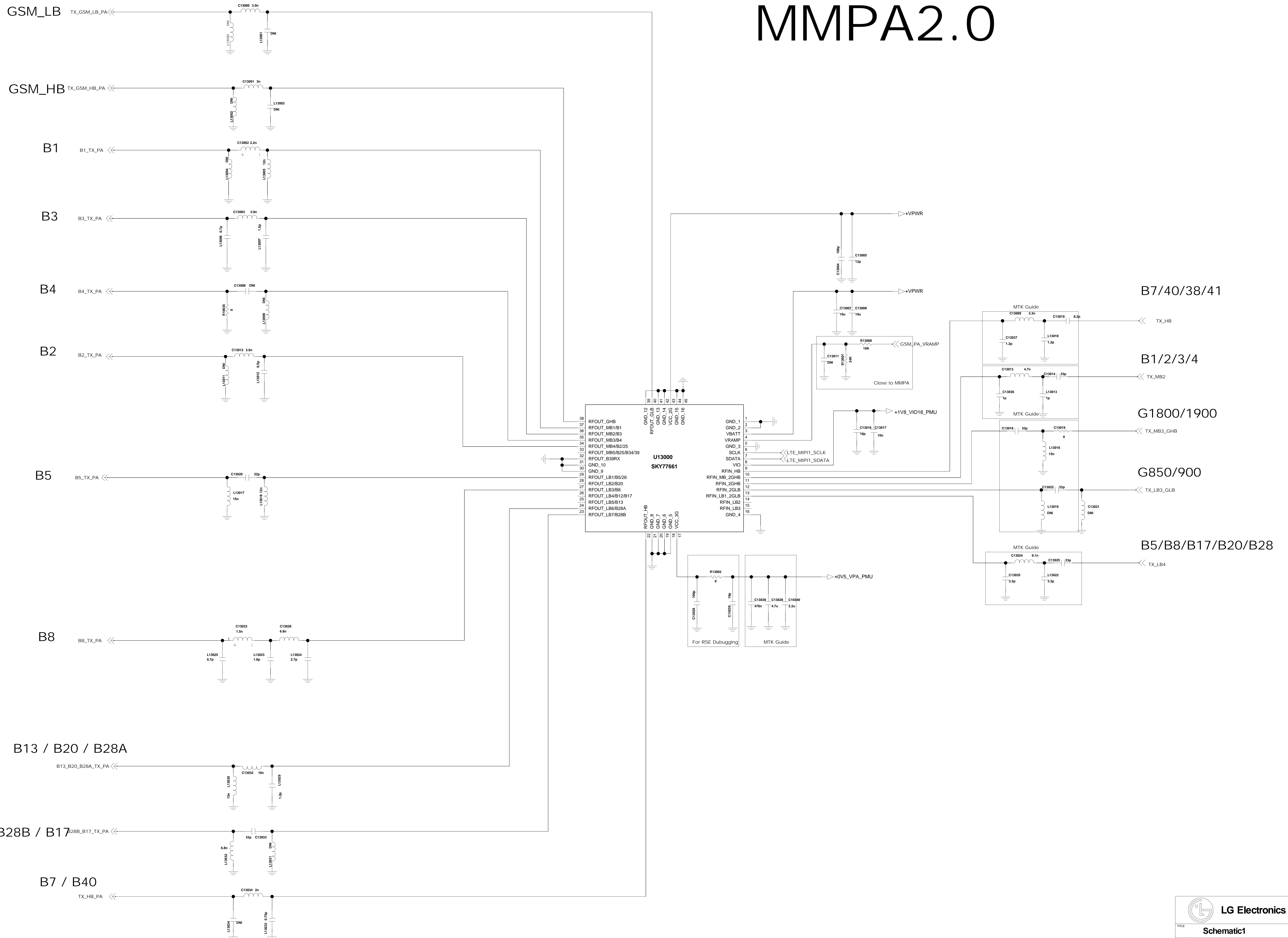
B40 TX

B40

B40 SAW FILTER EAM63710001

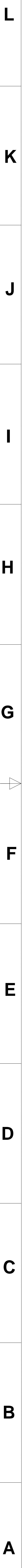


# MMPA2.0



**LGE Internal Use Only**

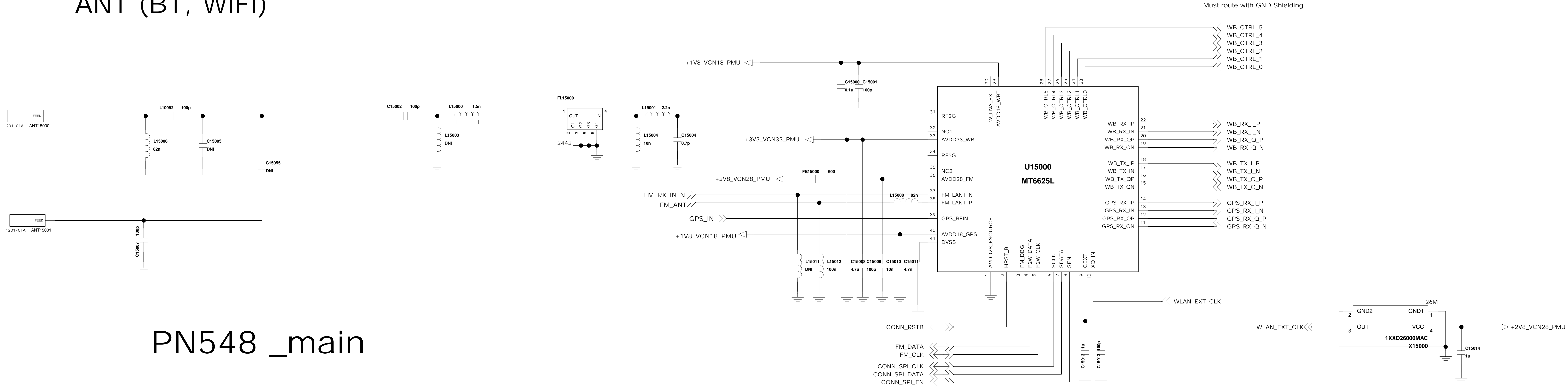
L	
K	
J	
I	
H	
G	→
F	
E	
D	
C	
B	
A	



<5-1-1-18\_MT6625L\_WiFi\_BT\_GPS\_FM>

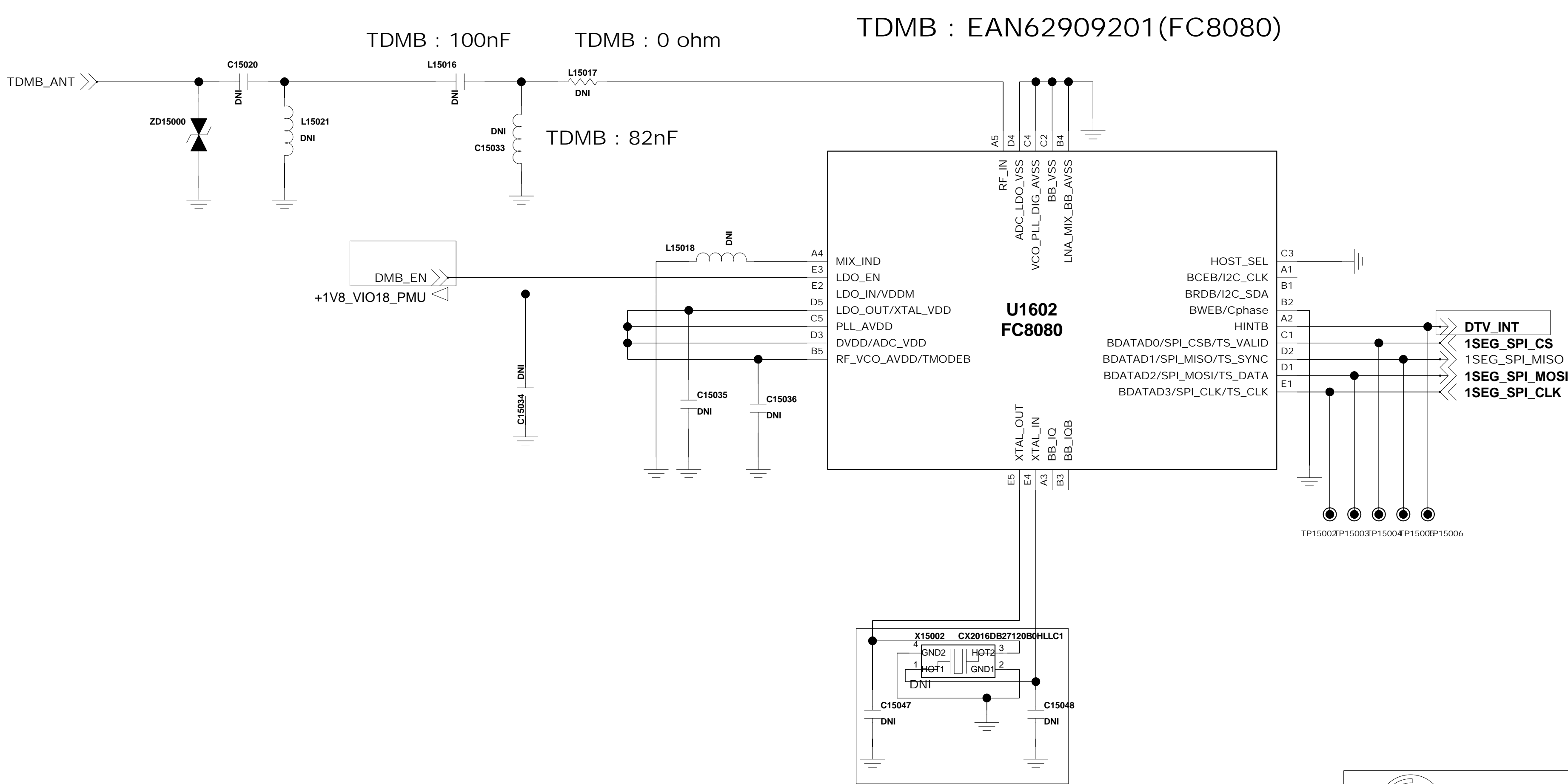
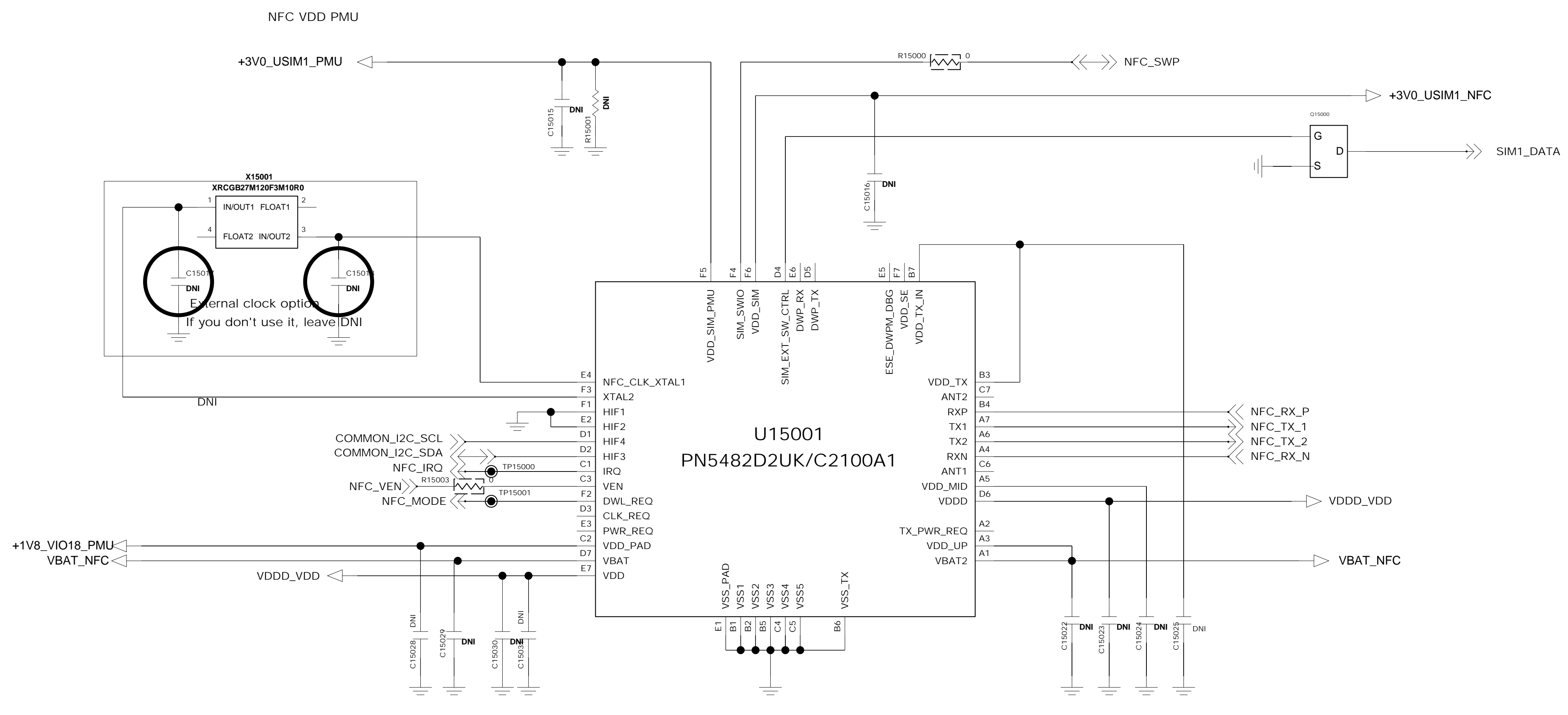
Rev\_0.3

ANT (BT, WiFi)

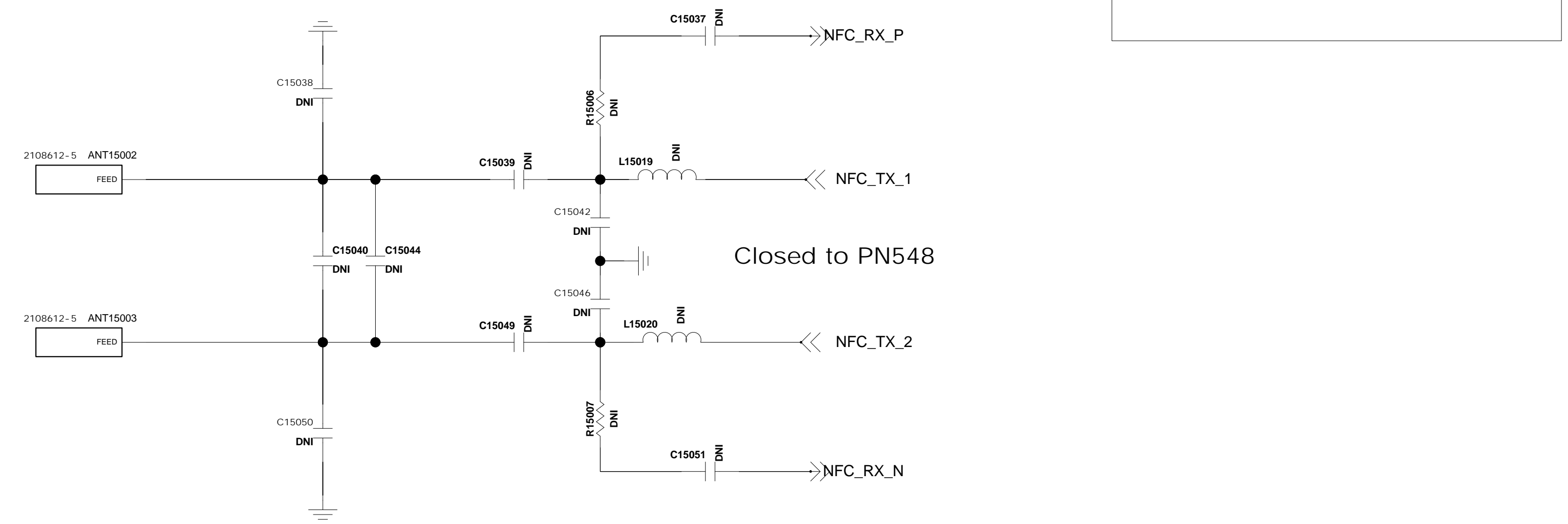


PN548 \_main

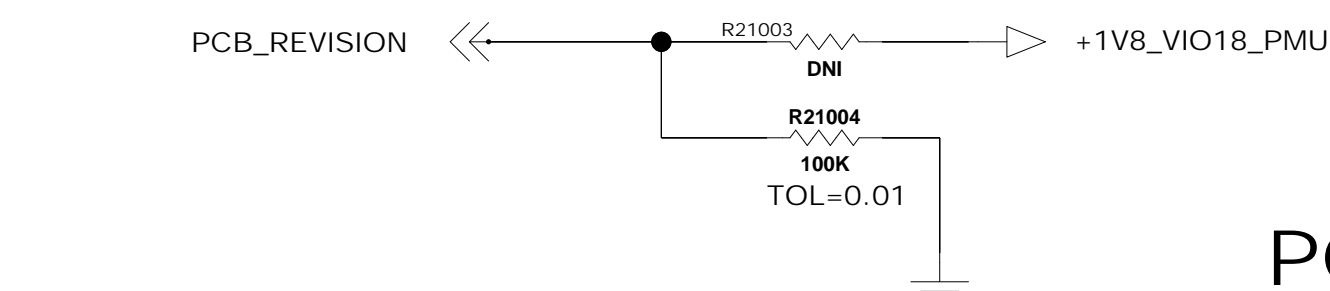
TDMB\_1SEG Swap circuit



NFC Antenna

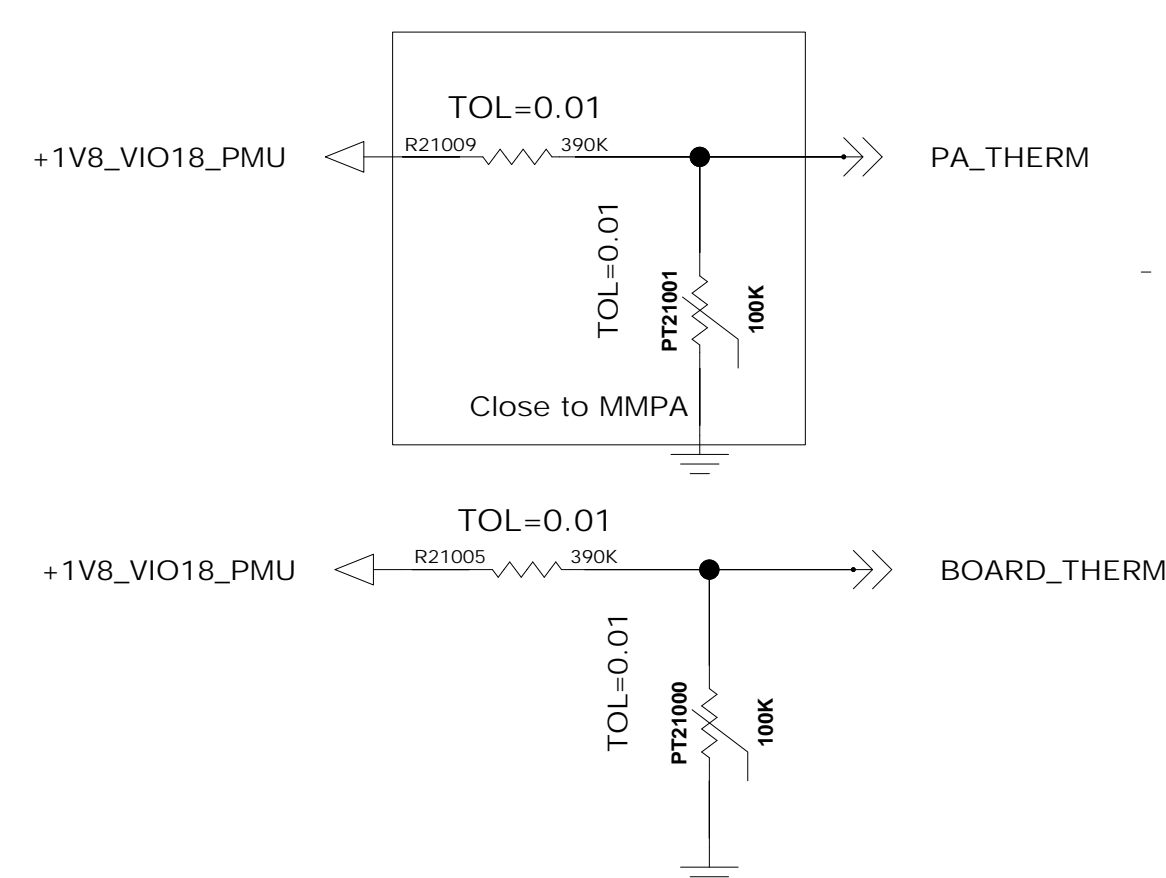


# < 2-1\_MT6750\_DATA >

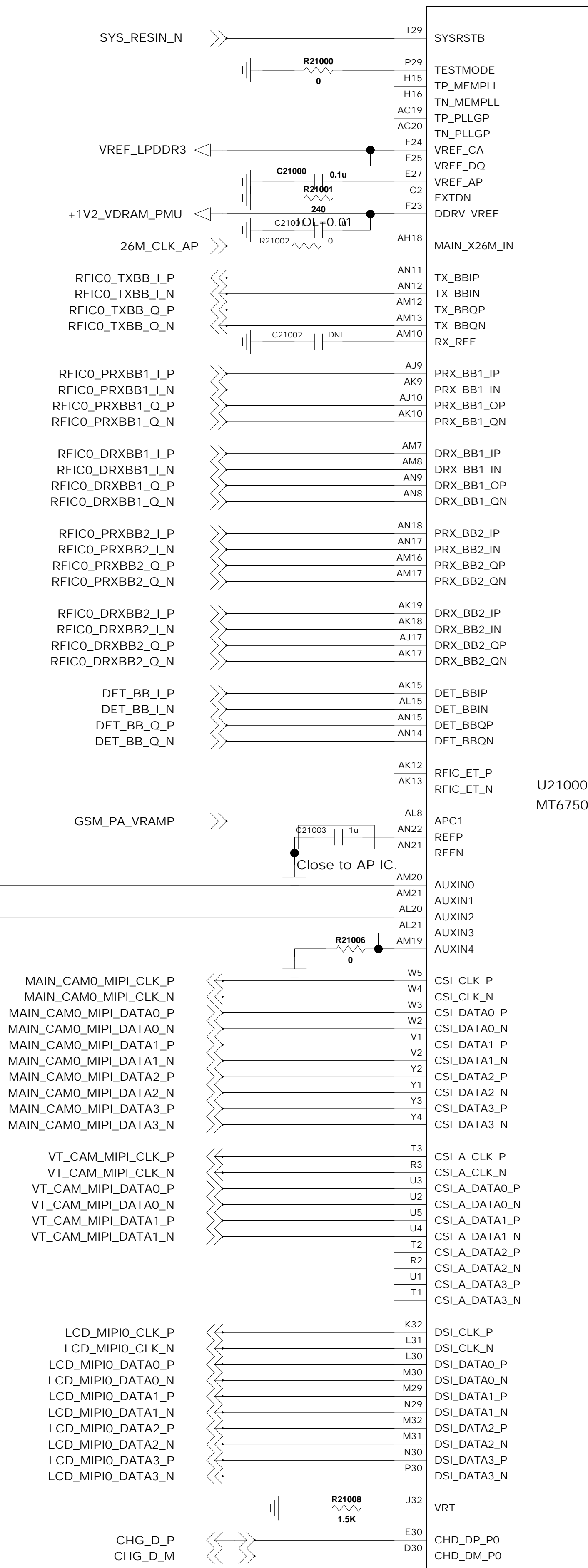


PCB\_Revision

Q	100K	20K	0.300
Q_1	100K	27K	0.383
A	100K	39K	0.505
B	100K	51K	0.608
C	100K	75K	0.771
D	100K	100K	
E	100K	DNI	
1	DNI	100K	OPPS
1.1	100K	200K	



RFIC

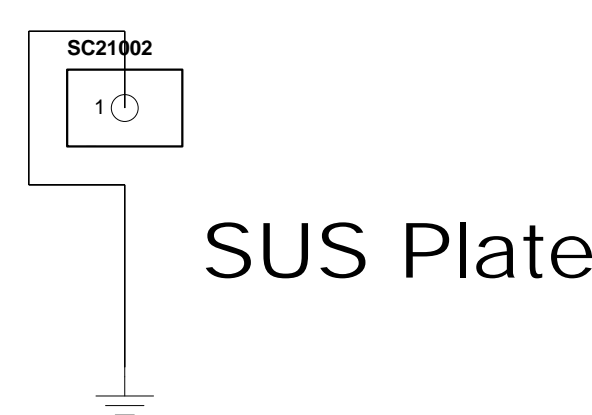
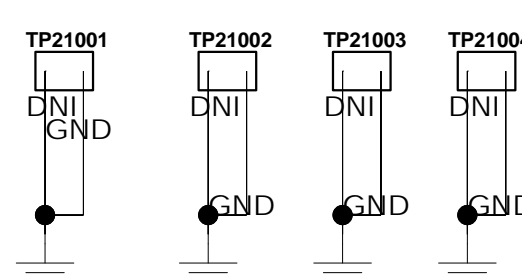


MCP(LPDDR)

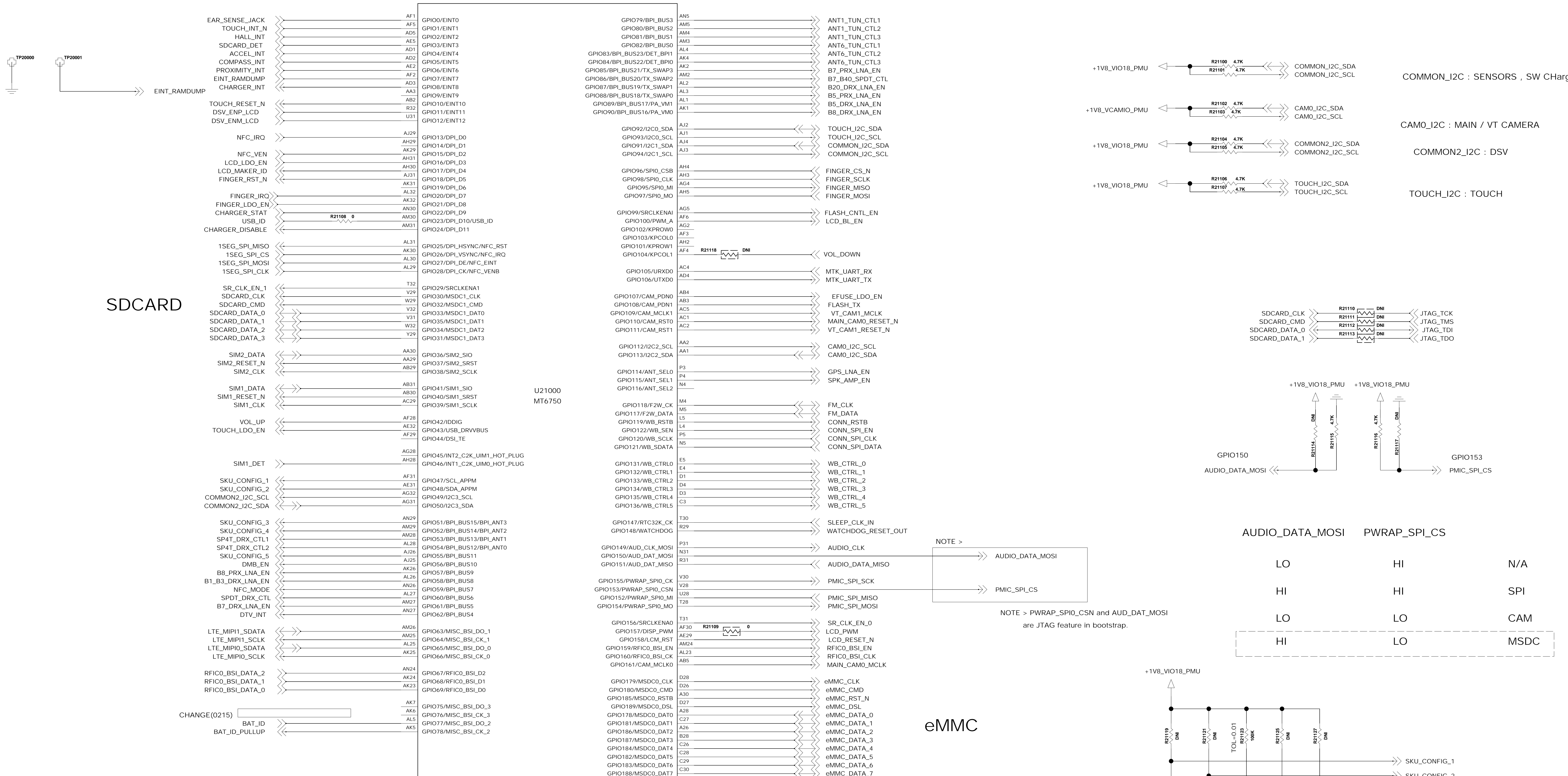
USB D

Default resistor of "SSUSB\_VRT" can be NC if internal USB VRT is applied.

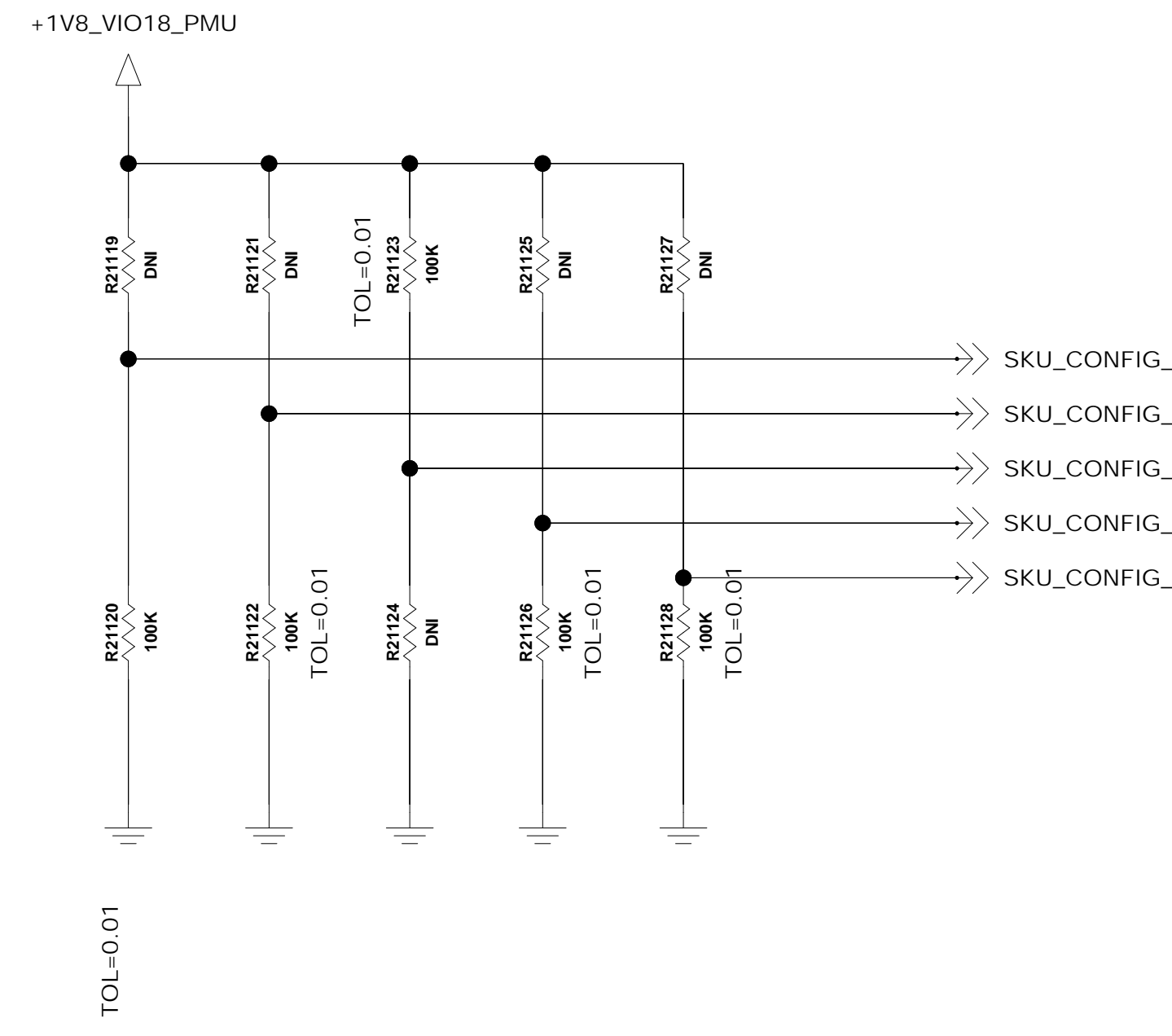
CONNECTIVITY



< 2-1\_MT6750\_GPIO >



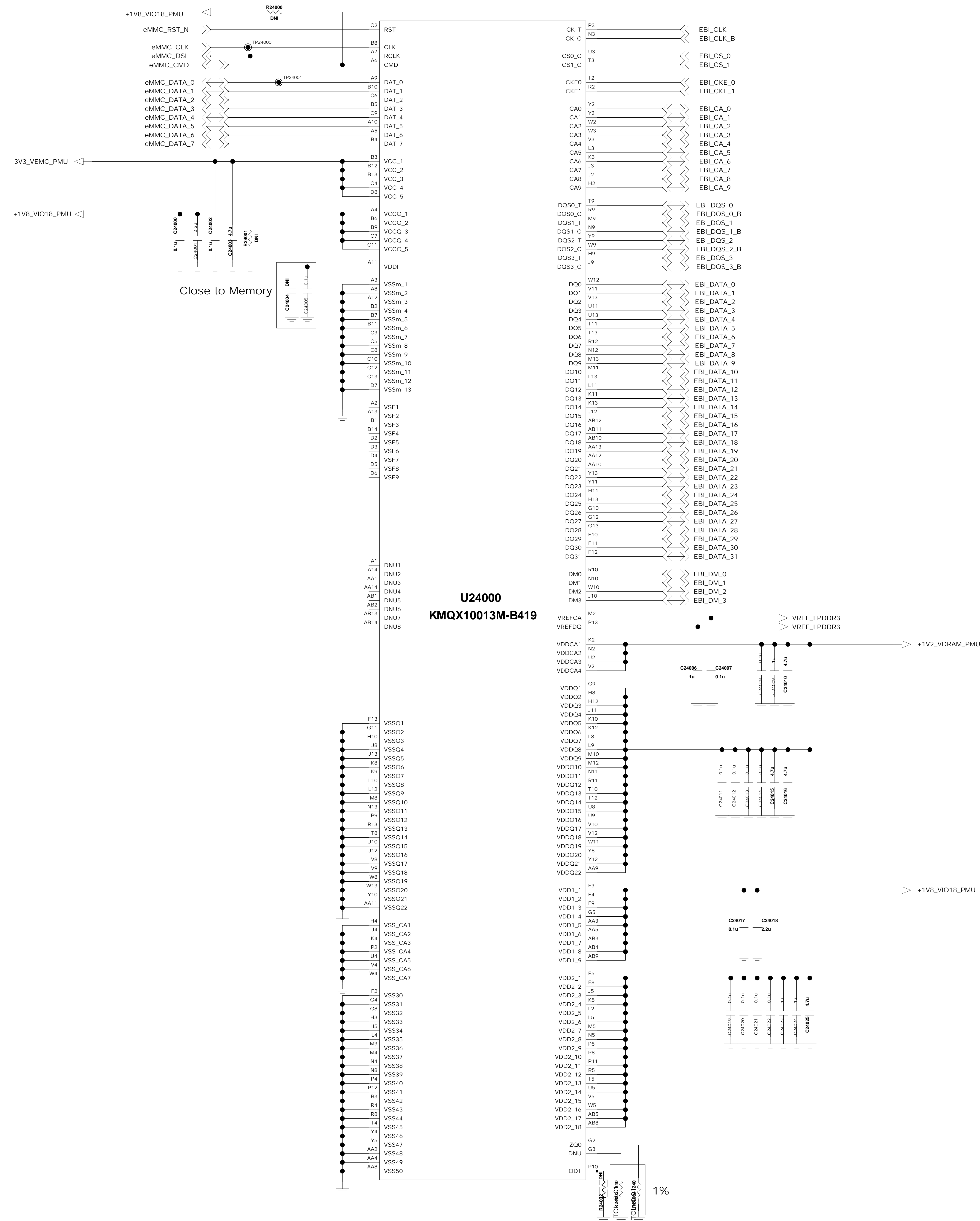
Model	Band	NFC	SIM	GPIO_SUM	GPIO_55	GPIO_52	GPIO_51	GPIO_48	GPIO_47
M250N	1/3/7/8/20	O	SINGLE	0	0	0	0	0	0
M250	1/3/7/8/20	X	DUAL	1	0	0	0	0	1
M250E	1/3/5/7/8/20	X	DUAL	2	0	0	0	1	0
M250ds	3/7/28	X	DUAL	4	0	0	1	0	0
M250YK	1/3/5/7/8/28	X	SINGLE	5	0	0	1	0	1
M250K	1/3/5/7/8/28/40	X	DUAL	7	0	0	1	1	1
M250F	2/4/5/7/28	X	SINGLE	8	0	1	0	0	0
M250AR	2/4/5/7/28	X	SINGLE	9	0	1	0	0	1
M250H	2/4/5/7/13/17	X	SINGLE	10	0	1	0	1	0
M250I	1/3/5/8/40	X	DUAL	11	0	1	0	1	1
M250dsn	1/3/7/8/40	O	DUAL	12	0	1	1	0	0
K-M121 L	1/3/7/8/17	O	SINGLE	13	0	1	1	0	0
K-M121 S	1/3/7/8/17	O	SINGLE	14	0	1	1	0	0
K-M121 K	1/3/7/8/17	O	SINGLE	15	0	1	1	0	0
M250Y	1/3/5/7/8	X	SINGLE	18	1	0	0	1	0







< MCP\_eMMC\_5\_0\_16Gb\_DDR3\_16GB\_eMMC Hynix >



**LGE Internal Use Only**



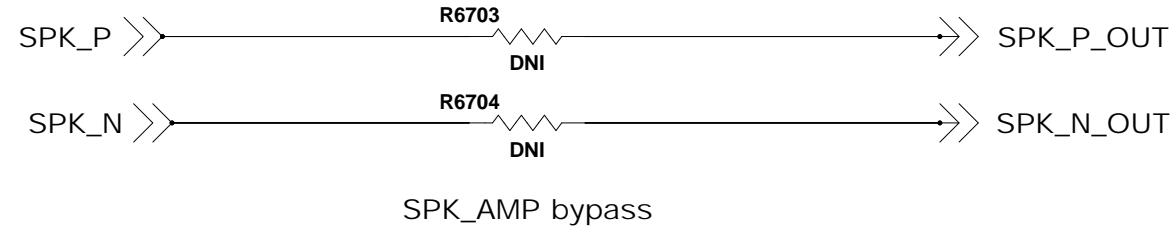
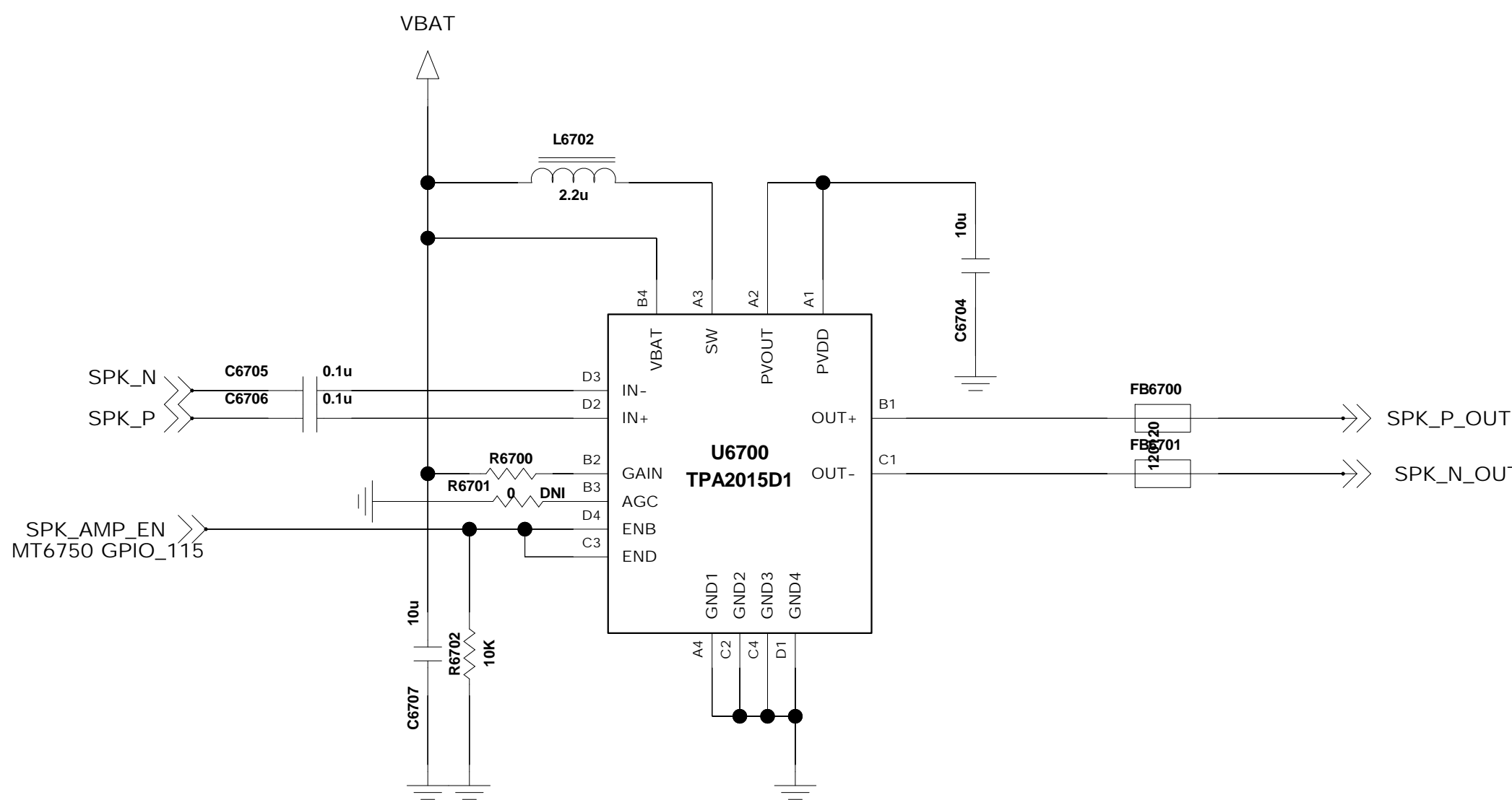


## Analog S/W

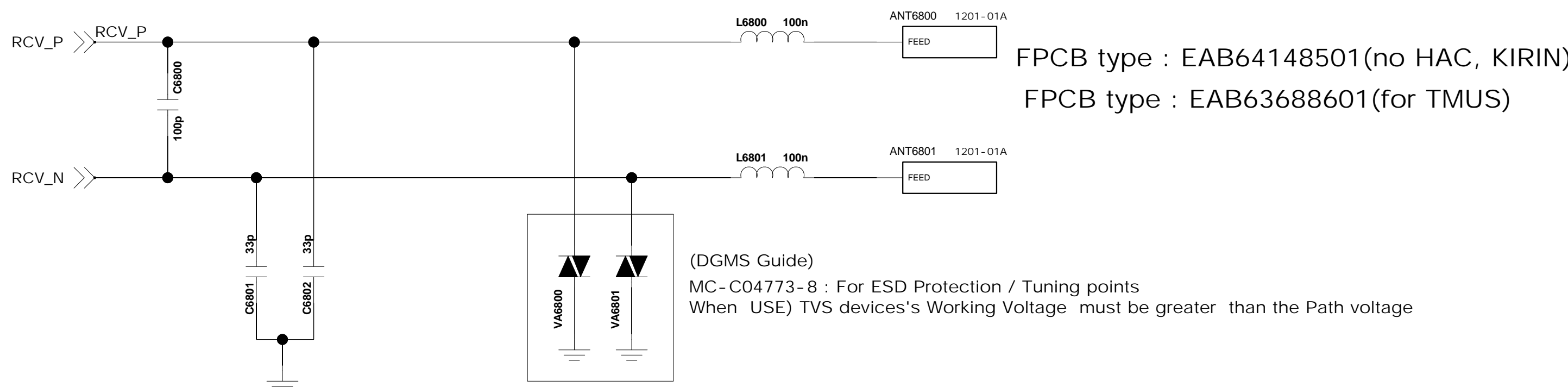
Earjack amp-off popup noise  
Deleted (VI 6/30)

Deleted with  
HPH\_AUD\_SW  
(MT6750 GPIO\_19)

## SPK\_AMP



## < 6-8-2\_Receiver >

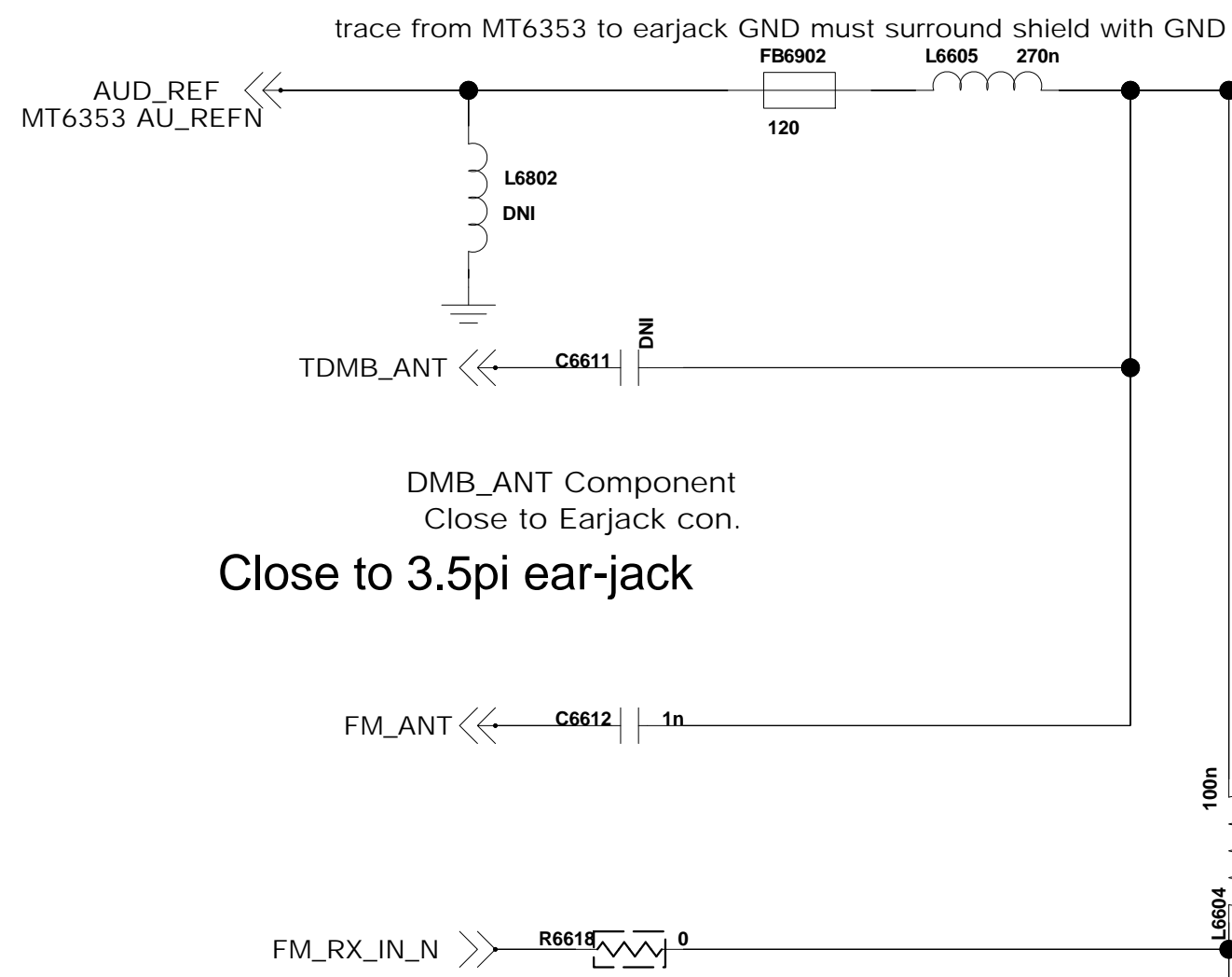


FPCB type : EAB64148501(no HAC, KIRIN)  
FPCB type : EAB63688601(for TMUS)

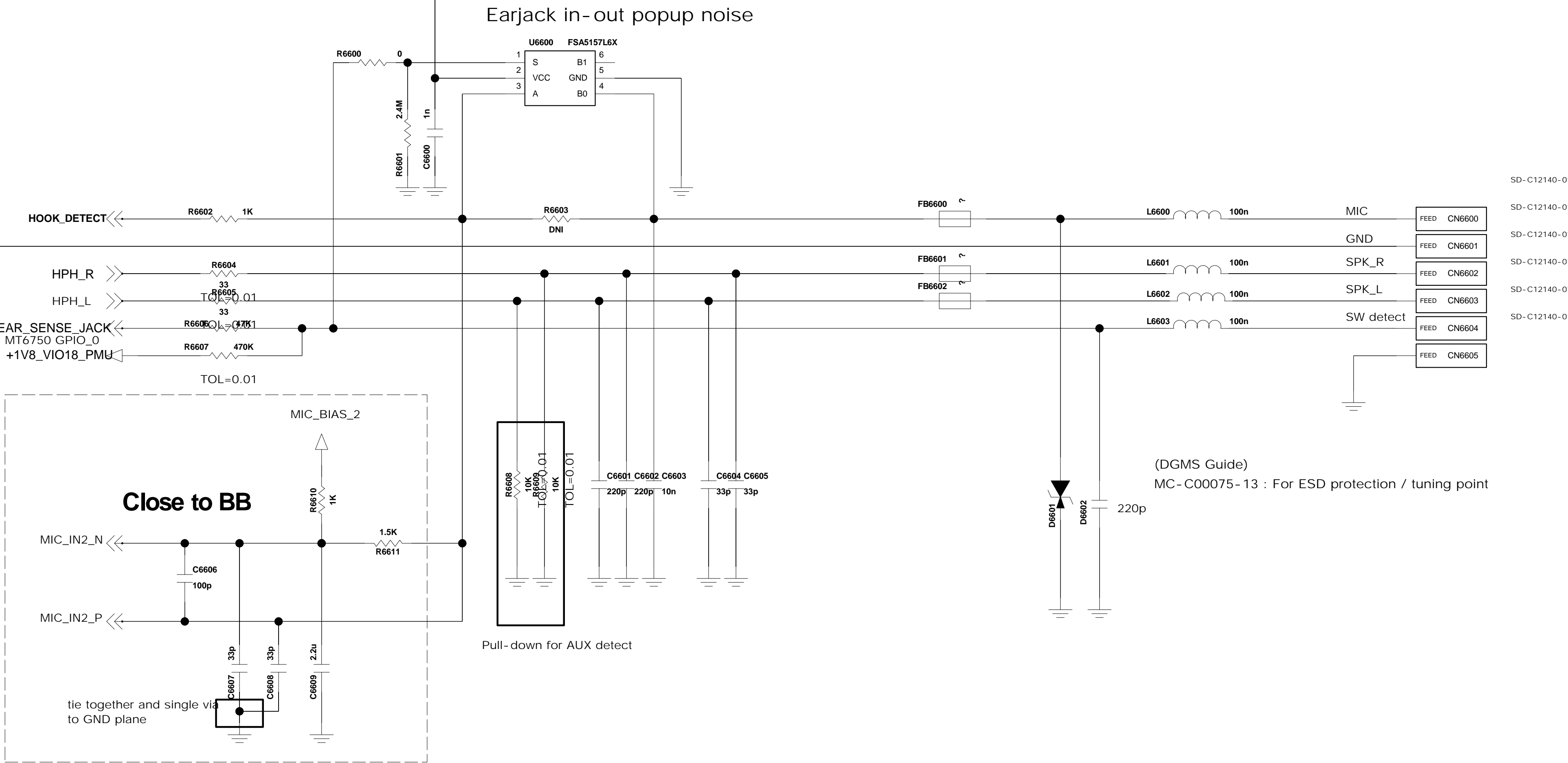
(DGMS Guide)  
MC-C04773-8 : For ESD Protection / Tuning points.  
When USE TVS devices's Working Voltage must be greater than the Path voltage

## < 6-6-1\_Earjack >

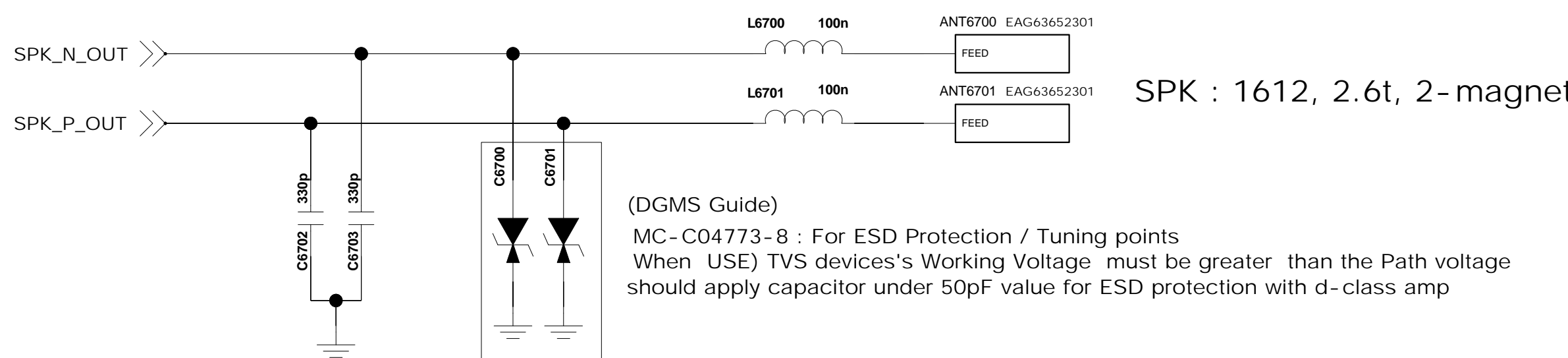
	U6602	C6611	C6615	C6612	C6613
TDMB & FM	O	O	X	O	X
Only TDMB	X	O	O	X	X
Only FM	X	X	X	O	O
None	X	X	X	X	X



Close to 3.5pi ear-jack



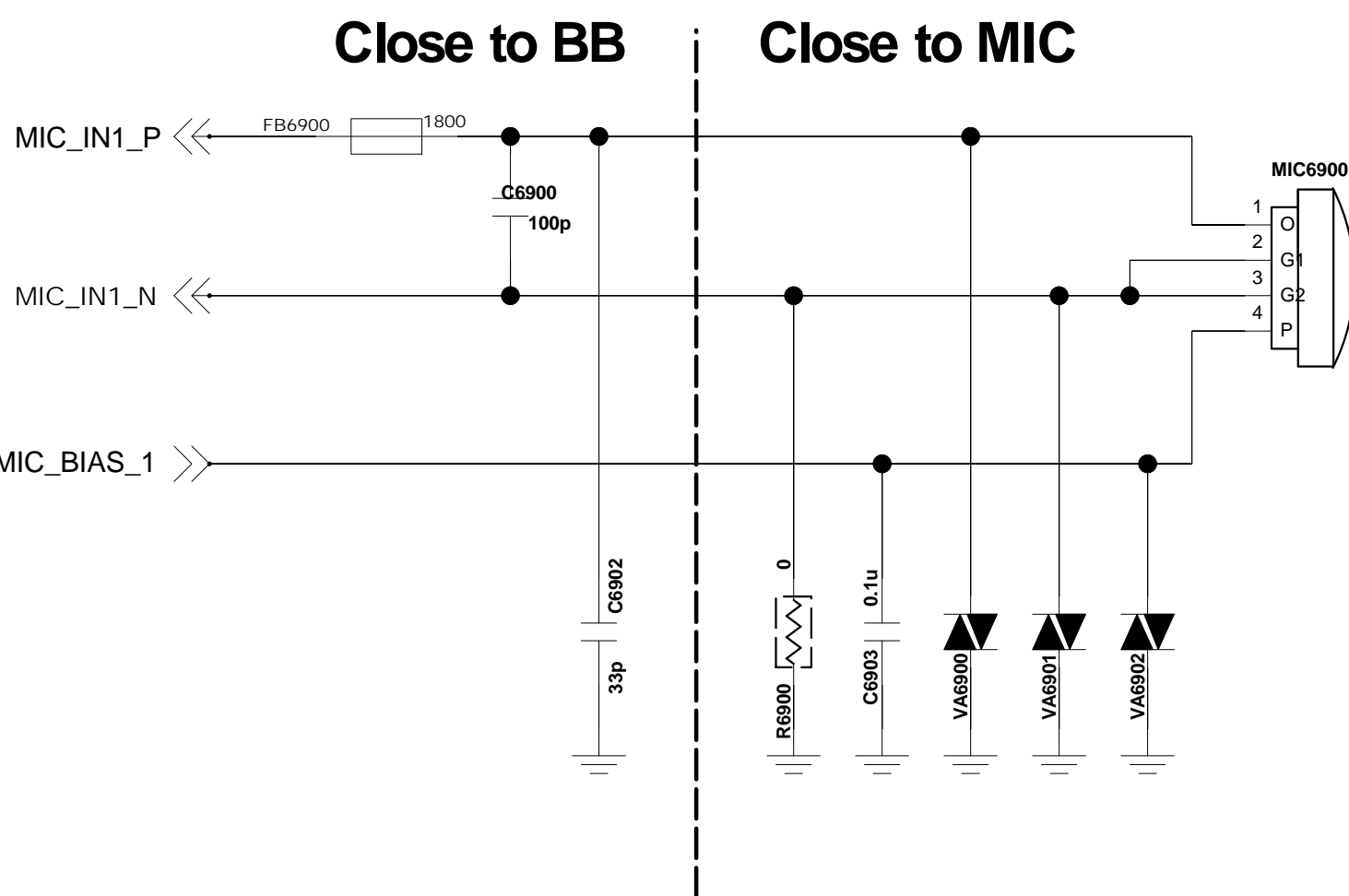
## < 6-7-1\_Speaker >



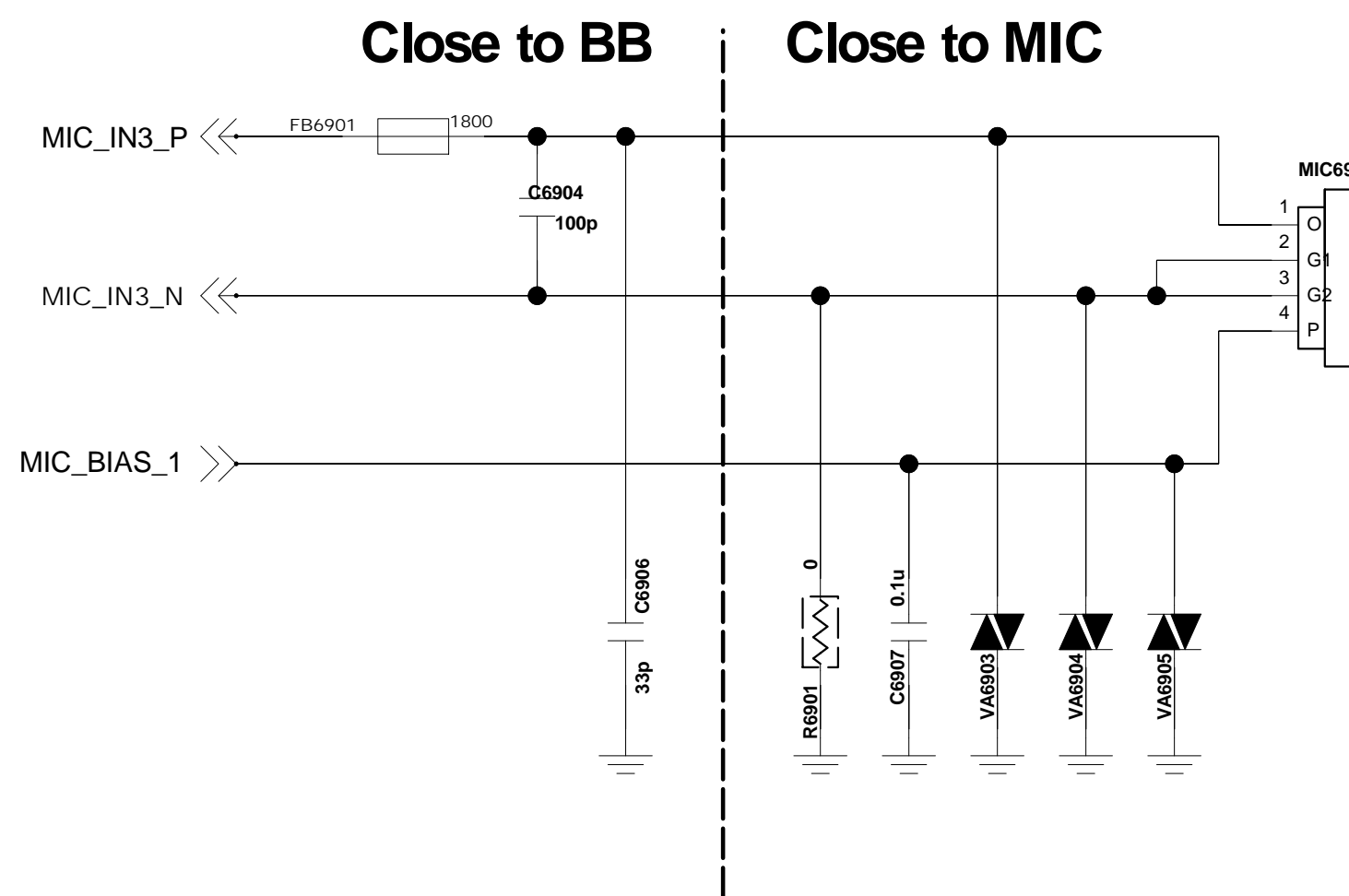
SPK : 1612, 2.6t, 2-magnet

(DGMS Guide)  
MC-C04773-8 : For ESD Protection / Tuning points.  
When USE TVS devices's Working Voltage must be greater than the Path voltage  
should apply capacitor under 50pF value for ESD protection with d-class amp

## Main MIC



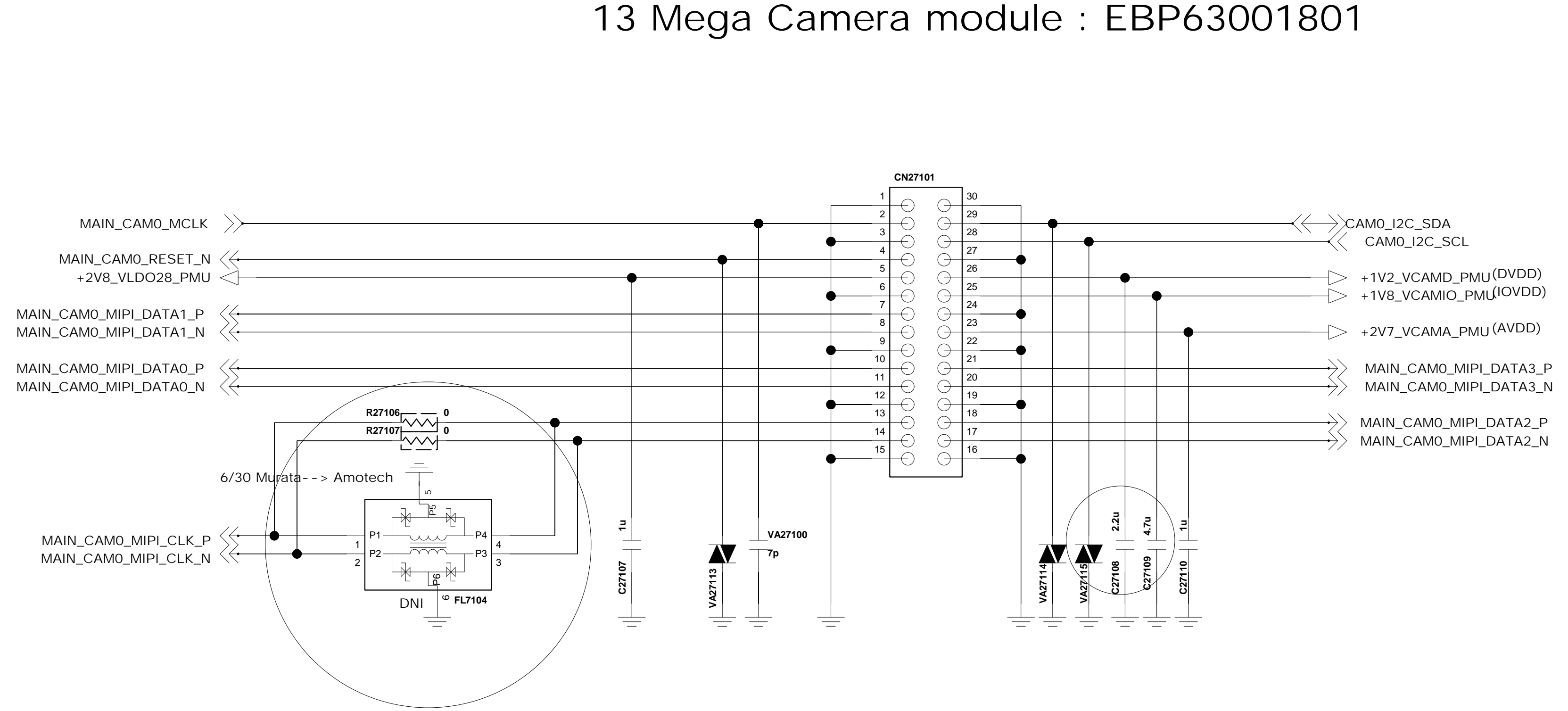
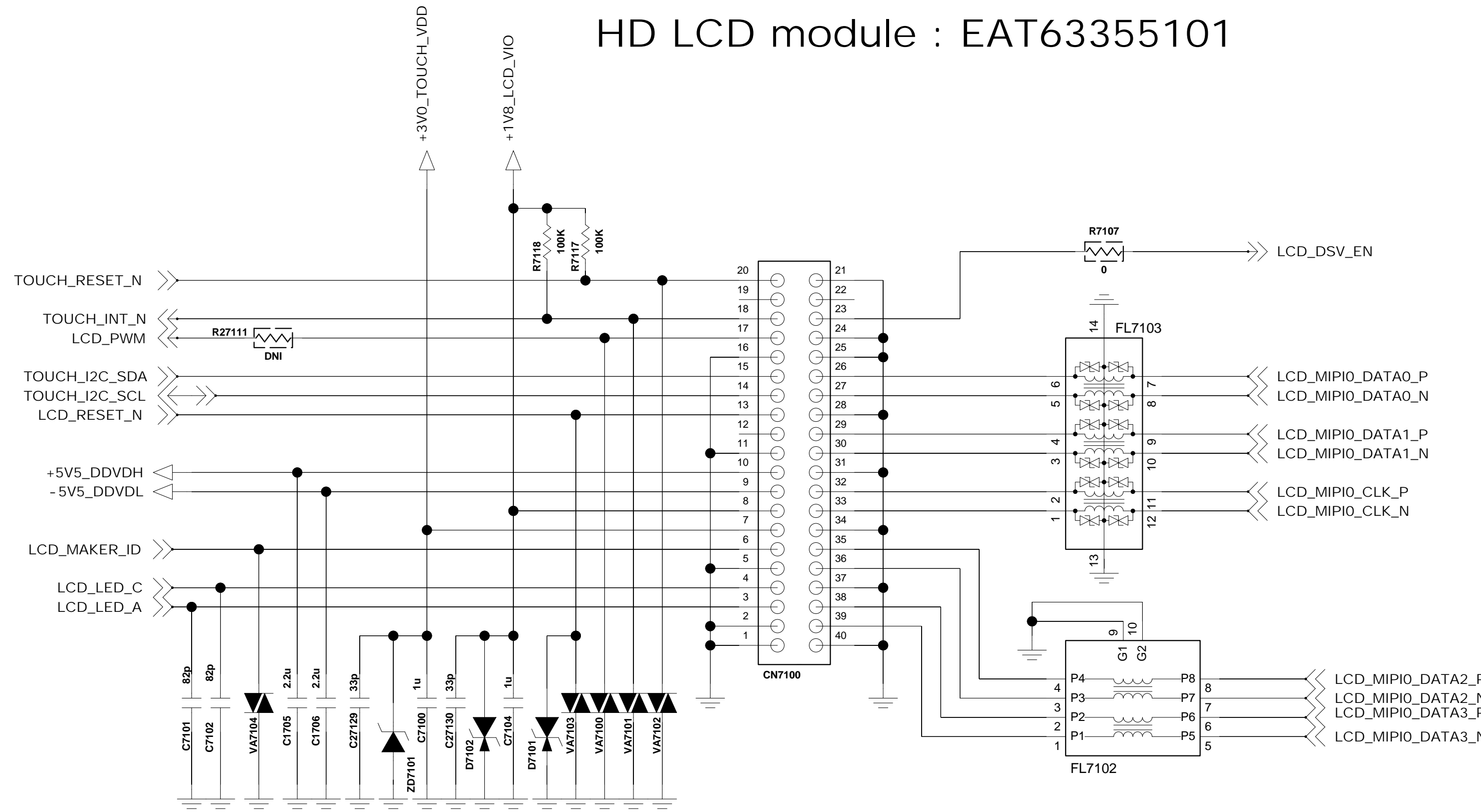
## Sub\_MIC



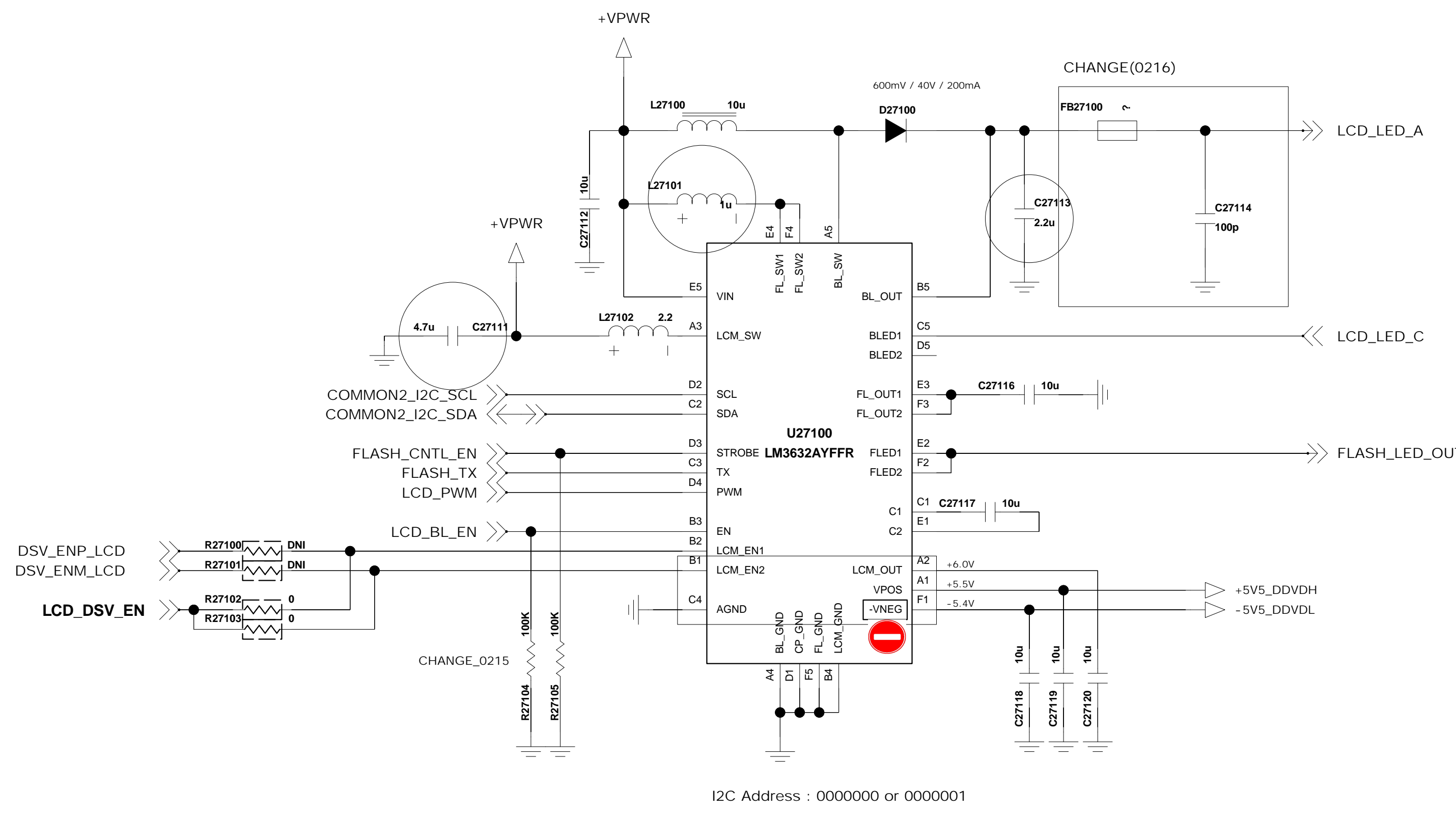
< 7-1-X\_LCD\_LGD\_HD >

# LGD 5.3 inch HD Incell Hybrid LCD

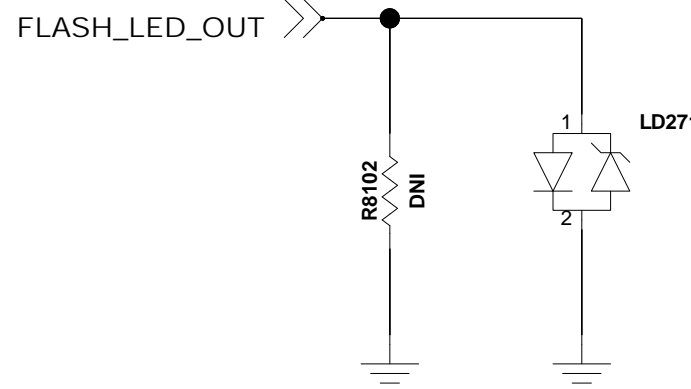
<7-3-5-1\_30pin\_5M\_8M\_13M\_AF> Rev\_0.3



## LCD\_Backlight\_Flash\_DSV\_LM3632



<Flash\_LED>

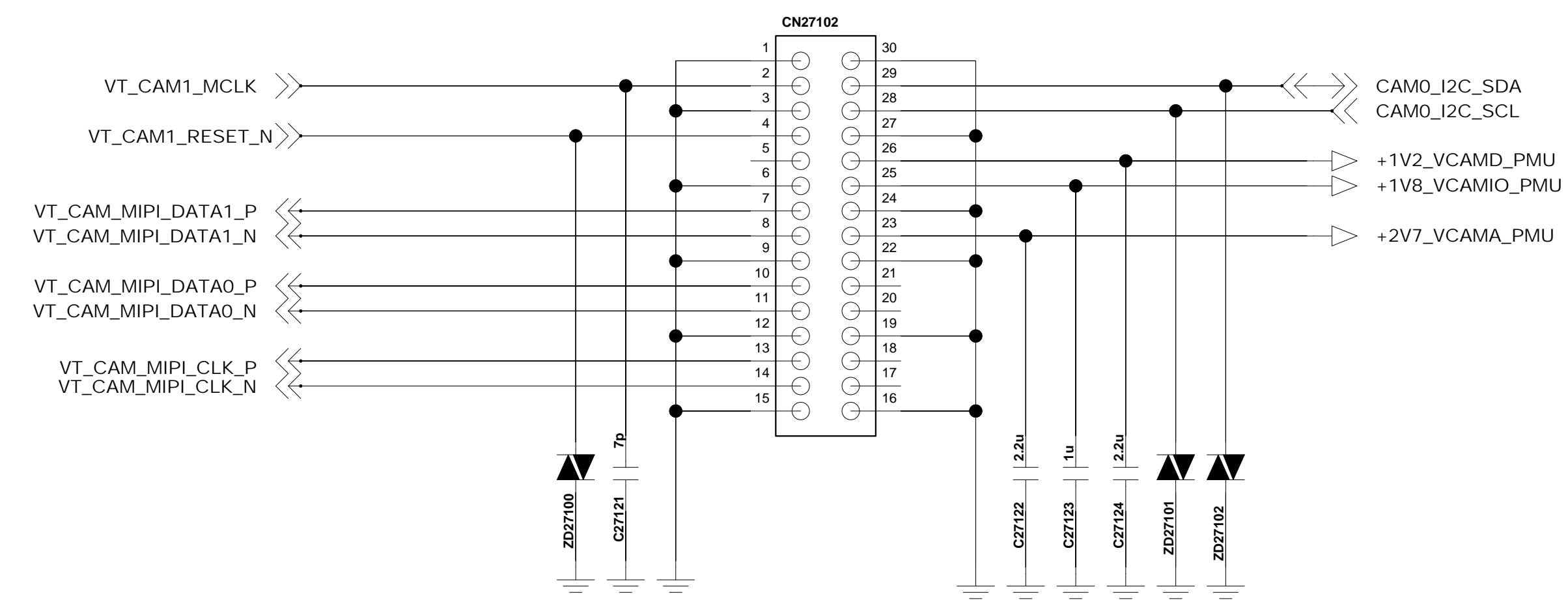


< 7-4-x\_Front\_Camera\_30pin\_5M\_FF>

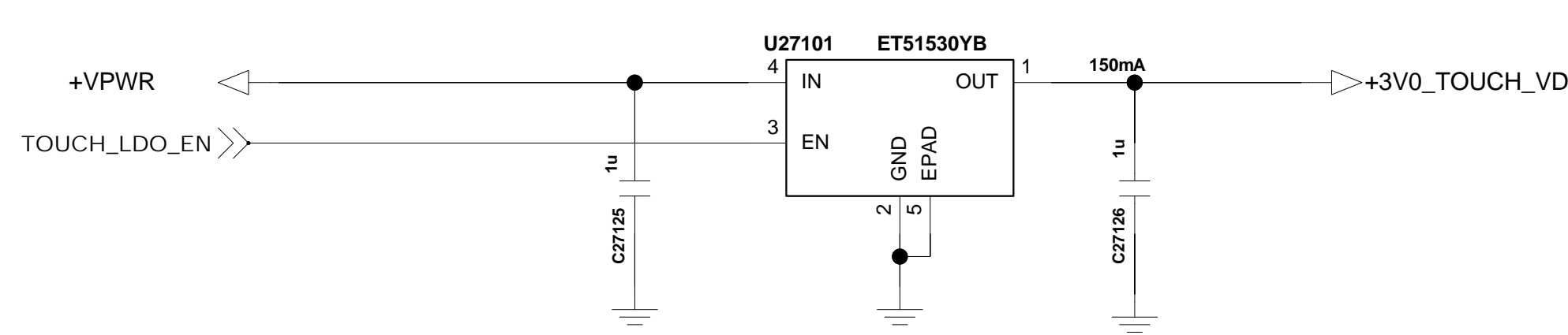
[ DGMS Guide ]

MC-C00081-17: 1. Add ESD Protection curcuit for Camera signal lines

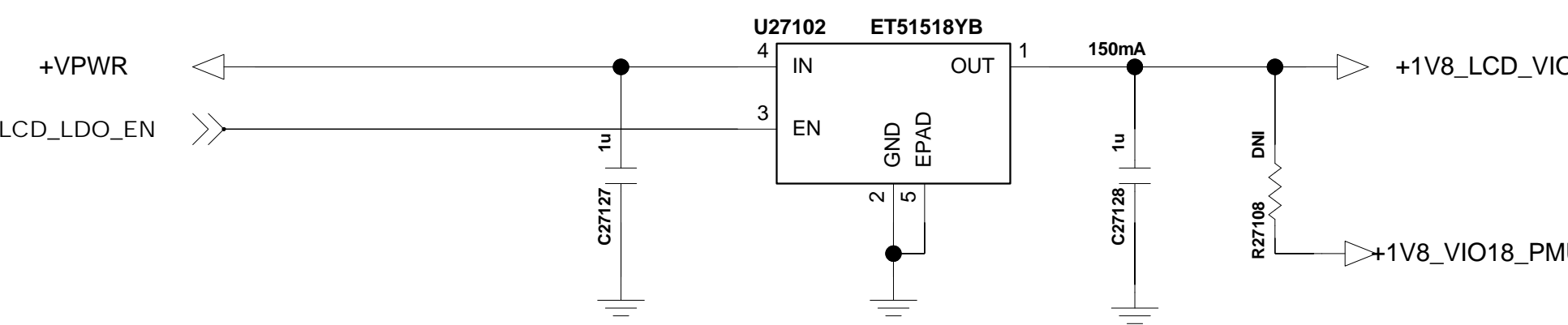
5M\_Wide : EBP62982701(LGIT)



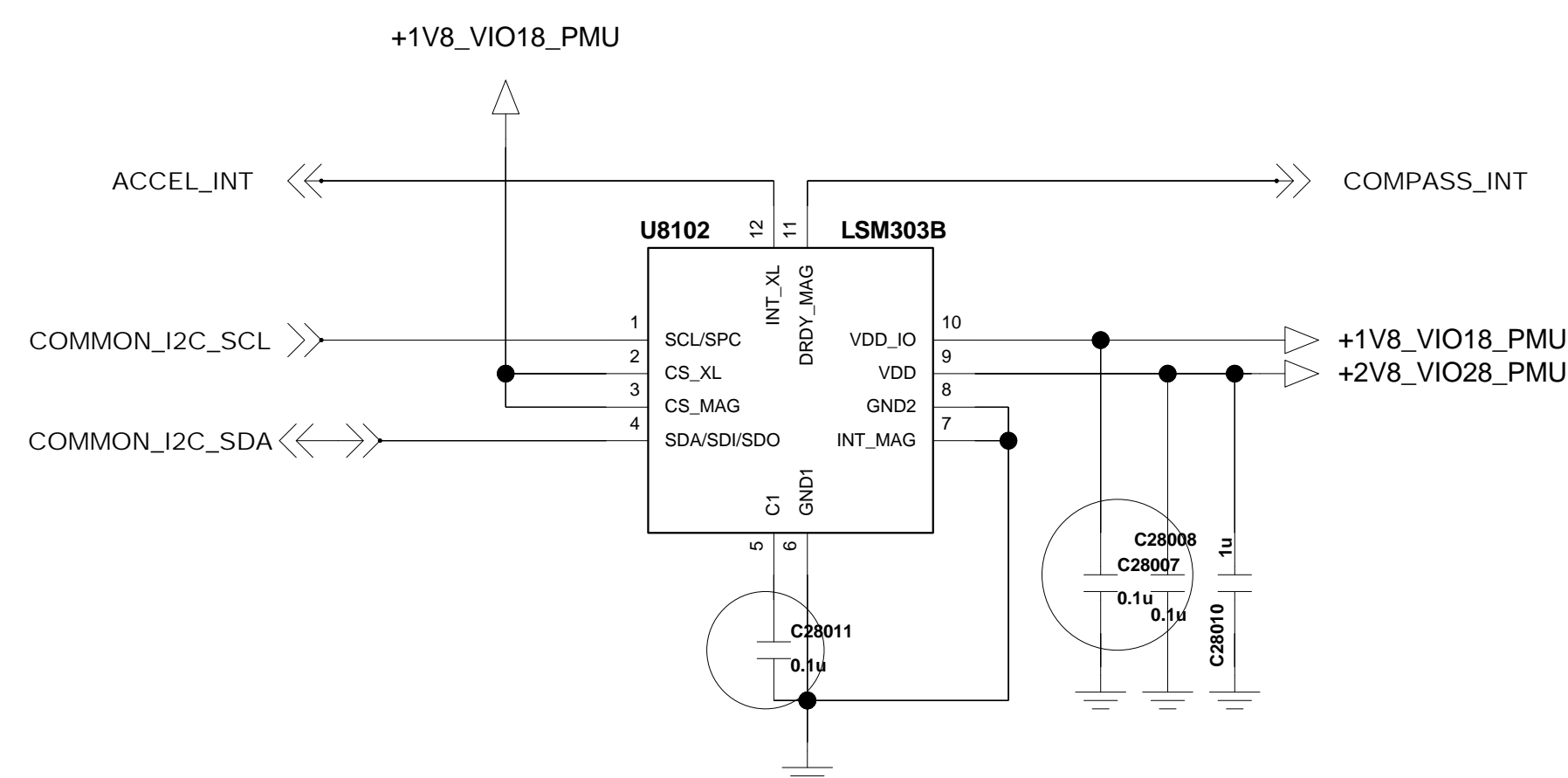
## TOUCH LDO



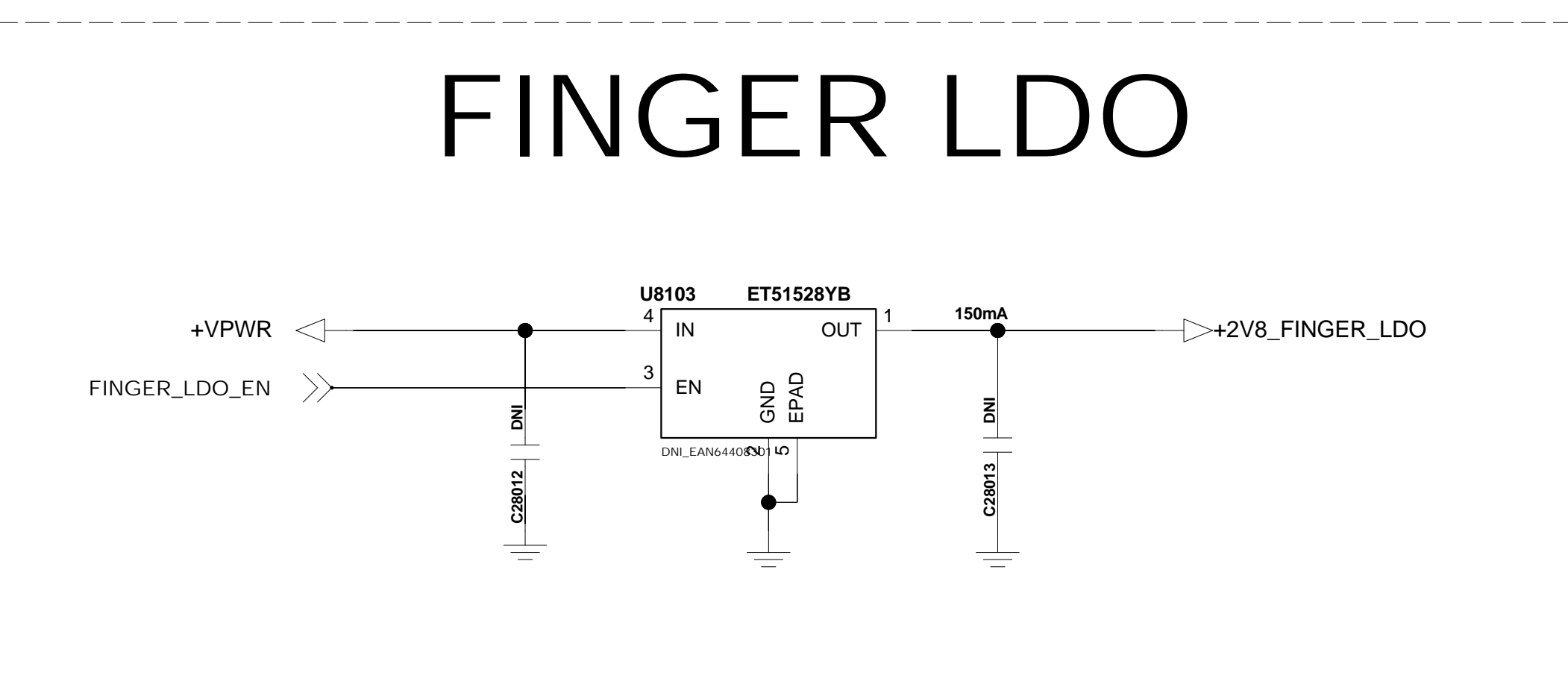
## LCD LDC



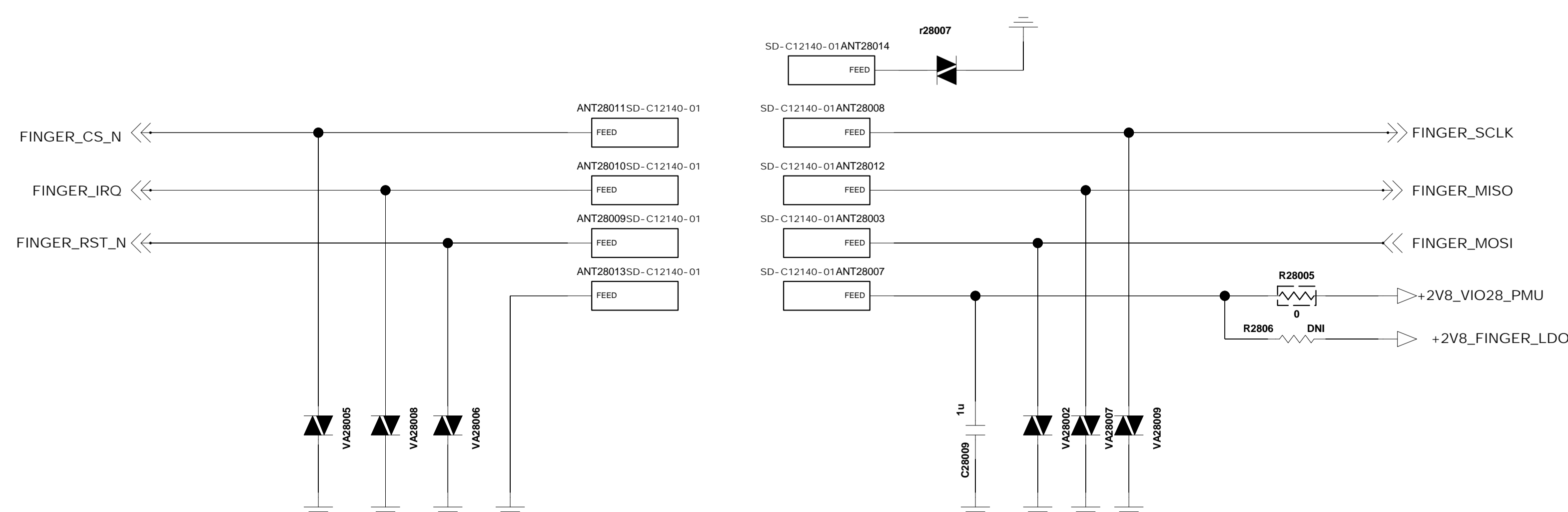
## Accel\_Compass LSM303B



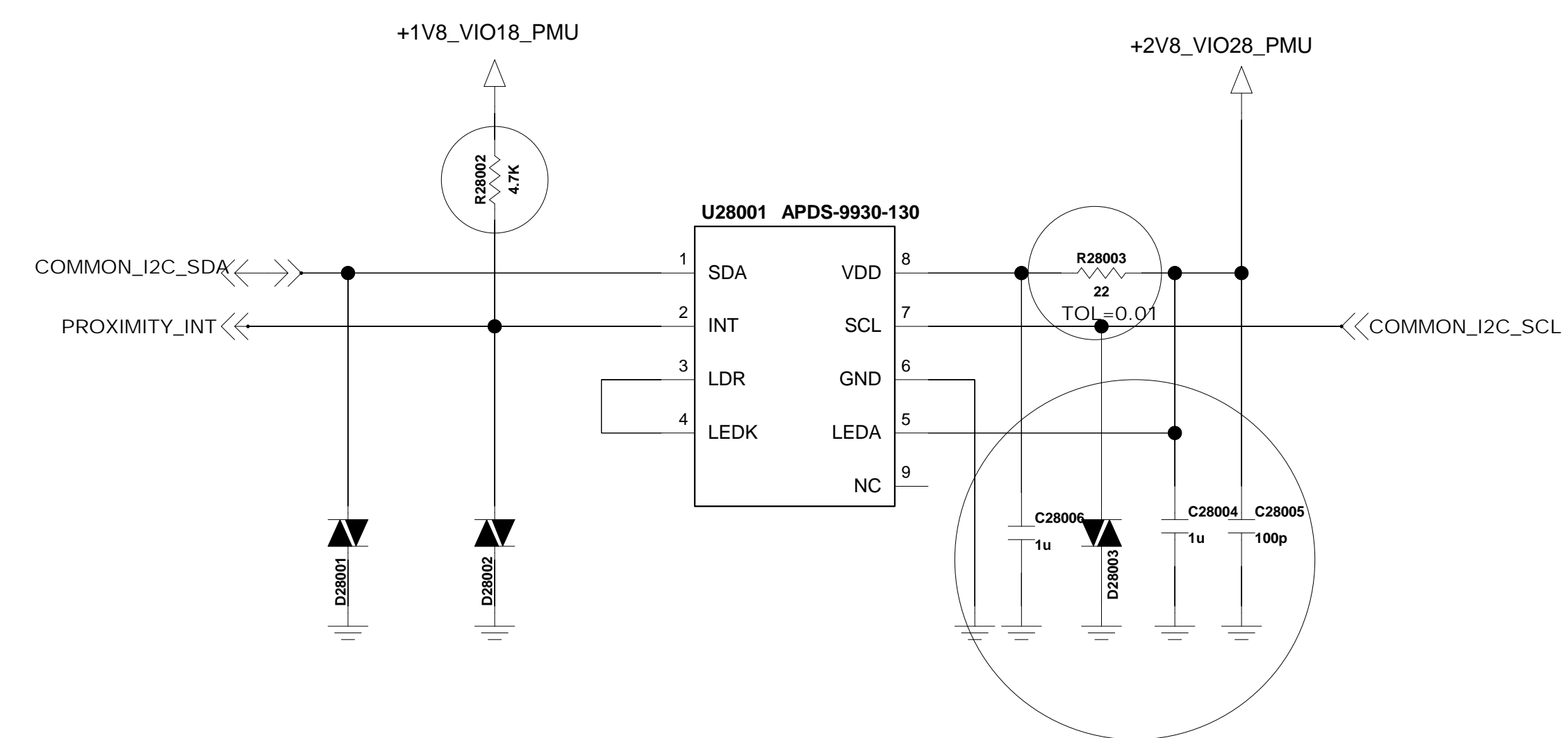
## 6-AXIS(OPTION DNI)



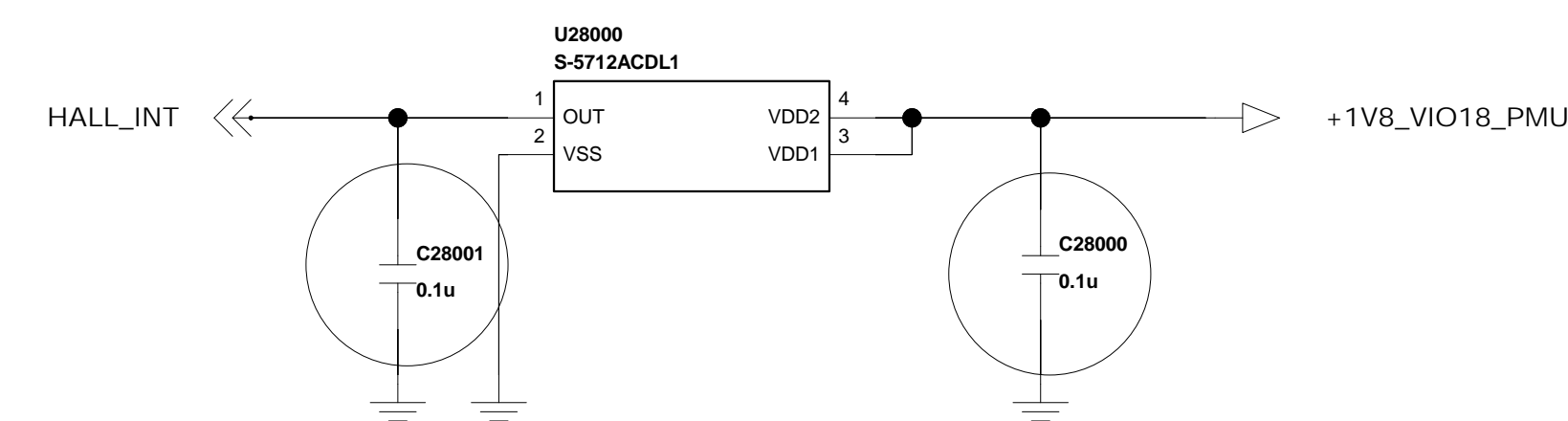
< FINGER KEY >



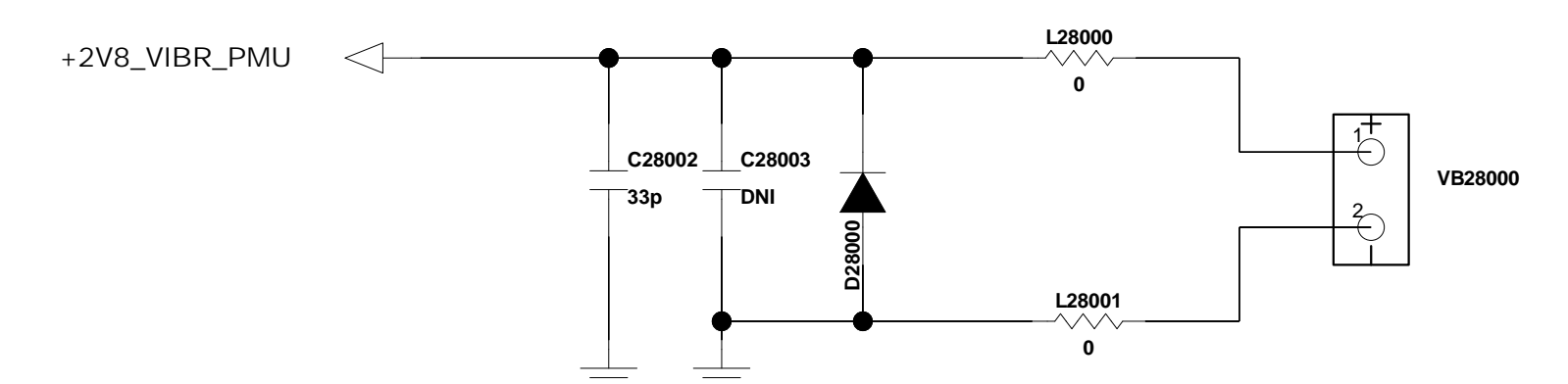
## Proximity\_apds9930-130



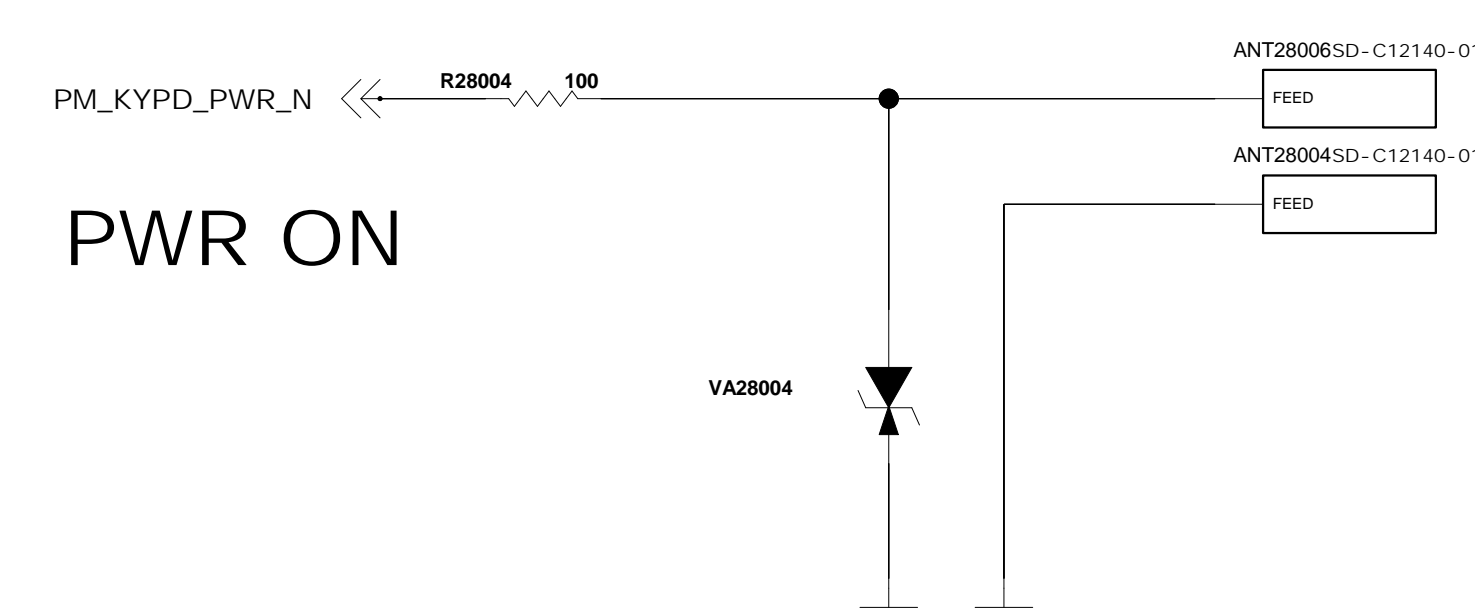
< 8-7-1-5\_Hall\_IC\_S5712>



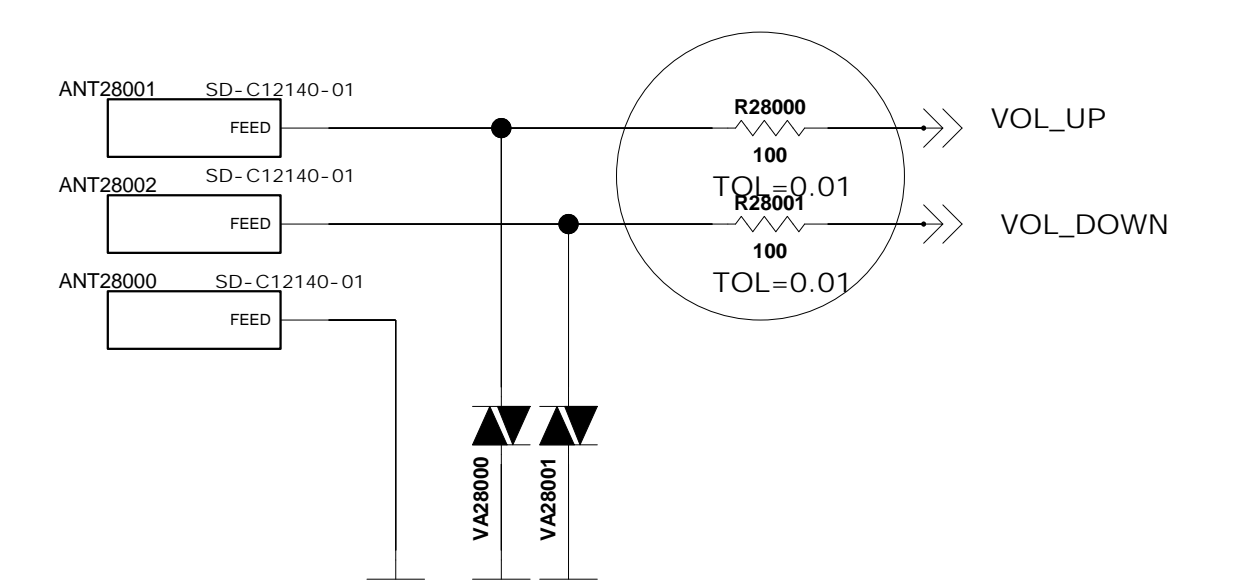
< 9-9-1-1\_MOTOR >



< PWR KEY >

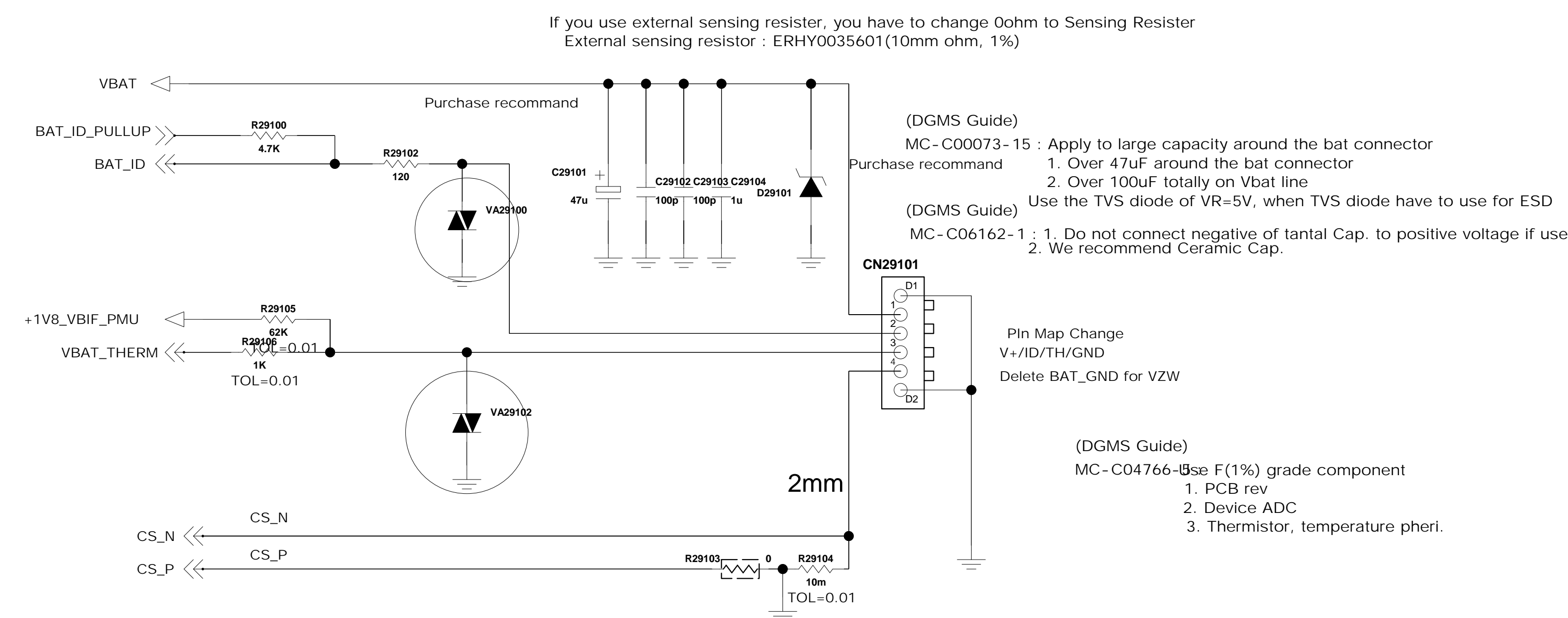


< VOL KEY >

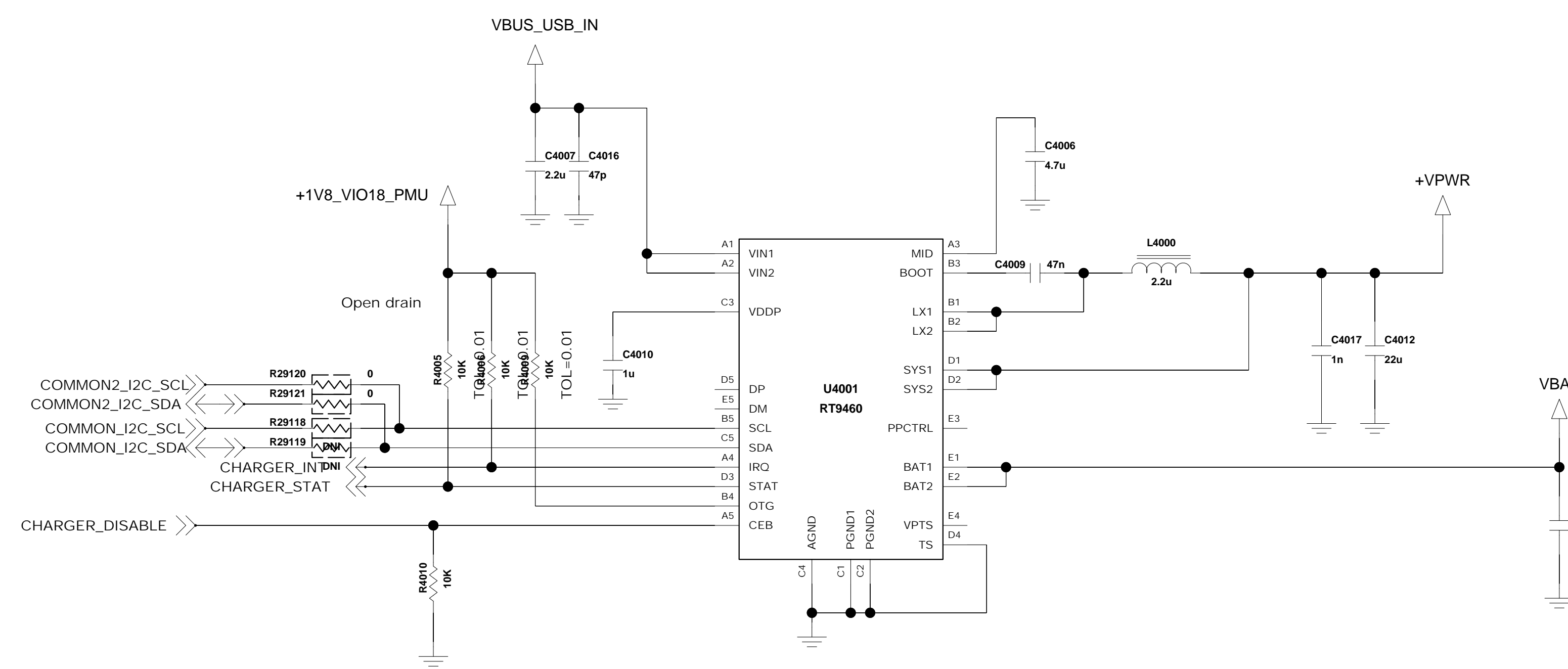


<9-1\_Battery\_Connector\_4Pin>

### Circuit 1. Batt Conn. /wo EMI Filter



## < RT9460\_SWITCH CHARGER >



\*\* NOTE4

PSEL High : USB host source Low : adapter source

STAT Low : charge in progress High : complete

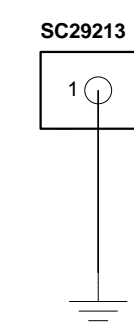
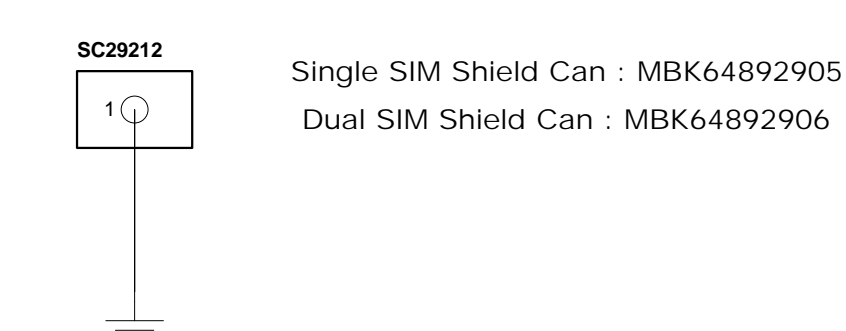
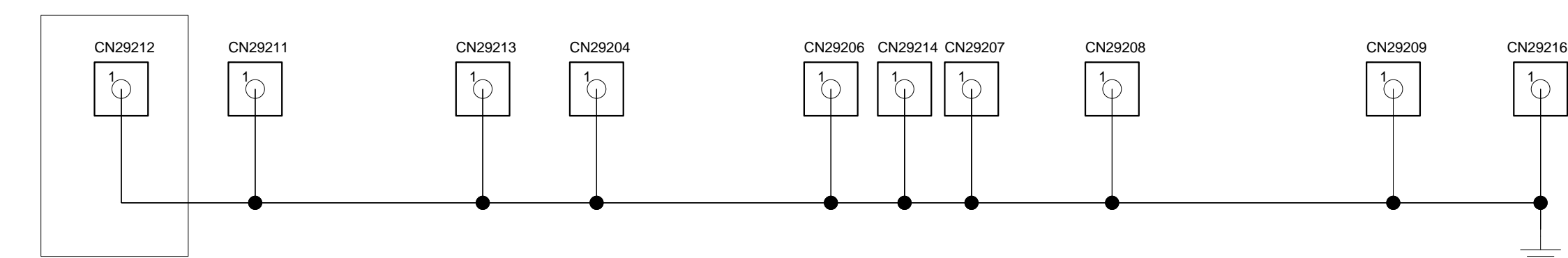
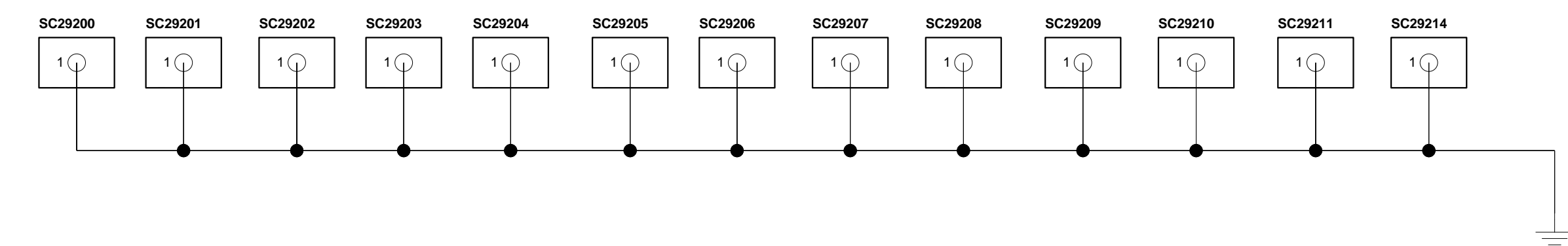
OTG : PSEL HIGH & OTG HIGH IIN LIMIT 500mA OTG LOW IIN LIMIT 100mA

ILIM : set the maximum input current limit

--> min 500mA ,  $(1/R)*530$  = about 2.2A

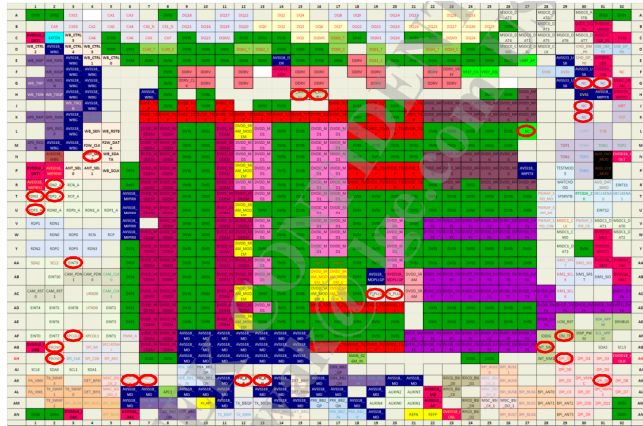


## Circuit 1. u-SDCARD SIM Combo for QMC /w Low Detection



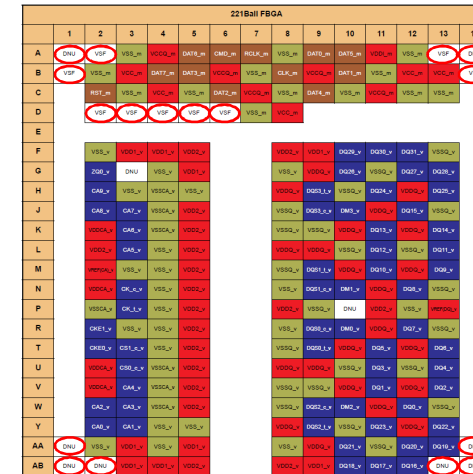
## 6. BGA PIN MAP

U2100\_MT6750\_IC,Digital Baseband Processor(Top View)



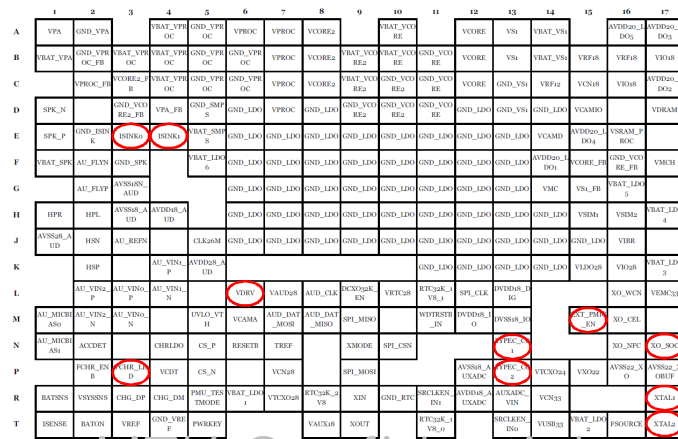
O Not used

U24000\_KMQE10013M-B318,IC,MCP.eMMC(Top View)



O Not used

U4100\_MT6353\_IC,PMIC (Top View)



O Not used