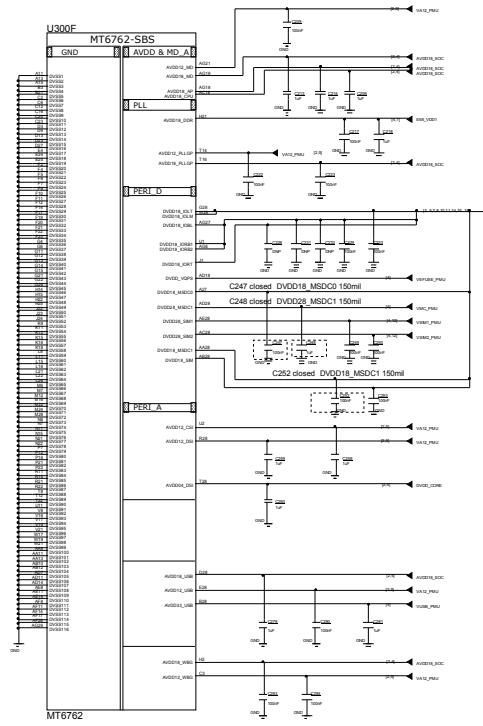
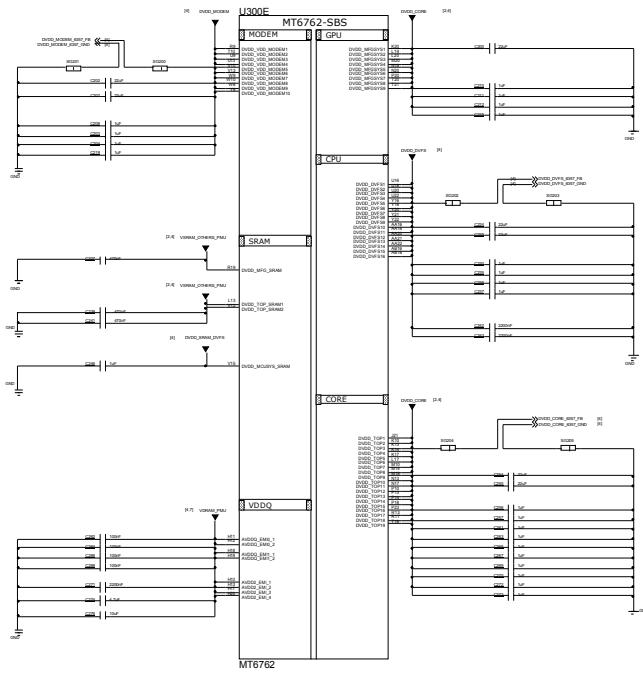
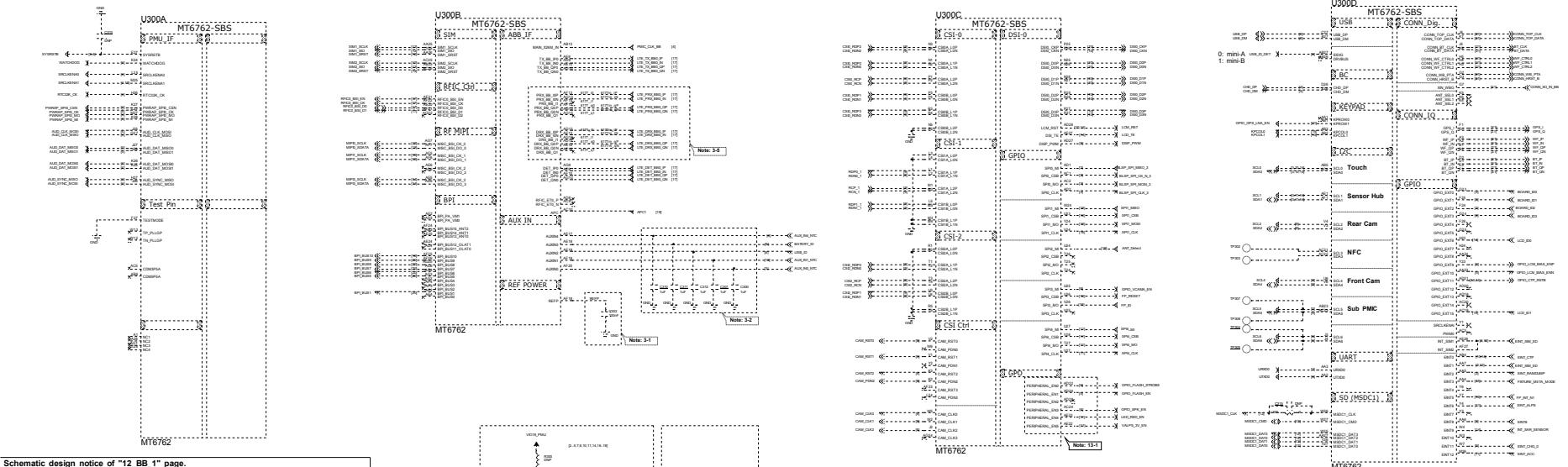


MOTO E6S XT-2053

DIGITAL BOARD







#### Schematic design notice of "12\_BB\_1" page.

Note 3-1: The de-coupling cap. for REFFP (A16 ball) have to be placed as close to BB as possible.

Note 3-2: To short 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 3-3: "PWRAP\_SPD\_CSN" and "AUD DAT MOSI0" are bootstrap pin to select which interface will be the JTAG pin out.

	Default	JTAG	JTAG
HI	LO	N/A	N/A
LO	HI (200 ms)	SP0+ENR18	SP1+SP3
HI	LO (200 ms)	SP0+ENR18	N/A
LO	LO (200 ms)	MSDCT	N/A

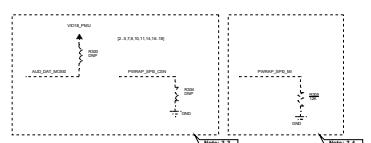
Note 3-4: PWRAP\_SPD\_M1 must be connected to VDDIO\_PAU.

"PWRAP\_SPD\_M1" Board interface:

"PWRAP\_SPD\_M1" Board interface:

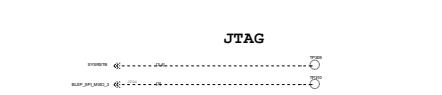
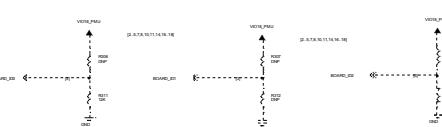
"PWRAP\_SPD\_M1" Board interface:

Note 3-5: Please set unused IQ pins in NC



#### Schematic design notice of "13\_BB\_1" page.

Note 13-1: The enable pin of acoustic or optoelectronic devices (e.g. SPK AMP/Backlight/Charger DCPOV/P) suggest to use Peripheral EN0-3. If use other GPIOs as enable pin, suggest to reserve 0201 NC to GND.



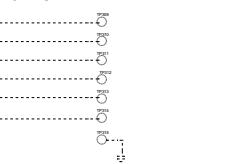
#### Thermistor to sense AP temperature

1. RTD must have a distance about 4-mm away from AP and far from other heat sources 10-mm at least.
2. The distance is the shortest distance from package edge to edge.

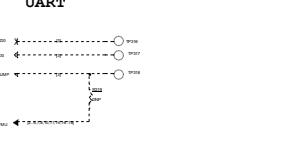
#### Thermistor to sense Board temperature

1. RTD must have a distance about 4-mm away from AP and far from other heat sources 10-mm at least.
2. The distance is the shortest distance from package edge to edge.

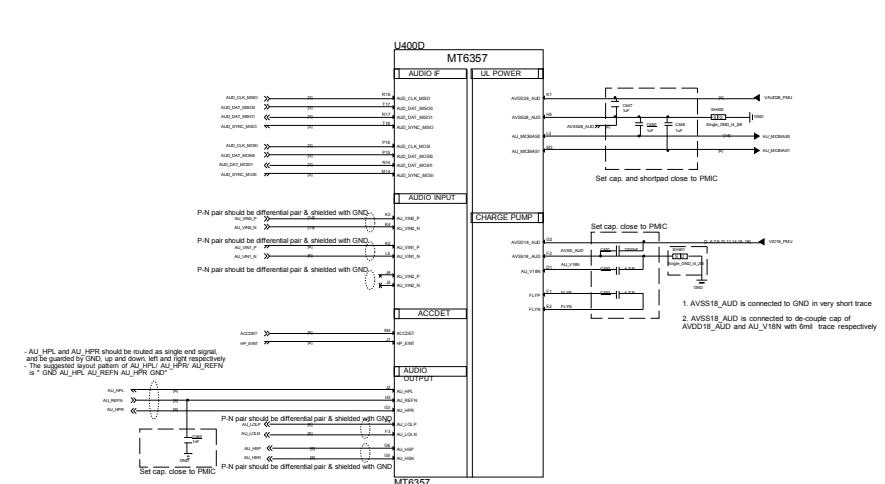
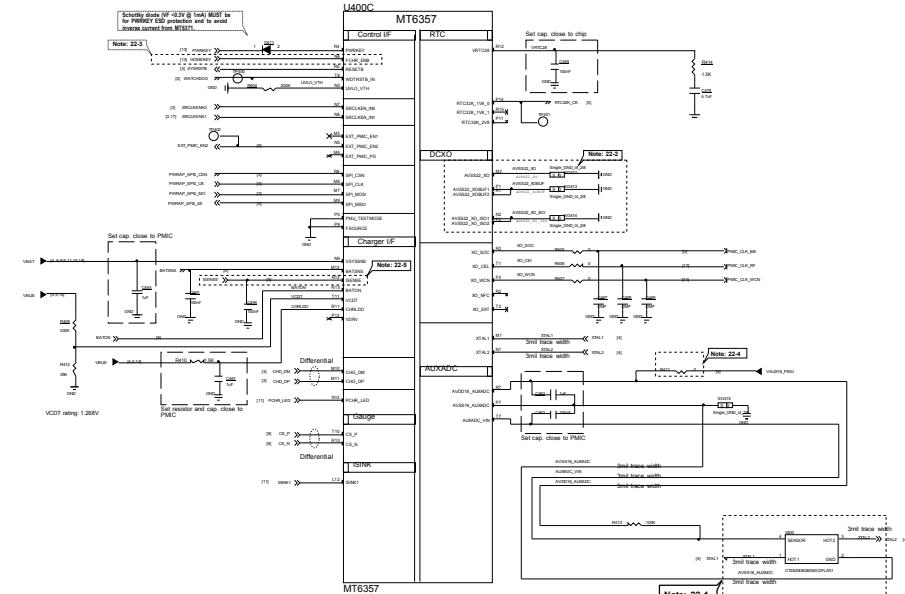
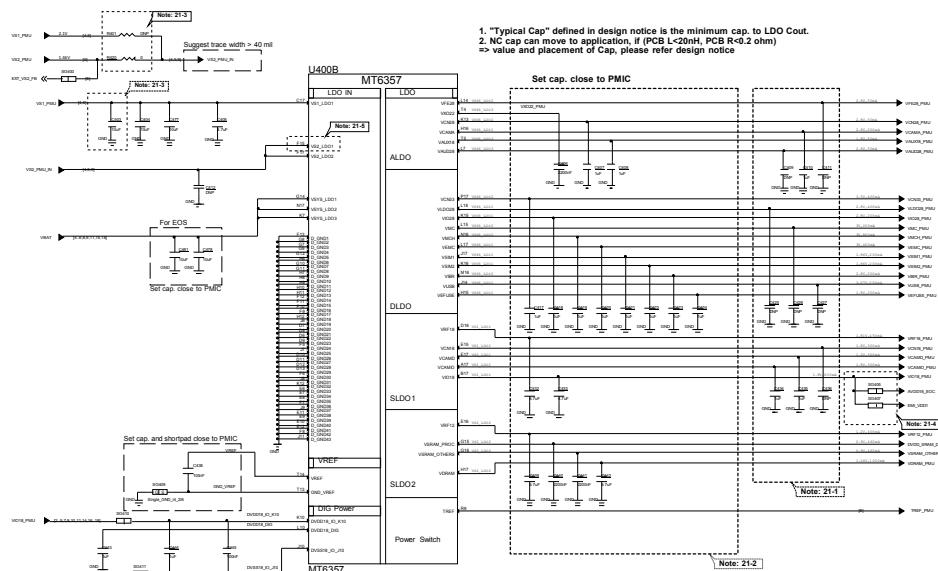
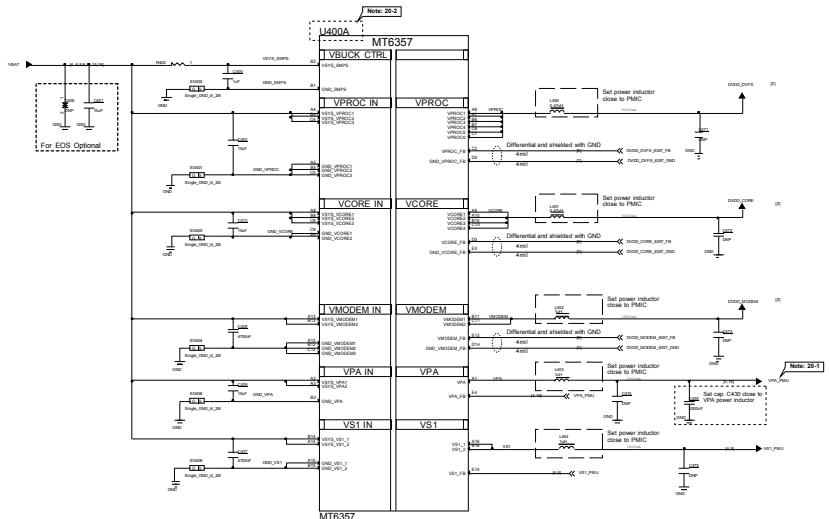
#### JTAG



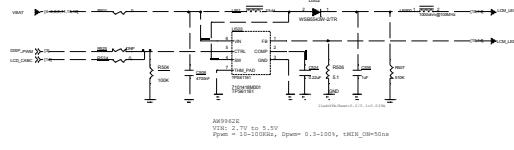
#### UART



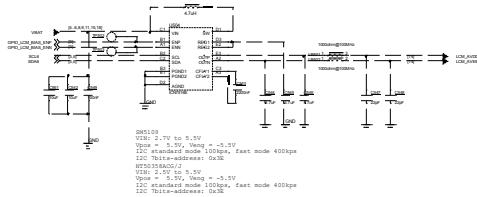
Note 14-2: Please check eMCP LP3 and eMCP LP4X pin mux



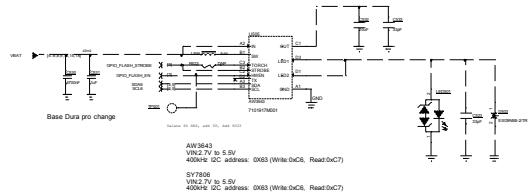
## LCM Backlight LED driver



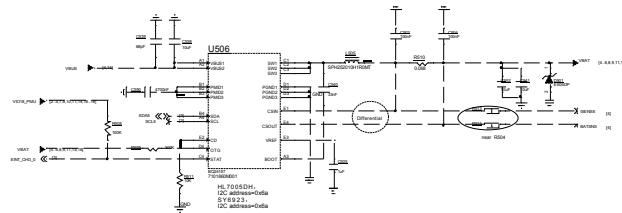
## LCD Bias



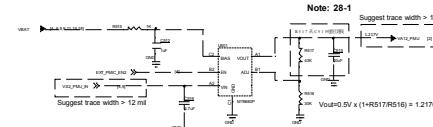
## Flash LED 5V Boost



## Charger



## LDO for VA12



## Ext. Bulk for VS2



### Schematic design notice of "28\_POWER\_ThirdParty-Power"

Note 28-1: VA12 Layout placement please close to AP

Note 28-2: VS2 Buck Layout placement please close to PMIC MT6357

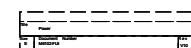
Note 28-3: VCN33 LDO Layout placement please close to MT6621

### Schematic design notice of "27\_POWER\_SubPMIC-HV powers" page:

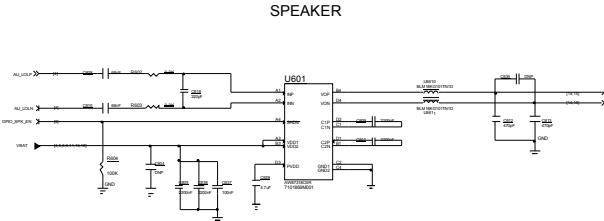
Note 27-1: To minimize RF de-sense, it is recommended to reserve 0-ohm and 0402 cap for BOM fine tuning.

Note 27-2: To minimize RF de-sense, it is recommended to reserve 0-ohm and 0201 cap, for BOM fine tuning.

Note 27-3: C2705 could be replaced with C / 1 uF / 50V + C / 1 uF / 50V

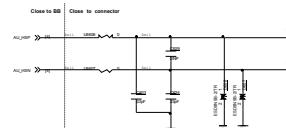


### Handset 2nd Microphone

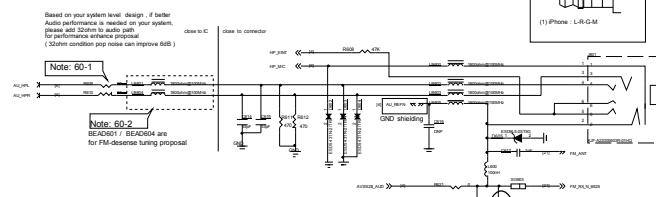


### SPEAKER

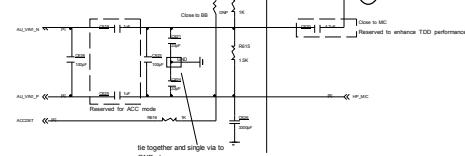
### EAR PIECE

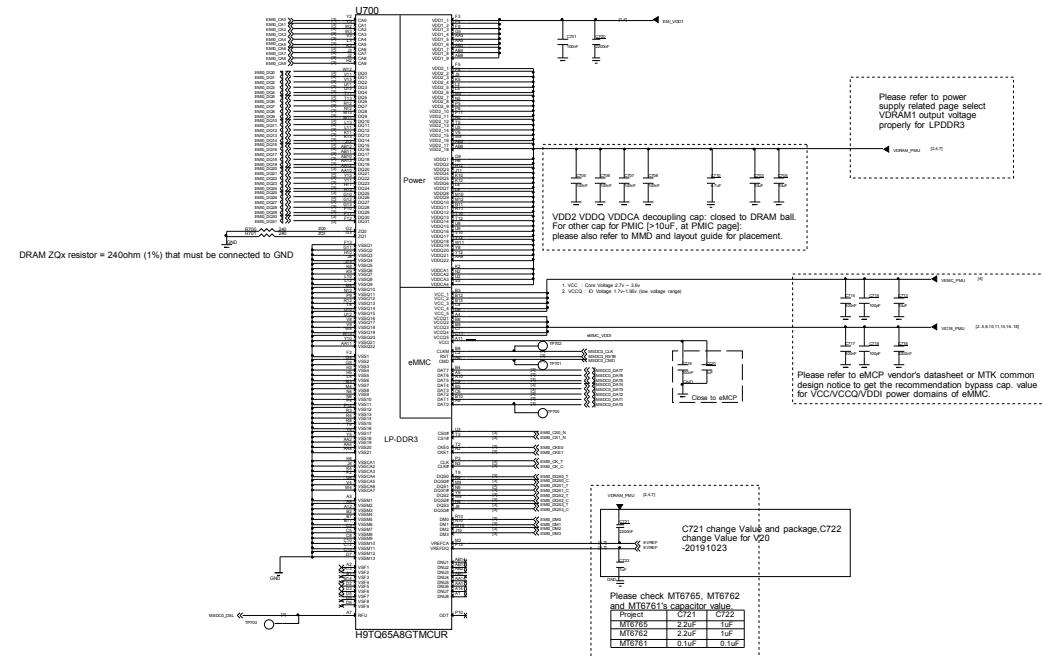


### Earphone Audio

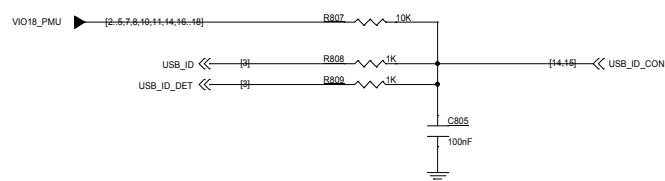
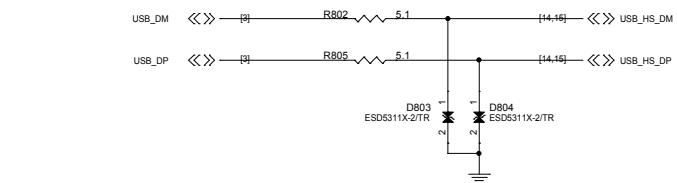
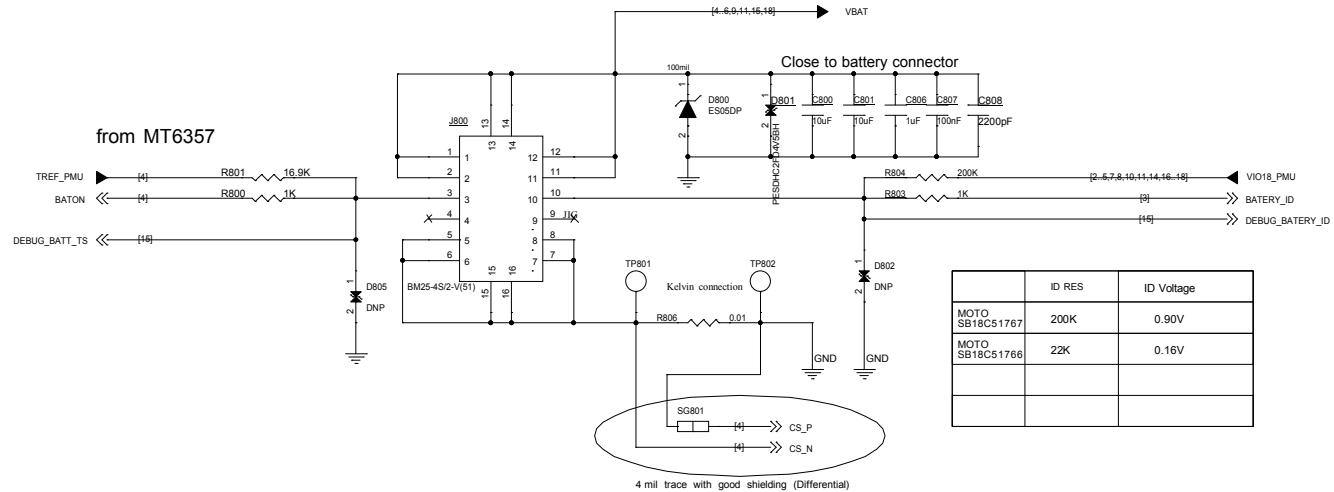


### Earphone MICPHONE



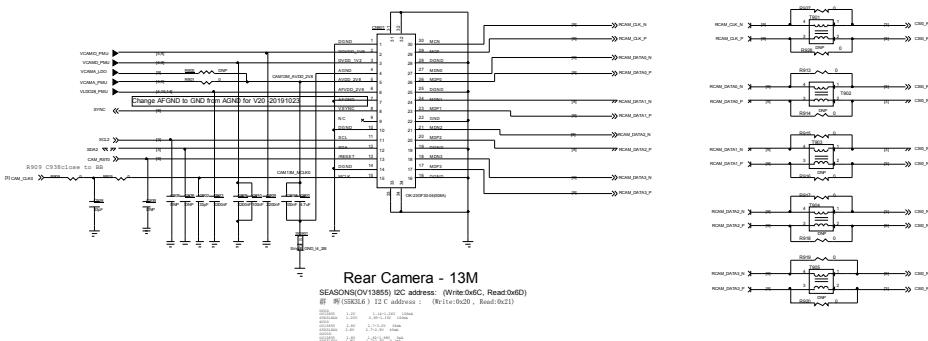


# BATTERY CONNECTOR

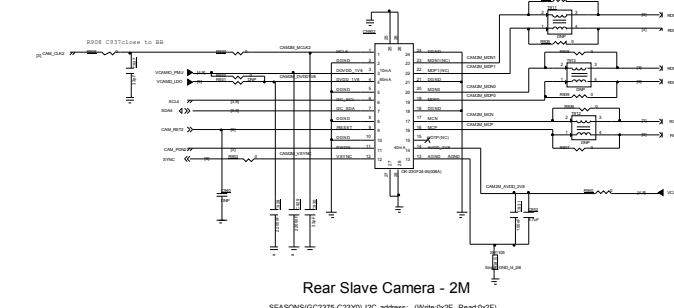


Title		
Battery & USB-ID		
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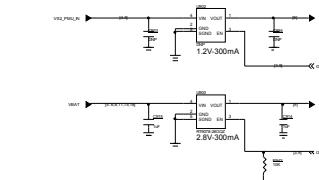
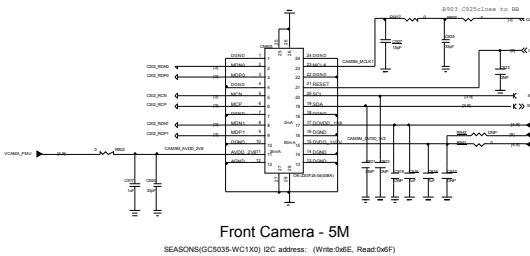
Rear-Main Camera(AF-13M)



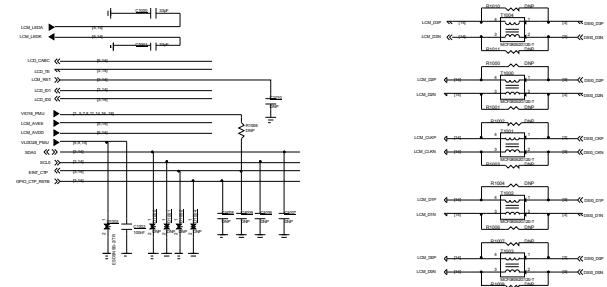
Rear-Slave Camera(FF-2M)



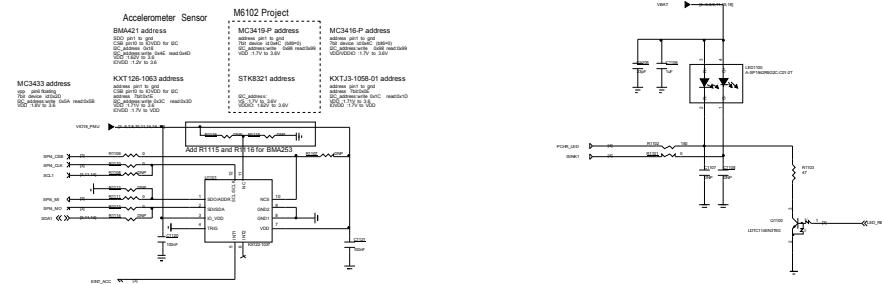
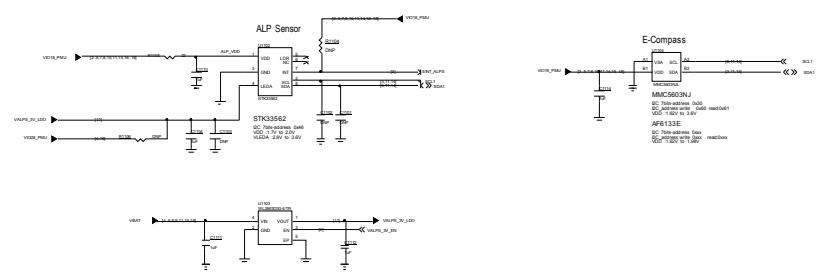
Front-FF-5M Camera Connector



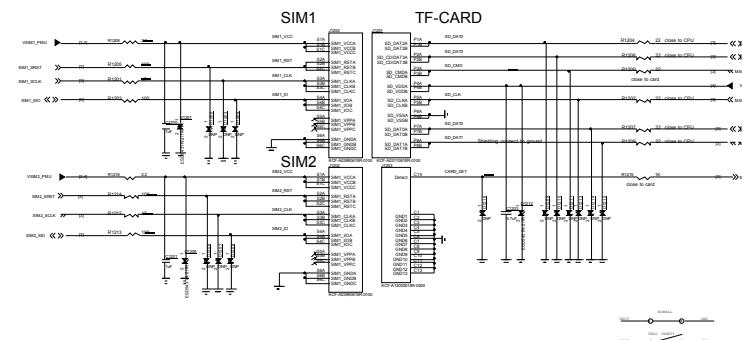
LCM Connector



GT1151 I2C address: 0X5D (Write:0xBA, Read:0xBB)  
or 0x14 (Write:0x28, Read:0x29)

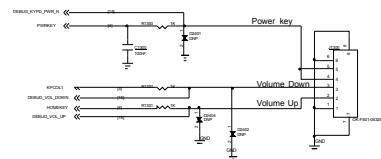


## SIM and TF

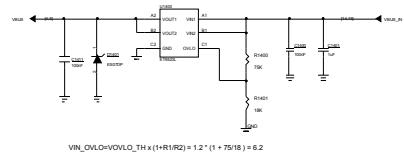


## KEY

Volume Up : HOME Key / GND  
Volume Down : KPCOL1/GND  
DO NOT put pull-up resistor on PWRKEY

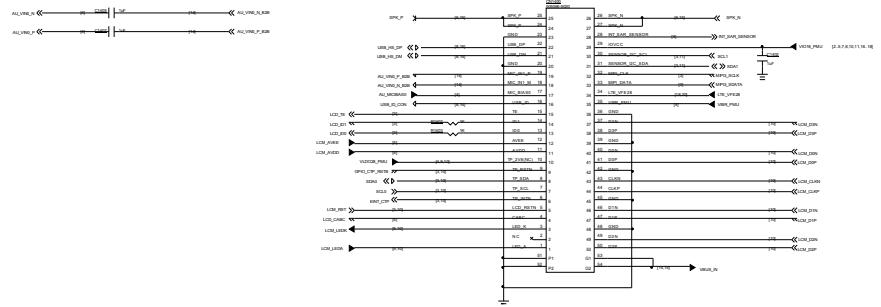


## OVP



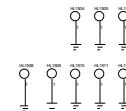
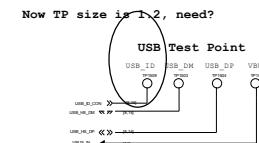
## Sub Connector

0xXX (Write:0xXX, Read:0xXX)

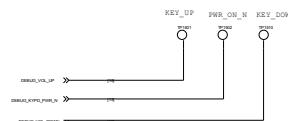


### USB Test point

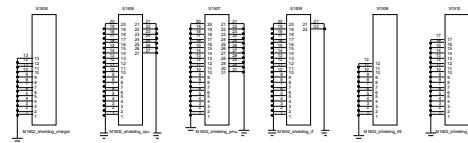
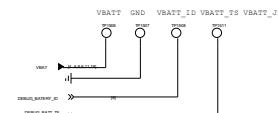
#### Download mode TP



#### KEY Test point

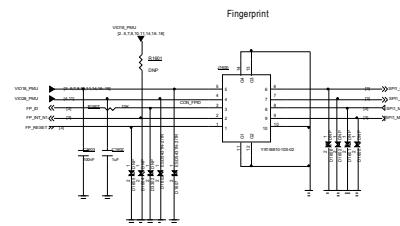


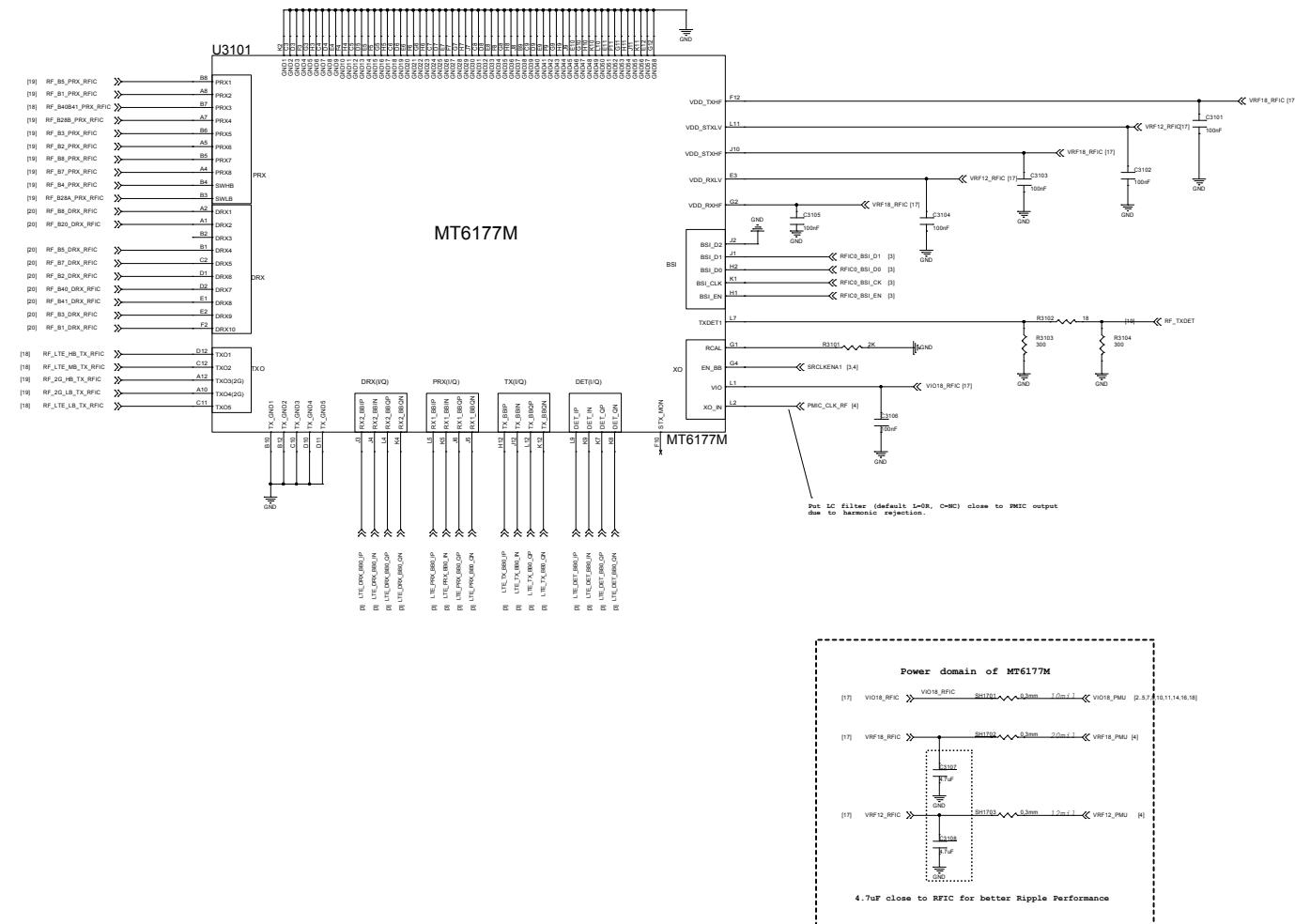
#### BATTERY Test point



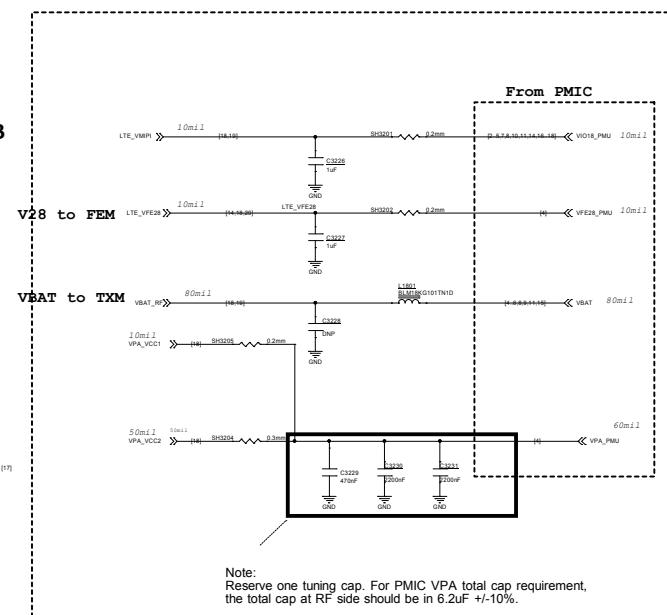
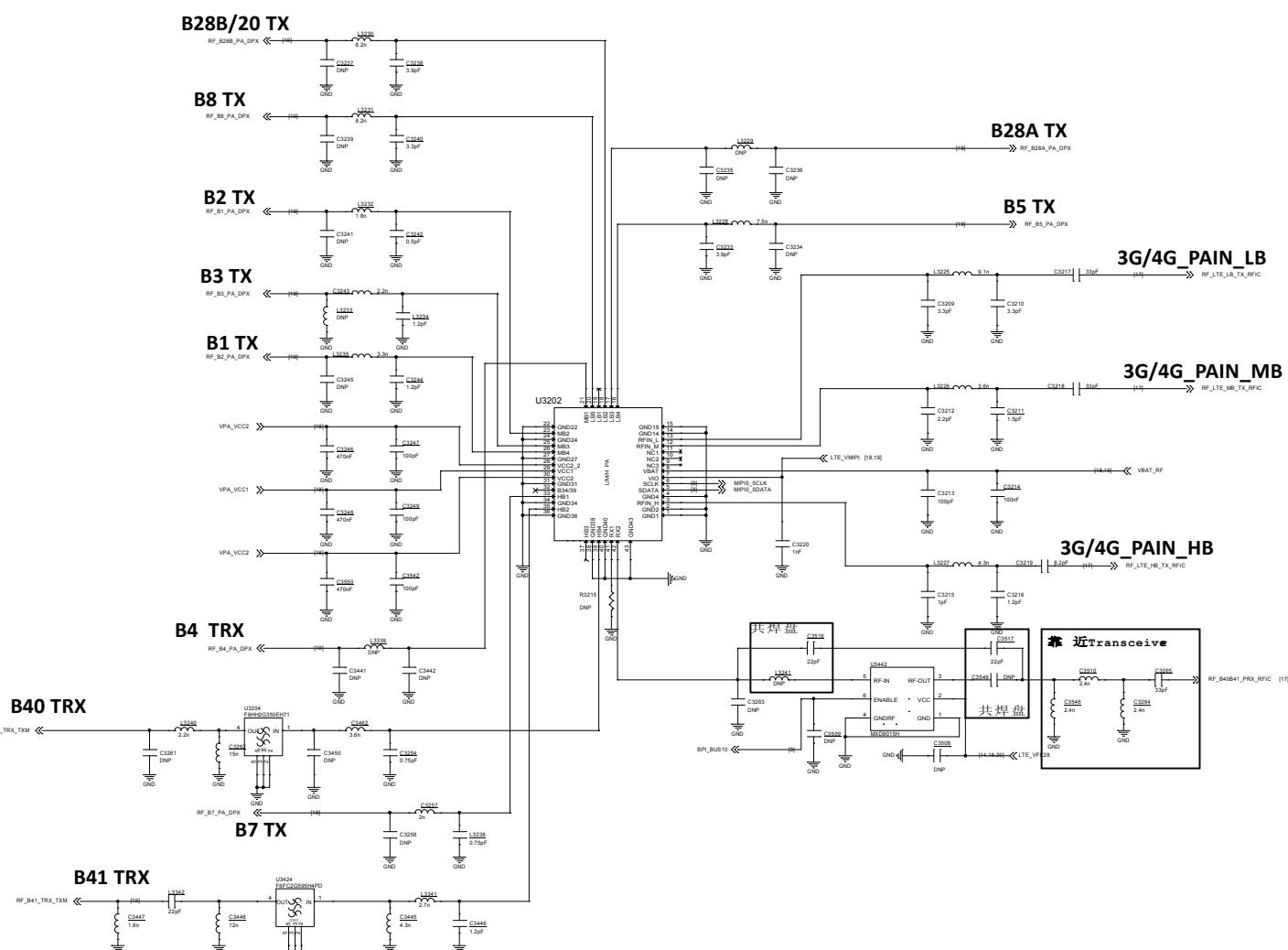
#### SPK Test point



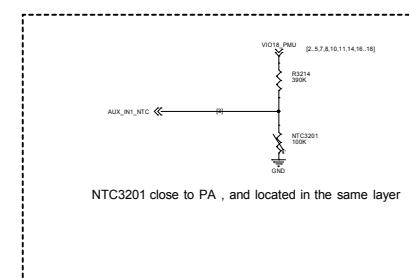


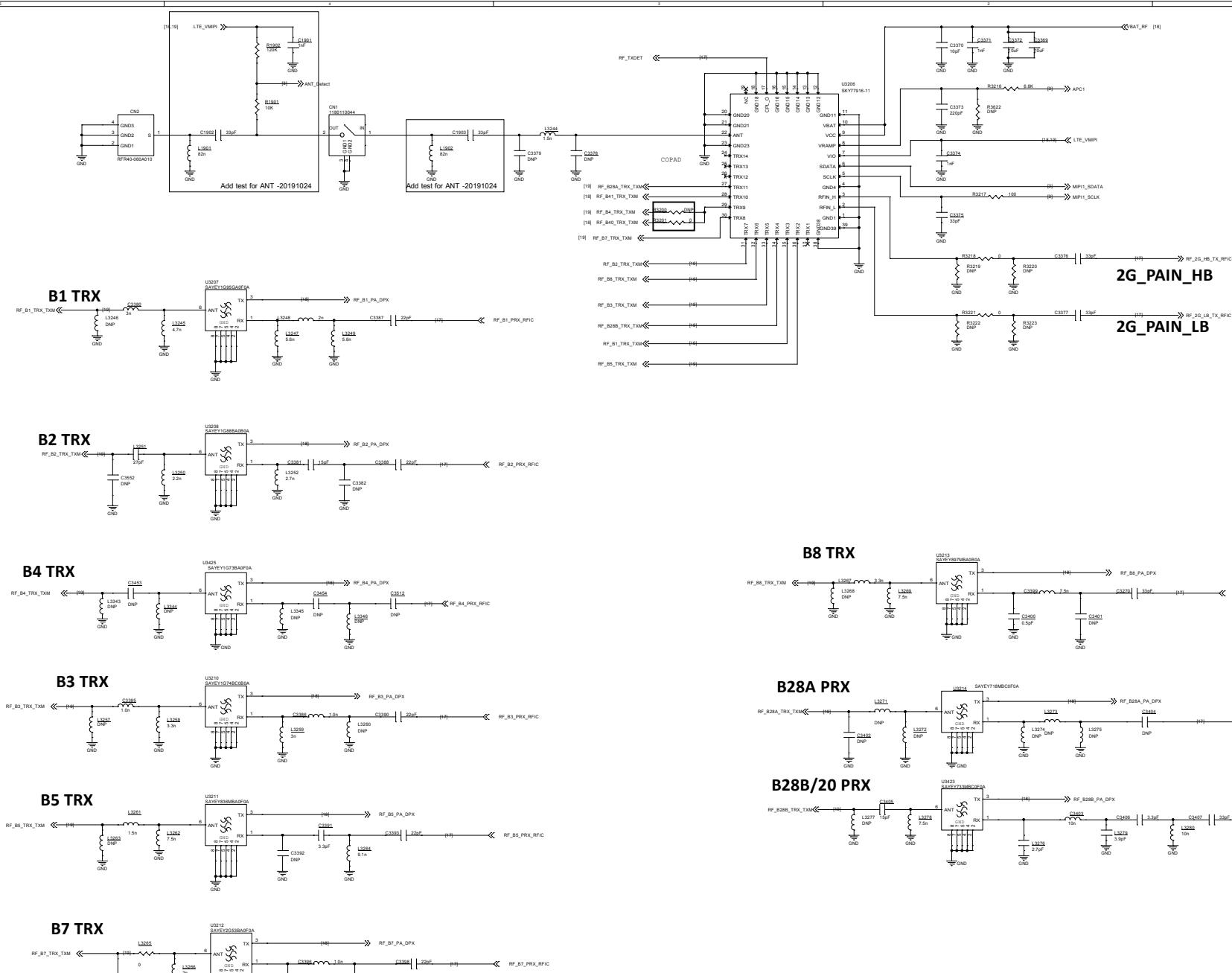


## RF MT6177

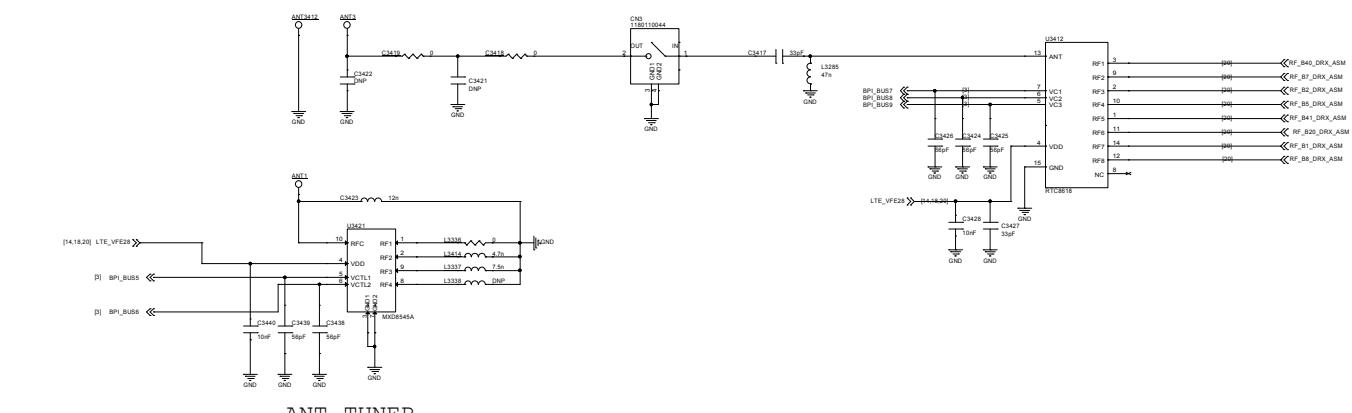


Note:  
Reserve one tuning cap. For PMIC VPA total cap requirement, the total cap at RF side should be in 6.2uF +/-10%.



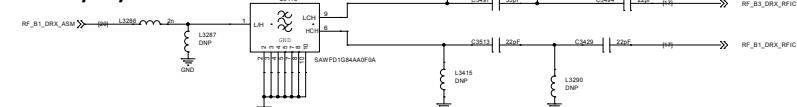


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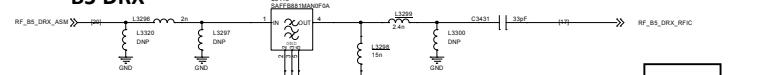
### B1/B3/B4 DRX



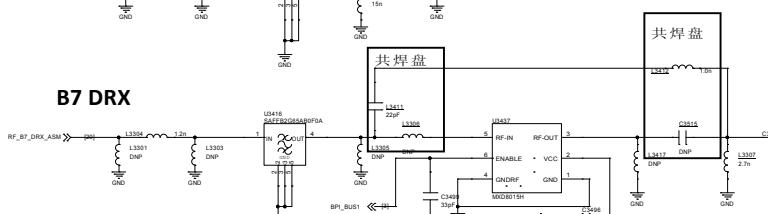
### B2 DRX



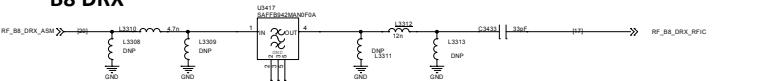
### B5 DRX



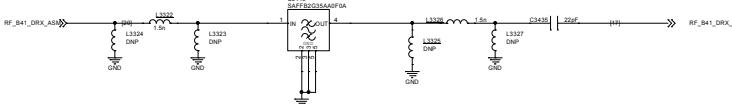
### B7 DRX



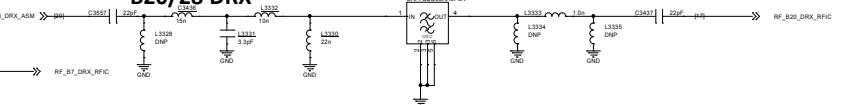
### B8 DRX



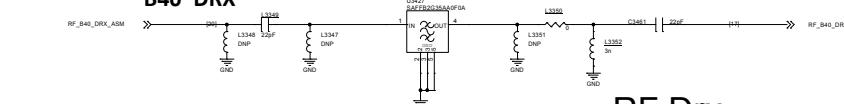
### B41 DRX



### B20/28 DRX



### B40 DRX



### RF Drx

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